Law and Ethics of Human Tissue Uses:
A Comparison of the Approach to Regulation in England (Human Tissue Act 2004) and Japan

Proceedings of the Workshop Meeting for the International Understanding of Human Tissue Uses, Harumi, Tokyo, Japan, November 18-19, 2006

Edited by

T. Matsumura, V. English, Y. Sato and S. Utsugi

with editorial assistance of R. Matsui

Released on Internet by T. Matsumura(2008)

Released by T. Matsumura
Fujisawa, Kanagawa, Japan（2008）

Hard copies of limited number are available at request from the publisher.

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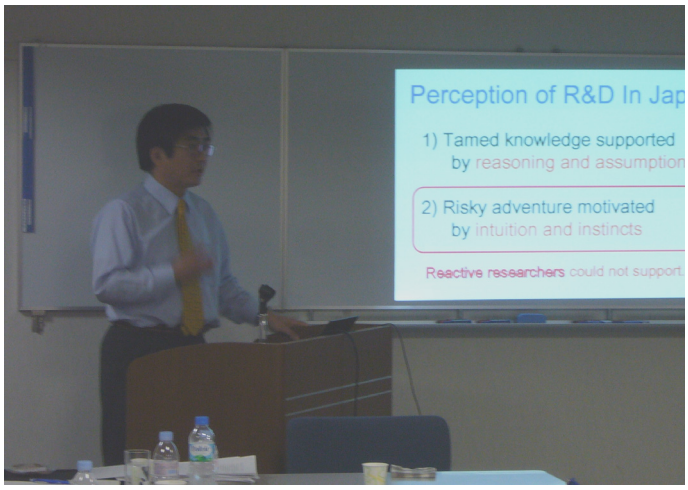

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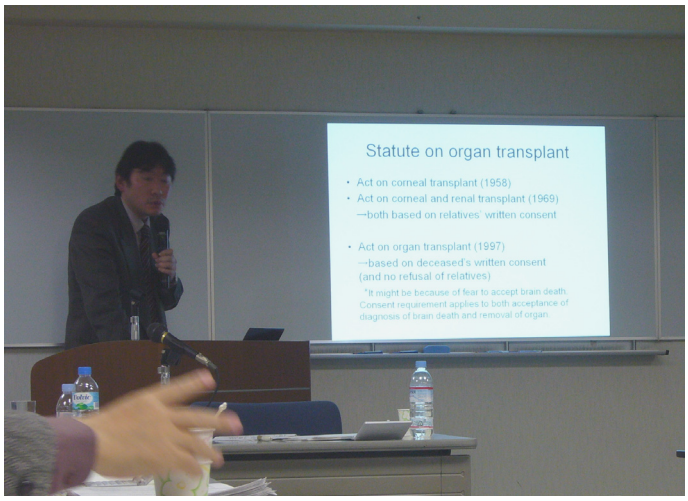

Yuichiro Sato

Toshiharu Matsumura

Preface

Developments in technology relating to the use of human organs and tissue for donation and research have brought benefits to humankind but have also raised new ethical dilemmas. Human tissue (used collectively to include: organs, tissues, cells, and in some cases cellular components) may be used for transplantation, transfusion, and diagnostics, as well as the industrial production of pharmaceuticals and biomaterials. These developments raise issues of consent, information, appropriate uses and human dignity and views on these matters differ both within and between countries. What is traditional and unquestionable for one person in one country, could be unbelievable and unacceptable to another person in another country. With increasing emphasis on international harmonization and co-operation, it is important to study and understand the regulatory systems in different countries and the principles that underpin them.

Here, the sweeping changes in England from the Human Tissue Act, 1961 to that of 2004 (HTA 2004), and the subsequent process of implementing the new legislation, may be understood not just for its practical value in the U.K., but also in giving a timely opportunity to undertake such a comparative study.

The Workshop Meeting for the International Understanding of Human Tissue Uses was aimed at taking that opportunity, for Japanese people to study the framework of the British law and the philosophy underlying it, to compare them with the Japanese regulatory framework and its underlying philosophy, and to discuss the future for international co-operation.

The workshop was held in November 18-19 2006 in Harumi, Tokyo. It was a closed meeting in which thirty two participants joined, as shown in the attached list, three among them are from the U.K.

In the workshop, core introduction and analytical studies on HTA 2004 and its enforcement were given by Veronica English, while those on the current Japanese regulatory system were given by Shin Utsugi, Yuichioro Sato and several other Japanese scholars. Then, comparative analyses and discussion for mutual understanding was undertaken by Veronica English, Toshiharu Matsumura, Mike Norton and others.

In order to ensure an accurate and comprehensive record of the meeting, contributors were subsequently given the opportunity to review the report of the meeting. Because of this, it took some time to complete the proceedings. Nevertheless, we hope and believe that the proceedings are still of considerable value for people in both countries, and for those in other parts of the world with an interest in this area, to advance mutual understanding and co-operation on the use of human tissue.

The workshop has been supported by Pfeizer Health Research Foundation, and by the Japanese Ministry of Health, Labour and Welfare through grants in aid for the research of human gemone and regeneration medicine, both to S. Utsugi and his research group, and by EY Memorial Foundation for Ethical Researches to T. Matsumura, and the publication of the proceedings by EYMF.

The organizers of the workshop gratefully acknowledge officers of British Embassy of Japan, Akiko Kihara of Tokai University Law School, and staffs of Roman Industries Cell Technology Center, for their encouragement and help during the course of this workshop and of preparing the proceedings.

November 2008
The Editors

Introduction Session

Introduction to This Workshop

***Toshiharu Matsumura*, Director, Cell Technology Center, Roman Industries Co. Ltd., 1-10-4 Fukuura, Kanazawa-ku, Yokohama**

Human tissue age

Human tissue issues are new issues that have come around since mid 20th Century. Here, the term human tissues will be referred to as removed parts of human body, including organs, tissues in their narrow sense, cells, and in some occasion, part of cells such as cell nuclei and genetic elements.

We are now in the age when human tissues play, and will continue to play, central roles in social welfare and well-being.

Their roles are in organ and tissue transplantation, cell infusion, and in the production of bio-pharmaceutical drugs. In addition, more advancement of social welfare is expected to come through the applications of molecular genomic study of individual people, and the development of regeneration medicine for which human tissues play central roles.

Behind these successful advancements, we may have to note that, a considerable amount of human tissues have been given by people of good will, and subjected to science and technology including cell and molecular biology, genetics, immunology, and pharmaceutical and medical sciences.

New issues

Now, human tissues are so important as the essential component of the society that fears against, and even some signs of, undesirable conflicts are becoming apparent among people. Buying and selling human tissues, breaching private information, paying little attention to the ownership or custodianship of the tissues, and handling without or against the consent of relevant people are among them. The major reason for such conflict to happen appears to come from the fact that what is common for one person to handle human tissues is not at all common for another, or for people in a country while not for people in another country.

In this situation, one may easily reach to the conclusion that it is about time to think of internationally appreciable common rules for handling human tissues.

Why this workshop

Because human tissue issues are new issues, one may think it easy to accomplish such rules. The current situation, however, appears to be far remote from the above idea of easy accomplishment, and suggests that we need detailed studies beforehand.

To accomplish internationally appreciable rules, it may be a good idea to begin with comparing rules of two countries with different situation. A very good example of such two countries is, as I believe and as will be shown in this workshop, that of the U.K. and Japan.

Many Japanese people are interested and eager to study the recent British activities related to human tissue issues, i.e., the revision of Human Tissue Act 1961 for that of 2004 and its enforcement.

To extend this line of study in Japan, we need a British expert who could kindly come and join us in Japan to introduce us British situation, and to discuss the matters of mutual interests.

It was the reason why we sent a letter of invitation to Ms. Veronica English to this workshop. As many participants of this meeting know, Ms. English has been playing a key role in leading the recent development of regulatory framework in the U.K.

It is such an honor and pleasure to have her here with us.

Our thanks are not only to Ms. English, but to Dr. Mike Norton, Professor of Shinshu University, and Dr. Edward Wright, British Embassy, with whom we are expecting discussion in depth of current issues.

Since the intention of holding this workshop had been shared among the participants of the workshop through preceding workshops and letters of correspondence, the oral presentation of this introductory remark was skipped in the workshop, and is presented only in the proceedings.

Keynote Address

***Shin Utsugi*, Professor of Tokai Law School, University of Tokai**
2-28-4 Tomigaya, Shibuya-ku, Tokyo

Welcome to our workshop and I thank you very much for your joining our workshop on the Research Use of Human Materials.

It is remarkable, nowadays, to see the increasing usage of the Human Tissue, cells and DNA in medical practice, biomedical research as well as industrial field. And according to the widening of the usage, the character or nature of the usage changes. The users are not medical staff in front of the patients, the places are no more medical institutions, and the human cells can be placed in the tube side by side with those of animals. But it is no doubt human.

So very many problems come up to be resolved scientifically, socially, as well as ethically. We are, it looks like to me, we ourselves are on trial.

Today and tomorrow morning we have the privilege to hear and to talk with English-san from the UK. English-san is, as you have already known her with the brief and to the point explanatory note on the Human Tissue Act of the UK sent to you from Matsumura-san via net, the most appropriate expert on the matter, I suppose, as the responsible member of the British Medical Association. We can hear from English-san the precise and also practical side of this new and quite intricate system which is very difficult for us, foreigners.

We have planned to focus in this workshop, on the research use of the materials, but we have no intention to restrict to it. Quite recently we heard the incredible news on the diseased kidney transplantation-case in Uwajima, and we have many other matters to be discussed. I hope a lively debate among the excellent members gathered.

This workshop is held as some extra-activity of Utsugi-han which is supported by the Ministry of Health, Labor and Welfare. And as the Head of that working-group I appreciate very much Matsumura-san for his great effort to make up this workshop, he has planned, called for, and made-up every thing by himself and with the aid of Kihara-san. I would like to thank for his and her great endeavor. Thank you.

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Matsumura

May I introduce Dr. Edward Wright? He is from British Embassy. In this chance, I would like to thank British Embassy people very much, including Dr. Wright and the previous head of the science and technology division, Dr. Mike Norton. They have been presenting us a number of excellent seminars inviting distinguished people from the U.K. For this workshop, too, we take the advantage of putting the name of British Embassy on the announcement of the open seminar to be held on Tuesday. It is a great honor to have Dr. Wright today. Please.

Greetings

***Edward Wright*: Life Sciences Attache at the British Embassy**
1 Ichibancho, Chiyoda-ku, Tokyo

My name is Edward Wright, life sciences attache at the British Embassy here in Tokyo
My role is to promote the life sciences relationship between Japan and the UK in any way that I can-business, academic and policy.

Delighted to be able to give a short greeting here today, and I thank Dr. Matsumura for the invitation to join this meeting on a very important and complex topic.

From the UK's perspective the timing is very good, just a couple of months ago the Human Tissue Act came into force which will directly affect post mortem services, anatomy schools, transplantations and establishments storing human tissue.

And so I welcome Veronica English from the UK's British Medical Association who will be talking on this topic, and I look forward to her comments very much.

The use of human tissue is a highly emotive subject. In the UK as elsewhere, there have been controversies relating to the use of human tissue without proper consent or authorization, and this experience has informed the development of the new legislation.

The UK has been developing a number of large scale initiatives which have implications for the discussion today, and a lot of care has been taken to establish a suitable legal and ethical framework.

Just to give two examples, earlier this year the UK's Biobank Project was started. This aims to be the world's biggest resource for the study of the role of nature and nurture in health and disease, with samples from 500,000 volunteers.

Following consent, each participant is asked to donate a blood and urine sample, have some standard measurements (e.g. blood pressure) and complete a confidential lifestyle questionnaire.

Over the next 20 to 30 years UK Biobank will allow approved researchers to use these resources to study the progression of illnesses such as cancer, heart disease, diabetes, and Alzheimer's disease. From this they hope to develop new and better ways of preventing, diagnosing and treating such problems.

Another example is in stem cells where the UK has been building up a number of centres of excellence, along with clarification of the appropriate legal framework for such research. We watched the lengthy discussions at CSTP in Japan with great interest and perhaps that will be discussed today.

To support stem cell research in the UK, a new stem cell bank has been created. Cell banks are already in existence for many other types of cell line, but this initiative from the UK's Medical Research Council, with the full backing of the UK Government, is the world's first stem cell bank of its type. The UK stem cell bank will provide a repository for stem cell lines of all types, and will be developed to supply cell lines both for basic research and for the development of clinical applications. It operates in accordance with strict principles of governance laid down by a high level steering committee. A key point is that stem cell lines are deposited from and distributed abroad which brings me to my final point.

Research is international and the positive results of research should be international. The UK has its own legal framework for the issues being discussed today but it is also bound by European legislation and United Nations protocols and conventions. The topic today has ethical, cultural and religious aspects that differ significantly across the world. And so I hope that today's discussions will provoke some interesting debate and provide new insight for both sides.

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The current position of this workshop

***Toshiharu Matsumura*, Director, Cell Technology Center, Roman Industries Co. Ltd., 1-10-4 Fukuura, Kanazawa-ku, Yokohama**

Thank you very much. In the program I am to talk a little about preceding and on-going activities. But, to make it short, I just want to tell you that, in addition to this group, i.e., Utsugi-study group, there are currently at least three other groups in Japan that are actively talking the same issues.

One is Human and Animal Bridging Research Organization, or HAB, a not-for-profit organization distributing human tissues for research, maintaining a partnership with an American organization, called NDRI. A study group has been working actively in HAB. Prof. Utsugi is a member of the group. They are talking on what is allowed, or not allowed, in the current legal framework of Japan for handling human tissues. We are looking for the publication of their study.

Another one is the co-operative group of Human Science Foundation and National Institute of Biomedical Innovation. They are operating a human tissue bank for research uses, and also promoting discussion in this subject. Some of their seminars have been published.

A new study group has been organized recently in Science Council of Japan (Nihon Gakujutzu Kaigi). It is headed by Prof. Ida, and is composed of top members in this field of Japan, and is going to present a paper, next January.

So, Utsugi-study group is just one of several study groups currently active in this field here in Japan.

I am not presenting slides. Please look at the first page of my hand out. If we go back to the history of this meeting, it may go back to early 1990s's activities of the Japanese Tissue Culture Association. This association hosts members using human cells and tissues in laboratories including myself. In early 1990s they had a small committee with the purpose of protecting the acting members of the JICA from any troubles regarding law and ethics.

The first report was presented in 1995 from the committee. This was an interim report. At that time we very much realized that we needed the help of law professors. It was Professor Utsugi who very kindly joined us since then. Then, the committee was expanded to form Japanese Tissue Culture Association Committee for Ethical Issues. It presented a second and a full report in 1998.

Two years later, Professor Utsugi organized a study group, applied for a governmental research grant, and obtained it successfully. In the first three years starting from 2001, the research objectives of his study group was forwarded mostly to human tissues, cells and human subjects.

Then, in the second three years beginning from 2004, main objectives have more been oriented to the issues of patient information or medical information. Therefore, tissue issues are only a small part of the current research objectives of his study group.

For other historical details if you are interested in, please take a look at the handout.

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Human Tissues as Materials for Research and Practical Use
A Workshop for International Understanding in Related Law and Ethics
with Special References to British and Japanese Systems

Date: Saturday, 18th & Sunday 19th, November 2006
Place:Harumi Grand Hotel, Tokyo

A note on previous workshops

Toshiharu Matsumura

Studies on ethical legal and social issues concerning human tissues in Utsugi-research group have their roots on those of Japanese Tissue Culture Association

1990s JTCA Cell Bank Committee Subcommittee for Ethics
1995 An interim report published from the subcommittee
1997 JTCA Committee for ethical issues
1998 A full report from the JTCA Committee
2001-3 The 1st Utsugi-han research group
(MHWL Program for Genome and Regeneration Medicine)
2004-6 The 2nd Utsugi-han research group
(MHWL Program for Genome and Regeneration Medicine)

In the early 1990s, a small working group was set in the JTCA Cell Bank Committee:

- to protect scientists and technologists working with human tissues from ethical, legal and social troubles.
- to help the establishment of social consensus to develop and use human tissue resources for research and industry.

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'Points to consider on the handling of human tissues and cultured cells. 1995.4.' (JTCA subcommittee for ethical issues of the JTCA Cell Bank Committee published an internal report)

Umeda, M., Sato, K., Tanaka N., Matsumura, T.

- History of utilizing human tissues and cells in research and industry
- Fundamental principles having been developed during the last 50 years after the world war 2
- Analyses in current issues related to the utilization of human tissues and cells
- Proposals from the JTCA subcommittee

  Return from the entity of science, technology and industry to the entity of those who donate tissues and cells.

JTCA 1995 Annual Meeting Workshop 1995.5.17.

Report from the JTCA Subcommittee for Ethical Issues of the JTCA Cell Bank Committee.
Matsumura T.

From Japan Organ Transplant Network: What is expected to JTCA.
Nomoto, K.

・Open discussion based on the interim report
・Introduction of valuable experiences obtained during the course of the establishment of the Japanese organ transplantation law

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JAACT 1995 Annual Meeting Symposium 1995.11.6-10.
Published in Animal Cell Technology, 8: 107-120(1997)

A study for the development of human biomaterial research resources in Japan
Matsumura, T.
Organization and expansion in organ and tissue procurement networks in the 1960's and 1970's in the U.S.A.
Stevenson, R.E., ATCC
Human Organs and Tissues for transplant, research and education: Current practice in the U..S.
Eidbo, E.E., Schaeffer, M.J., and Brighem, L.E.,

・Realization that Japanese situation is very different from that of the U.S.
・What can Japan learn from the U.S.?
The processes of the establishment of Uniform Anatomical Gift Act (1961), organ procurement organizations and tissue banks in the U.S.
・Importance of law making stressed by US speakers.

JTCA annual meeting symposium 5.23.1997

The use of human cells for the production of human biologicals
Hayflick, L., UCSF

Organization and activities of human tissue banks in the U.S.
Bode, D.C., IIAM, USA.

A self regulatory framework for research and service on human biomaterials
Matsumura, T., Tanaka, N., Sato,K., Hirai, R., Masui, T.,Umeda, M.

- More study on the history of science and industry based on human tissues and cells, and of logistics of research resources.
- We need the help of law experts!
- Invitation of Professor Utsugi to the JTCA Committee for Ethical Issues.

On the handling of human tissues and cells without intention of utilizing them for donor's own therapy (A full report from JTCA Committee for Ethical Issues, available from the JTCA website).
Tiss. Cult. Res. Commun. (JTCA official journal) 17:117-171 (1998)
Matsumura T., Umeda, M., Sato, K., Shibanuma, M., Tanaka, N., Hasumura, T., Hata, H., Hirai, R., Masui, T., Utsugi, S.

- A collection of reference materials and information for JTCA members to establish self-regulatory rules for handling human tissues and cells in institutions where they work
- Attention called of concerning people outside of JTCA for the establishment of regulatory framework to handle human tissues in Japan

JTCA annual meeting workshop 2000.9.8.

Treatize on human tissues and cells as research resources
Matsumura T., Umeda, M., Sato, K., Shibanuma, M., Tanaka, N., Hasumura, T., Hata, H., Hirai, R., Masui, T., Utsugi, S. (JTCA Committee for Ethical Issues).
Promotion of Cell Banking at the Ministry of Health Welfare and Labor
Masui, T., Mizusawa, H.
What we have learned from a pilot study of tonsil tissue collection
Enosawa, S., Matsumura, T., Utsugi, S., Suzuki, S., Amemiya, H., Kawashiro, N.
Current status of importation of human tissue cells.
Ii, K., Ozawa, Y., Asaga, I., Shimooka, M.
Issues related to the utilization of human tissue resources and banking
Sato, T., Suzuki, S., Shimizu, T., Yasuhara, H., Kurata, T., Kobayashi, E., Niikura, Y.
Tissue cell banking at Human Science Research Resource Bank.
Yamamoto, T., Kanzaki, T.

·Organized procurements and supply of human tissues as research resources started around this time in Japan.

9 Matsumura 2006.11.

HAB Annual Meeting 2002.5.23-24. Tokyo

Informed consent in pharmaceutical research
Yasuhara, H. & Matsumrua, T (organizers)
Informed consent at the site of tissue procurement
Ida, R.
What can be managed with informed consent and what cannot
Shimazu, I.
Acceptance of the concept of informed consent in Japan
Nomoto, K.
Human tissue for research in the U.K.: Ethics and Practice
Coleman, R.

·The time of further analyses and comparative study has come.

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Establishments of research groups
Hitomono research group managed by Prof. Utsugi
Utsugi research group funded by MHWL in 2001
Shirai research group funded by MHWL in 2001

・Cores of the legal and ethical study groups have been established for human tissues issues.

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Utsgi-han Workshop On the basic principles related to human tissues
2004.3.12. Tokyo

US 45CFR46 and its background ethical principles:
Belmont report etc. Adachi T.
French laws related to bioethics.
Nudeshima J.
A proposal of a Japanese law for the protection of human subjects for research.
Mitsuishi, T., Nudeshima J., and Kurihara, C.
Report of the related activity of Utsugi research group and a tentative proposal of Japanese rules.
Matsumura,T.

・Comparative studies continued
・New future Japanese regulatory frameworks proposed

Mitsuishi, T., Nudeshima J., and Kurihara, C. A proposal of law for the protection of research subjects. Rinsho Hyoka. 30:369-395(2003)
Matsumura T., Handling human tissues, cells and genes for biotechnology: principle or practice. Bioscience and Industry 61:38-40 (2003)
Matsumura, T., Ethical and legal requirements in handling human tissues: A draft proposal with special references to Japanese and western cultural backgrounds. Tiss. Cult. Res. Commun. (JTCA official journal))23:91-114(2004) (open in the JTCA website)

Utsugi-han Workshop on the basic principles for handling human tissues: With special references to the influence of cultural and physical backgrounds on the decision making process. 2005.3.5.Tokyo

Basic strategy to cope up with the problems and proposal of tentative rules for single body problems, two body problems and three body problems.
Matsumura, T.
Views from brain science
Kijima, H. & Kuroda, Y.
A view from clinical psychology.
Kemmi, K.

・Matsumura's interim proposal was discussed in some details.

Matsumura, T., Thoughts on organ donation with special references to basic rules for handling human materials without intention of utilizing them for donor's own therapy. Transplantion (Official Journal of Japan Association for Transplantation) 40:129-142(2005).

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Utsugi-han workshop on the rules for those who face at non-autonomous humane existence including developing eggs.
2005.12.17. Tokyo

Legal protection of humane organisms yet to be born: with special references to discussions in Germany.
Kai, K., Waseda University (Invited lecturer)
Ishi M., Meiji Univeristy (Commentator)
洪 賢秀 Center of Life Science and Society (Commentator)
Kijima, H, Nagoya University (Commentator)
Shimazu, I., Chiba University (Commentator)

・Contrastive views on the in-vitro human life have been analyzed in some details with special references to German laws.

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Today and Tomorrow

We are given a rare opportunity:

- to study the new U.K. legislation.
- to present the Japanese regulatory system for comments
- to have a time of discussion on future domestic and international rules.

Session 1

Human Tissue Legislation: Problems and Solutions

Veronica English, **Deputy Head of Medical Ethics, British Medical Association**
Tavistock Square, London, WC1H 9JP

Why was new legislation needed?

Human Tissue Act 1961 was out of date and unclear

Before the new Act the use of body parts after death for transplantation, education and research and the carrying out of post-mortem examinations were covered by the Human Tissue Act 1961. By the late 1990s it was increasingly clear that the legislation needed to be reviewed.

- The wording was unclear and subject to confusion - it used terms such as "the person lawfully in possession of a body" and "such reasonable enquiries as may be practicable" without definition.
- It did not require "consent" to these activities but relied instead on a vague notion of "lack of objection" which led to confusion about the precise requirements, particularly how much information needed to be given in order to allow people the option of objecting.
- Its terminology was also out of date with modern day society – it referred to "spouse" meaning husband or wife, with no reference to the increasing number of long-term partners who live together without marrying or same sex couples who may now go through a formal civil partnership ceremony.
- There were also no penalties within the Act so if someone broke the law, they could not be punished.

For all these reasons, there was wide agreement and recognition that the Act was no longer suitable for purpose and needed to be revised. This gained added impetus by the "organ retention scandal" at Alder Hey Children's Hospital in Liverpool and elsewhere.

Organ retention scandal

In 1999 it emerged that Alder Hey Hospital had, for many years, been retaining organs and body parts (including some children's "heads and bodies") following post-mortem examinations without the knowledge or agreement of the parents or family. The Health Secretary commenting in Parliament on the subsequent Inquiry reported that one doctor at the hospital – Professor van Velzen "systematically ordered the unethical and illegal stripping of every organ from every child who had had a post-mortem. He ignored parent's wishes even when they told him explicitly that they did not want a full post-mortem, let alone the retention of any of their child's organs."

When this came to light, it emerged that other hospitals, on a much lesser scale, had also been retaining organs and body parts without consent. A survey in England found that over 54,000 organs, body parts and stillborn children or fetuses had been retained since 1970 and were still held by pathology services. There were similar findings in Wales, Scotland and Northern Ireland. Many of these organs had never been used for education or research and were simply left untouched on shelves.

Many practitioners believed they did not need the consent of families to retain organs for research following a post-mortem examination. They believed if the relatives did not object then organs could be retained but, in practice, many parents or relatives did not object to organ retention because they were never asked.

In the subsequent inquiry, one of the major criticisms was the lack of clear information provided to bereaved parents. Even when they were consulted about organ retention, the literature was not explicit referring to "tissue" or "samples of human material" when the intention was to retain whole organs – hearts, brains, kidneys etc.

T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England(Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

This scandal led to calls for a thorough review of the legislation making consent the fundamental and explicit principle underpinning the use of any human material following death and introducing penalties for any breach of the legislation.

Increasing gap between supply and demand for cadaveric organs

Over the last 10 years in the UK there has been considerable concern about the availability of donor organs. The gap between the number of organs available and the number on the waiting list for transplants has continued to grow for more than a decade and shows no sign of reversing. As an example, during 2005 the number of transplants carried out was 11% lower than in 2004 while the number of people waiting for a transplant increased by 9% over the same period. There are a number of reasons for concern:

- 90% of the UK population support organ donation
- 22% signed up to the Organ Donor Register to say they wish to donate organs after their death
- 40% of relatives refuse
- More than 400 people die each year waiting for a transplant

Since April 2003 UK Transplant (which is responsible for promoting and co-ordinating transplantation) has carried out a "potential donor audit" to assess all deaths in intensive care units and consider why people who are potential donors did not go on to donate. This found that between April 2003 and March 2006 less than half (45.7%) of potential donors went on to actually donate. It also found that in a number of cases the relatives overruled the prior consent of the deceased patient.

It has been widely recognised that action needs to be taken to improve the transplantation rate and, as one part of that, clear legislation aimed at facilitating donation was needed.

Uncertainty about the legality of non-heartbeating donation

One of the ways of increasing donation rates that was being promoted was the use of non-heartbeating donors. Most donors are those who die on a ventilator (and are known as heartbeating donors). Non-heartbeating donors are those who die in a general wards or in whom active treatment is withdrawn. In these cases death is confirmed and then a small incision is made in the groin, a cannula is inserted and the kidneys are perfused in order to keep them in a good condition for transplantation. The organs are then removed and transplanted. In some cases consent is obtained before the perfusion is carried out but in others the procedure is undertaken while attempts are made to contact the relatives.

UK Transplant and the Government were trying to encourage the development of more non-heartbeating donation programmes around the country but a number of coroners (who are responsible for the investigation of sudden or unexplained deaths) argued that such intervention would be unlawful if consent for transplantation had not been given by the donor or by the donors' relatives. A number of units therefore could not, or were reluctant to, begin non-heartbeating donation. Although the Government believed the procedure would be lawful, it needed to clarify this before non-heartbeating donation could really begin to be developed.

Disparity between related and unrelated living donors

Another way in which it was hoped to increase the number of transplants was to encourage more living donation. Living organ donation was covered by the Human Organ Transplants Act 1989. This legislation was passed in reaction to a scandal whereby a London hospital was found to be paying people from Turkey to donate their kidneys. The legislation made it unlawful to pay organ donors and also set up a body called ULTRA (the Unrelated Live Transplants Regulatory Authority)

to approve, in advance, all organ donation involving unrelated living donors. It was illegal to use an unrelated living organ donor without the approval of ULTRA.

So, if the donor was a relative – a DNA test would be done to confirm the claimed relationship and then the donation could proceed. Although it was within its power to do so, ULTRA would not sanction donation by strangers and so all unrelated donations were from partners or long-term friends. In these cases, an application needed to be submitted to ULTRA to ensure that no payment had been made and that the donor was giving consent voluntarily and free from pressure or coercion – this was a lengthy procedure and frequently caused delay to the transplant. The legislation was also based on the erroneous assumption that there was more likely to be pressure brought to bear on friends than on families, whereas in reality the pressure to donate to a family member is likely to be just as great.

It was recognised that if living donation was to be encouraged, all cases should be subject to scrutiny to ensure that the consent was valid and not given under pressure but that the procedure should be streamlined to make it less onerous to have to seek approval.

There was also growing support for seeking other ways of increasing living donation.

For these reasons, it was recognised that changes in the law were needed in order to achieve the aim of increasing the number of living donors.

EU Tissues and Cells Directive

As a member of the European Union, the UK is bound by any Directives agreed by the Union and all member states are required to incorporate them into their national legislation within a given timescale. The relevant Directive in the case of tissue was the EU Tissues and Cells Directive. The Directive sets out standards of quality and safety for the donation, procurement, testing, processing, preservation, storage and distribution of human tissue and cells intended for human application (ie. treatment not research).

Among the requirements of the Directive are that:

- The UK appoints a "competent authority" to ensure compliance with the standards set out in the Directive
- All establishments where the activities covered by the Directive are carried out must be licensed by the competent authority once it has verified that the standards are being met.
- All licensed establishments must be inspected at least every two years

So, in order to comply with the Directive, the UK needed to establish a regulatory body to inspect tissue establishments and act as the competent authority for tissues and cells.

The Human Tissue Act 2004

The Human Tissue Act 2004 came into force on 1 September 2006. It replaces:

- Human Tissue Act 1961
- Anatomy Act 1984
- Human Organ Transplants Act 1989

and equivalent legislation in Northern Ireland. The Act covers England, Wales and Northern Ireland. There is separate legislation for Scotland, the Human Tissue (Scotland) Act 2006 which is rather different.

The Human Tissue Act covers, for deceased people, the removal, storage and use of human tissue and for living people the storage and use of tissue (not removal).

The Act refers to "relevant material" which is material that has come from a human body that consist of, or includes, human cells except: hair and nails from living people, live gametes (sperm and eggs) and embryos created outside the body (gametes and embryos are covered under the Human Fertilisation and Embryology Act).

Consent is the central principle in the Act – making it a legal requirement for appropriate consent to be in place before carrying out certain activities.

The Act also set up the Human Tissue Authority to be the competent authority under the EU Tissues and Cells Directive and to regulate this area.

Carrying out certain activities without a licence from the Authority or without the necessary consent is a criminal offence punishable by imprisonment for up to 3 years, or a fine or both.

What activities need consent?

The activities covered by the Act are referred to as "scheduled purposes". They are divided into two groups. As a general rule part 1 activities require consent, whether the patient was alive or dead when the tissue was removed. The part 1 scheduled activities are:

- Anatomical examination
- Determining the cause of death – post-mortem examination
- Establishing, after a person's death, the efficacy of any drug or other treatment administered to that person
- Obtaining scientific or medical information about a living or deceased person which may be relevant to any other person (genetic testing)
- Public display
- Research in connection with disorders or the functioning of the human body
- Transplantation

There are a few exceptions. Consent is not required:

- For a post-mortem examination ordered by a coroner to determine the cause of death
- For material stored for the coroner's or criminal justice purposes
- "existing holdings" that were already in storage for one of the activities covered by the Act on 1 September 2006
- Residual tissue from living individuals used anonymously for research that has been approved by a research ethics committee
- Imported tissue – it may be impossible to guarantee that consent has been given as required in the Act but it is still good practice to ensure that consent is in place
- Tissue from the body of a person who died before1 September 1906 (i.e. over 100 years old when the Act came into force) - in order that museums can continue to accept and display ancient bodies (Egyptian mummies, for example) even though they do not have consent.

Part 2 activities require consent if the tissue is removed after death but do not require consent if the patient was alive when the tissue was removed (because these activities are seen as an integral part of diagnosis and treatment).

- Clinical audit
- Education or training relating to human health – such as teaching about diagnosis
- Performance assessment – including testing equipment
- Public health monitoring – such as anonymous testing to determine the prevalence of HIV in a given population
- Quality assurance – so double-checking test results for accuracy

There was quite a lot of debate when the legislation was under discussion about whether, for deceased patients, these basic procedures should be considered an intrinsic part of the post-mortem examination and therefore permitted using tissue removed after death without explicit consent but the Government would not permit this and so consent must always be sought.

Who may give consent?

The legislation sets out not only what activities require consent but also who may give consent in order to comply with the Act.

Living competent adult – the adult

Living competent child – the child or the child's parent

Deceased adult - the adult before death
- a person nominated by the adult to make decisions after death
- a relevant family member

Deceased child - the child before death
- the child's parent
- a relevant family member

There are a couple of exceptions: for anatomical examination and the use of a deceased body or body parts for public display can only be authorised by the person him or herself before death; relatives or the parents of children cannot consent to these uses.

Even where the family have a role to play, the individual's own views always take precedence. So, it is only if the individual has not given consent before death that a nominated individual or a family member will be asked for consent.

The Act also sets out which relatives can give consent and the order in which they must be consulted. So the first person is the deceased patient's spouse or partner – if there is no spouse of partner or that person cannot be contacted, then the deceased person's parent or child will be consulted and if there is no parent or child then a brother or sister's view should be sought and so on. If there is more than one person at the same level of the hierarchy, for example, if a person had a brother and a sister, the consent of only one of them would be sufficient to proceed. If, however, the person at the top of the hierarchy refuses consent, that will be determinative and it is not acceptable to ask the next person until someone agrees.

If the individual has not given consent and has no relatives, a "friend of longstanding" may give consent.

The Human Tissue Authority

The Human Tissue Authority was established on 1 April 2005. It is made up of 17 members, the majority of whom are "lay" ie not doctors or scientists and never having had any professional involvement with the activities covered. The chairman is also lay. Members and chairman are appointed by the Secretary of State for Health via the NHS Appointments Commission – so all vacancies are advertised in the media and anyone can apply. The HTA is supported by an executive staff (currently 20) divided into teams looking at: regulation, policy, communications and resources.

The Human Tissue Authority was developed on the model of the Human Fertilisation and Embryology Authority (HFEA) which has regulated infertility treatment and embryo research in the UK for 15 years.

The main roles of the HTA are:

- Inspecting and issuing licences to establishments carrying out certain activities
- Approving applications for living organ donation
- Preparation of codes of practice setting out standards and guidelines – currently has 7 codes and one out for consultation. They are:
    - Consent
    - Donation of organs, tissues and cells for transplantation
    - Post-mortem examination
    - Anatomical examination

    - Removal, storage and disposal of human tissue
    - Donation of allogenic bone marrow and peripheral blood stem cells for transplantation
    - Public display
    - Import and export of tissues is currently out for consultation
- Provide advice to the Secretary of State for Health and the public

Ways of working

- Close collaboration with relevant medical and scientific groups
- Public consultation – this is a feature of all public bodies

Licensing and the HTA

The deadline for receipt of applications from establishments carrying out activities covered by the Act was 31 August 2006. By that date the HTA had received a total of 471 applications:

- 118 under the EU Tissues and Cells Directive to store tissue for human application
- 110 for storage for general research use (tissue banks)
- 194 for pathology
- 39 for anatomy
- 10 for public display

Much of the licensing work is undertaken by the staff, rather than by the members of the Authority. There are two phases of licensing. The first phase is a "desk-based analysis" so this is essentially a review of the information submitted and of a self-assessment completed by applicants of the extent to which they believe they have achieved the standards set. (This mechanism has been tested and where visits have been undertaken to validate the self-assessment there has, so far, been a good match).

The second phase is based on site visits – this will involve visiting and inspecting the physical premises and interviewing staff. Those activities covered by the EU Tissues and Cells Directive (those storing human tissue for human application) must be inspected at least every two years but there is no requirement in the Act to physically "inspect" other establishments. For others a risk analysis will be undertaken to decide whether an inspection should be carried out. Where there are concerns a site visit will be undertaken and some centres that appear to be excelling will also be inspected in order to see what lessons can be learnt.

Inspections will usually be arranged in advance but unannounced inspections can and will be undertaken. The procedures are currently still being worked on but the intention is to outsource some of the site visits to other licensing and accrediting bodies, with others carried out by HTA staff.

Decisions about licensing are made by a licensing panel (of HTA staff) which may decide to:

- Issue a licence
- Issue a licence with conditions attached
- Rarely, refuse to issue a licence.

Licences are usually issued for 3 years but during that time a licence may be revoked or varied.

If an establishment is unsatisfied with the licensing decision, an appeal may be made to an Appeals Committee made up of not less than five members of the Authority. If, following a decision by an Appeals Committee, the applicant considers that there is a point of law that has not been satisfactorily resolved, an appeal may be made to the High Court.

All of this, of course, costs money. The HTA receives some funding from the Government but it is required to recoup the full costs of its regulatory function from charging licence fees to licensed establishments. The fees vary depending upon the activities undertaken but for most places are around £6,000 per year.

Implications of the Act

Post-mortem examinations

In the UK there are two types of post-mortem examination.

- A coroner's PM which is required to determine the cause of death where death was sudden or unexpected – these do not require consent.
- A hospital PM where the consent of the individual prior to death or the family is required

Any retention or use of material once the PM has been completed requires explicit consent. This includes use for research, education, audit, quality control and includes retaining a block or slide on the medical record.

Any establishment carrying out a PM examination (both coroner and hospital) must be licensed by the Human Tissue Authority

In addition to the changes introduced by the Human Tissue Act, new Coroner's rules were introduced in June 2005. These require coroners to notify the relatives about any material that has been retained as part of the post-mortem examination and to ask them what should happen to the tissue once the coroner's investigation is complete (i.e. whether it may be used for research, education etc or if it should be returned for burial or destroyed). This was important because there was concern when the legislation was being debated that it was unclear who was responsible for seeking consent to retention and subsequent use of material following a coroner's PM and as a result, the family may not be approached and an important source of material would be lost.

Anatomical examination

Under the Act, anatomical examination means where people donate their bodies for medical science to be used for dissection and the teaching of anatomy.

Written, witnessed consent is required from the individual before death; nobody else (including the family) may give consent for anatomical examination. One concern that is currently being expressed is that not enough people are signing up for anatomical examination and that the training of the next generation of doctors may be hampered because of the shortage of bodies available. The BMA has been trying to encourage the Department of Health to undertake some publicity work to inform people of the need for the donation of bodies for anatomical examination and telling people how to sign up to donate.

Anatomical examinations may only take place on premises licensed by the HTA. In the past places undertaking anatomical examinations were inspected and licensed by HM Inspector of Anatomy, and this role has now been taken over by the HTA. So inspections are not new for those working in anatomy although there has been some unhappiness about the size of the licence fee as under the old system no fees were charged.

Research

Deceased individuals – where tissue is removed after death, consent is required for its storage and use of that tissue for research

Living individuals – where tissue is removed from living patients as part of a diagnostic or therapeutic procedure (for example residual tissue left over from an operation) consent is required for the storage and use of the tissue for research unless:

- The tissue has been anonymised; and
- The research project has research ethics authority approval or approval is pending

Research is not a licensable activity so a licence is not required for the research but a licence may be required for the storage of tissue for research.

Storage

Again, consent and licensing are the two main implications of the Act on those who are storing human tissue and again there is a difference between material removed from living patients and tissue removed after death.

For living patients – consent is required for storage for part 1 activities except where it is anonymised tissue stored for a specific research project that has research ethics authority approval or approval is pending.

For deceased patients – consent is required for all storage of human tissue

A licence is required to store tissue from living individuals only if it is stored:

- For future research that does not have ethical approval. This means where tissue is stored in a bank for general research purposes as opposed to for a particular research project.

The reasoning behind this is that there should be a separation between those who are running tissue banks and those who are "end users" – actually carrying out research or training.

- For more than 48 hours for the purpose of transplantation – this does not include storage of blood but it does include other tissue, bone etc to be used for transplantation (this is in order to comply with the EU Tissues and Cells Directive).

A licence is required for the storage of tissue taken from a deceased individual except if:

- It is stored for a particular research project that has research ethics authority approval
- It is sent to unlicensed premises for analysis and will be returned to the licensed premises once the analysis is complete.

This allows samples taken during a post-mortem examination to be sent to a laboratory that specialises in a particularly rare condition for analysis without that laboratory needing to be licensed.

Transplantation after death

Consent must be obtained for transplantation.

In the UK there is an Organ Donor Register where people can record during their lifetime their wish to donate organs for transplantation after their death. The register currently has nearly 13.8 million names on (22% of the population). Under the Act, registration on the ODR is sufficient evidence of consent for donation to proceed.

If the individual has not registered their wish to donate and they have not nominated someone else to make decisions for them, the relatives will be asked to give consent on behalf of the deceased.

Under the Act the relatives do not have a legal right of veto.

If the individual had given consent, the relatives do not have the legal right to override that consent and donation may proceed despite their objection. Guidance on good practice in the HTA's code of practice on transplantation recommends that, in the event of disagreement, the family should be informed that they do not have a legal right of veto and should be encouraged to respect the wishes of their deceased relative. Nevertheless, the Act does not *require* donation to proceed but only *permits* it to do so. Where there is sustained opposition from the family, it may not be appropriate to proceed both because the health professionals has some duties to consider the wellbeing of the recently bereaved family and, from a very practical point of view, because bad publicity may damage donation rates.

This is a subtle but important change. In the past, irrespective of whether the deceased person was on the ODR, the family were asked for consent to donation and their views held sway. Now, the

family will be informed that their relative wanted to donate organs and that the intention is to proceed in accordance with those wishes.

The Government believes that this change will, over time, have a significant effect on donation rates. The BMA very much hopes it will but is sceptical about this. During the passage of the legislation the BMA lobbied for a change to a system of presumed consent, whereby everyone is considered to be a donor unless they have opted out during their lifetime. The type of system we supported was one where the family would also be asked if they were aware of any unregistered objection by the deceased and also where donation would not proceed if to do so would cause severe distress to the relatives. Despite growing support for such a change, both among professional groups and the public, this was rejected.

Non-heartbeating donation is lawful

The legislation now makes clear that invasive procedures may be carried out to perfuse the organs after death, if necessary before consent to donation has been obtained. This has led to a fairly big increase in the number of non-heartbeating donation programmes that are being established.

Living organ donation

Consent must be obtained

It is an offence to offer or receive payment for transplantation

The provisions in the Human Organ Transplants Act 1989 are reproduced in the new Human Tissue Act – this makes it a criminal offence to offer or receive money or other benefits for the supply of organs for donation.

An application needs to be made to the HTA for each case

The Unrelated Live Transplant Regulatory Authority has been abolished and the HTA has taken over its role. The same procedures are now followed whether the donor and recipient are genetically related or unrelated but emotionally close – such as a partner or long-term friend. So for every case, an application needs to be made to the HTA for approval.

The donor and recipient must be interviewed by an Independent Assessor

The HTA has trained around 120 people around the country who are known as "independent assessors". Their role is to interview the donor and the recipient and to ensure that sufficient information has been given, and understood, that no money is paid for the donation and that the consent is freely given and the donor is not in any way being coerced into donating. If the Assessor is happy with the proposal, he or she will recommend to the HTA that the application should be approved.

Approval must be given by the HTA

On receipt of the recommendation from the Independent Assessor the HTA will decide whether to approve the donation. In order to minimise delays in considering applications, it is expected that in straightforward cases this decision will be made on the Authority's behalf by a member of staff, rather than by the Authority itself.

There are some cases, however, where additional scrutiny is considered necessary such that the decision must be made by a panel of at least three members of the Authority. These include cases where the donor is a young child or an adult who lacks capacity to make a decision. In both of these cases, the donation can only proceed if the donation is considered to be in the "best interests" of the donor (not the recipient). It is expected that these cases will be very rare and it may be necessary to seek a declaration of a court that it would not be unlawful to remove the organ for this purpose before the donation can proceed.

Paired and pooled donations are permitted

The legislation permits, for the first time, paired and pooled donation whereby a donor and recipient who are not compatible with each other can pair up with one or more other incompatible donor and recipient pairs in an organ exchange (so donor A's kidney goes to recipient B, donor B's kidney goes to recipient C and donor C's kidney goes to recipient A). As this is new, all cases need to be agreed by a panel of at least three members of the Authority.

Donation to strangers is permitted

Donation to a stranger is also now permitted under the legislation. An altruistic person may offer to donate a kidney to a complete stranger – in the same way that strangers donate eggs or bone marrow to others without reward. As with paired or pooled donation, each case needs to be agreed in advance by a panel of at least three members of the HTA.

Public display

Written consent is required from the adult or child in their lifetime; nobody else can give consent to public display.

A licence is required from the HTA for the public display of bodies of people who have died or material taken from bodies of those that have died.

These requirements do not apply where the material comes from the body of a person who died more than 100 years before the Act came into force.

Have we got it right?

It is really too early to tell but there are a few points that are worth highlighting at this stage.

The Act makes no distinction between tissue blocks and slides and whole organs – which some people feel is a mistake given the different emotional significance of a whole brain or heart, for example, compared with a slide of tissue.

The Act is also very complex and is much broader than it, perhaps, needed to be. There has never been any problem with the use of tissue from living individuals for research purposes – and its storage does not need to be licensed under the EU Tissues and Cells Directive – yet the Government decided to include this in its legislation which, again, many people feel is a mistake.

The regulatory aspects of the Act place a high workload and high expenditure on those that are subject to regulation. Is this a proportionate response?

As with any complex piece of legislation, when it comes to implementation there are often unforeseen difficulties:

It had been thought that straight forward living donations could be approved at a local level by the Independent Assessors but the Government's legal advisors said this was not possible with the way the legislation is drafted and so each case has to be sent to the HTA for approval. We wait to see whether this will cause delays when the intention was to introduce a new streamlined procedure.

Another issue that is covered in the legislation is the use that can be made of tissue samples where the individual cannot give consent. It limits the use to activities that are in the best interests of the patient and allows some forms of research. This is creating problems where there has been a needlestick injury to a health professional where the usual practice would be to test a blood sample to see if the patient is HIV positive in order that an informed decision can be made about whether the doctor should take post-exposure prophylaxis. Unless the test for HIV is for the benefit of the patient – this will no longer be possible. We are currently in negotiation with the Government about making Regulations under the Act to permit testing in these limited circumstances.

On the whole though the legislation has been welcomed, it was certainly needed and there is a degree of optimism, particularly about transplantation. We will need to wait and see whether that optimism continues.

EMPLOYMENT CAREER FINANCE FUTURE

Human Tissue Act 2004: Problems and Solutions
Human Tissue Act 2004: 課題とソリューション

Veronica English
Deputy Head of Medical Ethics
British Medical Association

BMA

1

EMPLOYMENT CAREER FINANCE FUTURE

Why was new legislation needed?

- Human Tissue Act 1961 was out of date and unclear
- Organ retention scandal
- Increasing gap between supply and demand for cadaveric organs
- Uncertainty about the legality of non-heartbeating donation
- Disparity between related and unrelated living donors
- EU Tissues and Cells Directive

- Human Tissue Act 1961は時代遅れになり、趣旨が不明確
- 臓器保管に関するスキャンダル
- 死体の臓器の需給格差拡大
- 心拍が停止した人からの提供に関する合法性が不透明
- 血縁関係にある者からの提供と、そうでない者からの提供の違い
- 組織及び細胞に関するEU法令

BMA

2

The Human Tissue Act 2004

- Came into force on 1st September 2006
- For deceased people covers the removal, storage and use of human tissue
- For living people covers the storage and use of tissue (not removal)
- Consent is the central principle underpinning the Act
- Established the Human Tissue Authority (HTA)

- 2006年9月1日施行
- 死体についてはヒト組織の摘出、保管及び使用に関して網羅
- 生存している人に関しては組織の保管及び使用を網羅(摘出は除く)
- 同意が同法の根幹を支える
- Human Tissue Authority (HTA)の創設

3

Part 1 activities – consent needed

- Anatomical examination
- Determining the cause of death
- Establishing, after death, the efficacy of treatment provided
- Obtaining scientific or medical information that is relevant to another person
- Public display
- Research
- Transplantation

- 解剖検査
- 死因の特定
- 死後、有効な治療がされたことの証明
- 別の人間に関連する科学的あるいは医学的情報の取得
- 公開
- 研究
- 移植

4

Exceptions

Consent is not needed:

- Coroner's post-mortem examination
- Storage by the coroner or for criminal justice purposes
- "existing holdings"
- Tissue from living individuals used anonymously for approved research
- Imported tissue
- Tissue from the body of a person who died before 1st September 1906

以下の場合、同意は不要:

- 検死官の検死
- 検死官による保管あるいは犯罪正当化のための保管
- 「既に保管されている」
- 認められた研究のため、生きている人からの匿名のヒト組織
- 輸入されたヒト組織
- 1906年9月1日以前に死亡した者のヒト組織

5

Part 2 activities – consent only needed if from deceased

- Clinical audit
- Education or training relating to human health
- Performance assessment
- Public health monitoring
- Quality assurance

- 医学監査
- 健康に関する教育あるいは実習
- パフォーマンスアセスメント
- 公衆衛生のモニタリング
- 品質保証

6

EMPLOYMENT CAREER FINANCE FUTURE

Who may give consent?

Living competent adult
- the adult

Living competent child
- the child or the child's parent

生存しており、正常な判断ができる成人
- 成人

生存しており、正常な判断ができる子供
- 子供または子供の親

7

BMA

EMPLOYMENT CAREER FINANCE FUTURE

Who may give consent?

Deceased adult
- the adult before death
- a person nominated by the adult to make decisions after death
- a relevant family member

Deceased child
- the child before death
- the child's parent
- a relevant family member

死亡した成人
- 死亡する前の本人
- 本人に、死後の決定を任命された人
- 親族

死亡した子供
- 死亡する前の本人
- 親
- 親族

8

BMA

EMPLOYMENT CAREER FINANCE FUTURE

The Human Tissue Authority

- Established on 1st April 2005
- 17 members, the majority of whom are "lay"
- Modelled on Human Fertilisation and Embryology Authority (HFEA)

- 2005年4月1日に創設
- メンバー17人、過半数は「専門外」出身
- Human Fertilisation and Embryology Authority (HFEA)をモデルにしている

9

BMA

EMPLOYMENT CAREER FINANCE FUTURE

The Human Tissue Authority

The role of the HTA includes:

- Inspecting and issuing licences to establishments
- Approving applications for living organ donation
- Preparation of codes of practice
- Provide advice to the Secretary of State for Health and the public

HTAの役割:

- ライセンスの検査と機関への発行
- 生存中の人からの臓器提供申請の承認
- 行動規範の策定
- 公衆衛生大臣へアドバイス提供

10

BMA

Licensing and the HTA

- 471 licence applications received by 31st August 2006
- Phase 1 – "desk based analysis"
- Phase 2 – site inspections
- Licences usually issued for 3 years
- Licence fees – £6,000 per annum (¥ 1,338,321)

- 2006年8月31日までのライセンス申請件数471件
- 第1段階 -「机上分析」
- 第2段階 – 実状調査
- ライセンスは通常3年間有効
- ライセンス料 – 年間6千ポンド(¥ 1,338,321)

11

Implications for post-mortem examinations

- Coroner's post-mortem examination – no consent needed
- Hospital post-mortem examination – consent required

- 検死官による検死 – 同意 不要
- 病院での検死 – 同意 要

12

Implications for post-mortem examinations

- Any retention or use of material removed during post-mortem examination requires consent
- Post-mortem examinations must only take place on premises licensed by the HTA

- 検死中に採取した組織の保管あるいは使用は同意を要する
- 検死はHTAのライセンスを受けた施設以外で実施不可能

13

Implications for post-mortem examinations

Coroner's Rules require that the family is informed of any organs or material to be retained and is asked what should happen to them once the examination is complete.

検死官ルールでは、臓器あるいは組織の保管については家族に伝え、検死完了後に、どのような処理がされるべきか意見を求める必要があるとしている。

14

Implications for anatomical examination

- Written, witnessed consent is required from the individual before death
- The family may not give consent
- Anatomical examinations may only take place on premises licensed by the HTA

- 死亡前に本人から書面による証人付の同意が必要
- 家族は同意を与えることができない可能性がある
- 解剖はHTAのライセンスを取得した施設でのみ可能

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BMA

Implications for research

- Deceased individuals – consent required for the use of tissue for research
- Living individuals – consent required for the use of tissue for research unless:
  - The material has been anonymised; and
  - The research project has research ethics committee approval
- Research is not a licensable activity

- 死亡した個人 – 研究のための組織利用には同意が必要
- 生存中の個人- 研究目的で組織を使用するには同意が必要。
  但し、以下の場合に限られる:
  - 組織が匿名化されていない
  - 研究プロジェクトが倫理委員会の承認を経ていない
- 研究はライセンスの対象にならない

16

BMA

Implications for storage of tissue

- **Living** patients – consent required for storage for part 1 activities except for anonymised tissue stored for a specific research project that has research ethics committee approval
- **Deceased** patients – consent always required

- **生存中**の患者 – パート1の行為の為の保管に同意が必要。但し、倫理委員会の承認を経た特定の研究のための匿名組織の保管は除く。
- **死亡**した患者 – 必ず同意が必要

17

BMA

Implications for storage of tissue

A licence is required to store tissue taken from **living** individuals only if it is stored:

- For future research that does not have ethical approval (tissue bank)
- For more than 48 hours for the purpose of transplantation (not blood)

生存中の個人の組織を摘出し保管する場合はライセンスの取得が必要。これは以下の保管の場合に限る:

- 倫理的承認を経ていない将来の研究のため(ヒト組織バンク)
- 移植のための48時間を越える保管(血液は除く)

18

BMA

Implications for storage of tissue

A licence is required to store tissue taken from **deceased** individuals except if:

- It is stored for a particular research project that has research ethics committee approval
- It is sent to unlicensed premises for analysis (not research)

死体の組織の保管にはライセンスの取得要。
但し、以下の場合は除く:

- 倫理委員会の承認を経た、特定の研究プロジェクトのための保管
- （研究のためではなく）分析のための、ライセンスを取得してない施設への送付

19

BMA

Implications for living organ donation

- Consent must be obtained
- It is an offence to offer or receive payment for transplantation
- An application needs to be made to the HTA for each case
- The donor and recipient must be interviewed by an Independent Assessor

- 同意を得る必要あり
- 移植に対する報酬の提供又は受領は違法
- 各ケース毎にHTAへの申請が必要
- ドナーと患者は独立した査定者の面接を受ける必要がある

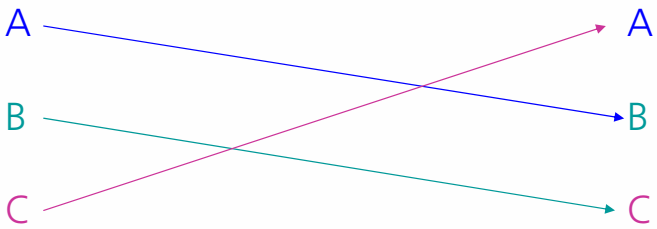
20

BMA

Living organ donation

Paired and pooled donations are permitted
以下のような
ドナーと患者の組み合わせ、臓器保管が許されている

Donor ドナー　　Recipient 患者



Donation to strangers is permitted
第三者への提供が許されている

21

Implications for public display

- Consent must be obtained from the individual – family cannot consent
- A licence is required for public display of bodies, body parts or organs
- Consent and licensing provisions do not apply to tissue over 100 years old (museums)

- 本人の同意が必要 – 家族は同意を与えることができない
- 身体、身体の一部あるいは臓器の公開にはライセンスの取得が必要
- 同意とライセンスの取得条項は100年以上経った組織（博物館等）には適用されない

22

Have we got it right?

Too early to tell, but …

- No distinction between whole organs and tissues and cells
- Very complex and broader than needed to be
- High workload and expense for those subject to regulation
- Unforeseen difficulties with interpretation

時期尚早ではあるが、以下の点に課題がある:

- 完全な臓器、組織及び細胞に関して区別していない
- 非常に複雑で、必要以上に適用範囲が広い
- 規制対象となると事務的、金銭的負担が大きい
- 予期できない状況における法解釈の難しさ

BMA

23

Slide presentation 1　Editors comments for Japanese readers regarding terminology
日本語訳に対する編者のコメント

p23、スライド No.2	そうでない者→血縁関係のない生者 EU 法令→EU 指令
p24、スライド No.4	公開→（博物館などにおける）公衆展示
p25、スライド No.5	犯罪正当化→刑事司法(criminal justice)のこと
p26、スライド No.7	成人→その成人 正常な判断ができる→判断能力のある
p26、スライド No.8	死後の決定を任命された→死後の決定をするために任命された
p27、スライド No.10	行動規範→実施要領 公衆衛生大臣へアドバイス提供→保健大臣および公衆へアドバイス提供
p30、スライド No.15	家族は同意を与えることができない可能性がある→「法的に同意を与えることができない」の意
p30、スライド No.16	但し、以下の場合に限られる： ○ 組織が匿名化されていない ○ 研究プロジェクトが倫理委員会の承認を経ていない→ 但し、以下の場合を除く： ○ 組織が匿名化されており、かつ ○ 研究プロジェクトが倫理委員会の承認を経ている場合
p33、スライド No.21	以下のようなドナーと患者の組み合わせ、臓器保管が許されている→「ペアード・ドネーションとプールド・ドネーションは許容されている」の意。禁止も強制もされていないことを意味する 第三者への提供が許されている→「血縁者でも知り合いでもない、まったく他人への提供は許容されている」の意。禁止も強制もされていないことを意味する
p33、スライド No.22	公開→（博物館などにおける）公衆展示

Discussion

Mitsuishi: Consent forms

Thank you very much for a very interesting and very beneficial presentation. I would like to ask the difference between organs and tissues. Question as to whether there is a difference between consent for use of organs, tissue and cells (organs consist of tissue, tissue consists of cells) or whether consent for organs covers consent for tissue and cells.

English

Consent would need to be specific. So, if it were for transplantation, for example, an individual would sign up for organ donation and there would be a discussion with the family about tissue donation, but the implication would be that if you agree to organ donation you are likely to support tissue donation as well. There is talk about extending the nature of consent so that it explicitly says "organs and tissue" and I think that we will go much further along that road of being more explicit. If you are giving consent for research use of tissue, then that would include tissue and cells but would not extend to organs. In terms of donation of organs for research after the death or post-mortem, the form will be quite explicit about what the individual or family are agreeing to. I think after Alder Hey consent was very explicit and families were given so much information. It was felt that it was counter-productive and it was more than relatives wanted. So it's a matter of getting the right balance and I think we're moving back now so that we might talk about cells, we might talk about tissue and we might talk about organs but we wouldn't go into any more detail than that. At one stage when talking to relatives about transplantation immediately after Alder Hey they were talking about organs and blood vessels and listing absolutely everything that would be taken. So it's a matter of getting the balance right about how much the relatives want to have. It's actually about having "enough" information – which is enough for most people – but always being willing to give more information if the relatives or the individual wants it. So that's the way that it's going.

Mitsuishi

Do you mean that consent form put details always like organs, tissues, cells?

English

I haven't actually seen the standard consent forms yet so I'm not sure how much detail there will be but what is clear is that what they are consenting to will be made explicit. It has to be made explicit now after Alder Hey when they were talking about tissue but what they actually meant was organs so it is going to be much more explicit.

Mitsuishi

So, the grounds of individual right to consent to organs or tissues or cells…are different?

English

I think that somebody may well be happy to donate tissue but not organs, for example. So I think yes, there might be. I'm not sure about cells and tissue, I think probably less so, certainly in the public's mind. The public has a very clear view about what is an organ and what is tissue so I think that they definitely might make that distinction.

Kurihara: Researches on tissue from living donors

Thank you very much for your very clear explanation about very very complicated situation. I have many questions but time is not enough so I would like to ask you about little thing concerning research use of the tissue from living donor. What I would like to confirm is relationship between license by regulatory authority and authorization by ethics committee. Is it right to say that if regulatory authority's license is acquired, there is no need to acquire an authorization by an ethics committee?

English

Research ethics committee approval always has to be provided for research and research itself does not require a licence so the Authority would not licence research projects. They might licence

storage if you have a tissue bank, so that's the only side of regulation that's relevant. In terms of consent, you have to give consent for the use of identifiable tissue but that still has to have research ethics committee approval. If the tissue is to be used anonymously, so if it's taken for diagnosis and there is left-over tissue and it's anonymised, then that can be used without consent provided there is research ethics committee approval. So research ethics committee approval is required for all research.

Kurihara

I understand there is some provision to define the function of the research ethics committee…

English

That's right and I'll talk a little bit about that this evening when I talk about research. There has been a lot of work on improving research ethics committees over recent years. This legislation has put a lot more weight on research ethics committees and that has required a review of their working because they have not always worked well in the past. There have been real problems with ethics committees and they haven't had the support and they haven't had the respect that they needed and so there are a number of changes and I'll go into the detail of some of that later on.

Maruyama

I would like to ask the meaning of anatomical examination. From your talk, I understand that the main focus is placed on the dissection of human bodies for the purpose of medical education, but I am wondering if this concept of anatomical examination includes the human body dissection for the purpose of pathological purposes.

English

I think that would probably be covered under a hospital post mortem examination. Anatomical examination means training in medical schools, training medical students in dissection for example. If the examination is for pathology, then that would be covered by a post mortem examination. The coroner's post mortem examination is specifically to determine the cause of death whereas a hospital post mortem is much broader – it's looking at other aspects too.

Maruyama

If you dissect a human body for the purpose of determining whether the diagnosis was proper or treatment was proper or what the main cause of death was, is that dissection will be included in…

English

In post mortem examination.

Obata

You mentioned about the Human Tissue Authority. Are they full-time jobs?

English

No, they're part-time jobs. They are paid but it will be a certain number of days per month so it may be two or three days per month or something like that. They will attend meetings and they will be paid – normally a daily rate. So they don't get paid a set amount for being a member of the Authority but they are required to give a certain number of days to attend meetings and they are paid a daily rate for every meeting they attend.

Obata

Are they able to handle such a huge amount of job?

English

Well, most of the work on the applications will be done by the staff and there are full-time staff who are employed to do that. They will be the ones that will look at the applications as they come in, they will decide whether a site inspection is needed, they will go on the site inspection if one is

needed and they make up the licensing panels. So the Authority itself – the members of the Authority itself – don't do that but they do hear appeals against licensing decisions. So if somebody is unhappy with the decision made by a licensing group made up of staff, then they will appeal to members of the Authority, and as I mentioned with living transplantation, there are certain types of living transplantation where there has to be a panel of three members of the Authority. There are some things that the Authority members have to do. They will also meet on a regular basis – probably once a month I imagine – that's how they're meeting at the moment and they will look at what is happening, they will identify any problems, they will keep an overview and they will look at policy issues so decide the policy of the Authority, for example whether they're going to produce any more information for patients, whether any more codes of practice or any more guidance are needed, so it's more those sorts of thing Authority members will do rather than dealing with the day-to-day research or licensing applications.

Obata

Are there 20 people hired for this?

English

Yes, that's right and what they may do is to out-source some of the inspections. There are other bodies in the UK who do inspections and they may get some of those bodies to do some of the inspections for them. That still has yet to be decided – they're still deciding how to do that and also how many inspections they will do, because of course it's only, as I said, the establishments that are storing tissue for human application that must have site visits. So there's quite a lot of issues that they are still deciding how to implement.

Norton: Postmortems

There's one thing that I find puzzling but maybe I misunderstood it -where the postmortem with the Coroner establishing the cause of death, this often leads to a possible criminal matter. I got the impression that there was a possibility if specific permission was not granted, after the postmortem is completed, they couldn't keep the slides or organs or other bits and pieces without specific permission. You thus have the possibility that having done the tests and reached your conclusions, you then have to dispose of the slides and human material. Then if some new piece of evidence comes along, you may want to be re-examine the slides and are unable to do so.

English

Well, it's very interesting because we had exactly the same discussion. It's not quite as you said because the material can be stored as long the coroner requires it. So once the coroner has decided that he or she no longer needs it, then it has to be disposed of unless you have consent for further retention. Now, they can say, well, we need to keep this because there may be more evidence coming up. If there's a criminal case then obviously it has to be retained in order for that. What it doesn't cover – and we did raise this issue with the government – is if the coroner is happy, says it should all be disposed of, but then exactly as you said, more evidence comes to light – we raised that but they said well, it's up to the coroner to decide when it goes and as soon as the coroner says they no longer require it, then it has to be disposed of.

Norton

So there is a possibility?

English

I don't know whether what will happen is the coroners will therefore keep the slides because they will say that they need to keep them for longer periods. I suppose that is possible. Of course, one of the difficulties is that under Alder Hey a lot of the organs were removed from coroners' post mortems. It wasn't just hospital post mortems. A lot of them were from coroners where they had been retained so that's why they really didn't want to give any more power to retain them without consent.

Norton

So the period of retention is very relevant. Only a couple of weeks ago someone was arrested for a murder carried out 35 years ago on the basis of DNA evidence, so that material had been kept for a very long period. Now I can't imagine the coroner saying to be on the safe side, we will keep this sample in perpetuity.

Human Tissues as Materials for Research and Practical Use: A Workshop for International Understanding in Related Law and Ethics with Special References to British and Japanese Systems

Session I: Regulations and moral-ensuring mechanisms in the U.K. and Japan, an overview

***Yuichiro Sato*, Associate Professor of Yokohama City University**
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1. Statutory background of human tissues/cells in Japan

We have Civil law system, but legislature process is very slow. So general statutes such as civil law and penal law are very old, and there are a few specific statutes concerning human tissues/cells.
Japanese civil law (imported from Germany) has a dichotonomy of subject-object of the property right. It is said that living person is subject of right, but that when he/she deceases, or where a part is removed, it becomes the object (Supreme Court of Japan, 1921). Of course it is very "classical" way of thinking, and it should be argued whether it still applies in the contemporary context where body parts may make lots of money.
Japanese case-law is that dead body and/or its part belongs to one of the family member who is expected to do memorial ceremony of the family, like tombstone and altar are succeeded.

(1) The law concerning human cadaver general is provided in those two statutes below:
①The act of anatomy and hold of cadaver

This was enacted in 1948, soon after we surrendered to the Allies (USA, UK, China and so on) in World War II. There are two reasons of this enactment. In those days many were died in road from hunger, so General MacArthur directed to Japanese Government that they should search the cause of death (corresponds to coroner / medical examiner post mortem). And many medical schools were instituted during WWII, and the need for cadaver for medical education increased. According to these two reasons, Japanese government provided two temporary regulations respectively, and soon legislature enacted one statute combining these two.

This act provides the anatomy for search of the cause of death, dissection for criminal procedure, dissection for administrative purposes (without suspicion of criminality, just the cause of death is unknown. But this is done in only 5 cities in Japan, Tokyo, Yokohama, Nagoya, Osaka and Kobe, and even in these cities there are many problems), dissection in hospitals, and dissection for medical education. Relatives' consent is generally needed, but in case of medical examiners' case, in criminal investigation and some specific cases, there is no need to get consent from surviving relatives.

Besides, this act provides the requirements for keeping cadaver/parts. There are 3 provisions. One is in university hospitals and some special hospitals. The chief of hospital may keep cadaver/parts with consent of surviving relatives. Second is after dissection. Doctors who do dissection may keep parts (not the whole cadaver) without consent, but they must return to relatives if relatives claim. And third other hospitals may keep cadaver/parts with consent of relatives and permission of the governor.
Section 17 Medical schools and some specific hospitals may preserve whole body or body parts as a specimen when it is needed for medical teaching or research, with surviving relatives' authorization.
Section 18 Those who are entitled to do autopsy by section 2 of this act may preserve body parts as a specimen when it is needed for medical teaching or research, except the surviving relatives claim it be returned.
Section 19 Besides the above two sections, those who preserves whole body or body parts should get authorization of surviving relatives and permission from the governor of the prefecture.

	Object of preservation	Succeeded by	authorization of relatives
Sec 17	whole body and body parts		needed
Sec 18	*only* body parts	autopsy	not mentioned*
Sec 19	whole body and body parts		needed

* But authorization of surviving relatives' for autopsy is needed generally.

T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England(Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

②The act concerning donation the body after his/her death

The statute above permits the keeping if there is consent of relatives, but in practice they don't tend to give permission in spite of the wish of the deceased. So a patient group supported to enact new statute that enables to dissect for medical education with (only) the deceased's consent. This statute permits this, if there is no refusal from surviving relatives.

(2) The law concerning organ transplant

①Former act

Professor Imaizumi at Iwate Medical School (a private school) first did corneal transplant in 1949, and later he did by using cornea from eye-bank (he himself established) in 1957. But it was not clear whether removal of cornea from cadaver fitted within "destroy of cadaver" in the criminal code (article 190). So legislature enacted the act on corneal transplant in 1958. This permitted the removal of cornea from dead body if there was written authorization of surviving relatives.

And in 1969, this was succeeded by the act on corneal and renal transplant. The requirement of removal was the same in corneal transplant act.

②Current act

In 1968, soon after Dr. Bernard did heart transplant in South Africa, professor Wada at Sapporo Medical School (a municipal school) did heart transplant. But this was criticized that the selection of recipient was not proper and that there was room for life saving of the donor. After this, no heart transplants were done in Japan. 80's and 90's, we had a lot of debates on organ transplant, especially on brain death and the "right to self-determination" of the deceased. Two drafts were proposed to parliament, both are based on "self-determination" of the deceased, but, one provided brain death to be general (regardless of transplant), the other did not permit brain death to be the death criteria but only permitted removal of organ to be legal. The former was approved by the majority, and became a law in 1997.

This act permits the removal of organ (heart, lung, liver, kidney and some organ (pancreas and small intestine, according to the regulation) and eye ball if there is written authorization of the deceased himself/herself and there is no refusal of surviving relatives. And once removed, the organ may not be used for other than transplant. That means if the organ is not transplantable, it should be cremated and we may not use it for research, even if the deceased gave consent to such a use.

③Living donor

Organ Transplant Act described above regulates cadaver transplant only (but ban of give/get remuneration is also applied to transplantable material from living donor). Recently many problems came to light. It was reported that living kidney donor(creditor) got 30 thousands yen and small car from recipient(debtor), and both of them were arrested and prosecuted. Donor was found guilty in summary proceeding and fined 1 million yen (10/27). And it also came to light that the urological surgeon who did transplantation in this case did around 30 disease kidney transplants.

(2) The law on special circumstances is provided as below:

①The act on abortion and professional guidance on research use of fetus

Japanese criminal code bars abortion (article 213, two year imprisonment or less, and if doctors and midwives commit, three month to five years (article 214)), but special statute (protection of mother) makes abortion legal on the ground of physical and economical reason of the mother.

There are no statutory provisions on the dispose of the fetus (but it is contagious waste in the meaning of act on disposal of waste (Yokohama District Court Judgment, 5/12/2005)). The requirements to research use of fetus are provided in professional guidance of Japan Society of Obstetrics and Gynecology (January of 1987).

The requirements are:

1: The handling of fetus and stillborn child should be according to the act of anatomy and hold of cadaver (described above in (1)①).

2: The research use is permitted only where there are no alternatives and where the result expected is to be of great importance.

3: The person who uses fetus and stillborn child should be a medical doctor, and others who help him/her should understand the special characteristics and its importance to society.

4: The person who is to use fetus and stillborn child should inform the purpose to mother and father (parents) and get their permission prior to the use. The privacy of fetus, stillborn child and parents should be respected.

* Research involving living fetus and child may be done if it is expected to improve the life expectancy and with the consent of mother and father (parents).

②The legal situations on hES cells and cloning

A. Statute and regulations on human cloning

Legislature enacted an act banning reproductive cloning. It delegates the requirements on therapeutic cloning to regulations. But it also provided that draft regulations should be consulted by Sogo Kagaku Gijutu Kaigi (Council for Science and Technology Policy) before its publishing (Art. 4(3)). In the discussion of special committee under CSTP, therapeutic cloning was criticized because of the "dignity of embryo". So the regulations permitted only Animal-human chimeric embryo (Art.2 (1) 20).

B. Research on human ES cells

We don't have staturoty ban nor regulation on hES cells, but ethical guidelines.

* The Japanese for "regulations" on therapeutic cloning and "guidelines" for hES cells are same word, "Shishin"（指針）. The distinction is my personal opinion, based on whether it is legally binding or not.

C. Recent discussions

CSTP published a report on human embryo on 23/07/2004, in which they proposed to permit therapeutic cloning for the research where there is no way of therapy for that disease. Ministry of Education established an committee, and this committee published an interim report on 20/06/2006, and it was under public consultation from 12/07 to 31/08. This proposed to permit therapeutic cloning under strict requirements, but some researcher (inc. Professor Nakatsuji of Kyoto University, who is the only researcher developing hES cells in Japan) oppose that is too strict to be practicable.

(2) Governmental guidelines

① Fundamental Principles of Research on the Human Genome (2000)

http://www.mext.go.jp/a_menu/shinkou/shisaku/principles.htm

This is the adaptation of UNESCO’s Universal Declaration on the Human Genome and Human Rights (1997). It calls itself as “constitutional document” (but doesn’t have any legal authority), and requires sets of guidelines on genome research and its clinical use should be established following this Principles. And under this, sets of guidelines have been provided by the government as below.

② Ethical Guidelines for Human Genome and Genetic Research (2001)

It succeeded guidelines for government-funded genetic research, extending its focus to private-funded research. Its statutory authority is not clear (and whether it is legally binding). It provides responsibility of head of research institution and researcher, establishment of research ethics committee, and information to be provided to research participants.

③ Ethical Guidelines for Epidemiological Research (2002)

④ Ethical Guidelines for Clinical Research (2003)

Interestingly, these process started from narrower research field (genome research) to broader field (clinical research, in which research on identifiable data and materials are included). And there is so called “inverse order”, that is, more ministries in the narrower field, and fewer ministries in the broader field. GLs② were published from three ministries (M of Education, M of Health and M of

trade), GLs③ from two (M of Education and M of Health) and GLs④ from only one (M of Health). These guidelines above generally provide IC of research subject (and proxy consent where the subject doesn't have competency) and approval of RECs.

2. Cases around human tissues/cells

(1) Jichi-Idai case: handling of blocks/slides

Fact of this case:

05/16/1988 A woman (plaintiff's mother) was admitted to the defendant hospital.
Diagnosed as renal crisis (from systematic sclerosis).

06/20 She died from respiratory failure caused by bleeding in lungs.

After her death plaintiff and his father were asked by the attendant physicians (not by pathologists) to give permission to hospital post mortem and organ retention. They consented to dissection and retention of only internal organs and brain, and the plaintiff specifically opposed to removal of one finger (it was disputed whether plaintiff opposed removal of any bone at that time. But it seems that they did not discuss about bone or bone marrow.) Plaintiff also insists as a requisite that a list of retained organs and pathological report to be handed afterwards.

Pathologists released a summary (in Japanese?) and later full pathological report in English to plaintiff including the description of "hypercellular bone marrow", which means that pathologists retained and examined bone. The plaintiff told pathologists and the head of hospital that he had meant to authorize only internal organs and brain, so he wanted whole bones returned. A pathologist explained to him that, in a medical sense, bone marrow was included in internal organs, but plaintiff was not convinced by this. Plaintiff insisted that all retained organs and tissues should be returned.

09/28/2000 According to this, defendant pathologists returned formaldehyde-fixed organs to the plaintiff. But they still kept some paraffin blocks and slides.

Case 1: replevin on property right(Tokyo district court, 11/24/2000)

Plaintiff filed this suit claiming that all materials (blocks and slides) should be returned on the ground that he had property right to them. Defendants argued that bone marrow was so important tissue to human body function that removal and retention of sternum(breastbone) and vertebra (one part of spine) was done worldwide without surviving relatives' consent (they said this practice "common sense of the world"). They also insisted that microscope specimens should be excluded from "body parts" in Anatomy Act because they could not be substituted by photographs and they had little nature of remembrance of the deceased by surviving relatives, and that such a claim was abuse of rights because the retention and use of body parts were of great importance to public health and medical education.

< Judgment for the plaintiff >

The Act has only administrative effect, so for hospitals to retain organs lawfully there should have been certain contract (gift or bailment) between the surviving relatives and hospital. But for this contract there must be a relationship of mutual trust between these parties. But in this case, this relationship was destructed by the defendant conduct, that is, plaintiff's opposition to removal of bone was not properly observed. So plaintiff may withdraw his permission. And defendants' pleading on the "microscopic specimens exception" are without merit because, with the application of work and skill, they are still parts of the corpus.

Case 2: compensation on mental distress (Tokyo district court, 8/30/2002)

Plaintiff filed another suit on negligence for around 20 million yen. His claims are:

1) that defendant failed to get plaintiff's permission for removing and keeping bone marrow; he argued that he, as a successor of the deceased, had a right to limit the area of autopsy; defendants argued (1) that the person who might give permission had been the deceased spouse (plaintiff's father) so he did not have a standing, and (2) that plaintiff did not oppose the removal of bone explicitly.

2) that defendant failed to give plaintiff the list of preserved organs, which had been was the requisite of autopsy;

3) that defendant failed to return organs on plaintiff' claim; and

4) that defendant negligently broke one of the slides.

< Judgment for the defendants. >
*This case was addressed in “medical malpractice section” of the Tokyo district court!

1) Plaintiff has a legal standing to limit the area of dissection according to Anatomy Act, which provides “surviving relatives’ consent should be obtained to hospital post mortem.” But he did not oppose explicitly the removal of bone at the autopsy.

Of course, it would be a good practice for doctors to tell surviving relatives the details of dissection, including what organs be removed, and they treat bone and bone marrow as internal organs. But at that time doctors apprehended bone marrow as internal organ which makes blood cells and reasonable people could imagine “Pathological dissection” includes removal of internal organs for detecting the cause of death. And it is reasonable not to get explicit authorization from surviving relatives to dissection where the area is covered with clothes. And at that time “INFORMED CONSENT”* to surviving relatives were not perceived. So defendants’ removal of bone marrow with the authorization on internal organs is not negligent.

*In Japan, “INFORMED CONSENT” is (mistakenly) understood as doctors’ disclosing information to patients.

3) Section 17 of the Anatomy Act does not have provision of claims from surviving relatives, whereas provided in section 18. So in this case retention is authorized by the section 17, so defendant hospital do not need to return retained material. Civil contract should be a gift. Guidelines from Ministry of Health provide that regardless of the provision of Anatomy Act, retained materials should be returned on the claim from surviving relative without delay. It would be a good practice and reasonable, but breach of this does not give rise to legal responsibility on negligence.

Appealed by the plaintiff, and Appellate court held the judgment of the district court (Tokyo appellate court, 1/30/2003), and the Supreme court rejected appeal.

(2) Kansai idai case: insert of catheter for preservation of kidney before death
This case was subject to former Corneal and Renal Transplants Act, which authorized removal of cornea and kidney by the surviving relatives' written consent.

A woman, with a husband and parents, was suffered by SAH. She was in "clinically brain dead" condition, and an attending physician asked relatives to kidney donation, and they consented and signed a document. But they didn’t consent to vessel donation. Before circulation system ceased, physicians inserted a catheter to the patient's vein as preparation for cold perfusion. She died at the age of 40, and after her cardiac death, physicians did cold perfusion and removed both kidney and vessel.

The mother of the deceased, who was a registered nurse (the decease had been a RN also), filed this suit.

Issues disputed among the parties were:
(1) the validity of the consent; the plaintiff argued that they had not allowed to have enough time to deal with donation so the consent was not valid.
(2) the appropriateness of treatment.
(3) whether the insertion of catheter was unlawful or not; plaintiff argued that this had been done with neither the deceased's nor the surviving relatives' consents. The deceased had been alive at the time of insertion, so physical intervention to the body without the purpose of treatment should be illegal activity. Relatives may not authorize such an intervention (it is personal right) but it becomes more culpable without disclosure to them.
(4) whether the removal of vessel had been done under the physician's direction, and if so, whether it was unlawful.

The court approved plaintiff's claim on the above (3), and ordered the defendants to pay 200 thousands yen to the plaintiff.

The reason was that:
(1) The husband had been consented to the donation, because partly on the ground that the deceased had had a wish to donate kidney for transplantation. The physicians had asked him to ensure that other relatives had not had opposition to this, and sometime after he had not disclosed that it had been. Physicians had made a phone call to the deceased’s father (plaintiff's former husband) and he had consented also.
(3) Physical intervention without the intention of treatment was generally illegal. To make such a intervention lawful, the person's explicit consent was essential. In this case, the insertion of catheter was not for treatment to her. We could not find any reason that husband’s consent made the insertion lawful, and even if we could, he had not made informed consent.

This had caused the deceased's mental distress, and this should amount 900 thousands yen. The plaintiff succeeded a sixth of this, so she should be awarded to 150 thousands yen. Also she should be paid 50 thousands yen for her load of her attorney fee.

Consideration on Japanese issues with special references to liver organ transplantation from live donors

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Hello everybody, my name is Kaori Muto, and my background is sociology. I'm doing a lot of work in the field of science, society and medicine. I'm doing some research about living liver donation in Japan. So I'm going to talk about living liver donation at first, second, research ethics committee like I belonged, and third one is public consultation and public discussion how to follow public.

As Dr. Sato introduced Japanese situation, family members are the first candidates for organ donors. Living donor contributed 98 percent of whole liver transplantation in Japan and 80 percent of whole kidney transplantation until they started. I think numbers of Japanese organ recipients who underwent transplantation outside Japan have not been counted until this year. On the other hand, Japanese health insurance policy covers several forms of organ transplantations. Actually most of organ transplantations are covered by health insurance The recipients have to pay very small amount of money compared to other countries. Since the first living organ was transplanted in 1989, the media has created the beautiful human stories. Transplant physicians also have neglected to argue legislation to collect living donors with that kind of act, so why liver transplantation in Japan from living donors we have not any social security policy to recover their health as nearly perfect as before transplant. I have heard that in United Kingdom they have discussion about social security, living donors have to take an official leave.

A female liver donor to her husband was killed by transplantation, and another female who donated her liver to her husband was paralyzed this year. I and other colleagues have conducted two kind of studies of diving donors. We conducted questionnaire survey to Japanese living liver donors between 1989 to 2003. We sent 2411 questionnaires and collected 1480 answers. The thing I remember is 10 percent of all donors didn't receive these questionnaires because hospitals didn't know where they lived. This means nationally they are not traced. I think most of people say that they recover on their health and they are satisfied with their experiences of transplantations. But it's from only 17 percent of respondent. Some of them suffers very severe guilty, regret, distrust in family adverse evens including unexpected divorce and attempted suicide. They didn't have good relationship with hospitals, they didn't go to ask their doctors, they didn't get counseling.

Regarding to motivation for donation, most of female donor reminded themselves just strongly believed "I am only one person who can help my child or my husband." Or some people say that they want to earn or re-earn the high esteem from family members. Is this voluntary or not? But actually the consent forms, physician says we confirmed their voluntary view in organ donation. Even though they have old family histories or many kind of motivations.

The second study was conducted last year, we asked Japanese liver transplant hospitals to send brochures and consent forms about liver transplant which are given to living donor candidates. And these brochures and consent forms are prepared and provided by each hospitals, not standardized by national level. The purpose of the study is to count how many and what kind of items are described for donor candidates in these brochures, and to suggest improvement for the better understanding. We collected these written materials from 41 hospitals and analysed these contents and find out 126 items that are categorized into 66 groups. That means these items are explained to donor candidates. 93% of brochures comment of this complications are after operation. But the most surprising thing to me is no common items are there. Other 7% of brochures don't mention it. And 76% of brochure mentioned the period of hospitalization. And the most programmatic thing is the right of withdrawal of donation is covered only 59 % of brochures. And also scar, pain or body change that is very familiar to the donors are not described yet. It's really low level. That the consent form of Japanese living donation. So I'm really wonder what is the voluntary will or what is consent for.

T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England(Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

Re-conducted other studies doing for this, to the research ethics committees, physicians, donors and recipients, what kind experiences they have. Some people said members of research committee came to the bedside and asked their voluntary will. And some other doctor who are not involved in the transplantation asked them again “Are you really voluntary or not?” The style is barrier, it’s not standardized, also.

The second question regarding this is what is the research ethics committee and what is the correlate research committees and ethics committees in Japan. Most of Japanese ethics committees are combined research and clinical trial. In my experience, I have worked for research ethics committees or ethics committees in universities or hospitals for some years, but I havn’t experienced any training before doing this. Are there any people who are working for research ethics committee or ethics committee in Japan have experienced any training before doing this? Regarding to this talk, I’d like to ask Veronica what is training for HTA members? Or how is their training to independent assessors?

And regarding the third question is public consultation, and most of research ethics committees and ethics committees in Japan welcome lay people, very minority members. But lay people also don’t experience any training for research ethics, science or medicine. I heard that central office of research ethics committee in England provoke some discussion of this, they provide education to, if you comment of experience because of quality of ethics committee or research reviewing ethics committee and also quality of health care are equal. I’m very happy if you comment that thing.

Finally, I mention to Dr. Sato’s presentation. You mentioned aborted fetuses may be collected as resources of cosmetic company. But I think most of them are not fetuses, but placenta. Cosmetic companies used to collect human placenta to produce cosmetics. I visited some placenta collecting industry, there are so big placenta collecting industry in Japan, and they say they do not use human placenta now, they use pig’s one to produce cosmetics. I think it is really difficult to use fetuses to cosmetics.

That’s it. Thank you very much.

Discussion

English

Thank you. That was absolutely fascinating – very interesting. To answer your specific questions about training and you raised three different groups: independent assessors, Human Tissue Authority members and ethics committees – I'll take them each in turn.

The independent assessors have training provided by the Human Tissue Authority and they have to go through that training and they have to be accredited by the Authority to say they have been through that training before they are allowed to see any donors and recipients. I think they have now got 120 trained assessors and they have all attended training sessions. I don't know the exact details of what that involves but I understand that it is fairly detailed and involves a lot of emphasis on communication skills and talking to people. One of the skills they need is to be able to try to assess people's motives. Sometimes if people are acting under pressure the independent assessors need to be able to judge and assess that and try to encourage them to express those views. Independent assessors also need to understand the clinical information because they have to ensure that the patient has understood what the procedures involve, what the risks are. That is important. As you said the fact that only 93% of brochures for living liver donors say that there are complications is really quite surprising.

In fact, in the UK, there is very little living liver donation. It's very new – we really only have living kidney donation on any scale at the moment. In fact until very recently there was no living liver donation on the National Health Service. There were maybe one or two units that were doing a small number privately so I was astonished by the number carried out here. So the independent assessors have a very vigorous training before they can be appointed.

The Human Tissue Authority members will be given training. I don't know exactly what training they have but they will certainly be given training on the terms of the legislation and what they will be required to do. Because members come from different backgrounds - some are clinical, some scientific and some lay – I imagine the training they receive will depend on their existing level of knowledge. It is important to ensure that everyone has sufficient basic information in order that they can make the judgments they are required to make.

Moving on to ethics committees, I will talk this evening about some of the things that have been happening with ethics committees but this has been a very big problem because until recently there was very little if any training for ethics committee members. As I said earlier to the questioner, because we have now put so much weight on research ethics committee approval, they have greater status and it is therefore even more important than ever that those decisions are carefully thought through and that the people are trained. So there is now a lot of work going on to ensure that there is training. As you said the Central Office for Research Ethics Committees (COREC) has been working on this for a number of years but it is something that is going to increase. Now there are also a lot of other changes coming in to make them much more professional because until now ethics committees have really been volunteers doing the best they can in their spare time with very little support, little or no training frequently, and very little administrative help. The proposal now is to actually pay ethics committee members for their time so that there are people who see it as a job and making it much more professional, so there are changes afoot on those grounds.

Matsumura: Validity of consent

Informed consent is a key word. My understanding, however, is that making decision by one's own self is really a fragile thing.

Particularly in this country, we do not have a long inheritance of making decision by one's own self. As Muto sensei says, making decision as a living donor needs to be quick, but can be emotional.

In Human Tissue Act, what is regarded as important condition for an informed consent to be validly and effectively made?

English

Interestingly, the Human Tissue Act does not use the term "informed consent" at all. It uses the term "appropriate consent". When there were debates in Parliament, they deliberately did not use the term "informed consent" because it is a difficult concept. "Appropriate consent" in terms of the legislation, only relates to who gives the consent so it is "appropriate consent" if it is given by the

person themselves or, if they haven't given consent, then the person they've nominated or a certain family member. So the only reference to consent in the legislation is about who gives the consent but obviously we have a general understanding of what "informed consent" means. In fact we usually use the term "valid consent" rather than "informed consent" – one part of being "valid" is that you have information but there are other aspects to make the consent "valid".

If you use "informed consent" it sounds as if information is the only factor whereas actually you need to be competent to give the consent, it needs to be voluntary and there needs to be no pressure on you so we use that broader term "valid consent". There are, as I mentioned, a number of codes of practice from the Human Tissue Authority and one whole code of practice is specifically on consent and in that, it talks about what information should be provided in order that people can give consent.

In the UK generally there is a view that the individual should control how much information they have. If we're talking about medical treatment, most people want quite a lot of information about their condition or the proposed treatment. Some people want to have less but the general view in the UK is that you have to have a certain amount of basic information in order that your consent can be considered valid but how much detail you want is a matter for the individual to decide

I think in terms of living donation, which is obviously the context in which you raised it, it is a very difficult issue and I think that's why we have regulation and why we have independent assessors. An important part of their role as somebody separate from the transplant team - so somebody who is completely separate and independent – is to talk to the individual and try to determine how much information they have understood. So they might, for example, say "tell me what you understand about what this will involve" so they can try to gauge that the individual has not only been given the information but has actually understood it, and also as I said to try to ensure that they're not acting under pressure.

Muto

I have a question really uncomfortable to ask you. But I wonder if the living donors find it uncomfortable to have those discussion.

English

Do the living donors find it uncomfortable to have those discussions? I'm not sure that they do, actually. I'm not sure exactly how they would phrase it but they're not going to say to the individual "have you understood the information that you've been given?". I think you'd want to do more than that, to actually try to gauge what somebody has understood to ensure that they have actually taken on board the information. The extent to which you would do that may depend on the reaction you get so if you get a good reaction and it's quite clear that they have understood the basics then you may not dig deeper. If you suspect that they may not have been told about risks, then I think you would want to go much deeper to find out what they have been told and what they understand.

Muto

I do think that a few Japanese hospitals try to do that - whether or not the candidates really understand the information of the brochures. For example, after that they say that they feel very uncomfortable because they are really tested on their scientific knowledge [inaudible], but that's not the important thing, that they understand the full details like scientists or physicians

English

No, it's just whether they understand things like the risks that are involved. This is a process that they know they have to go through and determining how much information they've understood will be only one part of that interview. They know when they go forward for donation that they will be asked to see an independent assessor and that they will be asked to talk about the procedure they're going to go through, what the risks are and what their motivation is, and that there will be a discussion about those issues. The independent assessors are trained and, as I said, communication skills are a very important part of their training - to make the person feel comfortable so that you can gauge that information without them feeling that they're being interrogated or made to feel that they need to know exactly all of the scientific details, which is not what they're being asked to understand.

Saio: Parent role

I have two questions. In the United States informed consent is based on the self-determination theory. Is it the same in the United Kingdom? If so, on what basis can parents consent to their children being donors – parents rights/duties?

English

Informed consent is based on self-determination, as you say. If people are not competent and therefore are not able to express their views, then somebody does that on their behalf. If a child is competent to make a decision, then they can consent for themselves so it isn't that it's a certain age. Below that, where they're not actually competent then the parents would be asked to consent on their behalf but they can only consent to procedures that are in the child's best interests, so they would need to make an argument that it is in the child's best interests to be a donor, in the same way that if a child needed treatment, the parent could authorize treatment because it is in the child's best interests. Now, I think it is going to be quite difficult to do that. There have been no cases in the UK where either an incompetent child or a mature child or an adult lacking capacity have donated whole organs. They have donated bone marrow and in those cases it is a balance of the benefits and the risks so if it is a life-saving procedure for a sibling – for a brother or sister – then it would be argued that, with bone marrow, the risks that the donor would go through are outweighed by the benefit to that child of the sibling staying alive, and of being able to save that person's life. But they are quite controversial cases and because there is always going to be a question about best interests, where it is a young child or where it is an adult who lacks capacity – in other words, where they're not able to give consent – then it would need to go to court and a court would need to make a judgment as to whether it was in that person's best interests to be a donor. The court would need to agree to the removal of the bone marrow, tissue or organ, because the Human Tissue Act doesn't cover the removal– that's covered by the common law of consent. So, where there's a procedure where it is not clear whether it is in the child's best interests, then a court would make that decision.

Saio

(Paraphrased) Child transplant donor has no benefit. How can parents consent to child taking part in clinical trial where there is no direct benefit to the child and therefore it is not in the child's best interests?

English

That's why there is a difference in the way we use the language between "benefit" and "best interests". So "benefit" would be a direct and usually clinical benefit to the child. "Best interests" is a very much broader term which looks at the clinical benefit and also at other factors and so it has been argued that it would be in the best interests of this child for the child's brother or sister to be saved by this treatment and because the risks to the child in terms of bone marrow donation are considered to be reasonable and not excessive, then the courts have agreed to some cases of bone marrow donation from children. I think it's much more difficult with whole organ donation and I really would be very surprised if a case of a child being a living kidney donor, for example, or living liver donor, were to be approved by the courts. They certainly haven't been yet, because the risks are so much higher so when you're balancing the benefits and harm, then the harm is much greater.

Saio: Ethical committee

Can an ethics committee make these decisions, or only a court?

English

The court will be the ultimate decider about where the child's best interests lie, so the court will make the decision. In the UK most ethics committees are research ethics committees. There are a few clinical ethics committees but not very many. If the hospital where the family was being treated had a clinical ethics committee, they may be consulted for an opinion but it would be simply that – it wouldn't have any authority, it would simply be an opinion which they take into account along with other opinions but they would still need to go to court.

Ida: Basic element of information

Thank you very much for your very interesting and stimulating presentation. I would like to ask two questions.

One is concerning the consent. You said that the basic knowledge was rather sufficient to have the consent from the patient or from the donor. Then what is the basic knowledge in each case?

You said also that it is for each individual to decide which kind of information he or she would like to have. I think that, in Japanese hospitals, universities or research institutes, we make a kind of model of explanation or information to be given to the patient or the donor of the sample, in which the basic elements of knowledge is written. Is there any kind of such model or basic elements to be given to patients in the UK?

English

I think in both cases really it depends very much on what the procedure is and what the level of risks are. When I said that everybody has to have a basic level of information, what I meant was if somebody goes into hospital or somebody went to see a doctor, they couldn't simply say "I don't want to know anything about what's wrong with me, I don't want to know anything about what you're going to do, just do whatever you think." They would not be allowed to do that because they would need to have some basic information either about what the diagnosis was or about what the treatment was going to involve. So, having said that, the amount of information that they want is going to vary and so if it is a very risky procedure – a new procedure, for example, or something with a very high risk – then they would need to have more information in order to be able to go through that treatment.

The basic view is that people should be encouraged to have information and so what we say is that they should be prepared to receive information over a period of time. So if somebody initially gets the diagnosis of a terminal illness, for example, you're not going to immediately give every single detail without preparing the patient to receive that information. It's a delicate balance. It is quite difficult for doctors to make that balance. You need to be quite sensitive and really read the signals coming from the patient about how much information they need at that time but the view will always be to try to encourage them gradually to have more information and to understand more about what's happening. So it's really providing information but at a pace and in a supportive environment that's right for that individual.

You talked about if there was set information that people have to have and I think that yes, in some cases there is and I think that living donation is a very good example. Partly because that's done not for the health benefit of the individual, it's something that is being done for other reasons, and so obviously there is a certain amount of information that they need to have in order to make that judgment. In some cases there are standard patient information leaflets and I think that there will probably be more and more of those developed for different conditions. We also have a number of support groups for particular conditions that will also have information but in terms of the doctor seeking consent from the patient, it is sufficient that they have understood enough information to be able to make a decision. And then some patients will want a lot more information. Some patients will want to know absolutely everything and will come into the doctor's surgery with lots of paper downloaded from the Internet about absolutely every aspect and, within reason, it is the doctor's responsibility to respond to those questions and to provide as much information as they need to have. Obviously, they couldn't take up a whole day of the doctor's time because it has to be reasonable, but if they want more information then that should be available to them.

Ida

In Japan it is often said that doctors are so busy that they cannot have enough time to explain the whole knowledge – even the basic information to the patient or donor. How do you solve this problem of time?

English

It is a very real problem but in order for the consent to be valid, in order for the doctor to have legal authority to carry out that procedure, they have to have provided that information. So they may give some of the information in writing to the patient, they may ask colleagues to spend time with the

patient talking it through, but the doctor who is carrying out the procedure needs to ensure that they have sufficient information. If a patient were to go to court and say that they had not had sufficient information and the doctor hadn't given it, the doctor would be in very grave difficulty and essentially that treatment would have been an assault because the consent would not have been valid.

Ida: Enforcement of Human Tissue Act

Another question concerning the Human Tissue Act. You said that the former Act is not a kind of criminal law but the current one established some form of punishment. How heavy is that punishment for the offence in the Human Tissue Act?

English

Depending on the offence that is committed, it is imprisonment for up to 3 years or a fine or both.

Norton

I think there's a basic principle here about how to regulate. It used to be in the UK that there was a reluctance to regulate on complicated ethical issues and a great deal of emphasis was placed on professional codes of practice and professional guidance, and the experts agreed voluntarily to comply with whatever their professional association recommended. And I think that's also the position in Japan as well because in general, Japanese law is less detailed and less comprehensive than in the UK and therefore there is more scope for individual professional judgment to be the key factor that decides on a particular issue. I know there has been a tendency with the European law to move away from that historical approach but was there a time when either the BMA or the Royal College of Pathologist or other professional group actually tried to create a voluntary code of practice in order to avoid what seems to be under the HTA an incredibly bureaucratic mallet to crack what some people might regard as a very small nut. And the same question could go to the Japanese speaker in terms of the pamphlets content – that sort of thing doesn't need a law, it could be left to the Japan Society for Transplantation to just come out with a recommendation on contents for the pamphlet- that would be much simpler than passing a law.

English

Yes, in the past there has been a reluctance to regulate. I think that changed quite a lot back in 1990 when we passed the Human Fertilization and Embryology Act, and so in the UK we set up a similar comprehensive and quite bureaucratic system for regulating IVF treatment and embryo research. From then we have had much more regulation. Certainly there was guidance, there were voluntary codes of practice, and more of them were introduced after the organ retention scandal but I think to be honest the situation was such in the UK after those events came to light, that everybody realized that regulation was inevitable and that were going to be criminal sanctions and that there was going to be a regulatory body.

What is interesting is that Scotland has taken a different approach because the Human Tissue Authority does not extend to Scotland. It has not set up a regulatory body. It has delegated to the Human Tissue Authority the regulation of living donation and regulating the storage of tissue for human use which is a requirement under the EU tissue directive but in Scotland they took a different approach and that wasn't very controversial, interestingly, and I'm not really sure why that was. I think there were better established existing facilities in Scotland for monitoring practice in that they already had established standards for things like post mortem examinations, which were inspected by one of the already-existing bodies. They chose a different path but in England everybody realized that it was inevitable and there really was not very much opposition, if any, to the principle of setting up a regulatory body in this area and all the political parties supported it.

Muto

I am now producing the model broacher of transplantation. I suggest they should make by themselves but they say "If you produce, we use it". That's not solution I think. And second thing I want to make is what is the meaning of welfare of the child. HFEAct says they have to take into of the welfare of the child if a couple want to have a reproductive technology but law didn't mention of the

detail or definition of the welfare of the child. So counselors and physicians and some couples join a discussion. I think that is very practical and good communication style. I think in case of living liver donation, we don't have to very details guidelines. If we have trained research ethics committees we can rely the professional decision.

English

Can I just make one other point which is interesting. In the UK a lot of these things happened after there had been a big scandal. The Human Tissue Authority and Human Tissue Act came about after the organ retention scandal, the Human Organ Transplant Act came about after there was a scandal about people being brought in from Turkey and paid. So, in those instances there were particular cases and then the Government felt the need to take some action. I know you had your own transplantation scandal here recently about payment of donors – I'm interested to know from any of you whether you feel that there will be a similar reaction and feel that the government needs to be seen to be doing something in order to prevent this from happening again.

Muto

Japanese transplantation authority is discussing now how to prevent organ trade. Maybe hospitals have to check donor candidate is relative of the recipient. But this is really bureaucratic and unrealistic to do at the hospital. How do you think of ethics committee members can do such a job?

Matsumura

According to Dr. Muto, the level of Japanese ethical committees is very low. But I appreciate them highly.

So called ethical committees in Japan are different from the ethical committees in the U.K. The British one is represented by a local ethical committee, being independent from an organization where researches are going. On the other hand, many Japanese ethical committees are, in fact, close to the American Institutional Review Board. Therefore, they are not really independent from the organization. They are just consulting to the organization where researches are going.

It is the head of organization who chooses the members of the committee, and is responsible for teaching and educating the committee members.

In comparison with the U.K.'s ethical committees, the Japanese counterparts are in very early stages. In that meaning and at this current Japanese status, I appreciate Japanese ethical committees very highly.I would like to encouraging them, rather than regarding them at a low level, if they were so at this stage.

Sato

There are many difficulties in this area, but Japan should have a statute as a first step. We need regulatory body with statutory authority.

Matsumura: Japanese laws and guidelines

My feeling is close to Dr. Norton's. Japanese law system is very simple. Most, not all, are up to those who at work.

Ida

I do not share Matsumura-san's opinion on the status of Japanese law. Yes, it is true that Japanese law is often very general, and the detailed regulations are often done by the ministries. However, these ministry guidelines are based on the law, so it is legally binding. It should be mentioned that on the top, we have laws, very general and sometimes very abstract. It is very difficult to use on the spot. But the law often gives the power to the ministries to make regulations and guidelines, which are legally binding, in order to let the people apply in the hospital or in the research institute. For example we have a law banning human reproductive cloning. The human reproductive cloning law is a little bit complicated but very general. It bans only transferring a cloned embryo into the uterus. And the law gives the power to make guidelines on other embryos, I mean artificial embryos. So, we are currently working for making legally binding guidelines for cloning research, I mean therapeutic cloning research.

Matsumura

Yes, I understand it is the only guideline that is bound to law. All other guidelines have no mentioning about law. Right?

Ida

No. I mean if there is a law, often there are guidelines. However when there is no law, there are sometimes guidelines of ministries, which are not legally binding. But such guidelines are in most cases respected, or observed by the researchers or the hospitals. I don't know why, but many doctors and researchers obey the guidelines. Probably because it is their own benefit or own interest. If they don't follow the law or the guidelines, it would be publicly announced that they violated guidelines, even if it is not legally binding. So, the public opinions may be heavy to the researchers.

Mitsuishi: Uwajima case

Ida-san, I have a question. What you said is quite against to one example: Uwajima case. You said that doctors obeyed and respected guidelines. I want to ask if the doctors concerning the Uwajima case observed the guidelines of "Ishokugakkai"?

Kurihara

The real situation is completely different. Dr. Mannami's case is the typical case that Japanese doctor doesn't adhere self-governing rule. He should adhere to the professional code by the transplantation society, but he breached. Not only this guideline, but also he should adhere to the ethical guidelines for clinical research that was issued by the government, the Ministry of Health, Labor and Welfare. Almost all the journalist doesn't mention about this guidelines issued by the Ministry. This means that Japanese society doesn't understand international definition of research.

Ida

Which guideline?

Kurihara

Ethical guideline of clinical research.

Ida

Is Uwajima case a research? I don't think so.

Kurihara

Yes, this case is of course a research. Because he offered presentations in some researchers' society (which means this is the activities to generate "generallizable knowledge").

You don't seem to understand definition of "research" and "practice" which is explained in the Belmont Report.

Ida

Sometimes organ transplantation is done under a research project. However, if Dr. Mannnami and the patients think it is in a category of treatment or care, how can we decide Uwajima case is a research? It is very difficult.

Kurihara

In Japan there is no consensus what is research and what is research. This is the problem.

Ida

It is true there are few laws or legally binding regulations in Japan. They are very few. We should recognize this fact. However, if there is no law, there sometimes, I say "sometimes", governmental guidelines which are not legally binding. If there is no law, no ministerial legal regulation. There are also guidelines made by professional associations. Of course these professional association guidelines are not legally binding. And the guidelines of a professional association is only applicable to the members of the association. So there is a big field which lacks national regulation. I should say that

the professional associations' guidelines are not always respected by all the members, neither by non-members of the association. The problem is that there is no rule here made by the ministry or made by the government. In a few cases where there is no law, no regulations, there are only professional associations' guidelines. I think there are many violations, even if it is not legal violation.

Matsumura

May I say one point. I understand that the current Japanese government guideline except the one mentioned above, are not bound to any laws. Therefore, if the government regards them to be a part of legal frame work, then, they are not based on democratic constitution, because it is made not by those who have been voted by people.

Kurihara

There are two problems. One is process and the other is legal enforcement.

Man

Why the administration or the ministries have such a power to make a guideline?

Matsumura

As for the Japanese government to issue guidelines, my impression is that 'governmental guidelines' have been accepted, or aimed by the government to be accepted by people, like 'codes of regulation', and therefore misguiding many Japanese people.

I understand that, if law permits them to issue codes of regulation, then, they have the right to do so. On the other hand, if there are no law to permit them to do so, I wonder if they have that right.

Ida

Generally speaking, the government, the administration is given the power to administrate the matters which is set up by the Constitution. So the government has the power to regulate, not always in a legally binding manner, to control all the things which are done in Japan. So, it is true that the government or the ministries, for example the Ministry of Education makes different guidelines. But they are not legally binding. Because, as you said, the democratic control is normally based on the law. So if there is no law, the ministry does not have power to make legally binding guidance.They make only the guidelines which are not legally binding. It is a kind of administrative control. And they cannot enforce the guidelines to the addressee.

Matsumura

But you expect people to obey this.

Ida

The government expects that.

Session 2

Some Points of Issue around the Research Use of Human Materials

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Ⅰ. Legal status of Human Materials (HM hereinafter) in general in Japan (Summary of the 1st session)

1)Principles

a. As to the HM from the dead body, there is a general provision in the Penal Code of Japan(§ 190) which prohibits the destruction, abandonment and unlawful possession of the cadaver and other things in the coffin, and this may be construed to prohibit the "activities" on the **cadaver**. The term "activities" in the new UK HTA 2004 includes removing, storing, using and displaying the H M. At least the removing the solid organs for transplantation is, it is usually interpreted, included within the provision. Of course it is possible to assert that the research use of the body could not be included in the term of "destruction" nor "abandonment" and accordingly is not prohibited by this provision **or** it has some other good justifying reasons such as the adequate consent of the victims and the socially acceptable character.

Anyway, the research use of the HM could be permitted under some strict conditions.

2)We have some specific statutory exceptions to this fundamental rules.

a. First of these exceptions is the removal of organs for transplantation purpose provided in the Organ Transplantation Act 1997.

In this Act "Organs" are specifically enumerated, with the aid of Regulation, so the other organs such as "brain" are not excepted by this Act from the banning of the penal code.

These not-enumerated organs may not theoretically, as aforesaid, be totally banned to be removed, but the Code of Practice of the MHLW prohibit it.

And section 9 of that Act provides that the organs which could not be transplanted should be disposed of according to the Regulation of MHLW, which in turn prescribes to incinerate.(that is, it forbids to use the untransplanted organs for other purposes) , (because I suppose of the respect for the deceased.) And this set of provisions seems to be a large obstacle for the research use of the human tissue in Japan. I would like to be taught what are the situation in the UK. And Matsumura-san may talk on this point later.

b. Second statutory exception group is the provisions in the Dissection and Storing of Cadaver Act 1948. which has been explained extensively by Sato-san that I would like to skip.

★ It should be noted that there is no provision on the **"tissue"** in this Act, which will be mentioned later.

★ And on the **living person** there is no specific provision. On which have been so much discussed

★ As the result, it can be said, there is at present no meaningful provision on the research use of HM in Japan.

3) There are, however, several clues for the solutions

a. A guideline of MHLW on the Organ Transplantation Act 1997 suggests that the HM from the cadaver could be treated in conventional way, on which the Act had no provisions. Though this guideline refers only to the transplantation, similar explanation may be possible on the good and proper research. And an attempt is now under way to make use of the intentional removal of the tissue from the dead. I'll mention it later.

b. A working group under the MHLW has published a report (1998 Kurokawa Report) suggesting and encouraging the use of the left-over tissue from the surgical operations for the biomedical research, especially for the pharmaceutical industry. And it recommended also to

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establish some reliable banks under the responsibility of the Government, which was implemented by a agent, which will also be mentioned later.

c. A few guidelines on biomedical research involving human subjects, have envisaged the use of the HM as explained by Prof. Maruyama and others.

According to the recommendation, and because of the pressing need, several trials have begun to establish public banks.

Ⅱ. Several sorts of banks for biomedical research in Japan

Modern usage of HM has quite different phase from that of the previous time, namely, the HM are used by scientists who has no relationship with patients and in the institutions far away from the bed of the patients. This change of the situation requires at least two urgent measures to be taken. The 1st is to establish the ethical rules for the scientists how to use the HM properly and the 2nd is to make out a system to distribute the materials in proper way, namely the banking system which is quite necessary not only for the science and scientists but also for the donors themselves, because it significantly affects the proper development of the medical science as well as the practice.

As to the first points many speakers in this workshop have talked much with reference to the guidelines. So, I would like to report on the 2nd point which is urgent task for the Japanese Biomedicine.

We can classify the banking system into several groups.

1. Traditional private and closed model

A. Private Storing Ⅰ

This type is characterized as an intra-Medical school storing (which may be envisaged by the 17th Article of the Cadaver Dissection and Storing Act 1948.) Pathology Department or Legal Medicine Department or sometimes Surgery Department have had these for their own research and education purposes.

while it has still reason d'etre, the conditions for the proper storing have not settled. For instance;

a. Do they have obligation to return the HM when requested by the surviving relatives?

b. Block and Slides can be treated as a part of medical records?

c. Retention or Storing include to exhaust out the materials ?

B. Private Storing Ⅱ

This type is found in the inter-universities or medical institutions banking.
Several members of each circles gather, store and use the HM cooperatively.
Some have established the system so much before that the informed consent from the donors have some ambiguity, and they are a little bewildered how to treat them.
And recently some trials are observed to found this sort of banks (Oosaka. MS, Yokohama City Univ. MS), which may provide a great advantage to the researchers within that groups.

Static or closed character of these types may have some defects; less effective, often it lacks the openness to the society, and financially unstable..

2. Recently founded public and open model

A. Resource Bank of the Human Science Foundation (HSFRB)

(HSF is a nonprofit foundation backed by the Ministry and funded by 128 companies. It was founded cooperatively by the government and industries about 10 years before (1986), for the promotion of the biomedical high technology.)

The Kurokawa Report mentioned above has recommended to set up some public banks of the tissue from the surplus of the surgical operations. The proposal was implemented in 2000 by the Human Science Foundation. It accepts now the fresh tissue as well as the frozen ones from any cooperative Medical Schools and Hospitals, and distributes them to any institutions which have

proper ethical reviewing system. But its capability is quite restricted (at present only 104 items are proposed as distributable).
The institution also operates a bank of cells deposited from the Several Governmental Institutions.

B. Riken Bioresource Center (RBC)

(Riken is an Independent Administrative Institution with a near 100 years history)

It stores cell-lines which have already been published by itself or deposited by several existing private banks and distributes them to any inland as well as abroad institutions under a Mutual Transfer Agreement(MTA).

C. Registry system of the Japan Tissue Transplantation Association(2006)

The Association is now creating, or has just begun (?) a nation-wide banking system of tissues removed from the dead body after the organ-removal for transplantation.
The occasion of which is notified by the Japan Organ Transplantation Network when the donor appears. The central Association informs the local appropriate member institution of the occasion and the latter removes on the spot and retains the tissue as the independent bank. And it registers its storing materials to the Association, and the whole storing list is available through the internet system for everyone, who can request the tissues to the independent bank. The main purpose of the system is for transplantation but also available for research use to improve transplantation. Central ethics committee reviews the properness of the application and permit the local member to distribute.

D. Human & Animal Bridging (HAB)

(HAB is a NPO Corporation with more than 10 years history, which imports the unused organs from the NDRI of the USA at the request of the member institutions for research use.)

It is preparing a bank of tissue from the dead body after the organ and tissue removal for transplantation, for research use only.

E. Banking systems of special Materials

a. Bone-marrow Transplantation Foundation :
DNA Banking system of the couple of the donor and the patient.

b. Umbilical Cord Blood Bank:
The Bank affords the umbilical Cord Blood mainly for the grafting but also for the related research via the system of the Rikenbank.

c. Genome projects, EScell will be reported by MASUI.-san.

3. Commercial Companies for Importing and Trading of the HM

At present almost all businesses are trading only imported materials.

III. POINTS to be discussed

Finally I would like to present some points to be taught and discussed.

1. The past has not been cleared

There have been in our country somewhat shady or questionable era when the consent principle was not established, and the HM of that ages has not been properly consented. Turmoil of Alder Hey, which must have been hard and painful work for the medical profession of the UK, but it may be said to have encouraged and advanced the reconsideration in the UK. We have at present no cue for the fundamental reconsideration un(?)fortunately.

2. Shortage of the HM for research

As the banking systems have not developed in our country, the industry must depend on the imported materials, and which is quite inadequate not only scientifically but also ethically. Our Organ Transplantation Act should be transformed into the Human Tissue Act style.

In the UK is it possible and practiced to use for research the organs which were removed for transplantation but in the end could not be used for that.?

3. Dichotomy of consent **or** anonymisation .

In the Guidelines of our country which are worked out to regulate mainly the use-stage of HM, basically the policy of dichotomy is adopted. The dichotomy seems to me to be the easiest way to get the material for the short-sighted researches, but the long-term insight and scientific requisite may require the identifiable materials.? What policy is taken in the banking system in the UK?

And in Japan there is no distinct difference in the Guidelines, between the materials from the dead and from the living body, except, of course, the difference of the subject of the consent.

According to the report of English-san the storage of materials from the dead **must** be consented in the UK, and for that from the living individuals the consent **is required** unless the storing is anonymised **or** for a particular research approved by a research ethics committee. Does this mean that the materials from the dead is usually removed intentionally for the research with the consent as against to that from the living person where the main purpose of the removal is for the treatment of the individual? Is it not required to obtain consent to use the tissue of the operated part of the patient for an approved research?

4. In case of the identifiable materials, the HM can be returned to the donor. And actually the Retained Organs Commission of the UK had to manage to return the uncosented tissue, I suppose.

Then should it be returned when the donor withdraws the will of donation afterwards?

5. The role and limit of the "general consent" of the donors.

In case of **banking** the consent of the donor has necessarily to be a general or generic consent, because the future research has not been come into sight and the information could not be sufficient enough clear to be called "informed consent". The contents of the general consent is, however, quite clear, I think, that the donated tissue should be used properly for the biomedical development and for the welfare of the future patients and future generation. Is the general or generic consent enough for the storing for the subsequent using? The general consent is, I suppose, permitted only under some conditions.

6. Mechanism to oversight the whole system.

In order to permit the general consent there should be a licensing or registry system through out our country, I suppose. At present, the majority opinion in our country is that the prior review by the Institutional Review Board is enough for the guarantee of the properness..

What would be the function of the THA as a licensing organization for the ethical purposes? It functions as the Competent Authority under the EU Directive and must guarantee the security and identity of the transplanted organs.

Is it intended for THA to function other than the security aforesaid ?.

7. And lastly please allow me to make quite a specific question.

What is, and should be the difference between HM and paraffin blocks and/or prepared specimens **?**

According to my memory, the Retained Organs Commission chaired by Prof. Blasier recommended to distinguish the blocks and slides from the other tissue. Will the blocks and slides be treated as a part of the medical record?

What is BMA's role?

***Veronica English*, Deputy Head of Medical Ethics, British Medical Association**
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OK. Thank you. Before I start what I want to say, perhaps I could make just a couple of comments. The first is to apologise that this morning when I introduced myself I didn't actually explain to you what the role of the British Medical Association is and it might be helpful if I just very briefly explain what the BMA is and what its role in all of this is.

The British Medical Association is the professional association for doctors, so we're a membership organisation and doctors choose to become a member and they pay a membership fee. Having said that, we do have very high membership levels: about 90% of doctors in the UK are members of the British Medical Association. The Association's work is divided into two parts. One part is a trade union side which negotiates with the government about doctors' pay and about their terms of service, and the other side, which I belong to, is the professional side of the Association. Our role is to give guidance to doctors, to try to influence public policy, and get changes in legislation, to reflect our members' interests – so obviously that's where I'm coming from in this work. I should say that the British Medical Association is not the regulatory body for doctors – we don't give doctors their license to practice. That's done by the General Medical Council, which is something completely separate. Our guidance is considered to be good practice and we try and encourage our members to follow our guidance, but it isn't binding on them. So they're not going to end up in difficulties with us if they don't follow it. I do apologise that I didn't explain that at the very beginning.

I'd also just like to pick up on one point because I think that most of the questions that were asked by the last speaker are going to be covered in what I want to say and I'll try to pick up on them as I go through. The one point I just want to clarify is about blocks and slides because that won't come into what I want to say. You're absolutely right that there was a distinction in that the Retained Organs Commission and a lot of people believed that there should be a distinction made between blocks and slides and whole organs, and we certainly discussed that with the government but they were adamant that they would treat all human material in the same way. Whether it's a slide, whether it's a whole organ, it would be treated in exactly the same way. So to answer the specific question, blocks and slides may be kept on the medical record after a patient has died but only if you have consent for that. Again, that's an area where Scotland is different because Scotland has made that differentiation, which I think is probably more sensible but we have the legislation and so we now have to advise our members on how to implement that – it's too late to go back and change that.

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Research use of tissue

***Veronica English*, Deputy Head of Medical Ethics, British Medical Association**
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In this session I am going to focus on the rules and guidelines relating specifically to the research use of various types of human tissue. Some of this is covered by the Human Tissue Act, some by the Human Fertilisation and Embryology Act and some by good practice guidance.

I shall begin by looking at some aspects of the Human Tissue Act that relate to the research use of human tissue. In fact, this turned out to be one of the most controversial aspects of the legislation and the BMA, together with a number of other organisations lobbied the Government and managed to negotiate changes.

Tissue from living individuals

It should be remembered that the backdrop to the legislation was the problems encountered at Alder Hey Hospital in Liverpool and as a result, there was an almost obsessive focus on the need for "consent" for anything to do with human tissue. The Government repeatedly referred in debates to consent being the "golden thread running through the legislation". The problem arose from the Government's decision to include the research use of human tissue from living individuals in the legislation. Where samples are taken specifically for research, or where the samples are identifiable and may have future implications for the individuals, there is widespread agreement that consent is needed. But the legislation, as originally drafted included the need for consent for the use of anonymous left-over tissue for research. So, every time someone had a blood or urine sample taken, or when they had a cervical smear test, or where there was tissue left over from a biopsy or therapeutic removal of tissue, it could only be used for research – even anonymously – if consent had been obtained.

In the past "left over" tissue – from operations, biopsies, cervical smears, blood tests etc – had been used for research, on an anonymous basis without the need for individual consent. This was on the basis that it was "waste" material that would otherwise be disposed of. Once anonymised, the tissue had no further implications for the individual patient and potentially great benefit for the public health. The BMA has always stressed that patients should be informed in a general way of such use and given the option for their sample not to be used but had not argued for explicit consent. When our Medical Ethics Committee considered the use of tissue in the draft legislation, it agreed that, post-Alder Hey, there was a need for more information to be given to patients about uses of tissue and wherever possible consent should be sought. So, we were willing to consider the need for consent for use of anonymous material for research. Research bodies, however, disagreed and strongly opposed any additional restrictions on the availability of tissue for research.

Over the following months, we entered into discussions about the practical implications of the proposals. One of the pathologists who was very active in the debate estimated that throughout the UK, laboratories handle around 150 million samples each year. If consent needed to be sought for each of these samples – to allow the possibility that they might be used for research in the future – then even allowing just 1 minute for each patient, this would require an additional 1,300 full time staff. Given that money was not being made available for additional staff for this purpose, fewer patients would be able to be seen. We knew from surveys of public opinion that the vast majority of people saw left-over tissue, blood or urine samples, as waste products and had no objections to their use on an anonymous basis for research. If the samples would only be disposed of, and patients did not object, arguably there was a strong moral argument for allowing them to be used for important research that would benefit the public's health.

Another major practical problem was that the clinician who seeks consent for the surgical procedure or for the sample to be taken will usually not be involved in research and so will have no incentive to seek consent. The researchers who need the samples have an interest in the research but have no contact with the patient. We looked at various ways to try to overcome these practical problems but eventually came to the same conclusion as the research bodies – that left-over tissue

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from diagnostic or therapeutic procedures should be able to be used on an anonymous basis without consent. After many discussions, the Government accepted this position.

So the legislation now says that tissue taken from living individuals may be used anonymously, without consent, provided the project has research ethics committee approval. The ethics committee still has the option to decide that a particular piece or area of research requires explicit consent, even if the tissue is to be used anonymously – for example if it is into contraception or some other area of research that some people might object to.

There has been quite a lot of discussion about what "anonymous" means. It is clear that the sample does not need to be irreversibly anonymised and there can be a link to the medical record of the patient – provided that the person carrying out the research does not know the patient's identity.

It was also clarified that it is the time that the tissue was removed that determines whether tissue is covered by the rules for living or deceased patients. So, if the patient has an operation and then subsequently dies – the rules that apply are those relating to living patients, even though the patient may be dead at the time the tissue is used.

There are still some issues that need to be looked at as the legislation is implemented:

We have argued that patients need to be know about this possible use of their tissue and have asked the Human Tissue Authority to provide a leaflet in hospitals and general practice surgeries explaining what might happen to the tissue and how patients can object if they wish to do so. As a matter of good practice, if an individual objects to the use of a sample, even anonymously, reasonable steps should be taken to prevent its use for that purpose, but it would not be a criminal offence to use it.

We have also asked that guidance is given to research ethics committees about the type of research where consent should always be sought, even it if the tissue is to be used anonymously.

It was made clear in debates in Parliament that consent for the research use of tissue can be generic and ongoing. In other words, it does not need to be given for each individual research project but may be given generally for future research. If there may be implications for the patient as a result of the use of the tissue in a particular research project, however, explicit consent for the project would be expected.

Tissue from deceased individuals

The situation regarding the research use of tissue from deceased individuals was less controversial during the passage of the legislation. Given the emotional significance of the retention of material for research after death – and particularly after Alder Hey – nobody objected to the need for consent for the use of this material.

An individual may consent during his or her lifetime to the use of tissue removed after death for research but there is currently no established mechanism for recording this and it seems unlikely that this is something many people would think to do. In the absence of consent from the individual, any person nominated by an adult to give consent after death may authorise the retention and use of tissue for research or, if nobody has been nominated, a relevant family member may give consent, as discussed earlier.

In terms of use of tissue removed after death for research there are three likely scenarios:

- Use for a particular research project – with consent and with ethics committee approval

- Use for future, undefined research – with consent. Information should be clear that the precise nature of the research has yet to be decided and that research ethics committee approval will be sought for every project before it is used. Relatives should also be given the opportunity to opt out of certain types of research.

- Donated for transplantation but unsuitable and so used for research – when consent for transplantation is sought, this scenario must be discussed with the person giving consent and explicit consent sought. Where the individual was on the Organ Donor Register but had not expressed any views about research, this possibility should be discussed with the relatives.

All of the evidence from the Alder Hey Inquiry was that relatives were happy for tissue to be used for research, following post-mortem examination, provided they were informed and were asked for consent.

Many people were upset that organs had been retained but had never been used for research, and guidance from the Human Tissue Authority advises that those giving consent should be informed that not all of the tissue retained will definitely be used and some may be held for a long period of time – possibly many years – before it is use. This might be the case, for example, if there is a need to collect sufficient samples of a rare disorder in order to conduct appropriate research.

There is no time limit for storage of organs or tissue in the Human Tissue Act. Nevertheless, the HTA also advises that stored samples should be subject to regular review to ensure that their retention is still necessary and that they remain useful. Any that do not meet these criteria should be disposed of.

Fetal tissue

The use of fetal tissue for research, following termination of pregnancy, miscarriage or stillbirth, is also covered by the Human Tissue Act. This is because it is considered to be tissue from the mother and so the rules that apply are those for tissue taken from living individuals.

This means that under the Act, fetal tissue can be used for research without the consent of the woman, provided it is used anonymously and the project has been approved by a research ethics committee. Nevertheless, the HTA's code of practice states that, because of the sensitivity attached to the subject, it is good practice that consent should always be obtained for the examination of fetal tissue (at all gestational ages). The BMA has also argued that guidance should be issued to research ethics committee to the effect that the use of fetal tissue should always require explicit consent from the woman.

In addition to the legislation, there is guidance on the use of fetal tissue for research that is in the process of being updated. The current guidance – known as the Polkinghorne guidance – was produced in 1989. The main requirements of that guidance are that:

- There must be a clear separation between decisions relating to termination of pregnancy and those relating to the use of fetal material. Where the fetal material comes from a terminated pregnancy, consent to the termination of pregnancy must be given before consent is sought to the use of fetal material
- Written consent from the woman should be sought for the use of fetal tissue, but based on general information to avoid the possibility of termination of pregnancy for ulterior motives (such as donation for a particular type of research)
- No inducements, financial or otherwise, should be proposed to the woman who is donating the material or to other people who may influence her decision
- There should be no modification to the termination procedure to facilitate research.

When the Government sought views on the use of tissue in 2002, it looked specifically at the donation of fetal tissue for research. They indicated at that time that the requirement, under Polkinghorne, that consent should be general and not for a specific type of research, was increasingly out of step with the public's expectation that they should be given proper information before giving consent and so this is likely to change. The Government also queried the decision not to allow the termination procedure to be changed in any way to facilitate research and asked if it might be acceptable to use a slightly different procedure (for example, to use ultrasound) if the procedure poses the same risk to the woman, and the modification is acceptable to the woman and is approved by a research ethics committee. It seems likely that this part of the guidance will also change.

Genetic research

Under the Human Tissue Act, research that includes DNA analysis is subject to the same general rules as non-genetic research and so:

- anonymous tissue from living individuals may be used without consent for a research project that includes DNA analysis of samples provided the project has research ethics committee approval.

- Where consent is given for the use of tissue for research on an identifiable basis, this may be used for research involving DNA analysis without the need for specific consent to genetic analysis – although it is still considered to be good practice to seek explicit consent where there are implications for the health of the donor and/or the donor's family

- Research may be undertaken using tissue samples taken from adults who lack the capacity to give consent where:

    - The research has ethics committee approval
    - Research of comparable effectiveness cannot be carried out using samples from people who are competent to give consent; and
    - Research of comparable effectiveness cannot be carried out using anonymous samples.

There is also guidance from various bodies about the specific requirements that apply to genetic research. The main points of this guidance are:

- there should be a clear distinction between diagnostic or predictive genetic testing and research
- where identifiable samples are to be used specific consent should be obtained for genetic testing for research purposes
- information should be provided about what, if any, information will be fed back to the participant
- if information is to be fed back to the participant, information should be provided about the implications of this for the participant and his or her family

UK Biobank

A major project that has recently been started is UK Biobank. The plan is to develop a major resource of medical data and samples from 500,000 individuals aged between 40 and 69 years old. Blood and urine samples will be collected and participants will be asked for current health and life-style information. They will also be asked to consent to Biobank staff having access to their full medical record for the next 30 years and to agree to be contacted again over that period. The plan is for UK Biobank to have access to patients' full medical record (with their consent) but only anonymised information will be made available to researchers. Data will be held anonymously (as an added safeguard) but, with a key, information can be linked to patient identifiers. The aim is to build the world's largest information resource on the genetic and environmental factors that cause or prevent human disease.

A three month integrated pilot took place in Manchester earlier this year during which 3,800 people attended for assessment. Recruitment throughout the UK is due to begin by the end of this year. Recruiting participants is expected to take 3-4 years in 35 centres throughout the UK. Once the participants have been recruited, a committee will consider requests by researchers for access to anonymised data for research. No feedback will be given to participants from any of the research undertaken.

Embryo research

The use of embryos for research is covered by the Human Fertilisation and Embryology Act 1990.

Although there is now fairly widespread support in the UK for the research use of embryos, this was not always the case. The legislation in 1990 followed nearly 10 years of fierce debate about the moral status of human embryos and whether they should be used for research. In 1984 a Government appointed Committee of Inquiry, Chaired by Mary Warnock, had concluded that research should be permitted on human embryos up to 14 days after fertilisation. When the legislation was originally published it had alternative clauses either permitting or prohibiting embryo research. After a major campaign by medical and scientific groups the Parliamentary vote was overwhelmingly in support of allowing embryo research with strict safeguards.

The 1990 Act set up the Human Fertilisation and Embryology Authority (HFEA) – which the Human Tissue Authority was modelled on – to regulate both IVF and donor insemination treatment and embryo research. Each individual research project involving human embryos must be licensed by the HFEA. Before giving approval the HFEA must be satisfied that the use of human embryos is "necessary and desirable" for one of the following purposes:

(a) promoting advances in the treatment of infertility
(b) increasing knowledge about the causes of congenital disease
(c) increasing knowledge about the causes of miscarriage
(d) developing more effective techniques of contraception
(e) developing methods for detecting gene or chromosome abnormalities in embryos before implantation (pre-implantation genetic diagnosis)

In 2001 a further three purposes were added, so that research involving human embryos may also be undertaken:

(f) to increase knowledge about the development of embryos
(g) to increase knowledge about serious disease
(h) to enable any such knowledge to be applied in developing treatment for serious disease

These amendments were needed so that research to produce embryonic stem cells could be lawfully undertaken.

The HFE Act permits the use of embryos for research that are "spare" that is, they are left over from IVF treatment and are donated to research, and also the creation of embryos specifically for research purposes. The second source is important in terms of the developments of new techniques and ensuring their safety before they are used in clinical practice. For example, when intra-cytoplasmic sperm injection (ICSI) was first proposed, it was necessary to inject sperm into human eggs that would then be subject to extensive research and destroyed, to ensure that the procedure itself had not caused damage to the embryos, before any embryos created using the technique were used in treatment. Some people believe there is a moral distinction between these sources of embryos but this is not a widely held view and is not reflected in the legislation.

The Human Fertilisation and Embryology Act is currently the subject of review and we are expecting new legislation towards the end of next year. The Government has indicated, however, that it does not expect the position on embryo research to change.

One of the changes that is proposed by the Government, in the new legislation, is to merge the Human Fertilisation and Embryology Authority and the Human Tissue Authority to form the Regulatory Authority for Tissues and Embryos (RATE). There is currently some opposition to this as it is not at all clear that a single body could possibly cover the very wide and diverse area of practice in the sensitive areas covered by these two bodies. The BMA is currently asking the Government to reconsider its commitment to this merger to consider whether other ways of joint working can be considered.

Stem cell research

Stem cell research is a big issue at the moment, not only in the UK but of course around the world. At the current time the HFEA licenses a total of 33 embryo research projects and, of these, 15 relate to the development of embryonic stem cells.

The HFE Act was amended in 2001 to extend the purposes for which embryo research may be undertaken specifically to permit embryonic stem cell research. Because of the mechanism in place for regulating embryo research, which has the trust and support of the public, it is widely believed that the UK was able to move forward far more quickly with stem cell research than many other countries. There is considerable support for stem cell research in the UK and a general belief that work should continue using all sources of stem cells (including embryos) in parallel.

In order to allay any fears that the cell nuclear replacement technique being developed could be used for reproductive cloning – that is the deliberate creation of genetically identical individuals - the Government passed the Human Reproductive Cloning Act 2001 to make reproductive cloning a criminal offence.

Another development in this area has been the establishment of the UK Stem Cell Bank to hold and distribute stem cell lines to researchers. The idea of such a bank was first suggested by a House of Lords Committee set up to review the area. The rationale behind it is to make the best possible use of the stem cell lines developed, to ensure that good quality samples are available for research and possible future therapeutic applications and to minimise the number of embryos that need to be used for research. It is a condition of all HFEA licences that a sample of any embryonic stem cell lines created must be deposited in the UK Stem Cell Bank for use by other researchers. Researchers developing stem cells from other sources are also invited to deposit a sample in the bank.

Egg donation for research

Until now the majority of embryos used in research have been left over from IVF treatment but these are few in number and not the greatest quality. There are therefore moves for young, healthy women to donate eggs specifically for research.

An issue that therefore is currently being debated in the UK is whether women who are not having treatment should be able to donate eggs for research and, if so, what safeguards should be in place. Some people have argued that the risks are too great whereas others, such as the BMA, have argued that if women are informed of the risks it is for them to decide whether or not to donate.

Another issue that is being considered is whether women should be offered any incentives for donating eggs. In relation to donation for treatment, the HFEA is opposed to any actual payment for donation but does allow a practice called “egg sharing”, whereby women who need IVF but who can’t afford to pay for it, are offered free or reduced price IVF treatment in return for donating eggs. The HFEA has recently also allowed a clinic to offer egg sharing in return for donation of eggs for research.

One of the problems with this is that women are being given treatment that would cost at least £3,500 and it is questionable whether it is really any different than payment itself. In the past the BMA has opposed the use of egg sharing for treatment, believing that to make such an offer is to give a large inducement to someone who is in a vulnerable position to act contrary to their better judgement. We are currently considering whether the same objections would apply to donation for research (since no child would be born as a result of the donation).

This practice also raises the question of whether donation of eggs for research is closer to participation in research, such as clinical trials, for which some payment is allowed, or if it is closer to donation of eggs for treatment, for which payment is not allowed.

Some people within the stem cell community are now beginning to question whether we should not begin to pay healthy women for donating eggs for research and this is an issue that is likely to be debated in the UK over coming years.

Import and export of tissue for research

Sometimes, of course, tissue for research is imported from other countries. The import and export of eggs, sperm and embryos is regulated by the HFEA. With this exception, there were no restrictions on the import of bodies, body parts and tissues into the UK until the Human Tissue Act came into force.

The import and export of human material does not require a licence or approval but the Human Tissue Authority is required to produce a code of practice covering it. This is currently out for consultation but I shall just touch on the main points in the draft code.

The code says that the underlying principle is that all human bodies and tissues should be treated with appropriate respect and dignity. Those wishing to import human material must be able to demonstrate that the purpose for which it is imported cannot be adequately met by comparable material available within the country. This might be, for example, because of the availability or quality of the tissue, the risk of infection, or cost-effectiveness.

Although the consent requirements in the Act do not apply to imported material it is still good practice to ensure that appropriate mechanisms for gaining consent are in place in the country from which tissue is to be imported and it is a requirement of the code that evidence of the donor's consent is available.

Ethical approval must be sought from the country of origin before any material is imported. Where there is no ethical approval procedure in the country of origin, the risks of accepting the material must be carefully considered and, if considerable material is to be imported, thought should be given to establishing such a committee for this purpose

A coding and recording system should be in place to record the reasons for the use of imported material and to provide a robust audit trail (when and where it was imported, uses to which it was put, how it was disposed of etc). Relevant information should be recorded on a register which should be made available to the HTA for inspection upon request. Records should be kept for at least 5 years after the tissue has been disposed of.

Packaging during transport should comply with international standards for the transport of hazardous clinical material.

A clear policy for disposal of material, in a sensitive manner, should be in place. If the donor made any requests about how the material should be disposed of (including return to the home country) these must be followed.

Research ethics committees

Research ethics committees are given a much higher profile and very important responsibilities with the introduction of the Human Tissue Act. This has been a potential problem, because research ethics committees have not, in the past, had the full confidence of the medical and scientific professions or of the public. They have, historically, been of variable quality, relying extensively on unpaid volunteers, with very little training for committee members, each committee having individual methods of working and no central co-ordination but steps have been taken over recent years to address these problems.

In 2000 the Central Office for Research Ethics Committee (COREC) was established to improve the system of operation of the committees and to provide advice on necessary changes. Also, in response to a European Union Clinical Trials Directive, research ethics committees were placed on a statutory footing in 2003 and the UK Ethics Committee Authority was established to oversee research ethics approval both within and beyond the National Health Service.

A review of the work of research ethics committees, published in June 2005, noted continued frustrations by researchers about the approval process but recognised that considerable progress had been made. Already there was greater co-operation and co-ordination, standard forms and operating procedures and training had been put in place. Proposals have now been made to continue this development, to ensure that the ethical review of research is conducted on a much more professional basis. Steps are currently being taken to implement the recommendations, which include:

- Triage system of consideration by National Research Ethics Adviser to approve those applications that do not raise ethical issues (surveys etc) and to address poor science
- Application form will be further reviewed and standardised
- There will be fewer committees with higher workload
- Less reliance on volunteers with members paid for their contribution
- More emphasis on training
- Introduction of a system of "quality assurance" to reduce inconsistency

This will be expensive but the Government has put a lot of weight on ethics committee approval as a safeguard for research participants and it recognises that change is needed.

EMPLOYMENT CAREER FINANCE FUTURE

Research use of tissue
ヒト組織の研究による使用

Veronica English
Deputy Head of Medical Ethics
British Medical Association

BMA

EMPLOYMENT CAREER FINANCE FUTURE

Tissue from living individuals

- Human Tissue Act 2004
- Identifiable tissue needs consent
- Debate about consent for use of anonymised tissue
- Anonymous tissue may be used without consent with ethics committee approval

- Human Tissue Act 2004
- 特定できる組織は同意が必要
- 匿名の組織の利用への同意に関わる議論
- 匿名の組織は倫理委員会の合意を経れば同意なしに使用できることがある

BMA

EMPLOYMENT CAREER FINANCE FUTURE

Tissue from deceased individuals

- Always requires consent
- Use for a particular research project
- Use for future, undefined research
- Donated for transplantation but unsuitable
- No time limits on storage but should be subject to review

- 必ず同意が必要
- 特定の研究プロジェクトのための使用
- 将来の不特定の研究のための利用
- 移植用に提供されたが利用できない
- 保管期間に制限はないが、改定の対象とすべき

3

BMA

EMPLOYMENT CAREER FINANCE FUTURE

Fetal tissue

- Fetal tissue is treated as tissue from the woman
- Can be used anonymously without consent but consent is good practice
- Polkinghorne Guidance (1989) currently under revision:
  - Clear separation between termination and consent for research
  - No financial incentives
  - Written consent but general not specific type of research
  - No modification to the termination procedure

- 胎児の組織は母親の組織として扱われる
- 同意なしに匿名で使用が可能だが、同意を得ることが望ましい
- Polkinghorne Guidance (1989)は現在、改定中:
  - 堕胎と研究のための同意との明確な区別
  - 金銭的報酬を認めない
  - 書面上の同意は必要だが特定の研究ではなく一般的な研究のため
  - 堕胎手続きに関しては変更なし

4

BMA

Genetic research

- Research that includes DNA analysis subject to the same general rules
- Other guidance on genetic research:
  - clear distinction between diagnostic or predictive genetic testing and research
  - where tissue is identifiable specific consent needed
  - feedback to participant?
  - implications for self and family
- UK Biobank

- DNA分析を含む研究は同じ一般規定に従う
- 遺伝学的研究に関するその他の指針:
  - 遺伝子診断的及び発症前検査と研究との明確な区別
  - 組織の本人特定が可能な場合は同意要
  - 参加者へのフィードバックはあるべきか？
  - 本人と家族にとっての意味
- UK Biobank

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BMA

Embryo research

- Permitted up to 14 days after fertilisation
- Covered by Human Fertilisation and Embryology (HFE) Act 1990
- Every project must be licensed by the Human Fertilisation and Embryology Authority (HFEA)
- HFE Act under review but no plans to change embryo research
- HFEA and HTA to merge to form Regulatory Authority for Tissues and Embryos (RATE)

- 受精後14日までは可能
- Human Fertilisation and Embryology (HFE) Act 1990にて網羅
- 全てのプロジェクトはHuman Fertilisation and Embryology Authority (HFEA)の認可要
- HFE Actは改定中だが、胎児の研究には変更の予定なし
- HFEAとHTAはRegulatory Authority for Tissues and Embryos (RATE)に統合

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BMA

Stem cell research

- Of 33 research projects licensed by HFEA, 15 are for stem cell research
- UK public supportive of embryonic stem cell research
- Human Reproductive Cloning Act 2001
- UK Stem Cell Bank established

- HFEA認可を受けた33件の研究プロジェクトのうち、15件が幹細胞研究
- イギリスの国民は胎児の幹細胞研究を支持
- Human Reproductive Cloning Act 2001
- UK Stem Cell Bankの創設

BMA

7

Egg donation for research

- Should women who are not having treatment be able to donate eggs for research?
- Is "egg sharing" acceptable?
- Is egg donation for research closer to donation of other material for research or to donation of eggs for treatment?
- Should egg donors be paid?

- 治療を受けていない女性は研究用に受精卵を提供可能か？
- 「受精卵共有」は容認できるか？
- 研究のための受精卵提供はその他の組織提供に類似か、あるいは治療のための受精卵提供に類似か？
- 受精卵提供者は報酬を受けるべきか？

BMA

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EMPLOYMENT CAREER FINANCE FUTURE

Import and export of tissue

- Use of imported material must be justified
- Evidence of valid consent from the donor
- Ethical approval from the country of origin
- Register of information retained for at least 5 years after disposal
- Compliance with standards for the transport of hazardous clinical material
- Clear policy for disposal

- 輸入された組織の利用には正当な理由が必要
- ドナーからの有効な同意の証明
- 出身国の倫理的な承認
- 処分後、最低5年間は情報を保持
- 有害な臨床材料の輸送に関する基準を遵守
- 処分に関する明確な方針

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BMA

EMPLOYMENT CAREER FINANCE FUTURE

Research ethics committees

- Very variable quality
- Since 2000 steps taken to improve quality
- Major changes planned:
  - Triage system with National Research Ethics Advisers
  - Committee members paid for their contribution
  - More emphasis on training
  - Quality assurance to reduce inconsistency

- 品質に大きな差
- 2000年以降、品質改善が図られている
- 予定される大幅な変更点:
  - National Research Ethics Advisersとのトリアージ体制
  - 委員会メンバーに報酬
  - 研修をより強調
  - 矛盾点を低減する為の品質保証

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BMA

Slide presentation 2　Editors comments for Japanese readers regarding terminology
日本語訳に対する編者のコメント

ｐ69、スライド No.2　匿名の組織は倫理委員会の合意を経れば同意なしに使用できることがある→「法的に使用ができる」の意

ｐ70、スライド No.3　改定の対象とすべき→各機関における審査の対象とすべき

ｐ72、スライド No.7　胎児の幹細胞研究→胚性幹細胞（ES 細胞）研究

ｐ72、スライド No.8　「受精卵共有」→「受精卵の分配」

Japanese governmental guidelines concerning the issues

***Eiji Maruyama*, Professor of Kobe University Faculty of Law**
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I read my papers and other details of the guidelines, which is the topic I speak for this session described in the handout. I shall speak very summary bit. In this presentation, I would like to show an overview of governmental ethical guidelines for biomedical research and personalized medicine and BioBank Japan project, which has so far collected about 200,000 patients who have *** data. I also would like to submit some observations based upon my personal experience with guidelines, drafting, and BioBank Japan Project.

As summarized by Professor Sato, there are several guidelines concerning biomedical research. First, we have guideline for Genetic Analysis Research, the original version of which was drafted in 2000 and current one is drafted, enacted in 2001 and amended in 2004, as I explain later.
Next, Human Embryonic Stem Cells Guideline was promulgated in September 2001, and around the same time, the Guideline for Handling of Specified Embryos such as chimeric embryos or hybrid embryos and cloned embryos and so on. Epidemiological Research Guidelines were enacted in 2002 and now in the process of amendment. Clinical Research Guidelines were promulgated in 2003 and recently our government has enacted guidelines for clinical study using Human Stem Cell Guidelines. These guidelines do not extend to apply to each human embryonic stem cells, nor stem cells derived from fetuses. These guidelines only applied to the research using the somatic adult stem cells. Before that, guideline for clinical study of gene therapy was promulgated. It was originally enacted in 1994. So, there are many guidelines enacted here in Japan.

These are common features of the guidelines and, in a sense, common around the world: informed consent requirement, personal information protection, and review and approval by research ethics committee that is composed of members of multiple disciplines and both sexes.

As I said before, these guidelines were amended in order to make them conformant with the Personal Information Protection Legislation, which was enacted in May 2003 and implemented in April 2005, last year. These legislations largely follow the model of OECD Guidelines of 1980 on the protection of privacy and transborder flows of personal data and have the features as a progress.

This personal information law legislation explicitly exempts researchers of academic institutions from specific obligations regarding personal information processing for the purpose of academic research, however, most obligations thus exempted in law have been incorporated in the guidelines revised in December 2004. So, actually these obligations contained in the personal information legislation imposed researchers.

Now I move to the BioBank, or move to near the BioBank. As BioBank's researchers who use their specimens are supposed to make genomic and genetic analysis research, the Genome Guidelines seems to govern their operation and researches. Genomic and genetic information, which is unique to each individual, it is said, will not change for life and may indicate their future onset of susceptibility to particular diseases. So, it is said these characteristics of genomic and genetic information justify individual's control of it and special protection against the violation of its confidentiality.

Specifically, the Genomic and Genetic Analysis Guidelines, 10 subsection III provides that written informed consent must be obtained and the participant may withdraw at any time who *** his or her informed consent without suffering any disadvantages.

Regarding the personal information security measures, these guidelines provide that effective measures to secure the protection of personal information must be provided. And guidelines make it a rule to anonymize specimens and data before they are used in research so that the same system must be used as in the United Kingdom or England.

Guideline 14 subsection II provides that where the specimens are deposited to a human cell/gene/tissue bank, it must be ensured that they would be anonymized in an unlinkable manner when distributed to researchers.

T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England(Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

Personal medicine project and BioBank started in spring 2003, a five-year governmentally funded 180 million project led by Professor Yusuke Nakamura of the Institute of Medical Science of the University of Tokyo where the Professor Muto belonged now, was launch. The project named Personalized Medicine Project was first conceived as a research and development project to revitalize the Japanese economy and in a sense, with a successor to the former Millennium Genome Project, which started in 2000.

These are the aims of Personalized Medicine Project, discovery of gene susceptible to disease was also related to efficacy or adverse reactions of drugs; secondly, evidence-based development of drugs for diagnostic method; thirdly, providing the important medical information that can be applied to establishment of personalized medicine; and fourthly, a genetic and environmental epidemiology.

Here is how to realize personalized medicine. First, collection of DNA, sera and clinical information from 300 patients. Actually, these numbers are now found to be difficult to achieve and about 300,000 cases will be collected. One patient may have several cases, several diseases, so if you do not have collected 3,000 patients, you may have collected 300,000 cases. Secondly, construction of BioBank Japan at the preservation condition and systematic genomics and proteomics analysis, and identification of genes of medical important.

In this project, some ELSI working group was established in August 2003 and it was not independent from that project. Next year, this ELSI working group was replaced by the ELSI committee and now ELSI committee stand parallel with the steering committees and can perform its duty more efficiently and independently.

Present ELSI committee of the Personalized Medicine Project consists of one medical scientist, one patent specialist, one genetic counselor, two representatives of patient groups, one bio-ethicist, one practicing lawyer and two law teachers. It meets once a month.

Our ELSI committee's activities include meeting, collaborating with hospitals to make onsite checking of the informed concept procedures and personal information protection system. Secondly, inspection of the records of the research ethics committee of the participating institutions regarding the ethical review of this project. Thirdly, checking the project system for distributing specimens to outside researchers and finally, in this way it attempts to ensure the project conformity to the revised genome guidelines.

Lastly, here are some of my personal experiences. Yes, I recently doubt the subject's ability to understand the genomic research and BioBank system. It is so complicated and in a sense, very remote from the everyday life of the ordinary people, the participant might not really understand what they give consent to. Secondly, I doubt the researcher's ability to protect every details of their study plans, because to obtain the informed consent, researchers must be able to project every detail of the research plan, but actually, researchers may not be able to project every detail. And if that were true, the perfect consent may not be truly obtainable. Thirdly, I found it very difficult to strike an ideal balance between ensuring the voluntariness of subject and efficient implementation of the research. Fourthly, in Japan, researchers generally do not return the result of their research to individual patients and I doubt the reason of that policy recently. Lastly, rather technically, the control samples should be collected and its collection explained to the participant might be difficult.

These are my presentations and actually I returned from Australia last night and I revisited Australian Law Reform Commission and four major hospitals involved in the genetic research. Personally, what impressed me most is how important place the public engagement or public involvement occupies in their system and in your country's system.

In Japan also we have a public comment procedure in the process of guidelines drafting, but it seems to me it is a rather formal procedure and public comment does not affect the final guidelines so much at least like there, your country.

Just minutes ago, your public consultations matters a lot, but in our country, it does not. If you please either appreciate it, if you could answer my question, I have been asking the same question, what motivation, what background is there that place that make you place so much emphasis, so much focused on the public engagement, and when did it happen? About from when did it started to be recognized, I would appreciate it.

Legal Limitations on Genetic Research and the Commercialization of its Results: Japan

Eiji Maruyama, Pofessor of Kobe University School of Law, Japan

I. Legal and Administrative Framework Surrounding Medical Research

1. Several Sets of Guidelines for Biomedical Research

Since the fall of 1999, Japanese government ministries have promulgated many sets of ethical guidelines for biomedical research.

Recent increase of governmental ethical guidelines began with the drafting of the "Guidelines on Ethical Issues Surrounding Genome Analysis Research" by the Ministry of Health and Welfare (MHW) in April 2000. In October 1999, MHW announced a large 5 year human genome analysis research project (Millennium Genome Project) as a part of governmentally funded Millennium Project which was to start in April 2000. MHW, recognizing the ethical and social problems involved in the genome research, prepared this set of guidelines that was to apply only to genomic research conducted under the Millennium Genome Project. This set of guidelines is often called as "Millennium Guidelines."

As the Millennium Guidelines were not applicable to genome researches outside of the Millennium project, the ministries concerned with genomic and genetic research embarked on the task of drafting of a common set of genome research guidelines in the summer of 2000. This effort produced Ethics Guidelines for Human Genome/Gene Analysis Research in March 2001 (hereinafter cited as "Genome Guidelines")[1].

Besides Genome Guidelines, governmental ethical guidelines promulgated so far include Guidelines for Derivation and Utilization of Human Embryonic Stem Cells (September 2001); Guidelines for Handling of Specified Embryos (December 2001); Ethical Guidelines for Epidemiological Research (June 2002); Ethical Guidelines for Clinical Research (July 2003); Guidelines for Clinical Study of Gene Therapy (March 2002. The original gene therapy guidelines were enacted in June 1994).

The common features of these guidelines are the requirements of voluntarily given informed consent, protection of personal information, review and approval by research ethics committees that is composed of members of multiple disciplines and of both sexes.

2. Revision of Guidelines in 2004

[1] An English translation of the original guidelines before amendment in December 2004 can be found at (visited on April 5, 2006) http://www2.unescobkk.org/eubios/eghgr.htm. See generally Gerald Porter, The Regulation of Human Genetic Databases in Japan, (2004) 1:3 SCRIPT-ed, available on line at (visited on April 5, 2006) http://www.law.ed.ac.uk/AHRB/script-ed/issue3/japan.asp.

Many of the guidelines were revised at the end of 2004 to make them compatible with the requirements of the Personal Information Protection legislation[2] that had been enacted in May 2003 and would take full effect in April 2005. Although the legislation explicitly exempts researchers of academic institutions from specific obligations regarding personal information processing for the purpose of academic research, most obligations thus exempted have been incorporated in the guidelines revised in December 2004.

II. Genome/Gene Analysis Research and Genome Guidelines

1. Requirement of informed consent

The Genome Guidelines provide the requirement of voluntary informed consent and participant's right to revoke his/her consents anytime (but before unlinkable anonymization of specimens and data) without any disadvantages.

Guideline 10(3) provides that before receiving a specimen and clinical data from a donor, the principal investigator must obtain a written consent based on his/her free will (informed consent), after providing him/her with an adequate explanation of such matters as the significance, objectives, methods and expected results of the research, disadvantages that he/she might suffer, and the method of preservation and use of a human specimen and clinical data. Guideline 10(9) provides that the donor or his/her proxy may withdraw at any time in writing his/her informed consent without suffering any disadvantage.

2. Protection of Personal Information through Security Measures and Anonymization

Guideline 6(3) provides that the head of research institution must take the organizationally, personally, physically and technologically effective measures to secure the protection of personal information processed by it, including the measures for the prevention of its leakage, loss and destruction.

The Guidelines make it a rule to anonymize specimens and data before they are used in research. Guidelines 14(2) further provide that where the specimens are deposited to a human cell/gene/tissue bank, the principle investigator depositing them must ensure that they will be anonymized in an unlinkable manner when distributed to researchers and abide by the conditions stipulated by the donor or his/her proxy.

3. Gratuitousness of Participation and Intellectual Property Rights Derived from Research

A note to Guideline 10(11) sets out a list of main topics that should be included in the written information given to the potential participant. According to the note, following topics should

[2] Its tentative English translation by Government can be found at (visited on April 9, 2006) http://www5.cao.go.jp/seikatsu/kojin/foreign/act.pdf.

be contained in the explanation.

- That the outcomes of the research may possibly produce intellectual property rights such as patent rights in the future, and the party to whom such intellectual property rights will belong.
- That provision of samples, etc. is gratuitous.

With respect to the first piece of information, the parties who will be given the rights in a vast majority of cases will be researchers and their employers (i.e. universities or research institutions). In the Millennium Guidelines which preceded the Genome Guidelines provided that the potential participants should be told that the intellectual property rights will not belong to them.

III. Human Cloning Technology Regulation Act, 2000[3]

1. History of the Human Cloning Technology Regulation Act

In September 1997, the Bioethics Committee was established at the Council for Science and Technology, which was an advisory body to the Prime Minister in the development of policy of science and technology, after the news spread that a sheep named Dolly that had been created by the technique of somatic cell nuclear transfer (SCNT) was born. In December 1999, the Bioethics Committee opined in the report "On the Creation of Human Individuals by the Technology of Cloning" that cloning of human beings should be criminally prohibited. The report reasoned that the application of cloning technology to create human individuals will lead to human breeding and making human beings simply as tools or means for something; the child born by the cloning technology, although having a separate personhood from the nuclear donor, must always be conscious of his/her relation with the donor; cloning technology that makes asexual reproduction possible would be a great deviation from our fundamental conception about creation of human life; social mishap including the demoralization of familial order might develop; the possibility of harm cannot be denied in the creation of human individuals by the cloning technology. Therefore, the report concludes, there exists a serious problem of invading the human dignity in the creation of human individuals by the cloning technology, and considering the extensiveness of the anticipated harm, it must be legally prohibited by the criminal penalty. With respect to the creation of individuals from the chimerical or hybrid embryo of human and animal, the report said because it would give birth to a creature that will endanger the identity of human species and might cause still more serious harm than cloning technology, it should be banned by criminal penalty.

Based on the report, Human Cloning Technology Regulation bill was drafted and introduced

[3] Its provisional English translation by MEXT can be found at (visited on April 9, 2006) http://www.mext.go.jp/a_menu/shinkou/seimei/2001/hai3/4_houritu.pdf.

into Parliament in April 2000. It would prohibit cloning of humans under the maximum penalty of 5 years' of imprisonment and/or a fine of 5 million yen (about US$42,000). However, the bill was strangled by the dissolution of the lower house of Parliament in June. In October 2000, the bill was reintroduced into Parliament. In this bill, the maximum penalty was doubled to 10 years' of imprisonment and/or a fine of 10 million yen. In November 2000, the bill was passed in both houses of Parliament and in June 2001 the main portion of the Act came into effect. Under the authority of the Act, the Guidelines for Handling of Specified Embryos[4] (hereinafter cited as "Specified Embryos Guidelines") were enacted in December 2001.

2. Summary of the Human Cloning Technology Act and Specified Embryos Guidelines

Section 4 of the Act lists the following 9 categories of "specified embryos".

(1) Human somatic clone embryo

An embryo produced by transferring the nucleus of a human somatic cell into a human enucleated egg.

(2) Human embryonic clone embryo

An embryo produced by transferring the nucleus of a human embryonic cell into a human enucleated egg.

(3) Human split embryo

An embryo produced by a split of a human embryo.

(4) Human-animal hybrid embryo

An embryo produced by having a human gamete and an animal gamete fertilize with each other.

(5) Human-animal fused embryo

An embryo produced by transferring the nucleus of a human cell into an animal enucleated egg.

(6) Animal-human fused embryo

An embryo produced by transferring the nucleus of an animal cell into a human enucleated egg.

(7) Human-human chimerical embryo

An embryo produced by unification as a result of aggregation of a human embryo and other human embryo or cells.

(8) Human-animal chimerical embryo

An embryo produced by unification as a result of aggregation of a human embryo and an

[4] Its English translation can be found at (visited on April 9, 2006)
http://www.mext.go.jp/a_menu/shinkou/seimei/2001/hai3/31_shishin_e.pdf.

animal embryo or cells.

(9) Animal-human chimerical embryo

An embryo produced by unification as a result of aggregation of an animal embryo and human cells.

Section 3 of the Act provides that no person shall transfer a human somatic clone embryo, a human-animal hybrid embryo, a human-animal fused embryo or a human-animal chimerical embryo into a human or animal uterus. In addition, Specified Embryos Guidelines prohibit transferring the remaining 5 categories of specified embryos into a human or animal uterus for the time being. In short, at present, creation of an individual from a specified embryo is effectively prohibited.

Guideline 1 of Specified Embryos Guidelines provides that production of a specified embryo shall be allowed only when the following requirements are satisfied: (1) scientific knowledge, which cannot be acquired from research using only animal embryos or cells or other research conducted without a specified embryo, can be acquired with the production and utilization of such a specified embryo; and (2) a person who is going to produce a specified embryo has sufficient technical ability to study with such a specified embryo.

Guideline 2(1) of Specified Embryos Guidelines provides that among nine categories of specified embryos, only an animal-human chimerical embryo shall be allowed to be produced for the time being. The purpose of its production shall be limited to the research concerning creation of organs derived from human cells that can be transplanted into a human body. Guideline 2(2) provides that for the production of an animal-human chimerical embryo, neither human embryo obtained from the fertilization of human ovum by human sperm nor human unfertilized ovum must be used.

Section 6 of the Act provides that one who is going to produce or obtain *** a specified embryo, he/she must file the relevant information including (a) the name and address and in the case of artificial person name of the representative, (b) category of embryo intended to be produced or obtained ***, (c) purpose (and, in the case of production, method), (d) date the embryo will be produced or obtained ***, (e) the way the embryos produced or obtained will be handled, (f) other information required by the order of the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Guideline 10 provides that before he/she files the above information with MEXT, he/she shall invite and respect the opinion of its ethics review committee of his/her institution.

Until now, no attempts have been made to produce or obtain specified embryo under the Act and Guidelines.

3. Creation and Use of Human Somatic Clone Embryo

It is provided in the appendix section 2 of the Act that the Government shall, within three years after the date when this Act takes effect, take necessary measures based on the results of the study by the Council for Science and Technology Policy regarding the appropriate treatment of the human embryo. Following the mandate, the Expert Research Committee on Bioethics established under the Council for Science and Technology Policy studied the problem for about three years and published an opinion report named "Basic Thinking on the Treatment of Human Embryo" in July 2004. Concerning the human somatic clone embryo, it opined that, while the creation and use of the human somatic clone embryo for the purpose of research cannot be permitted in principle, it may be exceptionally allowed where its aim is to comply with people's request for welfare based on their fundamental right to pursue happiness, and it is both scientifically reasonable and socially sound. Thus, the creation and use of human clone embryo is permissible for the purpose of research of regenerative medicine for patients of otherwise untreatable diseases. In order to authorize exceptionally its creation and use, Specified Embryos Guidelines shall be revised and supplemented by other governmental guidelines to be enacted when necessary. The preliminary work has been under way by the task force for the study of research use of human clone embryo established under the Bioethics and Safety Section of MEXT's Council for Science and Technology since December 2004.

IV. Guidelines for Derivation and Utilization of Human Embryonic Stem Cells[5]

1. History of the ES Cells Guidelines

One month after the report of successful derivation of human embryonic stem cells at the University of Wisconsin was published in the Science magazine, the Subcommittee of Human Embryo Research was established at the Bioethics Committee of the Council for Science and Technology in December 1998. In March 2000, the Subcommittee published “Report on the Human Embryo Research Focused on the Human Embryonic Stem Cells.” In September 2001, after the Cloning Technology Regulation Bill passed in Parliament in December 2000, the Guidelines for Derivation and Use of Human Embryonic Stem Cells (hereinafter cited as “ES Cells Guidelines”) was promulgated by MEXT.

2. Summary of the ES Cells Guidelines

(1) Basic Research Only

Guideline 2 of the ES Cells Guidelines provides that, for the time being, derivation and use of ES cells shall be limited to the purpose of basic research and that the following activities shall not be carried out until another set of guidelines have been enacted:

- Clinical research applying human ES cells or cells originated from them to the human body

[5] Its English translation can be found at (visited on April 9, 2006)
http://www.mext.go.jp/a_menu/shinkou/seimei/2001/es/020101.pdf.

- Other utilization of them in medicine and in its related fields.

(2) Respect for Human Embryo and ES Cells

Guideline 3 provides that, considering that a human embryo is nascent human life and that human ES cells have the potential for developing into any type of human cell, human embryos and ES cells shall be handled carefully and conscientiously in order not to offend human dignity.

(3) Gratuitous Donation of a Human Embryo

Guideline 4 provides that the donation of human embryos for the purpose of derivation of human ES cells shall be gratuitous, except that the reimbursement of necessary expenses is permitted.

(4) Requirements for the Embryos Used for ES Cell Derivation

Guideline 6 provides that the human embryo to be used for derivation of human ES cells shall satisfy the following requirements:

1) It is the human fertilized embryo which was initially been created for the purpose of infertility treatment, but is now not intended to be used for that purpose, and, the donors' intention to leave it to be destroyed has been confirmed;
2) The donors appropriately consented to it being used for the purpose of derivation of human ES cells;
3) It has been stored frozen;
4) Not more than 14 days have passed since its fertilization, excluding the days during which it has been stored frozen.

(5) Procedure to be Followed before ES Cell Derivation

Under the Guidelines 14 - 16, the following procedure must be followed for the derivation of human ES cells:

1) Director of the derivation team shall prepare a derivation protocol and ask the approval for it from the head of the institution where the derivation will be attempted (hereinafter DI=derivation institution);
2) The head of the DI shall seek the opinion of its ethics review committee, and based upon it, shall decide whether to certify its conformity with the Guidelines;
3) The head of the DI shall obtain the assent to the protocol from the head of the medical facility where embryos are donated (hereinafter DMF=donation medical facility). The DMF's head, in considering the protocol, shall invite the opinion of its ethics review committee [this requirement of clearance from the ethics review committee of the DMF seems rarely found in other countries];
4) The head of the DI, in deciding whether to approve the protocol, shall ask the confirmation of its conformity with the Guidelines from the Minister of MEXT;

5) The Minister shall seek the opinion of the Bioethics and Bio-safety Committee of the Commission on Science and Technology, and based upon it, shall decide whether to confirm its conformity with the Guidelines.

(6) Requirements for the Donation of Embryos for ES Cell Derivation

Under the Guidelines 22 - 23, the following requirements must be satisfied for the donation of embryos for the derivation of human ES cells:

1) Only married couples (excluding those who have not had their marriage registered) can donate embryos for the derivation of human ES cells;
2) The informed consent to the donation shall be expressed in writing;
3) Donated embryos shall not be used for the derivation for at least one month after the informed consent is given. In the meantime, the donors shall be able to withdraw the donation;
4) The explanation shall be given not by physicians attending to the donors but by the persons who belong to the institution where the derivation will be made.

(7) Information to be given to Donors for Informed Consent

Under Guideline 23, the written information to be given to donors shall include but not be limited to the followings:

1) The purposes and methods for deriving human ES cells;
2) That the donated embryos will be destroyed in the derivation process;
3) The anticipated method to utilize human ES cells and expected outcomes;
4) That the conformity of the derivation protocol with the Guidelines has been certified by both the institution where the derivation is made and the medical facility where embryos are donated, and has also been confirmed by the Government;
5) That all personal information of the donors will be removed from the embryos before the derivation;
6) That the donors will be never offered compensation;
7) That human ES cells may be analyzed genetically;
8) That the information regarding the ES cells including research results cannot be conveyed to the embryos donor, because of the impossibility of identification of the donor from the cells;
9) That the processes and outcomes of the ES cell research may be published in academic meetings and on other occasions;
10) That ES cells will continue to be cultured for a long time and distributed to the user institutions gratuitously;
11) That intellectual property rights such as patents or copyrights might be granted or economic benefits obtained from the ES cell research, but these rights or benefits will not

belong to the donor;

12) That whether to consent or refuse to donate their embryos will result neither in their advantage nor disadvantage;

13) That donated embryos are stored for at least one month after the consent has been given and that the consent can be withdrawn in the meanwhile.

(8) Deriving Human ES Cells in Japan

The first and so far the only application for the MEXT's clearance of the ES cell derivation protocol [=confirmation of its conformity with the Guidelines] was submitted at the end of December 2001 by the researchers led by Professor Nakatsuji of Kyoto University. The clearance was granted in March 2002. By November 2003, three ES cell lines were developed by them. These lines continued to be propagated well and began to be distributed in March 2004.

(9) Requirements for the use of human ES cells

Guideline 26 provides that the use of human ES cells shall be permitted only when the following requirements are satisfied:

1) Its purpose is basic research contributing to

(a) Clarification of the mechanisms of human development, differentiation and regeneration, or

(b) Development of a new method of diagnosing, preventing or treating diseases or development of new medicines and drugs;

2) The use of human ES cells in the research is both scientifically necessary and appropriate.

It further provides that the human ES cells shall be those which were derived in conformity with the Guidelines. At the same time, Guideline 26(3) permit the use of the human ES cells generated overseas, when the Minister certifies that such cells have been appropriately derived in accordance with the standards of the Guidelines. According to MEXT, included in the standards are (a) the lines are derived from the so called surplus embryos, (2) adequate informed consent was obtained for the donation of the embryos, and (3) the donation was gratuitous.

Under Guidelines 32 - 33, the following procedure must be followed for the use of human ES cells:

1) Director of the team intending to use human ES cells shall prepare a use protocol and ask the approval from the head of the institution (hereinafter UI=use institution).

2) The head of the UI shall seek the opinion of its ethics review committee, and based upon it, shall decide whether to certify its conformity with the Guidelines.

3) The head of the UI, in deciding whether to approve the protocol, shall ask the confirmation of its conformity with the Guidelines from the Minister of MEXT.

4) The Minister shall seek the opinion of the Bioethics and Bio-safety Committee of the

Commission on Science and Technology, and based upon it, shall decide whether to confirm its conformity with the Guidelines.

(10) Use of Human ES Cells in Japan

So far, more than thirty protocols were granted the MEXT's clearance. As the number of application for MEXT's clearance is continuing to increase and experience has been accumulated concerning the current set of Guidelines, MEXT is now in the process of revising it.

V. Patenting the Results of Biomedical Research[6]

In Japan, like in Europe, methods for medical treatment, however novel and original, cannot be regarded as industrially applicable inventions. Hence their patentability has been denied. On the other hand, products used for medical treatment have been treated as patentable. On this reasoning, inventions of pharmaceutical substances and medical devices, as well as specific medicinal uses of them, even though that specific uses are to be made of already known products, can be granted patents. However, the discovery that a combination of the known medicinal ingredients has a synergistic or otherwise remarkable effect or that that a change of administering mode of known medicines including the dose and dosing interval results in more favorable or less adverse effects comes very close to the invention of the method of prescription of medicines by physicians that will not be qualified to be patented. To make clear this point, the Japan Patent Office in April 2005 revised its Examination Guidelines. Guideline VII-3 now provides that medicinal inventions intended to specify the mode of medical treatment such as the frequency of administration and dosage and combination of medicinal ingredients are to be patented as product inventions.

One of the aims of Genome/gene analysis research is to realize the personalized medicine through the discovery of the genes and SNPs related to efficacy or adverse reactions of medicines. Under the revised Examination Guidelines, it has now become possible to obtain patents for medicinal use invention that determine the dose and dosing interval dependant on the patients' gene and SNP information.

[6] I. Shimbo, A. Cobden & K Sumikura, The Patentability of Medicinal Inventions Related to Personalized Medicine in Japan. 2005. Nature Biotechnology 23(11):1367.

The Legal and Bioethical Implications of Research and Biobanking in Japan

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Japan

1

Introduction

In this presentation, I would like to show an overview of governmental ethical guidelines for biomedical research and Personalized Medicine and Biobank Japan Project which has collected so far about 200,000 patients' blood and health data. I also would like to submit some observations based upon my personal experiences.

2

Guidelines for Biomedical Research

- Ethics Guidelines for Human Genome/ Gene Analysis Research ("Genome Guidelines", MEXT, MHLW, METI, March 2001).
- Guidelines for Derivation and Utilization of Human Embryonic Stem Cells (MEXT, September 2001)
- Guidelines for Handling of Specified Embryos (MEXT, December 2001)

3

Guidelines for Biomedical Research

- Ethical Guidelines for Epidemiological Research (MHLW, June 2002)
- Ethical Guidelines for Clinical Research (MHLW, July 2003)
- Guidelines for Clinical Study Using Human Stem Cells (MHLW, June 2006)
- Guidelines for Clinical Study of Gene Therapy (MEXT & MHLW, March 2002. The original gene therapy guidelines were enacted in June 1994)

4

Features of Ethical Guidelines

- The requirements of voluntarily given informed consent
- Protection of personal information
- Review and approval by research ethics committees that is composed of members of multiple disciplines and both sexes.

5

Personal Information Protection legislation in May 2003

Largely follows the model of OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data.

- Specification of purposes for which data are collected.
- Limitation of Use of data to the purposes.
- Nondisclosure to third parties without the consent of the subject or the authority of law.
- Protection by reasonable security safeguards.
- Subject's right to disclosure and correction.

6

Personal Information Laws and Ethical Guidelines

- Personal Information Protection legislation (taking full effect in April 2005) explicitly exempts researchers of academic institutions from specific obligations regarding personal information processing for the purpose of academic research.
- However, most obligations thus exempted have been incorporated in the guidelines revised in December 2004.

7

Biobank and Genome Guidelines

- As biobanks and researchers who use their specimens are supposed to make genome/gene analysis research, the Genome Guidelines govern their operation and researches.
- Genomic/genetic information, which is unique to each individual, will not change for life, and may indicate the future onset of or susceptibility to particular diseases. These characteristics of genomic/genetic information justify an individual's control of it and special protection against the violation of its confidentiality.

8

Requirement of Informed Consent

Guideline 10(3) provides that before receiving a specimen and clinical data from a donor, the principal investigator must obtain a written consent based on his/her free will (informed consent), after providing him/her with an adequate explanation of such matters as the significance, objectives, methods and expected results of the research, disadvantages that he/she might suffer, and the method of preservation and use of a human specimen and clinical data.

Guideline 10(9) provides that the donor or his/her proxy may withdraw at any time in writing his/her informed consent without suffering any disadvantage.

9

Personal Information Security Measures and Anonymization

Guideline 6(3) provides that the head of research institution must take the organizationally, personally, physically and technologically effective measures to secure the protection of personal information.

Guidelines make it a rule to anonymize specimens and data before they are used in research.

Guidelines 14(2) provide that where the specimens are deposited to a human cell/gene/tissue bank, it must be ensured that they will be anonymized in an unlinkable manner when distributed to researchers.

10

Personalized Medicine Project and Biobank Japan

Spring of 2003: A five year governmentally funded $180 million project led by Professor Yusuke Nakamura of the Institute of Medical Science of the University of Tokyo was launched.

The project, named “Personalized Medicine Project,” was first conceived as a research and development project to revitalize the Japanese economy, and, in a sense, is a successor to the Millennium Genome Project.

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The Aims of “Personalized Medicine “ Project

1. Discovery of genes susceptible to diseases, or those related to efficacy or adverse reactions of drugs
2. Evidence-based development of drugs or diagnostic methods
3. Providing the important medical information that can be applied for establishment of “Personalized Medicine”
4. Genetic and environmental epidemiology

How to realize “Personalized Medicine “ ?

1. Collection of DNAs, sera, and clinical information from 300,000 patients
2. Construction of Biobank Japan (DNAs at 4^{o}C and sera at -150^{o}C)
3. Systematic genomics (mainly SNP analysis) and proteomics analysis
4. Identification of genes of medical importance

ELSI Committee of the Personalized Medicine Project

Summer of 2003: ELSI Working Group was established under the Project's Steering Committed (Working Group's first meeting was held in August 2003).

It was not independent of the Steering Committee and lacked its own secretary office, it could not work efficiently.

Sept. 2004: ELSI committee replaced ELSI-WG.

ELSI committee stands parallel with the Steering Committee and can perform its duty more efficiently.

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The ELSI Committee

- The committee now consists of 9 members.
  - a medical scientist
  - a patent specialist
  - a genetic counselor
  - two representatives of patient groups
  - a bioethicist
  - a practicing lawyer
  - two law teachers
  - (4 are female and 5 are male.)
- It meets once a month.

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The ELSI Committee

The committee's activities includes

(1) visiting collaborating hospitals to make on-site checking of the informed consent procedures and personal information protection system;

(2) inspection of the records of the research ethics committees of the participating institutions regarding the ethical review of this project;

(3) checking the project's system for distributing specimens to outside researchers;

(4) ensuring the project's conformity to the revised Genome Guidelines.

15

Personal Experiences

The subjects' ability to understand the genomic research and biobank.

Researchers' ability to project the every detail of their study plan.

The difficulty of striking an ideal balance between ensuring the voluntariness of subjects and efficient implementation of the research.

The rule of no returning of personally useful information to participants.

The ways control samples should be collected and its collection explained.

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Thank you.

Acknowledgement

The following people kindly helped me in making this presentation:

Professor Yusuke Nakamura (Tokyo University)

Dr. Yozo Ohnishi (Tokyo University)

And many others involved in Personalized Medicine and Biobank Japan Project and J-MICC Study Project.

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Comments on the Japanese government guidelines

***Tohru Masui*, Senior Associate of National Institute of Biomedical Innovation**
7-6-8, Saito-Asagi, Ibaraki-shi, Osaka

I would like introduce 4 sentences in relating to the issues discussed here. First 3 are from documents indicated.

"Term medical purposes explicitly include medical research."

"We are all potential donors."

These two sentences are closely related to the issue discussed here. Since I am working for cellbank, my concern is that how we can use human materials and information in a socially acceptable way. In this meeting we are informed that there are so many ways to achieve the information. Medical research should be considered in the context of clinical practice, as Dr. Maruyama mentioned on genome research and R&D activities. Medical research is not an isolated issue, it is closely related with everyday practice of medicine. The first two sentences clearly show the conceptual relation of medical practice and medical practice. Hearing the talks of Ms. English, I feel that we have very different idea of medical research and consequently regulation is very different.

In Japan philosophy of medical research is represented by following two sentences.

1. Science is a tamed knowledge supporting by reasoning and assumption.
2. Science is a risky adventure motivated by intuition and instinct.

The fist one is currently very popular in Japan. The second one reflects reality of science. Japanese guidelines are very much favour the first definition. Of course, medical research targets human subjects and this situation demands caution. However, English San mentioned repeatedly about the concept supported by the second sentence. I read regulatory documents of UK or USA in medical research. They said that the regulatory frame is indispensable because of the second nature of science. The regulatory frame supports not only the human subjects, but also researchers and society as a large. Science naturally creates risks for research subjects. However, the second nature of science is indispensable of existence of the first definition.

I think that the difference came from the perception of risks on Japan. Japanese regulatory people might seem to believe that nothing risky should happen if the medical research or science is done right. It means that something should contain only good consequences if it is done right. However, reality shows it seems wrong. Every thing has good and bad consequences and we could reduce the bad consequences with caution. The worse is that trying to promote good part makes the increase in risks invisibly.

This idea is typically demonstrated in our Clinical Research Guidelines. It had been made based on Helsinki Declaration. In Helsinki Declaration, chapter 7, "i[I]n current medical practice and in medical research, most prophylactic, diagnostic and therapeutic procedures involve risks and burdens". This sentence had been in the draft version of the guidelines, but it was deleted in the final version.

Problem is complicated but philosophy seems simple.

Now we return to the basics, policy and ethics. In Japanese, these two sentences do not go along well. However, if we define policy, in what society we would like to live, in what society we would like to create, or what society we would like to hand to the next generation. What we can do now for the future reflects ethics.

We have to cautious on thinking this, because there are differences in tense and in person. It means that I should do something now for them for the future.

It could be phrased as the following; what mine is my own, what mine is ours, what mine is yours, and what mine is theirs. The medical research could bridge the first and the last phases.

If we think of the present situation of tissue and cell banking, we could realize it. Donors donate his/her parts to banks and banks provide them to researcher. The research will reword bank with their research outcome and appreciation. Then what could be exchanged between the banks and donors. Monetary, reputation, or something should be returned to the donors.

T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England(Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

We researchers used to show our appreciation by naming outcomes, i.e. cell lines, with the donor names, like HeLa. This is the contrary to the philosophy of annonymization. In the case, we have to show their names as contributors for the science.

In the last part I would like to comment one thing. We experienced heat in publicizing a series of the guidelines on medical research. During the course, however, researchers have become reactive, not responsible. English San mentioned about reluctance of researchers having strict regulatory frame. Reluctance, I think, is better than becoming reactive. As I mentioned, research activity and ethics are based on voluntariness of stakeholders. This could not be realized by putting outside regulatory frame. We have to be responsible, not reactive, and this should be essential in being ethical in medical research.

Discussion

Matsumura: Industrial use, import and export

May I ask one question, Ms. English? You did not note much about industrial use.

Now, wasted materials, or something which is left after surgery can be a great resource for industry. For example, there are a number of woman with big breast. Too big. So that they may want to cut a bit of the skin. This is beautiful normal skin.

We can cultivate this, and get keratinocytes or fibroblasts, which can be reconstituted to artificial sheets of skin.

Do you think this can also be used in industry in the same way as for research? I mean if you have ethical committee's approval.

English

It doesn't matter whether the research is being conducted within the National Health Service or whether it is being conducted in the private sector or in industry, as the rules are the same for all. Any use of "relevant material" which is material that includes human cells is treated in the same way. One of the things that is included in the code of practice from the Human Tissue Authority is that individuals should be informed if there may be an industrial application or there may be financial benefit from the research. It should be made clear that they would not have any call on any profits that may be made and that's the basis on which – if the tissue is identifiable and so they are asked for consent - consent is given. I assume that if the Human Tissue Authority provides information about research use of anonymous tissue, that would also be included – that the donor would have no claim over any money which may accrue from the research.

Matsumura

You mentioned about import. But not about export. Is there any condition for exporting tissues? In Human Tissue Act, do you require any condition for exporting human tissues?

English

That's a very interesting point because the code of practice is called "Import and Export of Tissue" but it's virtually all about import. It says very little about export. I assume what they would require that the conditions that must be satisfied in this country for the tissue to be used, are also satisfied if research material is to be exported. I think the same would apply in terms of things like keeping records of where the material has gone, and about safe transport: all of those issues I think would also apply to export as well as to …

Matsumura

If this is the case. I think that at least several Japanese industrial companies will very much appreciate your system, since these companies currently have big difficulties in obtaining human tissue materials. This difficulty may partly be due to that Japanese guidelines mention only about research uses. But this may not be a major reason, since what is needed for Japanese companies to handle human tissue materials is law, rather than guidelines without legal bases in any way.

English

I don't know how much material is actually exported, to be honest, because as I said there have never been any checks, there has never been any regulation or any sort of mechanism for looking at that before and in fact there's still not going to be. You don't need to have a license to export but they are required to keep records, so I don't know how much material is exported, to be perfectly honest.

Norton: Negotiating parties for designing regulations

I would like to make a general comment that designing these types of regulations is through a process of negotiation and from Veronica English's presentation, it is clear that in the case of the Human Tissue Act there was quite extensive negotiation between professional associations, researchers and whatever other negotiating parties were involved. One of the factors which made negotiations more rather than less difficult was that it was against a backdrop of the outrageous

problem illustrated by the Alder Hay case. And I think you rightly drew a comparison with the Human Fertilization and Embryology Act which was actually anticipatory legislation-it wasn't brought in in response to a crisis, it was actually anticipated by scientists, medical scientists, ethicists and politicians and of course religious groups, who played a somewhat more constructive role than they do in the USA. And it was possible to deliver if not a consensus and least a visible compromise which has allowed the various parties to allow the law to continue for about 15 years without serious challenge. So I think there's a lesson there that says that in negotiating a future set of regulations, if you can negotiate in the absence of crisis then you are likely to get more long-lasting and reasonable and workable set of regulations then if you wait for a crisis to emerge. That's one of the general rules of regulation!

The other key question is who is negotiating with who. I think again there is a contrast in my mind with the Human Fertilization Act. Because I worked in Parliament before, I was evaluating the HFEA proposals at the time, I know the degree of care which went into balancing the various strongly-held positions and which ended up with a workable compromise. But the people involved could all be recognized as having a legitimate interest. But I can't quite work out from the presentation which interests were involved in the Human Tissue Act. I can quite see the pathologist's interest and the research interest, but when you mentioned negotiating with the government, it sounds like they were very strongly driven by some other forces. So I'm asking what were the things which really drove the people you were negotiating with - was it just the intuition of politicians about what the public really want or will accept? Or were their some more highly motivated other forces, whether ethically or religiously driven, or even human-rights driven. I'm just wondering what were the other forces that were driving you towards such a potentially very broad ranging and restrictive-even unreasonably restrictive- law. Where were those forces coming from?

English

If you're talking mainly about the research use, then the push to have consent for absolutely everything came from the organ retention scandal. The parents who were affected by this were very angry and they wanted something to happen. They argued very strongly that something must change and that consent must always be sought. Everybody agreed with that in relation to material from deceased people. What the government then did was to take that and apply the same principle to tissue from living individuals generally, and actually extended that as well to anonymous tissue. I think to be honest they were very nervous of offending these people even more. I'll mention more tomorrow but when the organs were returned, if it wasn't bad enough what had happened, the way that the return of organs was handled was very chaotic and that resulted in some families having two or three additional funerals as more and more tissue was found. They were told "This is the tissue we have" or "These are the organs we have", and those would be buried. Then two months later they would be called again and told "Oh, we've just found some more" and so they'd have another funeral and then would be told there was some more. So that just made a very bad situation much worse and really it was so bad – there was so much concern amongst the government and that tipped over unnecessarily into living tissue. I think that's what was behind the call to restrict it very much.

Norton

So that was the political response?

English

Yes. That's my opinion.

Norton

Were there any complications over human rights ?

English

No, not really. There was some discussion about human rights legislation. The Human Rights Act has now been brought into UK law and so we all need to consider the Human Rights Act and the implications of that whenever any public body is making decisions but there wasn't a feeling that use of anonymous tissue breached human rights.

With the retention of organs after death there wasn't initially a problem because people did not know what was happening. This whole thing came to light because there was an inquiry in Bristol about heart surgery on babies – they had very low success rates and other. Quite by chance one of the witnesses who was called mentioned that organs were retained, and then they said "Well, you should see what's happening at Alder Hey, because they have a massive collection" and that's how all this came to light.

Mitsuishi

Professor Warnock's committee setting 14-day limit for research on embryos and fetuses can be aborted. Is there any consistency between pre-embryo and embryo, i.e. pre-embryos can be used but embryos cannot be used in research.

English

That's a very good question. It's something that is often discussed, that we don't allow embryos past 14 days to be used for research, but people can have a termination of pregnancy. I think what we need to consider is that there are, of course, two different motivations here. If I can just start off by picking up the first point you made, which is there was no scandal, which is absolutely true, but what you need to understand is that there was an awful lot of opposition to embryo research at that time and there was real fear amongst scientists that that research would be prohibited.

Mitsuishi

Religious argument?

English

Certain religious groups were putting that argument forward but there was also a lot of opposition in Parliament and a lot of opposition in the public. In 1985, I think it was, there was a Private Member's Bill (coming from a member of Parliament rather than from the Government) by Enoch Powell and that was proposing to outlaw all embryo research and it got a lot of support. It did get a majority, but it didn't get enough time to get through Parliament. So that's what started this debate I talked about, about educating the public, educating Parliamentarians, about what embryos actually are and what the research is for. There was quite a long period of time where it was felt that embryo research would be prohibited and it was all about it's potential life – you are creating a potential life and then you're using human life for research – so there was a lot of opposition at that time and that gradually changed as people got more information. That's why there was a need to have the Warnock Committee. It wasn't just, of course, the research side but also the treatment side, because IVF was still quite new. Louise Brown was only born in 1978, and the Warnock Committee reported in 1984 and was set up, I think, in 1982, so there had been a few babies born by IVF but not huge numbers and so there was also concern that this was completely new – developing human life outside the human body. What would scientists do with this information? How were they going to use it? It was partly about the research, but the treatment side was also raising concern at that time, so that's what led to the Warnock Committee being set up. In amongst all that opposition and concern, and taking evidence from a very wide range of people, they decided that 14 days was an appropriate limit to set because that's the stage, or around then, that the primitive streak develops where you know whether the cells are going on to form part of the placenta or going on to form part of the embryo proper. So there's a reason why 14 days was chosen.

The difference, of course, with a termination of pregnancy is that, as you said, some people do see that as a contradiction – that we don't allow research on embryos but we do allow people to terminate pregnancy. In the UK we don't have abortion on request or abortion on demand. Certain criteria have to be met in order that a woman can have a termination. So before a woman can have a termination of pregnancy, she has to have two doctors who agree that she meets one of the criteria – those are going to be risks to her mental or physical well-being - it's about the mother. The reason you are doing the termination is because there are grounds under legislation to do that, so I think it is slightly different although I understand that people think there is a contradiction there.

Norton

But the actual law only came in in 1990.

English

That's right.

Norton

And between the Warnock Report and the actual legislation there was the traditional British way of doing things, which is to have a voluntary scheme so there was actually the equivalent of the HFEA before that, wasn't there?

English

I used to run that, actually – the Voluntary Licensing Authority.

Norton

Set up on a voluntary basis so it wasn't just suddenly nothing happening and then the law. It was anticipating the problem first of all voluntarily and of course in the research area "voluntary" is rather a misnomer as if you are doing research you can't really just ignore it, you have to comply which brings it on to the statute book in a sense.

English

But the other point to make about that is that it goes to show what I was saying earlier about doctors and scientists who work in this area really wanted to have legislation – they agreed to be licensed voluntarily. Interestingly, we were discussing over dinner that there was one case where a doctor refused to abide by the guidelines of the Voluntary Licensing Authority and so he had his Voluntary License withdrawn and the effect of that was that he had such bad publicity – because the public and the media supported the need for regulation in this area so much – he had such bad publicity that he was losing business. He was a private doctor and patients weren't going there. They were then starting to "vote with their feet" as we say – go to a centre that was licensed – so he very quickly decided that he would abide by the guidelines and he got his license back, so although it was voluntary, there was a lot of pressure on people to comply even though it was a voluntary system.

Mitsuishi

Do you mean that there is no inconsistency between these two systems? Like one system is just 14 days after fertilization so that after 15 days you cannot use it for research, you cannot destroy it, and yet the fetus can be destroyed.

Norton

The abortion is a therapeutic procedure on the mother for the mother's health and welfare. Brief discussion about selective abortion on grounds of genetics, handicapped fetus.

English

She has a right if it is in compliance with the legislation but she has to show justification and she has to show that she has reasons which are set out in the legislation to have a termination. She doesn't just have a right to go and say "I don't want this pregnancy. Terminate my pregnancy." She could not do that in the UK. She has to show that she's complying with the legislation, that she is meeting one of the criteria for having an abortion.

Maruyama

This is a question that I have been asking myself for a while. Why does public engagement or involvement stand so prominently in the formation of the public policy in your country, I mean, compared to Japanese situation?

English

In the UK there is a strong emphasis on individual autonomy and self-determination. The individual has a right to make decisions about their own treatment. Questions of medical ethics and public policy are also not seen as just issues for doctors but they are about the society we live in and as such people in society feel they have a right to be consulted and help to shape public policy. Over the last ten years we have seen a great expansion in the information made available to the public –through the media and the internet – and increasingly members of the public are encouraged to submit their views via public consultations.

Norton

I would like to add that is not just the medical field, it has become a general philosophy to consult - Its something called democracy! It is now seen as a central part of democracy not just sufficient to have an election every three or four years, it is now expected that there should be involvement by the public in almost any major regulatory area- not just medical but transport, environment. And the reason is that there have been a number of big issues, not just science-related where the public reaction is a critical factor in stopping something. One example is where we tried to dispose of radioactive waste there was a huge public opposition to that, and the public reaction turned out to be the key factor which actually stopped a major part of government policy. The reaction of the public to genetically modified foods (rather like Japan) -is another area where there is a feeling that because the public was not involved at critical stages of the regulatory process, they didn't have trust in the process and therefore they refused to accept the results of the process when it came out. So there are now some very ambitious and very expensive efforts to involve the public in new technologies. For instance there is a big initiative on nanotechnology where there is the effort to develop the technology and the debate on its management and use in parallel, so the public are familiar with how it's going and won't just wake up one morning and be surprised by a new nano-product as they were in the case of GM. So it's quite broad-based; of course medical ethics is a key area, but this consultative approach covers everything from transport and even the structure of government is being consulted on now. It is become a procedure of democracy now.

Utsugi

Because the problem of democracy, there must be some technical phase of this…

Masui

Welcome Trust held a meeting on engaging science in April 2006. (SCIENCE FOR ALL: IS PUBLIC ENGAGEMENT ENGAGING THE PUBLIC? CONFERENCE REPORT, 3–4 APRIL 2006, MANCHESTER CONFERENCE CENTRE. http://www.wellcome.ac.uk/doc_WTX032160.html)
In the meeting they raised two key questions. How can we measure the success? What is the purpose of public engagement? Still, UK spends so much time on public engagement, UK is struggling on the issue still. We have to initiate the activity, though we need to mind the questions.

Norton

Just one final point on that, it is a very ephemeral or woolly concept in that having had all this engagement we have to say why did we do it and what were the outcomes. Of course some people are doing it in order that their view of the desirable outcome should be the one that emerges. So there's quite a big debate in the social science community about whether public engagement is meant to be just trying to ensure that the public accept the outcome that is the 'rational outcome' or whether it really is a negotiation between those with power and those who voted -the general public. There is an argument in the social sciences about which one of these it really is, and that's probably what the Welcome Trust was talking about. I give a lecture on this at Tokyo Tech as part of a public communications course.

Kurihara

I would like to ask you the real reason why UK biobank project takes so long time until starting the project, which mean you takes so long time for the activities of getting consumers' understanding,

public acceptance, and system development. This situation is completely different from Japanese biobank project. Japanese biobank project started without such intensive consultation with public and without well-designed system development. So would like to ask you real reason why UK biobank project takes such long time before starting.

English

Some of the reason for the delay was getting the money and funding sorted out. A lot of time was spent discussing recruitment and consent and there was also an issue about how they would obtain the ongoing health data they needed.

Masui

When I first visited MRC on the issue of Biobank, they were very cautious. I was told that; "unless they are fairly well prepared to give reasons for public and opponents in the issue, they keep the project in low profile. Otherwise, the project could ruin." This attitude is constructed by their experience in public scandals during the 1990's on BSE and GMO. The experience made them cautious on the preparation of Biobank. At the opening of the website of Biobank, they showed everything. Now they are at the last phase of moving into the practice and they are adjusting the protocols inside, in this way, they can manage the processes easy and quick.

To obtain name and address of the potential participants, Biobank applied PIAG for authorization.

English

Patient Information Advisory Group (PIAG) which means that under certain circumstances you can make a case for the information to be provided without consent and so they have to make an application to PIAG in order to get approval to seek the information without actually getting consent from patients for them to be given it and that takes time.

Matsumura

OK. Masui-san mentioned about economy, I mean, economic pressure.

If we think of a couple of other small countries where they are mentioning openly that the purpose of resident research is for them to survive. They devote themselves to that kind of researches to attract capitals, industries and hospitals form all of the world, and to establish a center of high technokogy.

Certainly this is a kind of problem. How is the economic pressure in your country. This is not mentioned at all in Human Tissue Act.

English

Generally, there is a lot of support in the public for research and so I don't think it's necessary to use those kind of arguments in order to encourage people to participate in research. When we do studies we find a very high number of people are willing to donate material to research and that actually turns into fact that people do donate, that people are happy, particularly if it's anonymised so I'm not sure that they need to actually use those arguments because there is a lot of support already, generally, for research. I think that's partly because the media play an important role in promoting the benefits of research and that helps because people can see where research is going.

Interestingly, there was a case recently where a phase 1 clinical trial went very badly wrong – I don't know if you have information about that here – and people went into multi-organ failure and it was very serious. It was thought that this would lead to a lot of people saying "I'm not participating in research". In fact, it led to a massive number of people applying to go into research. The reason for that is they hadn't realized just how much money could be made from participating – it was reported that volunteers had received about £2,000 for participating in that research and people suddenly became interested and they ended up getting a lot more volunteers. So perhaps it's not all altruism – when we're talking about clinical trials and there's money involved, there is an economic angle.

Session 3

Comparisons between the U.K. and Japan in social and cultural environments surrounding human tissues with a proposal of internationally acceptable rules

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T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England (Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

Introduction

1. The purpose of this paper

The ultimate goal of this paper is to propose a set of Japanese domestic rules and a set of international rules both of which may be understandable and appreciable by people internationally. Here, United Kingdom is regarded as a representing international partner of Japan.

To attain the ultimate goal, similarities and differences between the two countries in facts in statistics, in background culture, and in basic ethical concepts related with human tissues, are reviewed and analyzed, in the first place.

Then in the second, attempts are made to propose a strategy to draw basic rules for handling human tissues.

With the strategy as proposed, a set of basic rules with the author's intention so that it may fit with Japanese society, and may be understandable and appreciable by people overseas, particularly British people, is proposed.

Finally a set of international rules is proposed as an extension of the proposed Japanese rules.

2. The objects of this study

The objects of this study are parts of human body removed from a whole body, or those grown in vitro. They include organs, tissues, cells, fertilized eggs and developing eggs. Sometimes genetic materials may also be included. Collectively, they will be reffered to as tissues. The objects of this category are often referred to as 'hito-mono' in Japan, after Koichi Bai. Here, 'hito' means human, and 'mono' what exists or stands by itself. 'Mono' is close to the English word 'thing', but refers to an object that was thought in old days in Japan to contain soul within it. It is close to 'being' used as 'human being'. In this paper, either 'human tissues', or 'human things' are meant to indicate what are called as 'hito-mono' in Japanese.

3. Are human tissue issues worthy of considering international rules for them?

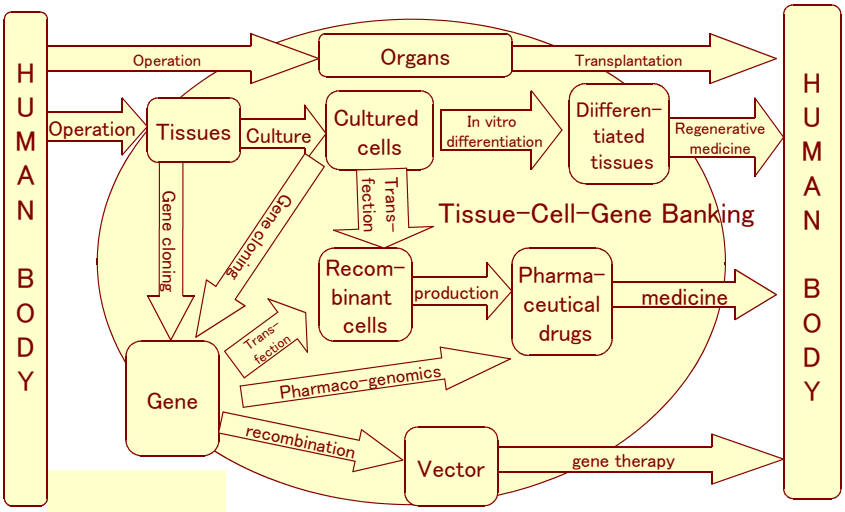
Author's position in this paper is YES.

- Human tissues are already playing indispensable roles in modern society (Columns 1,2).
- Human tissue utilization is still expanding (Columns 3,4).
- International flow of human tissues is increasing (Statistic data yet available).
- There are international imbalances between the availability of, and the demand for, human tissues.
- Moral and ethical views are diverse among countries while they are becoming playing important roles (Column 5).
- In some special circumstances, not only fertilized embryos, but also somatic cells and tissues, the latter of which are frequently transported internationally, are to be considered at an equal ethical level with an integral human being, due to the fact that an integral human body can now possibly be developed from them, using modern cellular and embryological technology.
- International rules have been playing important roles for the protection of vulnerable subjects (Column 6).

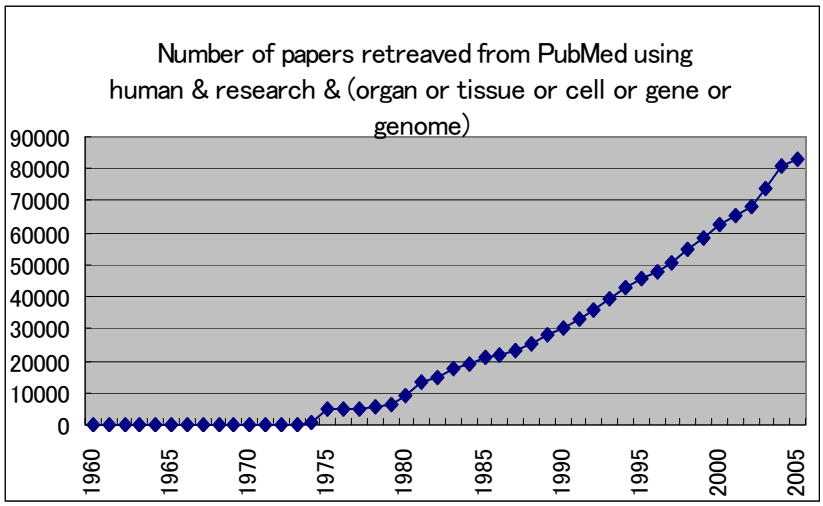
Column 1. Ways to utilize human tissues are expanding.

Transplantation using:	Organs: Heart, Lung, Liver, Kidney--- Tissues: Skin, Soft bone, Cornea, Nerve--- Cells: Bone marrow, Peripheral blood, Pancreatic islet ---
Production of biopharmaceutical drugs using:	Cultured human cells Genomic- and c-DNA for recombinant production
Testing for safety, efficacy, metabolism using:	Liver tissues, Cultured cells, Skin, Intestine
Regenerative medicine using:	Embryonic stem cells, Tissue stem cells, Tissue precursor cells
Biomedical and pharmaceutical researches using:	Everything

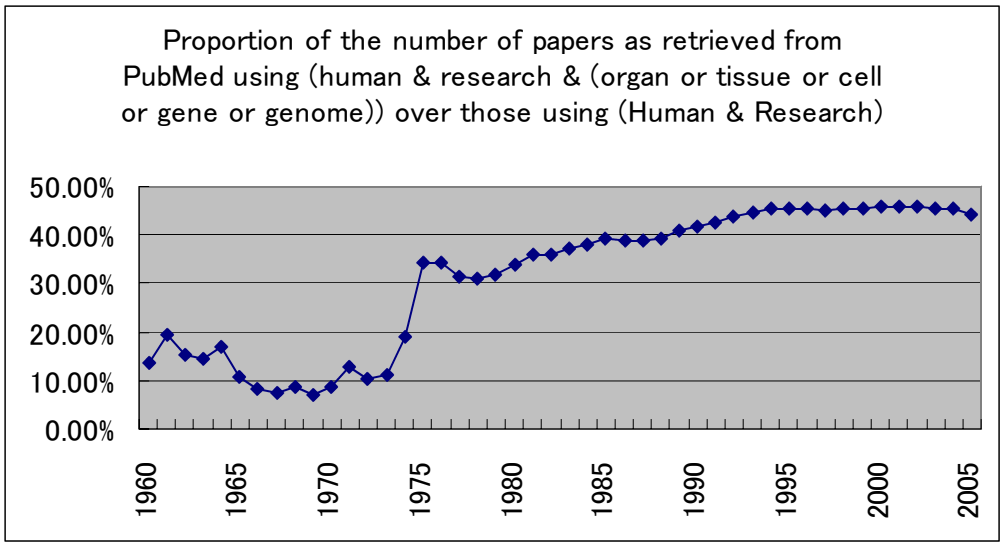
Column 2. Human tissues are playing important roles in the society.



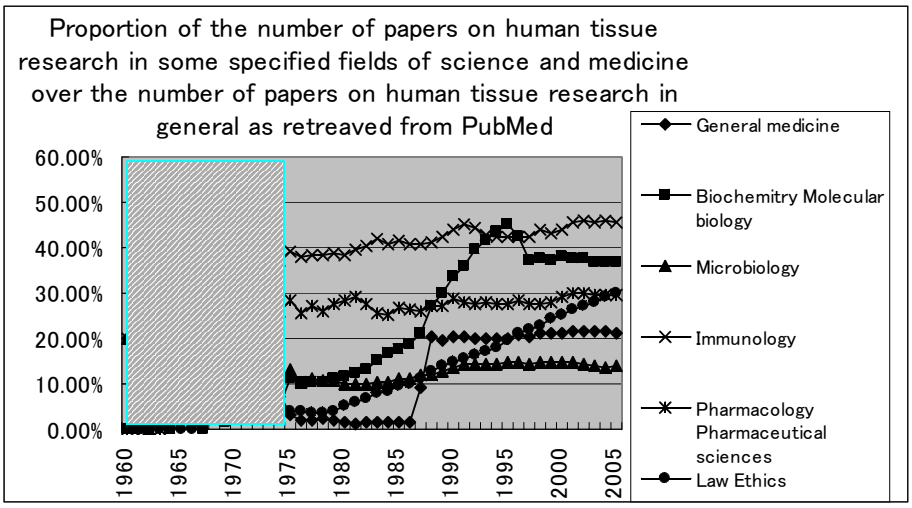
Column 3. Number of research papers dealing with human tissues is expanding continuously since mid-seventies.



Column 4. The proportion of research papers dealing with human tissues among those dealing with human jumped up during mid-seventies, and stayed constantly over 40% in recent years.



Column 5. Of research fields dealing with human tissues, the field of law and ethics grew constantly during the last twenty-five years.



Profiles before 1975 are deleted due to small number of papers.

4. *If international rules once established, how are they effective?*

They may be effective:

・in stimulating international cooperation.
・in avoiding international conflicts related with human tissue issues.
・in solving problems that cannot be solved by individual countries.
・in drawing a future image and a direction toward the advancement and enrichment of human life.

Column 6. Examples of past and present interests in establishing international rules

Earth environments:	Preservation of
	Kyoto Protocol 2001, United Nations Framework Convention on Climate Change (UNFCCC)
Infant and child:	Protection of
	UN Convention on the Rights of the Child
Intellectual property right:	Protection of
	A number of international treaties as administered by World Intellectual Property Organization (WIPO)
Nuclear power:	No proliferation of
	Treaty on the Non-proliferation of Nuclear Weapons
Pharmaceutical drugs:	Registration of
	The International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH)
Recombinant organisms:	Control of
	Cartagena Protocol on Bio-safety to the Convention on Biological Diversity
Privacy:	Protection of
	The EU Data Protection Directive 95/46/EC
Wild life:	Protection and Preservation of
	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, Washington Convention)

5. *What matters while drawing international rules: Author's position*

Do scientific knowledge, technology and economic condition influence ethics?

Author's position in this paper is YES. This issue will not much discussed in this paper, but needs a thorough treatise separately.

Can we share moral and ethical bases common among people in different parts of the world and with different cultural backgrounds?

Author's position in this paper is YES, with a reservation that they may change with time as science and technology develop, and as human environments and economy change.

Are traditional life habit important here?

Author's position in this paper is YES. The results of brain science tell that decision-making mechanism in the brain develops throughout lifetime and that the brain refers to his/her accumulated memories before a decision.

When a decision is to be made on a rare matter, the brain tends to consult with early memories, since there are no pertinent cases in recent memories (Column 7).

Such an early memory is usually based on the local tradition that are not accompanied with any explanation for their scientific reasons.

The death of a family member is a rare event, and therefore decision making at such occasion is frequently influenced by tradition.

Column 7. Consulting with old memories. A recent Japanese case

After repeated failures of launching artificial satellites in recent years in Japan, rocket engineers there decided to go and worship at Shinto-shrines (three shrines in fact!!) for good luck before launching another artificial satellite.

Fortunately it worked out!

Part A. Fact studies

A-Ⅰ Statistics

1. Similarities

Economic status

The two countries are in a remarkably equal economic status (Column 8). Therefore, economical influences on the current subject may be negligible here, at least at the level of countries.

Column 8. In terms of GDP per capita, the two countries look like almost identical twin.

GDP per capita (2005 IMF data)	
UK	$30,436
Japan	$30,615

Governance structure

The two countries are remarkably similar in their governance structure, at least superficially (Column 9). Therefore, influence of governance structures on the current subject may not be large here.

Column 9. Governance structure of the UK and Japan

- Royal (Imperial) family as the symbol of the country
- Democratic election system
- Two houses of parliament working as law making mechanisms
- Prime minister and a cabinet as the steering mechanism
- Ministries as the enforcing body of laws
- Courts as judging mechanism

The basic capability of people's intelligence

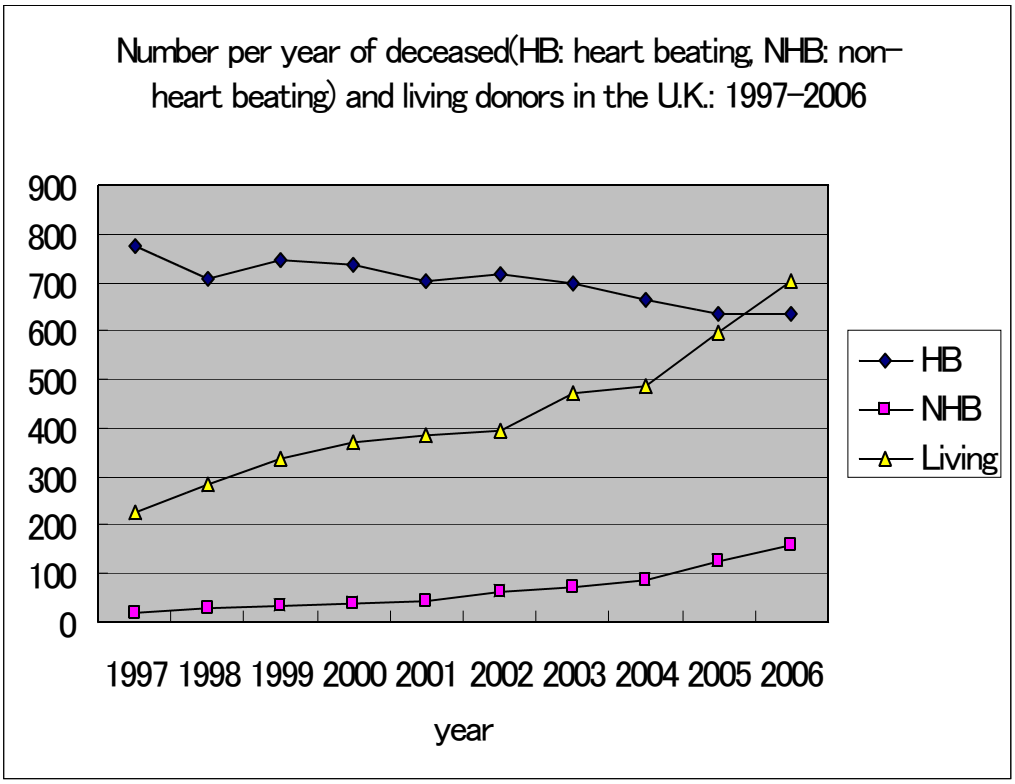
With no good measures given, a plain assumption is made here so that people in these two countries are intellectual sufficiently enough to understand and appreciate foreign ways of thinking as long as they are comprehensively described.

2. *Differences*

The incidence of organ transplantation from living donors verses that from cadavers

Generally, the incidence of organ transplantation, particularly that from cadavers, is low, while that from living donors is high in Japan in comparison with that in the U.K. It is remarkable to note that liver organ transplantation depends very much in the U.K. on heart-beating donors, while in contrast on living donors in Japan (Columns 10,11).

Column 10. Profiles of donor status in the U.K.



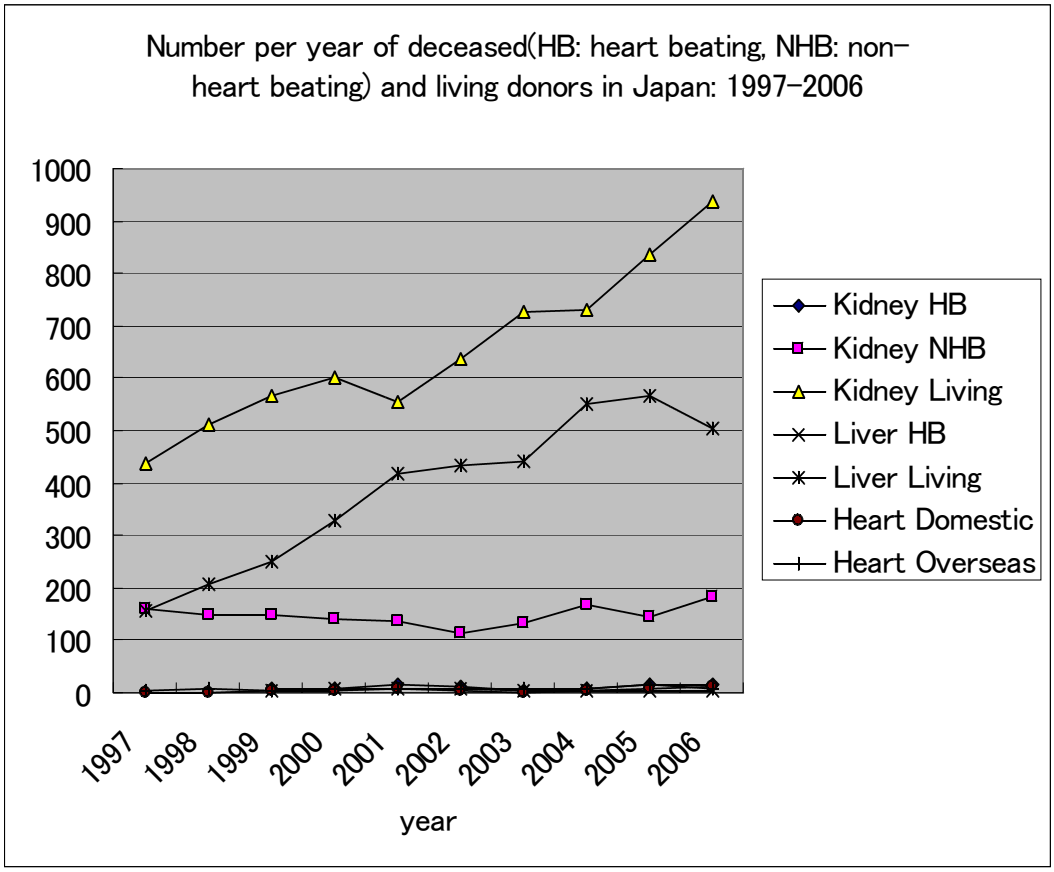
	Heart Beating Donor	Non-Heart Beating Donor	Living Donor
Kidney	609	156	690
Liver	586	50	12
Heart	158	–	–

2006.4.1-2007.3.31
No. of donors in U.K.

The amount of human tissue supply to research entity

The amount of human tissue supply to the entity of research and development in Japan is mostly from other countries, as the number of organizations providing Japanese tissues for research resources is only one, i.e., Human Science Research Resource Bank, while those importing human organs and tissues from abroad are numerous. No organs procured for transplantation purpose but not used for that purpose with some or other reasons are allowed to be used for other purposes than transplantation within the present Japanese regulatory framework (See below).

Column 11. Profiles of donor status in Japan showing that the incidence of liver transplantation from living donors is remarkably high in comparison with that in the U.K.



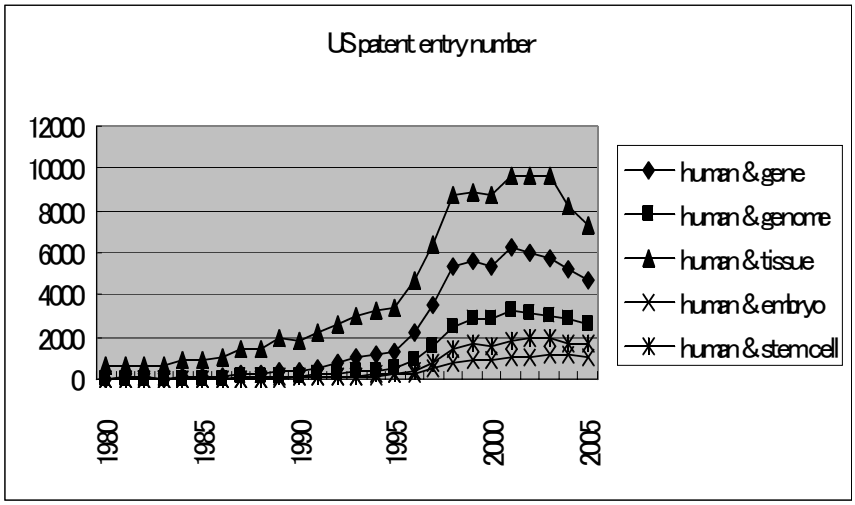
	Heart Beating Donor	Non-Heart Beating Donor	Living Donor
Kidney	15	182	939
Liver	3	-	505
Heart	10	Domestic	
	7	Overseas	

2006
Number of donors in Japan

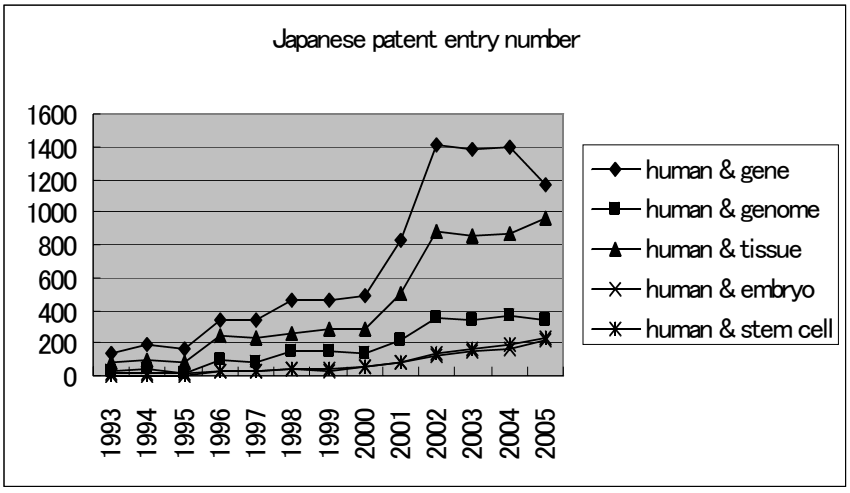
The amount of industrial contribution from human tissue research

Contribution of human tissue research is low in Japan in comparison with that of human genome research as estimated from the entry number of patent (U.S. - Japan comparison)(Columns 12,13).

Column 12. Profile of US patent entry numbers per year showing human tissue-related ones at the top



Column 13. Profiles of Japanese patent entry numbers per year showing gene-related ones at the top



Discrepancy between wish and action for the donation of human tissues

In Japan, around ten percent people of total population have donor cards for organ-transplantation in recent years. The small number of heart-beating organ-donation, as shown in Column 11, therefore, cannot be directly attributed to the number of donor-card holder.

On the other hand, an inquiry study shown in Column 14 shows that the most of all donor card holders are not reluctant to present their organs to research entity, as long as they themselves are concerned. Therefore, it can also not be attributed to the number of donor-card holders who have wishes to donate human tissues for research uses.

Here, it is to be noted that a government ordinance under the Japanese organ transplant law tells that those organs that have been procured for the purpose of transplantation, and later found unsuitable for transplantation, are not to be used for any other purposes including research.

This may imply that crucial negative decision is often made against the will of dead donors by others than the donor.

Column 14. A recent inquiry study shows that it is not the donor card holders who make key decision.

Subjects:	Donor card holders
Number of inquiry sent:	3000
Number answered:	1218 (40.6%)
Question:	Can your organs once removed for transplantation but unused for that purpose be used for research?
Answer: Yes	95%
No	3%
No answer	3%

An inquiry study by HAB research organization (2005)

The governance framework to regulate human tissue handling

In the UK, Human Tissue Act 2004 and Human Fertilization and Embryology Act 1990 cover essentially all issues regarding human tissues including organs, tissues, cells and embryos to be taken outside of body, and to be used for researches, clinical purposes and others.

In Japan, there are a few pieces of laws covering several specific areas regarding human tissues, such as organ transplantation and pathology. On the other hand, a large set of ethical guidelines and recommendations, which are not directly bound to any Japanese laws, have been issues from governmental administrative offices and committees to some fields of research and practice (Column 15). A broad area of human tissue usage, including industrial use and tissue banking has been left without any regulatory framework (To be described by Sato, Maruyama and Muto in details in other sessions).

Column 15. Representative Japanese laws, ethical guidelines from the governmental administrative offices (GEGs) and recommendations from governmental committees (GCRs).

Laws
Postmortem Examination Act
Organ Transplantation Act
(This act does not cover tissue transplantation, nor research use of tissues)
Clone Technology Act
Protection of Private Information Act
Governmental ethical guidelines (GEGs) related to human tissues
GEG for clinical research
GEG for epidemiology research
GEG for gene therapy
GEG for human embryonic stem (ES) cell research
GEG for researches on human genome
Reports from governmental committees (GCRs) related to human tissues
GCR on the use of surgical materials for research
GCR on the operation of an institutional review board (IRB)

In this table the English name of a Japanese law, a GEG, or a GCR is given by word to word translation, and is not authorized.

These GEGs and GCRs have been appreciated and obeyed generally well almost like laws, although none of the GEGs and GCRs are underlined with any enforcing mechanisms except to those organizations that belong to the government.

These GEGs and GCRs have been conformed essentially to the American ethical framework as established first in the Belmont Report (1979, See below). Particularly, attentions are stressed on the respect for autonomy principle and setting an institutional review board (IRB) in an individual organization.

Some key words mean differently between the two countries.

・Brain death

Brain death is generally accepted as a category of death, not only medically but also socially in the UK. While in Japan it is not accepted as such, but as a legal word which can be used only when it is related with organ donation for transplantation.

・Death

Although the term death as a medical term is unique all over the world, this term may sound differently among different part of the world when we look at it from a social view. Since a careful consideration is needed here, difference in the meaning of death between a traditional Japanese society and in a western society will be discussed in a later section in some details.

・Ethical committee

An ethical committee usually means in the U.K. a local ethical committee which is

independent from an acting organization in which human tissues are handled. While in Japan, it usually means either an institutional review board that works as a consulting agency to an acting organization, or a committee of an academic society with special interests in ethics to which the members of the society are bound, if it is influential to the society in general.

In both countries, there are exceptional cases in which an ethical committee belongs to the government.

A-Ⅱ Cultural backgrounds

With his limited educational background, the author intends only to remind readers that there are some aspects of cultural backgrounds of the two countries relevant to the present point of interests.

1. The UK and British people

The cultural background is composed of Celtic, Anglo-Saxon, Mediterranean and Christian inheritances with modern science-based philosophy. It is complex and mature.

Celtic backbone:

Fairies, creatures and ghosts are still alive in the fantasy of British people.

British people can understand polytheistic view of thinking if not taking that view.

Anglo-Saxon backbone:

Inheritance of peer review practice

Mediterranean inheritance:

Strong sense of, and affinity to, property right

Christian inheritance:

People tend to regard the status, or the dignity, of human as being distinct from, and incomparable to, that of any other living organisms.

Multiple authorities:

The governance structure is composed of multiple authorities including those of the democratic government, the Royal family, Anglican Church, Catholic Church, and many professional guilds including General Medical Council.

JS Mill's country:

Appreciation of autonomy and utilitarianism

Country of Newton and Darwin:

With firm philosophical bases of modern science, the U.K. is among the most advanced countries in embryology, cell and molecular biology, and related application fields.

2. Japan and Japanese people

Japan is one of rare developed countries in that monotheism has never dominated in its history. It maintains polytheistic and pantheistic traits deep in its cultural background with influences of Buddhism and Confucianism, co-existing with the modern science-based culture of Western origin.

Country with rich polytheistic and pantheistic inheritance:

Numerous shinto shrines where gods and goddesses, as described in such an old myth as Kojiki (7th century), are still warmly worshipped, and traditional life habits, including execution of festivals to celebrate them, are still a firm part of people's life.

Western concept of death is not, nor even Buddhists' concept of death, easily or absolutely accepted by many Japanese (See below).

People accept, enjoy, or are bound to, very many kinds of foreign traditional festivals and taboos easily. Christmas, Halloween, St Valentine's Day all popular. There are scarcely any 4, 13, 42 numbers on sheets or rooms in many Japanese hotels, nor in Japanese air planes. A funeral will never be held on a 'tomobiki' (pulling friends) day. Lucky numbers are seven and eight. etc,etc.

People are very careful about gift relationship, where people say 'Sorry' in place of 'Thanks' at the time of receiving a gift (For details, see below).

Country accepting therapeutic abortion easily:

Therapeutic abortion due to economic reason is accepted by Japanese law, with the remembrance of 'mabiki' custom (killing a proportion of babies at birth for economic and some other reasons) which was common up to late 19th Century.

People with strong ability of adaptation:

Japan changed from a feudalistic country to a modern one with a strong central government in a short period of time in late 19th Century, and then from a fanatically nationalistic country to a friendly democratic one quickly after the world war Ⅱ.

It is speculated in the later section that such a strong capability of adaptation may be related to the structural characteristics of Japanese people's mind (See below).

People feeling strong ties between human beings and animals at the level of soul:

Virtually all research institutions using experimental animals have shrines to worship animal souls.

Japanese language maintains numerous animistic words within it core (Column 16).

'Respect for harmony' rather than 'Respect for autonomy' appreciated

The first constitution of Japan was established in 604 AD by Prince Shotoku, a devoted Buddhist, the first article of that is 'Respect for harmony'. The respect for harmony principle firmly underlays the decision making mechanism of Japanese people as exemplified by the 'ne-mawashi' custom (Columns 17, 18).

People with Buddhist and Confucian inheritances but little with Christian inheritance:

A stable order had been maintained for more than 260 years until late 19th Century, where two contrastive policies, the Confucian policy, 'Tokuchi-Shugi', meaning 'moral-based governance policy' (Columns 19,20), and the Chin' dynasty's policy, 'Hochi-Shugi', meaning 'law-based governance policy' (Column 21), were respectively applied to different classes of people, i.e., those governing and those governed (Column 22).

The framework of governance structure according to Confucian policy, as described in Column 20, is simple, and decision making power is so much given to bureaucrats, that low-making capability there is very week.

With little Christian inheritance, a human being has never been regarded as a distinct existence from an animal, and human tie has been stressed on family- and community- bases more than on philanthropic bases.

The political bases for Japanese people to maintain social integrity, before

democratic mind came in late 19th Century, is considered as composed of the three ways of thinking, i.e., animistic (philanthropic), Confucian moral-based, and Chin's law abiding (Columns 23-25).

Country currently absorbing Western modern philosophy and technology strongly

Since late 19th Century, medical education has moved from experience-based Chinese medicine to experiment-based Western modern medicine.

Scholars have been appreciated highly as the importers of Western cultures to Japan (Dewa-no-kami, meaning Mr. In there), where the easy to absorb (science and technology) has come early, and the difficult (Western social inheritance) later, or has not come.

Country that enjoys life almost the longest in the world:

The longevity of the Japanese has been attributed largely to the traditional food and life habit, if it is partly due to the development of modern Western medicine, leading to relatively low expenditure to medicine and to low appreciation of medical science.

Column 16. Examples of pantheistic usage of Japanese words

Japanese		English	
as spoken	as written	as spoken and written	
mono	物	substance	thing
	者	creature	
ke-mono	獣	(haired thing)	animal
waru-mono	悪者	(evil thing)	villain
kana-mono	金物	(metallic thing)	metalware
koto	事	what happened	event
	言	what spoken	word, statement
koto-ba	言葉	leaf of koto	word
iwai-goto	祝事	celebrated koto	happy event

Japanese speak in phonographic words, while write using ideographic Chinese characters, and think in combination using both.

The word 'mono' means any of materialistic existence that is supposed to harbour soul within it including an aminal, a human being and even a metallic ware.

The word 'koto' means what has happened, and at the same time, what has been told.

Column 17. A typical traditional procedure of decision making following the respect for harmony principle

1. The key person who wants to do something talks with each of concerning people for their opinions, drafts a proposal of a plan, and further talks until every one is satisfied with, or at least admits, it.
2. The key person finds a man/woman of authority among the concerning people who may take the role of chairperson of a coming decision-making meeting. If it is a political matter, then such a person as a university professor of top authority usually takes that role.
3. The key person helps the man of authority to call a decision-making meeting by the name of the man/woman of authority.
4. When the meeting is held, the man/woman of authority plays the role of chairperson of the meeting, and asks opinions to the draft proposal.
5. As expected, they all accept the proposal. And the chairperson announces a go sign.

In results, the key person does not appear on any official platforms. The underground action taken by the key person is called 'ne-mawashi' (cutting surrounding roots and rotating the body of a tree in order for the tree to be transplanted later).

Column 18. An example of traditional Japanese rule against autonomy principle

Protection rule against impulse decision.

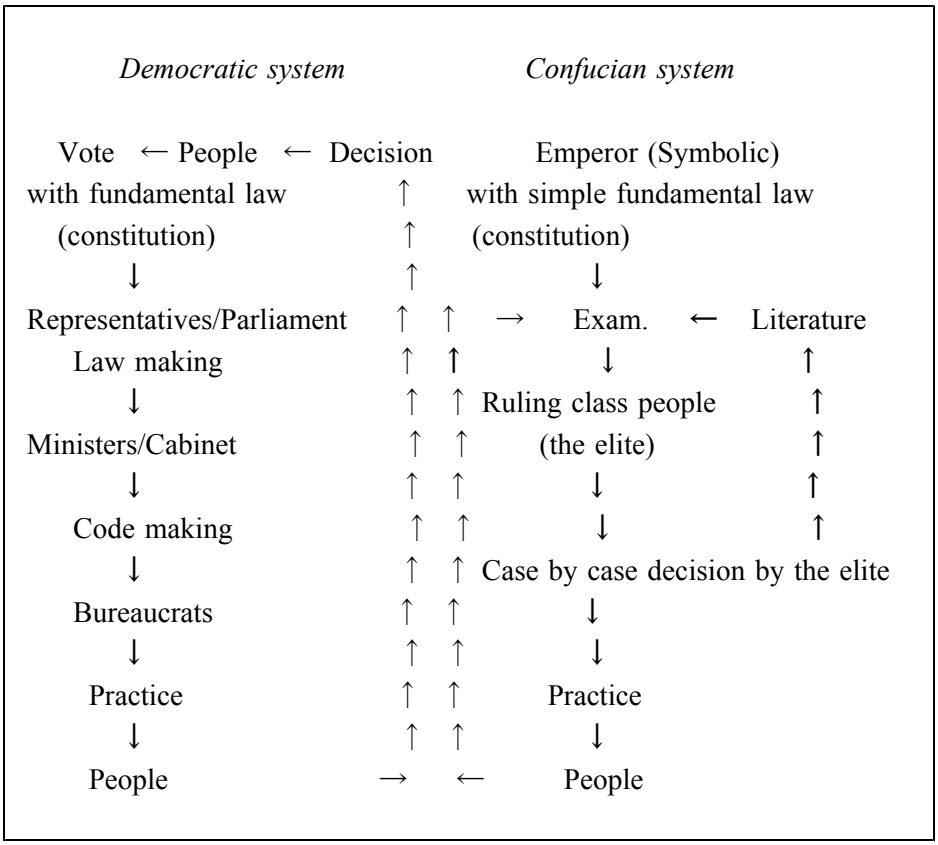
When you (a 'bushi') want to go shopping in the town, you must go with someone else, and must consult each other before shopping (in order to avoid impulse buying)

(A directive for 'bushi' class people of a local feudalistic county in Edo era Japan)

Column 19. Traditional Japanese moral-based policy (Confucian policy or Tokuchi-shugi) introduced from Han Dynasty, China (2nd to 1st Century BC), for maintaining the social integrity

- Law must be simple and symbolic at its best.
- Those with faithfulness, husbandry, and warm-hearted mind (ruling class people) are to govern people at large.
- They should be selected by exams on the bases of equal opportunity.
- At the best achievement of governance, the name of an emperor might even be forgotten by the people at large.

Column 20. Ruling system in current Japan superticially looks like that of the UK, but the former is a weak democratic system backed-up by the past Confucian inheritance.



Column 21. Traditional Japanese law-abiding policy (Houchi-shugi) inherited from the Ch'in Dynasty, China (3rd Century BC), for maintaining the social integrity

- Governing principles should be itemized and publicized in details in the form of laws or instructions as being set under imperial authority.
- Penalties due to violation against the laws should also be itemized and publicized in the laws, and applied equally to every person without regards to social ranks.
- An emperor should maintain his/her dictatorship always at his/her full capability.

Column 22. The bi-standard politics that has been developed during Edo era (1603-1867 AD)

Moral-based politics applied to the ruling class people ('bushi' or 'samurai')

- If one has said once YES, and if he changes it later, the change is worthy of his life.
- For a 'bushi', being killed in the battlefield is justified as honourable. On the other hand, a penalty due to his crime is the most dishonourable. In the latter case, he will be given the chance to protect his honour by terminating his life by his own decision. A chance of such action before such a penalty is given to him ('hara-kiri').

Law-based politics pressed on the ruled class people

- They should be ruled under a set of itemized laws, orders, or instructions, that are set under the ruling regimen.
- There is no necessity to explain any reasons for such laws or orders to the ruled class people.

The pre-democratic base of Japanese governance was on the balance of the Confucian moral-based policy and the low-abiding policy, together with pantheistic tradition.

Column 23. Traditional pantheistic policy as a prehistoric Japanese inheritance for maintaining the social integrity

- Spoken words are alive, and have their own souls 'koto-dama'.
- If you brake what you have said, then the words that you have spoken will revenge you.
- If any misfortune happens on you, your family, or on any of your related people, that must be due to the soul that is angry with the past unfaithful deeds of yourself, or of someone akin to you (the concept of 'tatari').
- In order to avoid 'tatari', and not to bring any new angry souls, you have to be faithful. And for the angry souls already brought, you have to honour and comfort them in order for them not to bring any more 'tatari'.

Column 24. An estimated figure of an average 19th Century Japanese person's mind being balanced with the three ways of thinking with that his/her social integrity was maintained.

Animistic way:

・ Words once spoken are alive. If you follow or break your words, then you shall receive their returns, if it is reward or revenge. Therefore, be faithful to what you have spoken.

Confucian way:

・ Ruling class people should be men of virtue with frugality and faithfulness. 'No two words with a bushi (ruling class person)'

Low-abiding way:

・ Itemized and publicized rules should be obeyed.
' The sanction against killing a deer in Wakakusa-yama sanctuary is the burial of the killer alive in a barrel.'

Column 25. A typical missing talk between the past and the modern

'I, the responsible person, say that the nuclear power plant is safe.'
'How can you ensure it?'
'If any accidents, what can you do?'
'How rude are you to ask such questions!'
'Do you mean that I am not trustful?'

Past rule: If an accident happens, then the responsible person must take his responsibility at the expense of his own life. There is no need to mention this, since the rule is obvious.

Modern rule: If an accident happens, then a penalty within its limitation described in law will be applied to the responsible person. If there is no law to be applied to the specific case, then he/she shall not be regarded as guilty in any way.

A-Ⅲ Ethical backgrounds

1. Traditional morals and ethical ways of thinking

Naturally, people are diverse in their ethical ways of thinking in any locality of the world, and therefore a stereotypic drawing to characterize a local part of the world can often be misleading. However, it is also natural that there are some tendencies which differentiate a local part of the world from another. For the purpose of making the point of discussion clear only, the author dares to try drawing some stereotypic ways of thinking in below to differentiate Japan and the U.K.

The way of thinking towards single moral world:

In this way of thinking, there will be the single most advanced moral standard in an ideally civilized stage of human society. Eventually, we (human beings) will attain the goal where all people share and enjoy such the most advanced level of morals. We are in the progress of civilization where an inferior society with ancient morals are to be succeeded by a superior society with advanced morals.

The way of thinking accepting world with a variety of morals:

Here, a society may have several different standards of morals at the same time. Naturally, people here tend to accept single person with multiple mental selves each with different character and philosophy.

The co-existence of multiple selves have already been recognized and appreciated in the early history of Japan as seen in Kojiki, a collection of myths and history tales of early Japan finalized in 712 AD, in Shinto-ism, and in Tales of Genji, written in early 11th Century that has been claimed to be the oldest novel in the world (Ref. to Column 26). Social acceptance of co-existence of different standards of morals as well as single person with multiple selves is also noted in a number of Japanese proverbs as show in Column 27.

Since Japanese people have been influenced by Western ways of thinking now for more than hundred years, their ways of thinking are also influenced greatly by Western ways. Therefore, it is not meant here that the acceptance of several different standards of morals represents Japanese people's current way of thinking. It is also not meant that every British have orientation towards the ideal society with the ultimately advanced moral. Nevertheless, it may be said that Japanese people tend to be the former while British the latter.

Column 26. Development and appreciation of humanity with multiple selves in Japan

Shinto-ism and Kojiki

In Shinto-ism, a human body is believed to host at least two souls, i.e., 'nigi-mitama', meaning a peaceful, mild and tamed soul, and 'ara-mitama', an unhappy and aggressive one.

In literature, as early as of 8th Century in Kojiki, Records of Ancient Matters, the first collection of myths and historical tales of early Japan finalized in 712 AD, there appear a number of pairs of, or sets of three, gods or goddesses. In such a pair, the two are usually with contrastive characters. In a set of three, two are contrastive and the remaining one neutral between the two. Such a pair or a set of three have frequently been interpreted as representing the existence of humanity in single person with multiple selves.

The Tales of Genji

Written in early 11th Century by Murasaki Shikibu, a talented court lady in Heian period of Japan, the Tales of Genji has been honoured as the first novel in the world.

The novel appears to tell the life of a fictitious noble man, Hikaru Genji, who saw many women of different characters in his life. A psychological study made recently by H.Kawai, a leading Japanese psycho-analyst, shows that what the author intended was not to describe Hikaru, but to describe a women, the author, with multiple characters each for one of multiple selves of the author, and the progresses of these selves in her own life.

Column 27. Co-existence of different standards of morals and the acceptance of multiple selves each with different standards of morals in traditional Japan as seen in Japanese proverbs.

- 'Once having joined in a local community, one should obey its local habit whatever it is.'
- 'If with his stomach empty, a 'bushi' (a ruling class person, a samurai) should look content, like playing with a toothpick.' , while on the other hand, 'Merchant's life is money.'
- A 'Uchi-Benkei' character, behaving as a tyrant at home while as a sheep at work, generously accepted.
- 'A noble man, like a leopard, may change his attitude in a sudden.'
- 'One needs not be ashamed of what he/she (as a traveller) has done during his/her journey (in a foreign place).'（as long as he/she follows the morals of the foreign place）

2. *The concepts of mind and soul*

Again, as to what kind of concepts people have in different part of the world, it is difficult to draw a stereotypic view. However, since British people and most of all people in the Western world have the inheritances of Christian culture and Mediterranian culture, both of which Japanese people have very little until recently, it may not be far from misleading to say that British people have some tendency to accept concepts of mind, soul and death cultivated in these cultures more than Japanese, while Japanese people tend to accept other lines of concepts grown in their own culture as described in below.

Christian way as one of typical stereotypic ways;

- God gives human body in the shape of God, and therefore it belongs to God.
- At death, the soul departs from the body and goes straight to heaven.
- Heaven is the eternal residence of the departed soul.
- In the heaven, the souls of familial ancestors may stay beside, but never be unified with, God.
- The departed soul will never come back again. Thus, death is an instantaneous event.
- Organ transplantation is acceptable as long as God accepts it as a humanistic action.
- The idea of equal status between human beings and animals at the level of their souls can never be accepted.
- The status of animals is so that they have been created by God to serve human beings.

Classic rationalistic way as another typical stereotypic way;

- Human being is composed of two essential components, i.e., body and mind.
- The mind resides in the brain.
- Human beings are distinct from animals since the former have mind with reason while the latter do not.
- A body does not belong to God, if it does not belong to mind.
- Death is, above all, the loss of mind from the body.
- Brain death is acceptable, since there is no mind in the brain-dead body.

Japanese Shinto-ism and many Japanese sects of Buddhism influenced by nature worship;

- The body is separable from the soul.
- The soul is eternal, after being separated from the dead body.
- The soul once separated from the body usually becomes an existence that protects and cerebrates its descendants, i.e. ancestral god.
- The departed soul, particularly of a familial ancestor, may come back around its descendants, regularly at certain annual memorial days, or when invited, to help and encourage it descendants.
- Departed souls from those who died without attaining their aims, such as those of killed soldiers, are to be worshipped carefully and respectfully. Otherwise, they will harm, or curse ('tataru') the survivors (i.e. 'tatari').
- A departed soul can be revived when a body is given to it.
- Such revitalization may happen to the same body after a temporary death of the body, or to another body including that at birth, or even to a non-human animal.

・ Death happens through a critical stage with a certain time-span, during which the soul may be floating around the body, may come back to the body again, or to leave the body permanently.
・ Animals and human beings are in equal status as long as souls and minds are concerned.

Zen-Buddhism in Japan;
・ Body is inseparable from mind.
・ After death, nothing remains.

Many sects of Japanese Buddhism, except for Zen-Buddhism, have heavily been influenced by nature worship as long as the idea of life after death is concerned. But still, there are differences between Shinto-ism and the Japanese Buddhism. In many Japanese sects of Buddhism, the departed soul is believed to go either to Gokuraku (heaven) or Jigoku (hell), while in Shinto-ism, there are no ideas of heaven and hell, and the departed soul may float around for some time after it has left from the dead body, and then goes to its eternal destination located out of human territory, i.e., sea, mountain or other places.

Science-based way common in most of all part of the world;
・There is no evidence for that body and mind are separable.
・Mind resides in the brain, and thus there is a good reason for that body with its brain function completely lost can be regarded as dead.
・There is no evidence for that mind remains as a departed soul after death of brain.

3. *Birth as formalized in traditional Japan*

The traditional ceremony in cerebration of a birth in Japan may be represented by that performed at a Shinto shrine. Here, parents with an infant to be celebrated attend, present some offer to the god enshrined there, and receive blessing from the god. The offer may be foods, sake, music, dance, or money, the last of which is the most common. God's blessing is performed by oracles at the shrine. Such a cerebration ceremony is often performed for an infant at one, three, five, and seven years of infant's age.

In the past, children before 7 years old had often been regarded as they belonged to God, suggesting that parents' responsibility for the life of an infant up to that age was not very much. Such a belief might console the parents when a significant proportion of infants died due to infectious diseases and to other reasons in those days.

It was also the common understanding in those days until mid 19th century that a certain proportion of new born babies was killed at birth（mabiki）, mostly with economic reasons of the parents. The traditional consoling explanation for the killing action was that mabiki was not unethical, since it was the action to return the soul of a baby to gods, and the soul will soon catch another body to come back to this world.

Due to the banning of mabiki tradition, the traditional concept of birth has almost disappeared in modern Japan. Even so, the legal permission in Japan of abortion due to economic reasons may be reminiscent of the historical background.

4. *Death as formalized in traditional Japan*

Although changing, the traditional death ceremonies are relatively well preserved in modern

Japan than those for birth celebration.

As shown in Column 28, the death of a person is usually followed by a series of ceremonies usually for the period of 49 days. Tsuya, the first ceremony, has its origin to an old custom of trying to revive a dying person, and watching if the dying person certainly is dead or not. A recent Tsuya ceremony is only an overnight one, but it was sometimes performed for several days or weeks of time in old days.

Not only the bereaved family and relatives, but also many those who know the dying person come to Tsuya ceremony. To those who come to Tsuya ceremony, foods and sake are served. Tsuya ceremony is followed by Kokubetsu ceremony i.e. the second and the main ceremony during which the dead body is cremated. After these two ceremonies, the 7th day pray and the 49th day ceremony follow. Through the sequence of these ceremonies the bereaved are consoled and sympathized by many people attending to them.

An average expenditure for a funeral exceeds 3.4 million yen (ca. £ 15,000) (Statistics obtained within the Tokyo metropolitan area of Japan in recent years).

Column 28. The procedure of typical funeral ceremony in Japan

1. Doctor announces 'Gorinju-desu' meaning 'Now he/her is facing to his/her terminal stage.'
2. Overnight watching (Tsuya), if the departed soul might come back to the body
3. Kokubetsu (parting) ceremony and cremation
4. 7 th day ceremony for the good destination of the departed soul
5. 49 th day ceremony
   Destination of the departed soul determined, and the ashes of the dead placed in the grave. The chief mourner sends letters to the attendants of the funeral reporting that the destination of his/her soul determined.
6. Then after, parties of bereaved family members are periodically hold with intention of the reunion of the bereaved and the departed soul.

Part B. Considerations on fundamental issues

B-Ⅰ Extraction of several concepts from traditional Japanese customs

1. 'Socially given death' concept

At present in the U.K. and in Japan, a man or a woman may die mostly due to a fatal disease or an unexpected fatal accident. However, it may have to be mentioned that, in old days and even at present, there were, and are, several cases not included in the above.

'Uba-Sute', told in Japanese old tales, was the custom in that old men or women were abandoned at unpopulated sites remote from residential area. In a similar old custom, known in Korea as 'Goryeojang, 高麗葬', men and women at the age of seventy were abandoned.

In the history, there were a number of other customs in which living men and women were abandoned to death, and thus it was not the custom unique to Japan and Korea. For example, in a nomadic society, those who could not walk any more might be left abandoned to death during travelling. In a highly populated Indian society, an aged might be left abandoned alone in the market place.

Among recent cases in which the society expects death to a person is the case of 'Kamikaze' suicide air fighter troop during the second world war. Here a fighter is destined to attack a warship, but also destined not to come back if he could not find any target.

The point to be stressed here is that these customs of abandoning life have been performed as a rule of the society, and have not been regarded as killing. Here, both the abandoning and the abandoned have known, accepted, and obeyed the custom as the social rule.

In this paper, this category of abandoning life to death will be referred to as 'socially given death'. It should be noted that the socially given death is different from the dignity death, since the choice of death here is made as a social rule, and therefore it is the society that takes the responsibility for the action, while responsibility for a dignity death is to the individual person who chooses death.

2. 'Mentally recognized birth' and 'mentally recognized death' concepts

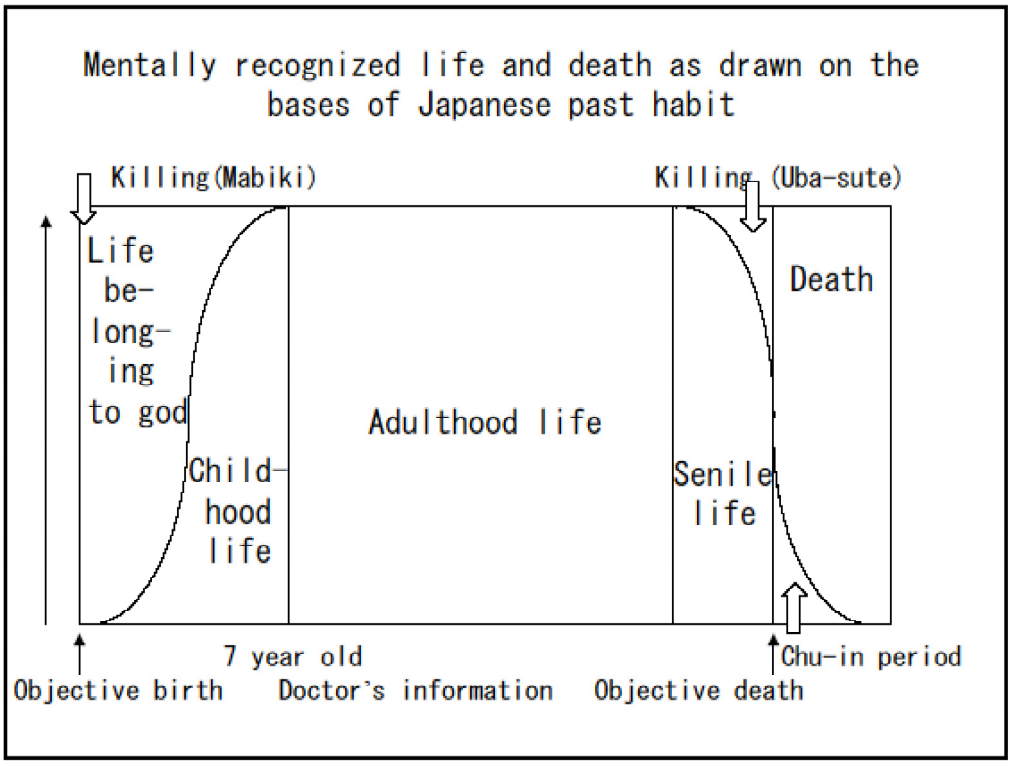
The Japanese traditional custom related birth and death as described in the previous section, suggests that the full recognition of a new life does not always come at the time of physical partition, but takes a period of time, and that the full recognition of death also does not always come at the time of physical termination of life as well. It also suggests that the termination of an old person's life is sometimes accepted mentally even while the old person is still physically alive.

Although highly speculative, it is postulated here that, in addition to the recognition of the birth and death as physical events, the recognition of birth and death as mental events play important roles in traditional Japanese society. Hereafter the terms 'mentally recognized life' and 'mentally recognized death' will be introduced to refer to these two ways of recognition respectively. Mental recognition of death may be regarded as 'removal of live image of a person in the brain' in other words.

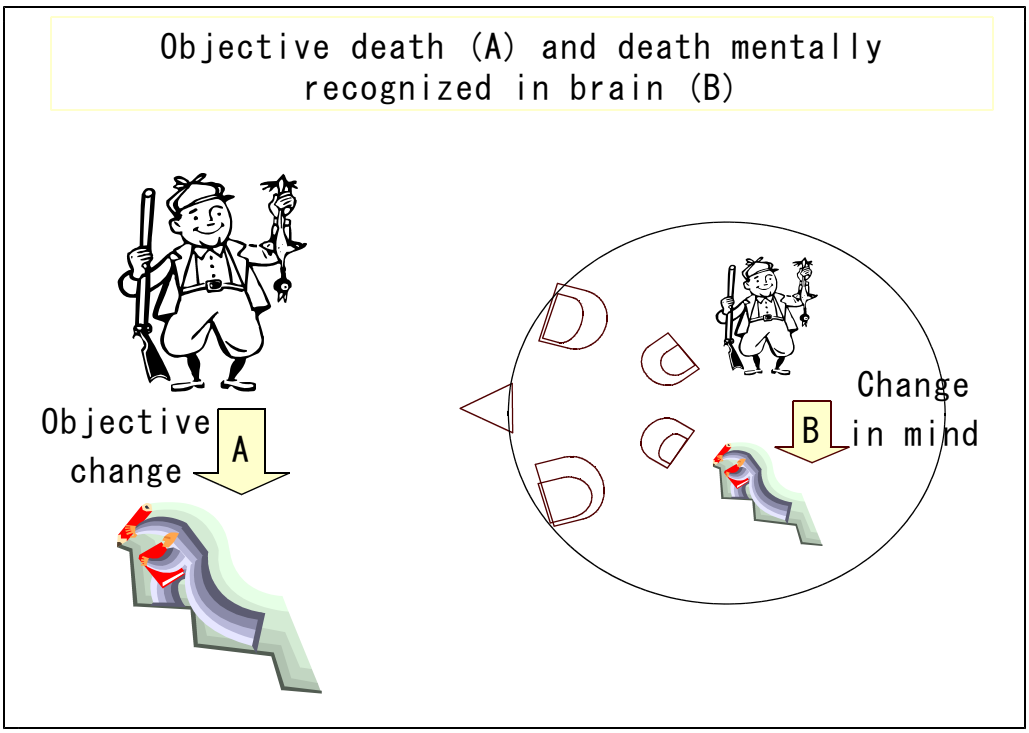
A direct conclusion of the above considerations will be that, the term 'death' can mean differently in different parts of the world, Japan and the U.K. for example. If 'death' is the idea that is not immediately accepted when a doctor announces his/her death, but when the live image of the man/woman in the brain is removed, then the

word 'death', as accepted in the traditional Japan, may be used only after a certain process consoling the bereaved has completed (Columns 29, 30).

Column 29. Physical life and death verses mentally recognized life and death as suspected from Japanese past habit



Column 30. Objective death (A) and mentally recognized death as assumed to happen in the brain (B)



4. 'Killing in mind' concept

It may easily be speculated here that the removal of living image of a subject from the brain works as a strong mechanism to protect one's brain from the damage that may otherwise happen due to the actual loss of a life around him or her. Here it is further speculated that such removal of living image may happen even before the actual loss of a life.

When we extend the subject from a human to an animal, such an speculation may easily be accepted: For example:

'How delicious does that waddling duckling look!'

'Cattle have been created so that they may present meat to human beings.'

To such removal of living image of life in the brain, without regard to the actual life state of the subject, the term 'killing in mind' will be referred hereafter (Column 31).

Column 31. The recognition of death and 'killing in mind': A hypothesis

Current Western concept of death recognition	B happens instantaneously with A
Japanese traditional concept of death recognition	B happens with time after A (Removal of living image from the brain)
Past tradition of killing live bodies	B happens even before A (Killing in mind preceding A)

B-Ⅱ Attempted answers to some Japan- specific questions

Why are many Japanese people reluctant to accept the respect for autonomy principle?

The Western origin of the respect for autonomy principle can be traced back to Aristotle, who questioned where is the ultimate goal of human life. His answer was that it was where one's potential capability is fully extended, and where one's own will is fully appreciated.

In the traditional Japanese way of thinking, the ultimate goal of human life is where one's own existence is in full harmony with surrounding environment, including people and nature, i.e., respect for harmony principle.

The respect for autonomy principle and the respect for harmony principle are apparently contradictory, which gives a good reason why Japanese people are reluctant to accept the former principle (Column 32).

However, these two principles can be harmonized, to the author's understanding, in certain situations as will be described in later sections.

Column 32. Opinions for, or against, the 'respect for autonomy' principle

For:
The mind is independent from the body. The decision making can hardly be influenced by physical factors, as long as one is a fully grown normal adult person with reason.

Against:
The mind is after all what resides in the body, and naturally, it is influenced by the physical and other environmental factors including pharmaceutical drugs. Therefore, there must be a limitation in the responsibility of a person for his/her own autonomous decision.

Argument:
If, however, things are decided unanimously, as made in the traditional Japanese way, it may means that some and other persons' autonomy may often be neglected or suppressed.

Counter argument:
Ideally, unanimous decision is expected to be made after individual opinions are expressed, preliminary adjustments made, and plans modified, so that benefits and risks are expected to be shared evenly among all concerning people. A preliminary adjustment (ne-mawashi) is therefore the prerequisite for a unanimous decision. Merit of a unanimous decision with ne-mawashi is in that, when any damage or merit happened due to the decision, then such damage or merit will be shared evenly among all concerning people.

Why are guidelines from governmental administrative offices so much appreciated in Japan while they are not underlined by laws ?

The tendency of Japanese governmental bureaucracy to give instructions in the form of guidelines, easily infringing democratic constitution-based morals, may be explained by the memories of Confucian and pantheistic ways of governance where bureaucrats were highly appreciated as governing class people. At the same time, it is speculative that the tendency of people to easily accept such guidelines almost like laws comes from the habit of doing so for a long time in the past.

Advantages accompanied with the current guideline-based Japanese system is in that it is quick and can be efficient, since lengthy discussion in the parliaments can be skipped. The current system relies on the self securing capability of concerning people that has been still strong in Japan due to Confucian and pantheistic inheritance.

Disadvantages are in that the traditional self-securing capability of Japanese people is falling rapidly, since modern democratic policy denies such unlimited responsibility as paid at the cost of concerning people's life without any legal lining. The modern policy claims a limited responsibility that must be clearly described in laws. While on the other hand, laws have not been well developed yet, or the Japanese parliaments do yet feel its responsibility fully as law-making mechanism under democratic system, due again to the inheritance of Confucianism.

Putting all together, the current guideline-based Japanese system is considered to play its role to a certain level of practical meaningfulness, if not ideal, to maintain social integrity concerning human tissue handling.

Japanese people are reluctant to accept the brain death. Why?

The majority of Japanese people correctly understand the medical definition of brain death. However, since it is different from what they have been treating death in their traditional way, they usually choose to follow the traditional way.

Traditionally, death is recognized as a process taking place over a period of time, as seen in a typical Japanese funeral ceremony.

Why is a therapeutic abortion relatively easily accepted in Japan?

A popular belief up to 19th Century in Japan was that a birth is an event for a soul to creep into a body, and that death is simply the departure of the soul from the body. It was believed as a consoling explanation when a considerable proportion of babies died in their early life in those days, that such a departed soul would soon get another body to creep in, and to be given another chance of birth.

Likewise, killing just after birth was thought to be a deed to get the soul back to god's hands again, and was regarded not as the work of evil.

Even during infancy, those seven years old or less were regarded as being within God's hands, meaning that their loss is not to the responsibility of their parents, and not to be regretted too much.

Part C. Proposal of basic ethical rules for handling human tissues and their application to Japanese cases

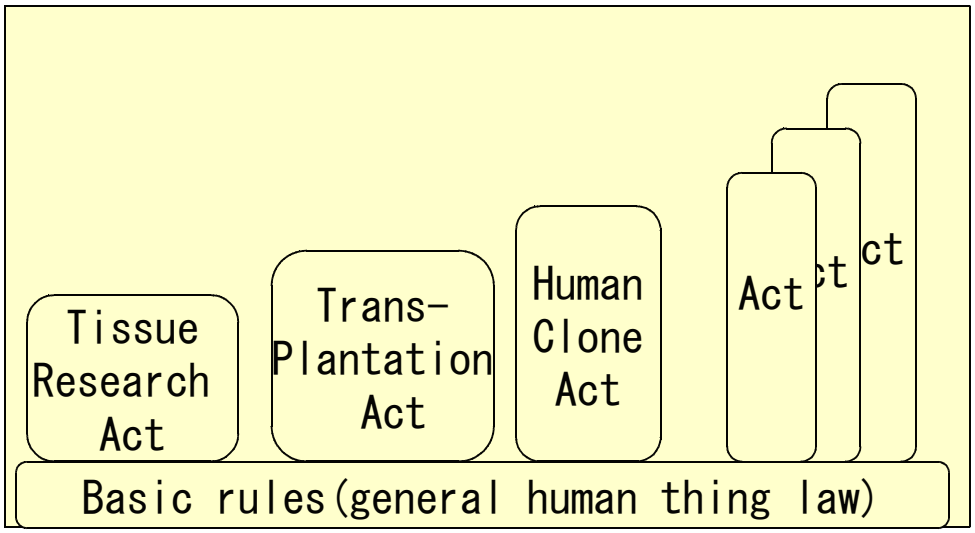
C- I Approaches to drawing basic rules

1. *Significance of basic rules*

As science and technology develop, we face new situations day by day. Basic rules are aimed to provide a set of essential and minimum requirements for us to handle human tissues at any new situation (Column 33).

It is requested for those rules to be internationally appreciable, and to provide general bases for law making people to formulate a law in any country with different ethical backgrounds.

Column 33. Significance of setting basic rules:



2. *Breaking down problems into three levels*

Hereafter, ethical and legal problems associated with human tissues will be classified into the following three groups (Column 34).

Single-body problems

Problems associated with any single autonomous person, who takes part in a donation, research, practical use, or in any other actions related with human tissues.

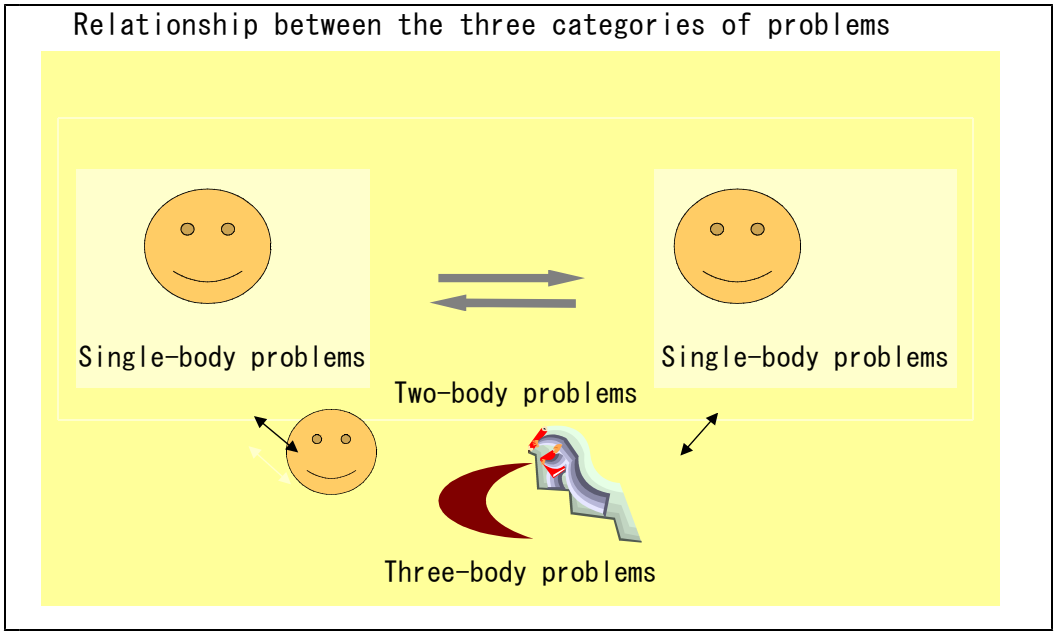
Two-body problems

Problems associated with any two autonomous persons, who are involved in transferring human tissues between the two.

Three-body problems

Problems associated with any two autonomous persons between whom human tissues are transferred, and in addition, with the existence that is associated with any biological signs of humanity. The last includes human tissues, fertilized eggs, developing embryos, and dead bodies.

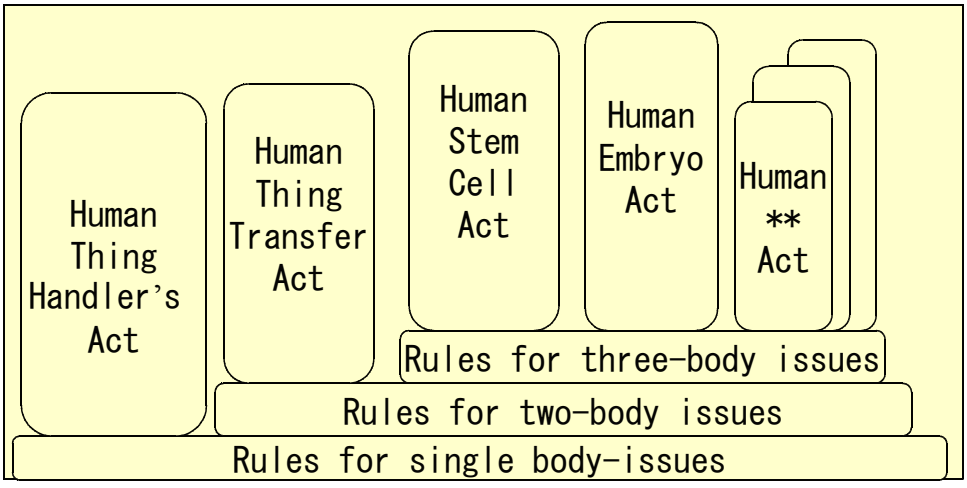
Column 34. Single body problems, two body problems and three body problems.



3. *Advantages of layering basic rules into the three levels*

As problems are classified into the three levels, rules will be classified into three, each for each class of problems here. Thus, rules for single-body problems are not only applicable to single body problems, but also to two-body problems and three-body problems, and rules for two-body problems to three-body problems as well (Column 35).

Column 35. Layering structure of the three rules



C-Ⅱ Proposed basic rules for single body problems

1. Points of emphasis in general

Diversity among people

Question here is what are the basic rules for any individual person to do with 'human things'.

It should be taken into account that different points of emphasis shall be set to different persons with different cultural backgrounds.

- God and me
- Nature and me
- My family and me
- The society and me
- My belief and me

Points of emphasis particularly in the present Japan

Rapid changes are in progress in the relationship between the society and an individual person in Japan. The most profound changes may be itemized as follows:

- Confucian inheritance of selected- or leading class people's integrity being rapidly lost, due mainly to the loss of trust in them due to the 2nd world war, and while post war generations have not been educated of Confucianism.
- Prehistoric inheritance of animistic integrity being gradually lost due to scientific education.
- Democratic and constitutional law-making- and law-abiding minds, which is expected to take part in place of the Confucian inheritance and the prehistoric inheritance, is growing, but slow.

In results, Japanese situation in integrity-ensuring capability is in a serious gap.

2. A proposed solution for single body problems particularly for Japanese

In principle:

While constitutional and democratic capability is growing but still immature in Japan, the remaining capability of Confucian inheritance should be appreciated as much as possible to maintain the social integrity at this transitional stage of moral changes.

In practice:

- Respective organizations are to establish self-regulatory rules, and make them open to the public.
- A minimal set of laws are to be formulated to give such a self-regulating organization a certain responsibility, so that if it fails to follow its own publicized rules, then a legal sanction may be applied on it in some and other ways. One of the choices to define such a legal sanction may be that penalties to be pursued are also described by their own self-regulatory rules by themselves, as long as they do not infringe Japanese national constitution.
- Social mechanisms to collect, compare, monitor, and publicize the self-regulatory rules of organizations, and the achievement of those self regulation by the organizations, are to be developed.

In effect:

Critical discussion and analyses may be needed further as to if the above sets of rules are internationally acceptable or not. At least, they are simple, and therefore they may lessen the burden to law making people, a prerequisite that is particularly important at the present situation in Japan.

C-Ⅲ Proposed basic rules for two body problems

Two body problems are problems concerning two autonomous persons between whom human things are transferred.

In this respect, Helsinki Declaration and Belmont report may be among the most influential in many countries as well as in Japan. Since most of all Japanese GEGs and GCRs follow the three principles that are presented by Belmont report, they will be taken as composing the framework of basic rules for two body problems here.

1. The three Belmont principles as keys to solve two body problems

1) Respect for persons or autonomy principle
2) Beneficence
3) Justice

These three principles of the U.S. origin are well known in Japan. However, a direct and practical application of these principles appears little effective in Japan, as evidenced by the poor donation of human tissues for example. This is most presumably due to the differences in cultural background among countries. Apparently, for practical application, we may need some detailed considerations if without changing the three principles themselves.

In the following sections, the author attempts to modify the points of emphasis for each of the three principles to be practised, aiming such practices may be effective in Japan.

2. Belmont principle 1. 'Respect for autonomy' principle

Original points of emphasis in the principle:

- Individual persons should be treated as autonomous agents.
- Persons with diminished autonomy are entitled to protection.

Original points of emphasis in its practice:

- Informed consent

Points to consider specifically on Japanese cases here:

Many Japanese people understand and appreciate this principle. Apparently however, they hardly act according to the original points of emphasis.

It should be considered here that a self-decision without obtaining previous admission of surrounding people often results in serious difficulties or problems in Japan.

Here, the Japanese inheritance of 'Respect for harmony' principle should be appreciated in the way that these two principles may not compete to each other but go together.

3. *Japanese application of 'Respect for autonomy' principle: A proposal*

Japanese points of emphasis in the principle

Although 'respect for autonomy principle' is appreciated, it is widely recognized in Japan that behaving as an autonomous agent does not directly mean self-decision. Japanese points of emphasis is in that a self-decision is to be made in harmony with concerning people around the decision maker.

Japanese points of emphasis in its practice

The person, who is expected to act as an autonomous agent, should be allowed to ask, by his/her own autonomous decision, some other person (s) (responsibility sharer (s)) to join in a decision or an agreement, so that any risks, possibly accompanied by the decision or an agreement, may be shared with these responsibility sharers.

Expected effect

With this extension of autonomy principle, the action for a person to ask for responsibility sharer (s) is regarded as an autonomous decision, and therefore, the autonomy principle is respected. At the same time, any risk that could happen with the decision or agreement, for example, made under the influence of weak physical states and/or drugs, can be shared with responsibility sharer (s) .

In addition, the capability of getting consolation, or compensation, against any possible unexpected mental damages, if ever such could happen, can be increased.

4. *Belmont principle 2. Beneficence*

Original points of emphasis in the principle:

Do not harm.

Maximize possible benefits and minimize possible harms.

Original points of emphasis in its practice:

Assessment of risks and benefits (by an IRB/Ethical Committee)

Points to consider specifically in Japanese cases

Naturally, what risks and benefits imply is different depending on the difference in the social condition, particularly with regards to health status and economic status. In this respect, there may be a couple of special points to consider in Japan:

In Japan, one-way benefit is frequently regarded as risk. Benefit should be in both ways. Thus, 'Sorry' ('Sumimasen' in Japanese, meaning 'Sorry for that I cannot present any proper return to your gift') is frequently used as meaning 'Thanks', when one is given a gift. Therefore, stressing pure service, while refusing any return or reward, on the donation of organs and tissues, may not be accepted by many Japanese as meant.

Thus, the mental/psychological damages to a Japanese bereaved family member could happen differently from those to a Western member, due to cultural differences as described in the above.

In an ideally hypothetical society where the population's health condition has already been maximally adjusted, any further intervention, including that of resource distribution, will only gives risks, without giving any further benefits in the improvement of health status in social scale. Japan, as well as the U.K., is the kind of country where people's health condition is maintained very high, if not in their ultimate states, as their extremely high longevity shows. Therefore, as long as health status in national scale is concerned, a careful choice is needed to judge the

risk/benefit ratio. An example will be the case of live organ donation, particularly from a healthy mother to her diseased child, which happens frequently in Japan, and where the former has to take unneglectable risks on her health.

The benefit, however, cannot be counted only in the scale of health, but of science, technology and economy. It is not strange, therefore, that in some place in the world, the use of human tissues is intended not directly for the improvement of health status of the people there, but for the advancement of economic status, through the development of pharmaceutical industry, for example. Here the improvement of health status may be intended indirectly by way of economic improvement. Such benefit, however, cannot be ruled out.

What is important here is that the kind of risk and the benefit associated with tissue donation should be well understood by concerning people, including IRB/ethical committee members.

5. *Japanese application of beneficence principle: A proposal*

Japanese points of emphasis in the principle:

The principle to maximize possible benefits and to minimize possible harms will be well accepted. However, it may be stressed that the kinds of risks and benefits are different among countries. It should be recognized that the mental and/or psychological damages of the bereaved that could happen being associated with the donation of tissues from their deceased family member could be serious and therefore considered heavily in Japan.

Japanese points of emphasis in its practice:

Ways to reduce mental and psychological damages, which could happen in the bereaved family members after donation of organ/tissues from a deceased, should extensively be studied, and effective ways to prevent them to be devised. Advances in brain science, particularly of cognitive function, and education in early ages, are expected to play important roles here.

In the social scale, the direct benefit of using human tissues for the improvement of health, through transplantation and other clinical ways, may not be stressed too much in Japan, since the Japanese standard the health status is already quite high. Benefit may be explained more through the development of science, technology and advanced medicine which will contribute to the people's life through the advancement of knowledge and economical cycle.

Insurance systems are to be developed to compensate any physical and psychological damages that could happen to live donors as well as bereaved family members. A possible way may be for the receiver of human tissues to pay such insurance fee for the sake of the donor and the bereaved family.

6. *Belmont Principle 3. Justice*

Original points of emphasis in the principle:

Fairness in distribution

Original points of emphasis in its practice:

Excluding discrimination, particularly in the selection of subjects

Points to consider specifically in Japanese cases

Here, the original emphasis in principle, i.e., 'fairness in distribution' may not adequately hit the point in Japan. Japan keeps national health insurance system that

covers almost equally to all Japanese people. Race issues are not very much important here.

On the other hand, due to the gradual loss of Confucian inheritance, the governmental regimen, formerly having worked well, is becoming less functional. Too many restrictions set by their directives without any legal bases hamper the progress of science, technology and business, while essential law structure has still not clearly been presented by the parliament.

7. *Proposed Japanese application of Justice principle*

Japanese points of emphasis in the principle:

Freedom and equal opportunity under law.

Japanese points of emphasis in its practice:

From guideline-based practice without being underlaid by laws to law-based practice.

Establishing a very basic law for human things first of all.

Column 36 Summary of the proposed Japanese applications of Belmont principles

Principle	Original application	Proposed Japanese application
Respect for autonomy	Self-decision	Self-decision to choose co-deciders who could share the responsibility (risk) of the decision
Beneficence	Risk/benefit ratio	Ways of compensation to be devised against risk, or for benefit
Justice	Fairness in distribution	Equal opportunity and freedom under law

8. *Addendum to Belmont principles*

Peer review practice and its Japanese application

Although in the Belmont report, the peer review practice is not itemized as the forth principle, but only mentioned in the text, so that this practice may play an essential role to make the three principles effectively. The custom of peer review, on the other hand, is not Japanese origin. Originally, Japanese people tended to rely on the decision of thought-to-be-trustful persons or groups (doctors, bureaucrats, government committees, etc.).

Therefore, there is a strong criticism in Japan against the peer review practice, as currently proceeded by IRB/ethical committees, with the reason that they cannot cope up with current problems sufficiently enough.

At the present moment in Japan, the peer review practice may yet be effective as that in Western countries. To the author's understanding, however, it is already impossible to come back to the old deteriorating system, if we could take advantage of its remaining capability. The custom of peer review practice is becoming accepted, capable, and will soon or later surpass the old Japanese reviewing system.

Proposed Japanese application

Peer review practice is growing and already valid at the present in Japan, and should not be diminished if it is still not fully functioning as aimed. Efforts to fortify the practice of this promising principle are by all means to be encouraged.

C-Ⅳ Proposed basic rules for three body problems

Section A: Problems associated with dead bodies

1. Points to consider specifically in Japanese cases

Because of the traditional Japanese habit of accepting death as a process, rather than as a body status defined in medical terms, Japanese people often encounter with serious difficulties, when they are asked to regard a medically defined 'brain dead' body as a direct object for organ procurement.

Although the critical stage as currently defined using the word 'brain death' must be clearly defined using medical terms, it should be carefully taken into account that the word 'death' is not always a medical term in Japan.

Japanese people may appreciate the written will of the dying person, but general understanding is that 'Things after death should be up to those who survived.'. The state of life or death of the donor in the bereaved mind is the most crucial for the bereaved to leave the body up to the will of the dying person.

2. A proposed Japanese solution to Section A problems

1) When a body at its critical life stage is under consideration for procurement of tissues, the status of human body is to be described using medically defined objective words, rather than such subjective words as 'dead' or 'alive'. Let us define the state of total loss of brain stem function as 'State X' here.
2) A Japanese organ transplantation law should be modified so that the bereaved may ask a procurement organization to treat, not the 'brain dead' body, but their 'State X' body, as the subject of tissue procurement.
3) The procurement organization so asked may be permitted by the law to treat the 'State X' body as the subject of tissue procurement.
4) The wish of written will shall be respected. But at the same time, details of the purpose of the procurement and the ways to handle the tissues are further to be agreed among the concerning peoples in a written form.

Additional comments

Although mental acceptance of death, particularly of a closely related family member may be hard, and may take time, what makes the acceptance easy and prompt is education in an early stage of one's life and exercise of decision making.

It is important to share the pain of the decision makers with people surrounding them. One of traditional Japanese ways to do it would be to build a shrine for those donors to be worshipped by the representative of people's good will at national level, typically by imperial family members. Perhaps, a modern suitable way may have to be sought for.

Section B: Problems associated with non- or incompletely autonomous human existence

The objectives here include such an existence that bears the potential capability to become an autonomous human being. They may also include such other existence that cannot become an autonomous human being by itself, but may possess a part of the capability. They include fertilized eggs, developing embryos and foetuses. But also, new born babies, infants and mentally retarded adult human beings may also be included in this category when we consider them in historical views.

Since it is now known that some types of cells, such as cultured embryonic stem cells, can become a part of body by introducing them into a developing egg to make a chimeric developing egg, and also that a hybrid cell obtained from the combination of a somatic cell nucleus and an enucleated egg cell can be grown to a whole body, the difference between germ-line cells and somatic cells are becoming less distinct in ethical terms.

1. Different ethical positions for non- or incompletely autonomous human existence

There are at least three positions as to what they mean to the human society.

Position 1. Respect for human dignity

Human dignity comes first. There are no exceptions. Nobody has the right to manipulate human fertilized eggs and embryos with any aims other than helping their normal growth and development.

Position 2. Risk-benefit balance

Human dignity should be respected. Nevertheless, under the circumstances where careful arrangements are taken so that the risk of violation against dignity may be minimized, and where the benefit obtainable from manipulating such human existances as fertilized eggs and embryos may be maximized, such a manipulation is not regarded as unethical.

A crucial decision to permit, or not to permit, the manipulation of fertilized eggs and embryos may depend on if they have any trace capability of mental function or not.

Therefore, as in the case where brain death has been included in the general definition of death (in Western countries, if not in Japan), developing eggs before a certain stage of gestation may be regarded as nothing more than a mass of cells, if they are to be respectfully treated as those of human origin.

Position 3. Limited acceptance of killing action

Manipulating fertilized eggs and developing embryos without intending to help their normal growth is without doubt an offence against human life, and thus is regarded as a killing action, if it has any trait of brain function or not.

However, a killing action on human being, including those of fertilized eggs and

developing embryos, are not always regarded as absolutely unethical. Within a certain limited condition that is well accepted by the community at large, by a law for example, manipulating fertilized eggs and developing embryos without intending to help their normal development is to be accepted.

2. *Points to consider*

Although little has been mentioned in the past history on fertilized eggs or developing embryos, there are a great amount of mentioning on how human beings have been treating non-autonomous human beings, i.e., new born babies, infants, mentally retarded people, and even slaves, which will give us valuable suggestions.

Past Japanese ways of thinking and practice

- Human and animal are in an equal status as living thing.
- There is no reason to make human beings distinct from animals in their dignity.
- At certain circumstances, one may have to kill an animal. The same is true to a human being.
- What is more important is the lineage of life rather than a life of a single person.
- Children under age seven may be regarded to belong to gods, meaning that parents are not much regarded as responsible to their lives if they are lost due to diseases or other reasons.
- A certain proportion of new born babies were killed.

Past Western ways of thinking and practice

- In the mediterranean civilization, children were often sacrificed to gods.
- There was a custom to kill all babies born on a certain day in a year.
- Slaves as non-autonomous existence were often forced to fight to death for enjoyment of citizen.

Modern Western ways of thinking and treatment

- If his/her mental capability and autonomous capability are ever inferior to these of an animal, his/her dignity as human being must never be underscored by, nor compared with, those of an animal.
- They should not be treated as subjects, or tools, of an autonomous person.

An animal way

A mother animal often chooses some of her litter to feed and others not. Naturally, those not fed will die. If, however, those not fed by their mother animal are artificially fed, then they would grow normally.

It tells that an animal has a certain standard to choose some to feed and others not to, and therefore to death. The mechanism of this choice is certainly a subject of scientific study, and not of ethics. Therefore, also for human being, the standard of judgment to kill or not to kill can be regarded profoundly related with the physical body function and therefore, in some special circumstances it may not be the subject of ethics but of science.

Why (the author thinks that) Position 3 may be an agreeable position in Japan?

- In Japan, there has been no strong confidence among people for that human being is particularly different from animals in terms of mind, soul, and dignity, suggesting that they cannot find any good reasons to set a distinction between human and animal in the right of killing.
- On the other hand, for a long time in the past, people had accepted the pain of killing a proportion of new born babies, mostly for economical reasons. Even at the

presence, Japanese law permits a therapeutic abortion for economical reasons.

- Therefore, it is understandable that, as Japanese people accept killing fish and animals, they have accepted killing human beings in some particular states as an inevitable action.
- The most important point here is to realize the pain of killing any living things, to share the pain among all people, to minimize such action as much as possible, and to establish rules with which a killing is acceptable, in certain limited circumstances, under a strong public acceptance, that means, by law.

3. Points to consider for drawing a rule commonly applicable to Western countries and Japan

1) In any local area of civilization, and in any historical time in the past, we, human beings, have established one or other detailed moral standards for judgment with which a non- or incompletely autonomous human existence may be killed.
2) It is easily understood that such standards have been influenced by the economical, health, war, nutritional and populational states of the society.
3) The moral standard for judgment as to if a human existence may become the subjects of sacrifice, or the subject of life, has been changing with time, and different in locality, even at the present modern society.
4) It is hard to draw any concrete conclusion that a moral standard as being established in a modern society will never change in future.
5) The reasoning for the standard, as set by a local community, may have its own bases, if not clearly mentioned, and therefore, no uniform international standard must be set, without understanding the reasons, and neglecting such local diversity in the standards.
6) The action in mind, not in hand, to kill a living human being may not be regarded as an unethical action in certain circumstances.
7) The action of mind to regard a dead as if he/she is still alive may also be appreciated as a respectful action.

4. A proposed Japanese solution to section B problems

Position 3 is proposed here as the Japanese position, with a condition that people at large in those countries which take Position 1, and Position 2 could understand, and agree with, that Japanese people take this position.

It is obvious that the right of killing in this case must be specifically defined by law on the bases of democratic constitution, as any other rights of killing human beings, such as that applied at death penalty, and that at sending soldiers to a battle field.

It is important that the law must describe what sort of authority takes the responsibility of the execution. Also it is important that the law describes the way to share and to console the pain among those directly related with the killing and all people surrounding them.

C-Ⅴ Proposed solutions for some Japan-specific problems

1. An application of the 'killing in mind' concept to solve organ donation problems

To many Japanese, it is hard to admit taking organs and tissues from the body of their intimate family member's body at the time when a doctor announces his/her death (at Transition A in Column 30) or entering State X as described in C-Ⅳ, Section A. This is because, as the author speculates in an early section, such an announcement means only one event during the course of his/her death process in the traditional concept of death in Japan. Thus, procurement of an organ at that moment may well give rise to a great amount of mental pain or trauma to the bereaved.

However, if circumstances are such that they are ready in their mind to abandon the dying person's life (by 'killing in mind') already at the time of Transition A or of State X, then they may easily agree to submit the body to procure organs for transplantation. In that case, their mental and psychological damages may be reduced.

What matters, therefore, does not appear to be the rightness or wrongness of calling a body with no brain stem function as dead, but the admission, support and taking responsibility by the society at large, for the bereaved family members to take a killing in mind action on one of their close family members with his/her brain stem functioning no more.

2. Reconciliation of 'Respect for harmony' principle with 'Respect for autonomy' principle

As describe earlier (Section B Ⅱ and Column 32), many Japanese people are reluctant to follow the respect for autonomy principle due to the reason that they have long been accustomed with the respect for harmony principle. On the other hand, to many Westerners, the respect for harmony principle may be difficult to accept, since it appears to infringe the respect for autonomy principle. To make the two apparently contradictory principles go together, a solution is proposed here as follows: The essential point that leads to the solution is in reconsideration of the idea of 'richness'.

Introduction of 'Respect for autonomy' principle using an alternative concept of richness

・ Assumption A: Every one wants to be rich.

・ Assumption B: Here, richness means a state where one can extend his/her own capability as much as possible. The primary value of 'Respects for autonomy' principle is in that an autonomous action by itself composes the most fundamental manifestation of extending his/her own capability.

・ Assumption B' (An alternative assumption): Here richness means a state where the total sum of bio-sociological capability, either genetic or cultural, in and around whom it may concern, is maximized. The primary value of 'Respects for harmony' principle is in that it is the most essential element of life for one to attain the maximized bio-sociological richness in and around himself/herself.

・ The consequence of Assumptions A and B

→ 'Respect for autonomy' principle does not include 'Respect for harmony' principle.

・ The consequence of Assumptions A and B'

→ 'Respect for autonomy' principle includes 'Respect for harmony' principle.

C-Ⅵ Proposed international rules

In this section, what may be extrapolated as to fit for international rules from the proposed Japanese rules are summarized.

1. Proposed uniform international rules

The author's stance here is to accept and appreciate diversity in ethical ways of thinking among local communities. Taking this stance, the minimal rules may be proposed as follows:

1) As to the minimum requirement for a country to join in an international community in which human tissues may be mutually transported, and people can access to human tissue resources of other member countries, it is requested for a member country to publicize its regulatory framework in the form of law.
2) It is requested to each of the member country that a foreign visitor to the country must follow the law of the visiting country.
3) It is requested to each of the member country that, when a citizen of the member country wants to make a trip to another member country, with an intention of receiving human tissues there (for transplantation for example), the right to permit, or not to permit, the trip belongs to the member country to which the citizen belongs.
4) If a citizen of a member country visits another member country with an intention of receiving, or donating, human tissue outside of his/her home country, receives, or donates, human tissues there, and then wants to re-enter his/her home country, and if the citizen has not declared the intention of receiving, or donating, human tissues at the time when he/she has left the home country, the home country is requested to publicize by law the righteousness or injustice of such an action of the citizen.
5) At an occasion of transplantation of human tissues, the country to which the tissue is destined has the right, as defined by the law of the country, to accept or to refuse the importation, considering the law of the exporting country.

2. Proposed international rules for single body problems

As the minimum essential requirements for a country to join in the international community, it is proposed here for the country to construct and publicize its basic rules to handle human tissues in the form of law so that other countries could understand them, and take appropriate action for any interaction with the country.

3. Proposed international rules for two body problems

Two body problems here are for those two countries between which human tissues are transferred, or for those persons who travel with intention of using human tissues outside of their own countries.

As minimum essential requirements for a country to join in the international community, it is proposed here that a member country is requested to publicize and enforce their rules so that each member country can make contracts with other member countries applying different rules. Such a contract may regulate importation and exportation of human tissues, or travelling of people with intention of using human tissues outside of their own country.

Because diverse rules among countries are admitted, a traveller outside of his/her own home country may be free from his own home country's rules during travelling. However, domestic rules may be effectively set to regulate travellers at the time of departure and arrival.

4. Proposed international rules for three body problems

The three body problems here are for those two countries and human tissues with that both of the two countries are involved. Since the human tissues are transferred usually not between two countries, but between two persons, or two organizations, there may not be many cases to be considered here. One of rare cases that may have to be categorized here may includes such a case where a foreign traveller carrying a donor card dies in a foreign country. There may arise several questions here. For example, is it acceptable to procure organs from the dead following the rules of the foreign country? Or should they pay any respects to the rules of mother country of the dead, where his/her family reside?

The proposed rule for the single body problems may tell that the foreign country is able to procure human tissues from the donor in accordance with its own rules.

From the proposed rule for the two body problems, it is expected that an arrangement has already to be made so that the traveller has already agreed at the time of departure that he/she follows the rules of the foreign country during the travel. However, the family member of the home country might have heard nothing, and they may be those who concern much, for example if they are Japanese.

Therefore, an international rule proposed here is that, if without any particular arrangement made between the two concerning countries, a country does not need to pay any more attention to the foreign relatives of the dead than what is requested by their own law, and this rule must be well informed to every people of concerning countries. There will be a good reason for many Japanese people to accept such rule, since it has been the Japanese tradition that one must follow foreign rules when he/she is in a foreign country.

Summary and conclusion

In the above sections of this paper, a set of Japanese rules are proposed so that they may solve some current Japanese problems related with human tissues, and may also be accepted to people in other countries as well.

Before reaching those rules, the author has introduced several hypothetical postulations. Among them are the postulations that problems related to human tissues can be categorized into three levels, that a fundamental ethical principle, such as beneficence or justice, can be applied in different circumstances with different practical points of stress, that 'respect for harmony principle', which is the ethical principle that has long been cultivated in Japan, can be reconciled with 'respect for autonomy principle', that the definition of richness can be extended using the biological concept of richness, that the concept of 'killing in mind' as defined in this paper may not totally be excluded as non-ethical.

Without doubt, this paper is incomplete. Previous efforts on this line of study should be properly referred in the introduction section, and compared critically with the present effort in the discussion section. The author's interpretation of many general issues as presented in this paper should critically be scrutinized for other possibilities of interpretation. The issues should be analyzed, and rules to be proposed not only using qualitative terms, but also using quantitative terms.

As a whole, this paper may raise more questions than answers. For example, there will be many questions before accepting the concept of 'killing in mind':

Is there any possibility to define the concept of killing in mind in terms of brain science?

If it is, is that brain action related to the actual action of killing?

Is it an essential part for human being to survive as a species?

If so, can ethics deny such an essential and fundamental capability?

Etc. etc.

Not only with respects to brain science, we need careful treatise before talking the ethics of killing in mind, since in those pantheistic days, killing did not mean the disappearance of soul, but only the departure of soul from a body.

Nevertheless, to the author's knowledge, this paper may be the first of this kind dealing with human tissue issues from a Japanese point of view, and written in English for soliciting international discussion.

The essential contents of this paper, except for those regarding the cultural inheritance of the U.K. and Japan, Part B of the three body problems, and international rules, have previously been published by the author in Japanese.

Acknowledgments

The author acknowledges the members of Japanese Tissue Culture Association Committee for Ethical Issues during 1995 and 2000, and Professor Shin Utsugi and the members of his research group that had been supported by the Ministry of Health, Welfare and Labour from 2001 to 2006, for their valuable discussion. The author also acknowledges the skilful help of Akiko Kihara, Rie Matsui, Hiroko Sasaki and Shigehiro Shimosaka for secretarial and editorial help and also for discussion within the author's laboratory.

References

Since this paper was first composed as a handout material for the participants of the workshop, and then modified in the form of a paper for the proceedings, references are poor, and incomplete for which the author has to apologize.

Only some of key literature and the author's previous works are listed as follows:

Ref. 2, 3, 5, 6, 15 are textbook, handbook and some leading literature in the field of bioethics either translated into Japanese or written by Japanese authors.

Ref. 17 and 27 are for the ethical principles to which essentially all ethical guidelines from the Japanese governmental offices follow.

Ref. 1, 10, 24-26 are books concerning animistic, polytheistic and pantheistics inheritances of Japan and the east Asia.

Ref. 16, 19, 20 are for two Japanese classics, Kojiki Record of Ancient Matters and Tales of Genji, for both of which English translations are available.

Ref. 9 is one of modern analyses of Tales of Genji with implication of Japanese people's mind structure.

Ref. 4, 18, 21-23 are popular books written in English introducing Japanese traditional philosophy and mind.

Ref. 8 is a comprehensive introduction to Confucianism and Buddhism and their development in Japan.

Ref. 7 is a recent inquiry study for the health status of live liver organ donors.

Ref. 11-14 are the author's previous papers all written in Japanese.

Note 1: For those references with * marks are Japanese articles, the English titles of which are arbitrary attached for convenience without any consent of the authors of the articles.

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Human Tissue Legislation – Culture and context

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In this session I am going to consider certain aspects of the culture of the UK and the context within which the new human tissue legislation was made and to suggest ways in which these factors influenced the shape of the legislation generally and transplantation specifically.

The changing doctor-patient relationship

One aspect of this is the way that the nature of the doctor-patient relationship has changed over time.

Until the middle of the twentieth century, paternalism was the norm in the UK. The clinical interests of the patient were the doctor's primary concern and patients deferred to their doctor to make decisions for them. Doctors saw it as part of their duty to protect patients from bad news and from information that might be upsetting or distressing for them. So, it was common place for information about serious illness to be given to the family, rather than the patient, and this was accepted by all. The situation now in the UK is very different.

Social changes account for much of this change. Over time we have seen far less deference to doctors, more assertive attitudes towards individual rights and self-determination, a more diverse cultural and religious mix within society, increasing breakdown of the extended family and the development of a system of internationally recognised human rights, all of which have helped to facilitate this major change. In addition to these factors, medicine itself has changed offering opportunities to prolong life for many years, in some cases without any possibility of the patient regaining awareness or understanding.

These changes have had two major impacts on medicine – first, there is now far greater emphasis on personal autonomy and individual decision making. Secondly, and interestingly, an increasing notion that medical ethics is not just a matter for doctors but a matter for society with individuals not only claiming their right to make their own decisions but also to contribute to the decisions made about public policy and the shape of the society in which we live.

Autonomy

When we think about modern UK society and the practice of medicine and research, the most important factor that has influenced practice and the regulation of practice is the primacy given to patient autonomy. Patients now expect to be the ones to decide whether treatment provides a benefit for them, based not just on clinical factors but on whether treatment is able to provide a quality of life that they would find acceptable. In order to make these decisions, of course, patients need full and honest information. Information may no longer be withheld from patients because it is thought better that they do not know.

Studies in the UK have found that virtually all patients want to know their diagnosis although there is more diversity with regard to the amount of information they want about the likely progression of the disease and their prognosis. Despite the fact that relatives frequently request that information is withheld from elderly patients, one study found that the desire to know of a diagnosis of cancer was found in 88% of patients aged from 65 to 94 years old and this reflects anecdotal reports of a high demand for information among all patients. The general guidance in the UK is that how much information to receive is a decision for the patient, not for the family and not for doctors. If it is evident that the patient does not want detailed information, this should not be forced upon them but it is generally believed that, in order to give valid consent, or to make a valid choice to delegate decision-making to someone else, patients must be given some basic information. It is generally considered to be a positive thing for patients to have information and so doctors are advised to support patients and encourage them to receive information at a pace that is acceptable to them. There is,

T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England(Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

however, a delicate balance for doctors to make in deciding when, and how much, information to provide.

Increasingly the focus on autonomy is also represented in terms of legally enforceable human rights. Cases that have been before the courts confirm that competent patients have the absolute right to refuse treatment, even if that refusal will result in the death of the patient. It also extends to cases where a woman's refusal of a Caesarean section would result in the death of a healthy, viable fetus. So a woman can, for no particular reason, refuse to have a caesarean section even if that decision will result in the death of a healthy, viable fetus.

Autonomy and confidentiality

This emphasis on autonomy and "self rule" also extends to the sharing of information. Health providers owe a duty of confidentiality to their individual patients and information may only be shared with other family members with the patient's consent. And, frequently, patients refuse to have any information about their medical condition shared with their family and doctors must respect that. Failure to do so would leave the doctor open to a charge of professional misconduct which could bring the doctor's registration into question and open to being taken to court by the patient for a breach of confidentiality. Patients can also refuse for information to be shared with others providing care and treatment for them, even if that would have a negative impact on the ability to care for the patient. They must of course be informed of the risks they are taking but if they still refuse, that must be respected.

Rights and responsibilities

Interestingly, a debate is beginning to take place in academic circles about whether there are, or should be, more limits on autonomy. The BMA has for a number of years been expressing the view that people have a moral obligation to take account of the impact of their decisions on other people – even though these moral obligations cannot be enforced. This has particularly, but not exclusively, been raised in relation to genetics where decisions by one person can have a direct and serious effect on others.

The role of the family

It is fair to say that the importance of the family, in most of UK society, has declined over the last few decades. Fewer people live in extended families than in the past and people rely on other support mechanisms, such as friends, more than family members in today's society.

Where patients are competent, they expect to make decisions, rather than families making decisions for them. An area where families are involved, and expect to be involved, however, is where patients lack capacity.

So in relation to treatment decisions, the view in the UK is that if the individual is competent and capable of making a choice, then the decision rests with the patient who may or may not decide to discuss the issue with other family members. If the patient lacks capacity then the family expect to be involved and, although in most cases, it will be for the doctor ultimately to decide what is in the patient's best interests, the family will be involved in those decisions. Where someone has died, without expressing any wishes – about organ donation for example – then it is accepted that the family should make the decision.

The impact of the organ retention scandal

What the revelations about unauthorised organ retention did, was to lead to a crisis of confidence in pathology generally and paediatric pathology in particular. The Royal College of Pathologist was very concerned for its members some of whom were subject to what were described as "hate campaigns" and verbal attacks and there was great concern that we were heading for a severe shortage of pathologists as some left the specialty and students chose alternative career paths. At one stage it was reported that a quarter of all paediatric pathology posts in the UK were unfilled. After the

disclosures the number of post-mortem examinations undertaken declined because pathologists were worried about asking for consent and parents and relatives were reluctant to give it.

The situation was not helped by the rather chaotic way in which the issue was managed by many hospitals once the extent of organ retention became apparent. Commissions were set up to oversee the collections that had been accumulated and to return body parts to families where they wanted them – this was done in an piecemeal way and resulted in some families having two or three additional funerals as, over a period of time, more body parts were found and returned.

Leaving aside the very extreme case of Alder Hey, what is more interesting is the other hospitals that also retained organs and tissues without the knowledge or consent of the relatives. What became very clear from the inquiry is that the shift from paternalism to autonomy that had been made in virtually every other area of medicine had not reached pathology services. Pathologists were not acting maliciously in withholding information, they were seeking to protect the parents, or other relatives, by sparing them from distressing information – by not going into detail about what a post-mortem examination involves and by not specifically seeking consent for organs to be retained for research once the post-mortem examination was complete. They genuinely thought they were helping the parents and acting in their best interests.

This reflected a complete breakdown between the expectations of the public and the expectations of a section of the medical profession. Whilst the public's views had changed, those of pathologists had not.

This gives you an idea of the context within which human tissue legislation was proposed and helps to understand why consent was such an important issue.

Impact on human tissue legislation

This emphasis on autonomy in UK society, and in the aftermath of the organ retention scandal the importance placed on consent, is reflected in the Human Tissue Act. Removing or retaining organs after death, without consent, except under the authority of the coroner, is a criminal offence punishable by up to 3 years' imprisonment. In addition, the premises where any post-mortem examination takes place needs to be licensed by the HTA which must satisfy itself that appropriate staff and procedures are in place and that the guidance set out in its code of practice is followed. This extremely tight regulation was inevitable after the organ retention scandal.

The same principles – of autonomy and consent – also underpinned changes in other areas, such as transplantation. In the past, even if the individual had signed up to the Organ Donor Register, the family of the deceased patient would still be asked to give consent and it was considered to be their decision. Over the last few years we have seen shifting attitudes in this respect with individuals expressing increasing unease and even anger at the notion that their wishes could be overridden by their relatives. It has now been made clear in the new legislation that the family do not have any legal right of veto and that the consent of the individual takes precedence over the wishes of the family. This means, in theory, that donation could proceed in the face of opposition from the family although, in practice, if the family is extremely distressed, it is unlikely that donation would proceed. Those who want to donate are advised to discuss their wishes with their family while they are alive to try to avoid this scenario.

Where the individual has never made their wishes clear then it is the family who make the decision – but the focus is still on the individual as the family are asked to base their decision on they think the deceased person would have wanted.

Presumed consent for organ donation

During the passage of the Act, the BMA made unsuccessful attempts to achieve a shift, in the legislation, to a system of presumed consent for organ donation. There is considerable support within the UK for organ donation. In all studies around 90% said they supported organ donation but only 22% have made their wishes known by signing up to the organ donor register. The problem is really one of apathy – people intend to sign up but they never get around to doing so and many people do not like to think about dying and so avoid it. So, during the passage of the legislation the BMA lobbied Parliament to make donation the default position from which people may opt out during their

lifetime if they so wish. Given the exceptionally high level of support for donation, this is simply making it easier for people to achieve their wish to donate and so in our view it would have been entirely consistent with the underlying principle of the legislation and, arguably, more consistent with autonomy than the current system. This is how it would work.

Presumed consent with safeguards

- In advance of the change there would be extensive and high profile publicity advising people of how to opt out if they do not wish to be donors;

- Mechanisms must be in place to ensure all sections of the public are informed and can register an objection easily and quickly;

- After the system has come into effect, when a person dies in a situation that makes donation a possibility, the opt-out register must be checked;

- If the individual had not opted out, the relatives would be informed of this and asked if they are aware any objection to donation by the individual that had not been registered;

- If the relatives are not aware of any objection, they would be informed that the intention would be to proceed with donation;

- But donation would not proceed if it became evident that to do so would cause severe distress to those close to the deceased patient.

The major change would be in the approach to relatives. Rather than asking them to make the decision, they would simply be asked to confirm whether they were aware of any unregistered objection. Those who operate such a system in other countries says that this is a much kinder system since the burden of making the decision at such a difficult time is removed from the relatives. This system has been shown to be effective in other countries.

Public support

Public support is, of course, crucial for any change to presumed consent to work but we firmly believe that there is growing support in the UK for such a shift. There have been a number of public opinion surveys on this topic over the last five years, the most recent in March last year in which more than 2,000 people were interviewed – 60% supported a shift to presumed consent – this finding is consistent with other surveys undertaken.

This 60% is before there has been any concerted effort to educate and inform the public about the way such a system would work and to facilitate an informed public debate on the matter.

In our view, introducing a system of presumed consent for transplantation with a role for the family, as we were proposing would be:

- Good for those who are willing to donate – because it is a system that requires no effort on their behalf to ensure their wishes are followed

- Good for those who are not willing to donate – because, unlike in the current system, their wishes would be formally recorded and must be respected

- Good for the families of the deceased – because they would not be put in the position of having to make a decision about donation at a time when they were recently bereaved.

- Good for those waiting for an organ transplant – because there would be more organs available for donation and thus shorter waiting lists.

It would also more accurately reflect the tremendous support there is within the public and the Government for transplantation.

So, why did we fail to get this accepted? I think there are two main reasons.

- The principal one was that it came in to the aftermath of the organ retention scandal, when politicians were understandably extremely sensitive about doing anything to the body of a deceased person without consent. And, in fact, in responding to debates on presumed consent in Parliament, the Minister made the point explicitly that after Alder Hey people expected to be consulted and to give consent to any use of their body after death.
- But that isn't the only reason. The Government was afraid of a backlash – that people might see this as the Government telling them what to do with their organs, and effectively taking ownership of their bodies after death. They feared that a large number of people would opt-out as a matter of principle, rather than because they objected to donation per se. Certainly there were a small number of people who made such threats during the debates. But this is a reason for debate and consultation rather than avoiding any change.

The BMA will continue to monitor organ donation rates and the impact of the new legislation. We will also continue to promote public debate about the option of presumed consent and, if necessary, we will lobby again for the legislation to be changed in a few years time.

Definitions of death

This is a topical issue as a new code of practice is currently being prepared on the diagnosis of death. This document, which previously just included diagnosing death by brain stem tests prior to transplantation, will now also include a formal protocol for diagnosing cardio-respiratory death. This is necessary partly because of the expansion of non-heartbeating donation. Before steps are taken to preserve the organs, it is necessary to be certain that the person is dead and this needs to take place as quickly as possible to prevent any deterioration in the quality of the organs. In order to maintain public confidence it is important to have national guidance about how to diagnose death rather than different protocols being used in different hospitals.

The definition of death has not really been a problem in the UK, although understanding among the general population about *how* death is diagnosed is quite low. For most people it is sufficient to know that their relative is dead and they do not want details of how death was diagnosed. There are a small number of people who argue that when patients sign up to the organ donor register to donate their organs "after their death" they are not giving consent to organs being removed following death of the brain stem. Those who take this view are, however, in a very small minority.

The difficulty, of course, is that death is a process rather than a single event. The cells in the body die at various rates and when considered logically, and given the high level of support for organ donation, people would not expect that every cell in the body must be dead before death can be declared. This would, of course, make organ donation impossible. Yet, most people probably do not really think about what death means. When we are talking to patient groups we often talk about "the point of no return". The stage at which the brain is no longer capable of sending or receiving the relevant information via the brain stem and thus recovery is impossible – vital centres in the brain stem that are essential to maintain life are damaged making it impossible to continue living. For relatives the important factors appear to be that the individual cannot experience any pain or any sensation and life is no longer possible.

The guidance in the UK has defined death as "the irreversible loss of the capacity for consciousness, combined with the irreversible loss of the capacity to breathe" and there are detailed sets out tests that must be carried out by at least two doctors who have been registered for more than 5 years, one of whom must be a consultant.

There has, in the past, been a couple of occasions where the media has raised questions about heartbeating organ donation. For example, one of the newspapers ran a big story about "dead" donors

being given anaesthetic during organ retrieval, implying that they might feel pain. In fact, it referred to anaesthetic agents given to prevent reflex reactions and to make the retrieval procedure easier for all concerned. When these stories have been raised in the media they have not had a major, or sustained, effect on donation rates and proper explanation has provided reassurance. The other concern among some potential donors is that staff will not try so hard to save them if they are registered to be a donor – to reassure people that this is not the case there is a clear separation between the treating team and the transplant team.

Religious views

The population of the UK is made up of a mix of people of different ethnic background, religion and culture.

In the 2001 census, when the population of England were asked to state their religion:

14.6% No religion

79.7% Christian
3.1% Muslim
1.1% Hindu
0.7% Sikh
0.5% Jewish
0.3% Buddhist

UK Transplant has had discussions with religious leaders in all of the main faiths to determine the impact of different religious beliefs on views about donation. It uses this information to providing training for transplant staff in order that they may help families to decide about donation where the individual's own views are not known. This is important because some people perceive their particular religion to be opposed to donation when, in fact, discussions with religious leaders indicate that no such objection exists.

It is clear from the work of UK Transplant than none of the major religions represented in UK society are opposed to organ donation in principle. In some religions, there are different interpretations and different traditions within the religion that take different views and so it is recommended that relatives consult with a local religious leader if they are uncertain.

An interesting finding, from UK Transplant is that ethnicity has an impact on donation rates, although the reasons for that are unknown. Donation rates are known to be much lower among black Afro-Caribbean donors than among their white counterparts and campaigns have been set up targeting those specific groups. The potential donor audit – of all deaths in intensive care units in the UK – also indicates a significantly higher refusal rate among relatives of non-white as opposed to white donors (70% among non-white donors compared with 35% for white donors).

Culture of consultation

The UK public expect to be consulted about matters relating to society and medical ethics and public policy are seen not just as matters for doctors of politicians but for everyone.

Whenever a public body – such as the Human Fertilisation and Embryology Authority or the Human Tissue Authority - or a Government department plans to make a policy decision, or put out advice or guidance or make new legally binding regulations, there is public consultation. A consultation paper or a draft code of practice or guidance will be sent to relevant professional bodies – such as the BMA – and will also usually be publicised in the media and made available to anybody who wants to respond. There has been a noticeable shift in the extent of public consultation over the last 10 years and now, very few decisions are made without prior consultation.

There is a legitimate question, however, about what the role of these consultation exercises is. The HFEA for example, consulted on the question of whether people should be permitted to select the sex of their child by using sperm sorting techniques or preimplantation genetic diagnosis. A large number of members of the public responded and the HFEA was criticised from some quarters for

giving too much weight to the self-selecting respondents (the vast majority of whom opposed sex selection for social reasons). There is a question about whether bodies like the HFEA are in place to reflect public opinion or, as I personally believe, to educate, inform and in some cases to shape public opinion.

EMPLOYMENT CAREER FINANCE FUTURE

Human Tissue Legislation: Culture and Context
ヒト組織に関わる法令: 文化と社会状況

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BMA

EMPLOYMENT CAREER FINANCE FUTURE

The changing doctor-patient relationship

- Until mid 20th century paternalism was the norm
- Doctors decide on clinical interests
- Patients protected from bad news
- Emphasis on patient autonomy
- Medical ethics is not just for doctors but for all of society

- 20世紀の半ばまで、父子主義が一般的だった
- 医師が医学的判断を下す
- 患者には悪い知らせを伝えない
- 患者の自律性を強調
- 医学倫理はドナーだけでなく社会全体に適用される

2

BMA

Autonomy

- Patients expect to decide whether treatment will benefit them
- Patients must have information to make decisions
- Competent patients can refuse any treatment
- Information cannot be shared without consent
- Do patients have responsibilities as well as rights?

- 患者は治療が有益かどうか決定可能と考えられる
- 患者は決定に必要な情報を知る必要がある
- 正常な判断ができる患者は治療を拒否できる
- 情報は同意なしに共有できない
- 患者は権利のみならず責任もあるのでは？

3

BMA

The role of the family

- Importance of the family has declined
- Breakdown of extended families
- Competent patients decide for themselves
- Families involved with decisions for incompetent patients
- Families decide on behalf of deceased patients whose views are not know

- 家族の重要性が低減
- 家族の核家族化
- 正常な判断ができる患者は自ら決定
- 正常な判断ができない患者は決定に家族が関与
- 判断が不可能である死体は代わって家族が決定

4

BMA

EMPLOYMENT CAREER FINANCE FUTURE

The organ retention scandal

- Crisis of confidence in pathology services
- Shortage of pathologists
- Number of post-mortem examinations declined
- Paternalism was still the norm in pathology
- Different expectations of society and pathologists

- 病理学が提供できるサービスの信頼危機
- 病理学者の不足
- 検死例の減少
- 病理学では依然として父子主義が一般的だった
- 社会と病理学者の期待に格差

5

BMA

EMPLOYMENT CAREER FINANCE FUTURE

Impact on human tissue legislation

- Autonomy and consent central to Human Tissue Act
- Extremely tight regulation of post-mortem examinations
- No relative veto
- Presumed consent – rejected

- 自主性と同意がHuman Tissue Actの根幹である
- 検死に関する規制を極度に強化
- 親族の拒否権なし
- 看做同意　– 棄却

6

BMA

Presumed consent for donation

- Everyone presumed to be donor after death unless they have objected
- Relatives asked about unregistered objection
- If no objection presumption is to proceed
- Severe distress of relatives would prevent donation

- 反対しない限り、死後は誰しもドナーとみなされる
- 登録されていない反対意見があるか親族に確認
- 反対がなければ提供可とみなされる
- 親族が極度のストレスを受けている場合、提供中止可能

7

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Diagnosis of death

- New code being prepared covering:
  - Death confirmed by brain stem tests
  - Cardio-respiratory death
- Brain stem tests not widely understood among public

- 以下、新法規内容(予定):
  - 脳細胞テストによる死亡の確認
  - 心臓及び呼吸系統の停止
- 脳幹部テストは一般に広く理解されていない

8

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Religion

14.6%	No religion	14.6%	無宗教
79.7%	Christian	79.7%	キリスト教
3.1%	Muslim	3.1%	イスラム教
1.1%	Hindu	1.1%	ヒンズー教
0.7%	Sikh	0.7%	シーク教
0.5%	Jewish	0.5%	ユダヤ教
0.3%	Buddhist	0.3%	仏教

No major religion opposes transplantation in principle

原則として、どの宗教も臓器移植に反対していない

9

Culture of consultation

- Public consultation is the norm
- What is the role of consultation?

- 公開諮問が一般的
- 諮問の目的は何か？

10

Slide presentation 3　Editors comments for Japanese readers regarding terminology
日本語訳に対する編者のコメント

p159、スライド No.2	父子主義→父権主義・パターナリズム
	医学倫理はドナーだけでなく社会全体に適用される→医療倫理は医師のためだけでなく、社会全体のために存在する
p160、スライド No.3	患者は治療が有益かどうか決定可能と考えられる→患者は治療が有益かどうか決定したいと考えている
p160、スライド No.4	判断が不可能である死体は→判断が不明である死者には （英語の最後の文章の know は known であろう）
p161、スライド No.5	病理学が提供できるサービスの信頼危機→病理学サービスの信頼に対する危機
	父子主義→父権主義・パターナリズム
p162、スライド No.7	提供中止可能→提供は中止されることになる
p162、スライド No.8	脳細胞テスト→脳幹テスト 脳幹部テスト→脳幹テスト
	イギリスは、いわゆる脳幹死説（脳幹の不可逆的機能停止をもって脳死とする）をとっている。もっとも、2004 年法は HTAuthority が死の定義についてガイダンスを出すよう規定している（26 条(2)(d)）。
p163、スライド No.9	原則として→原理的には
p163、スライド No.10	公開諮問が一般的→「パブリックコンサルテーションをすることが規範である」の意

Fundamental differences between the U.K. and Japan in approving process

***Mike Norton*, Professor of Innovation Management Institute, Shinshu University**
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I have to apologize because I am an amateur here amongst many experts in medicine law and ethics. As a scientist (chemist) I have only general experience of ethics which I obtained in previous jobs communicating science to policymakers, for instance I worked for 10 years in the British Parliament briefing parliamentarians on issues with legal or ethical implications, such as the one we are discussing today. My job there was to explain complicated scientific issues in terms that non-expert parliamentarians could understand, so that they could concentrate on the key legal, policy or ethical issues and not make mistakes about the science in their comments. So what I thought I would do today is to give you some impressions about what I have absorbed from these two days of expert testimony and identify what seem to me to be the key issues, and I'm sorry that I cannot contribute any fundamental expertise myself.

If we think about the transplantation process itself, then the key issue is really the interface between the donor and the donor's relatives or the bereaved - and it is here that the difference between Japan and the UK is perhaps most obvious. In Japan you have the donor - first of all he or she has to overcome the barrier of providing their own consent; then if that barrier is passed, there is a second barrier to overcome which is that of the relatives' consent. It is quite obvious that if it the chance of having a donor card is 20% and the chance of the relatives also consenting is 20% then the overall outcome is only 4% . This is very simple arithmetic but accounts for why so few transplants are taking place in Japan today. In the UK, you have the donor and again the donor can choose to go over that first barrier and agree to consent by using a donor card, but instead of the relatives' decision being a second barrier, you have a second route whereby the relatives can give consent even if the deceased does not have a card. So if we use the same percentages, and the percentage with a donor card is 20% and 20% of the relatives give approval, these are additive in the UK so that the overall percentage of approval can be as high as 40%.

So we have fundamental differences in the approval process -in Japan they are competitive while in the UK they are additive. So perhaps we should think about why. The UK has just changed its legislation so I suspect we are not going to change it again in the near future, but Japan is in the current situation of discussing this issue. There seem to be two options for thinking about change. The first one is related to donor/relatives wishes and which has priority – as we have heard this is really about autonomy where the deceased who wishes to be a donor can be overruled by the relatives. Then you have the case where the deceased has not made any indication about whether he/she would like to donate where the relatives could be given a role is deciding donation. So Japan has these two options to consider in overcoming these barriers to donation.

And each of those raises different issues. The first is basically an autonomy issue; it is a competition of priority - a competition between the rights of the donor and the rights of the relatives/bereaved. It isn't a case of harmonising these, it is a case of deciding which right has a higher priority and this relates to the rights of the individual versus the group in society where as we know there are quite large differences between Japan and UK on that issue. As Dr Matsumura pointed out, our image of Japan is that the Japanese are very concerned about the effect of their actions (or the image of their actions) on other people and are very sensitive to criticism or comment from other people. Whereas in English society it is more individualistic and if we have the courage of our convictions, we are prepared to stick with that opinion in spite of the opinions of the people around us. So I'm not saying you have a clash, but you do have an interaction with some fundamental aspects of Japanese society here. Similar, though not quite the same considerations apply to the second policy option which is the ability to decide in the absence of the donor's express wish whether to go ahead. Now here you are looking at here what are the relatives weighing- what are they considering- when they make that decision.

There is clearly no benefit to the relative who has died of becoming a donor; what they have to consider is the balance of costs and benefits in a broader sense. I think that gets me into the field of the philosophy of what is the role of the individual in relationship to Society, and I think there are

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differences here between the UK and Japan. In the UK, there is quite a strong feeling that we should, where we can, be good for society- of course we all put ourselves first, but we also like to (where we can) do something good for society. For instance I contribute to a charity which is saving rainforest in South America; my daughter subscribes to a charity which is more concerned with political prisoners and human rights; the idea in the UK of charitable activity is very strong. This is why we have some very large charities with a lot of money which are just not matched in Japan. So I'm interested in hearing what is the average image amongst Japanese of what they should do for society. Dr Matsumura pointed out the Japanese preoccupation with gift reciprocity-I even found this with my neighbor when I gave them some spare vegetables and sure enough two days later there was a knock on the door and a reciprocal gift. (In England, we would have just said thank you very much and eaten them!)

Our image of how self interacts with society may be important and my suspicion in Japan is that the general image (of self interacting and contributing to society) is not as strong as in England. Which is contradictory in some extent because Japanese also have this identification with the group which is stronger than in the UK. The key difference is that in Japan your identification with the group is generally with a close group whereas in the UK there tend to be only two groups-the family and then not much between that and the whole of society.

So if you look upon it from the point of view of donating an organ to a person unknown to you, you are contributing to them - they are certainly getting a benefit-but the question is there a beneficial feedback to the bereaved family. In this context, I did an Internet search and found one paper (from Holland) which looked at the effects on the bereavement process of whether or not donation was approved. The study had three groups - one where the relatives had agreed to the deceased donating an organ; one where the relatives had not been asked; and one where they had been asked but refused. And the analysis asked if there might be some relationship between the donation (and the benefit provided to someone else) and the grieving process. There was also the question that many hospital staff are reluctant to ask about donation at a critical time because they believe it will distress the relatives. That work had a pretty negative outcome-they said there was no impact on the bereavement process related to whether or not an organ was given. Neither was there an impact on the bereavement process of whether or not you were asked. So we can't call on any hard evidence to suggest that there are any personal benefits to the bereaved family by acting charitably. That is the first point which is on this key balance between the rights of the donor and the rights of the bereaved.

The second area I think we looked at today is really on the medical scientific front, and here I sensed there isn't that much difference between the UK and Japan in terms of the medical profession. I think the concept of death demonstrated by brain stem function test is accepted in Japan amongst the medical community, although we heard from Dr Matsumura's talk that there is a much bigger gap between the medical concept of death and that amongst the public. But we also heard from Veronica about the change in doctor-patient relationship and the critical point that it is not just the nature of information but also its delivery method which are both important-it is not just the information but it's the way in which it is presented as well. My personal experience having visited doctors in Japan is that they are not the old paternalistic style-they do explain things and they do consult you on what is the best procedure; in fact I've been surprised that doctors here take account of the patient's wishes perhaps even more than I have experienced in the UK. So I am not quite sure in terms of the doctor-patient relationship it is that different in Japan. It may be that the actual concept of brain death needs to be far more carefully explained in Japan than in the UK perhaps because it's not so widely accepted outside the medical profession. And there's also the point made in the paper I already mentioned, about the interaction between the doctors and the bereaved immediately after death when donation is being discussed. They did conclude that doctors need to not just explain but also show the actual results or scan printouts which you get from the test procedures for brain death. There is the suggestion that if you go through the diagnostic process of explaining what the tests mean and how you have reached the conclusion about death, this is much more effective than just saying I'm afraid he/she has died. So there may be some valuable insights there.

In terms of the societal beliefs however, I think there are some quite substantial differences between the UK and Japan. In the UK you saw from Veronica's slide on the religious affiliation in the UK that about 80% are basically Christian origin although there is quite an important difference between Protestant and Catholic origin. Around 10% are active Catholic (our Prime Minister is

Catholic). The Human Fertilization and Embryology Act had a very high involvement by the Church in the debate on the ethics and also in the legislative process. On that issue, the Catholic Church and the Protestant Church were in disagreement but in terms of transplants, they are in agreement-both regard it, if not a duty, at least something which is a good act; a charitable act. Not something which has any negative aspects but not something which is compulsory either. However on the Human Fertilization Act particularly on embryo research up to 14 days, there was a big split between Protestant and Catholic. But the key point is that both of them engaged in the political process and both of them contributed very good philosophical analysis which were useful for deciding the outcome of the legislation. And in fact the Church of England has some specialized science and ethics people on its staff including the Scottish church as well, and these are doctors and academically trained people who act as advisers on these issues. So I think that is a very important role but I do not see that role possible in Japan, because Shinto does not get involved in policy processes and Buddhism is also fairly detached from the political process. So this means that there isn't any mechanism in Japan for mediating or communicating religious concerns amongst the general public into the political process.

I think that while this is an important difference, I don't think you can do much about it -the current position of the religious faiths is very long established and they are unlikely to change their role in society very quickly. The other key area in societal considerations is of course trust in professions- this is a key factor. In the UK we talked quite a lot in this meeting about consultation, and consultation has really been increasing as trust decreases and consultation is a response to the loss of trust. This loss of trust in government, in the media, also in the professions , is a problem which has been affecting just about every aspect of government in the UK and has led to a great increase in public involvement at every stage.

So I think that the position of the UK 10 to 15 years ago, when there was a tendency to leave such matters (especially such sensitive matters) to the professional bodies and their guidelines and voluntary self-regulation, is still the case in Japan. But you heard from Veronica's presentation, that situation has changed and a lot of these areas are now regulated. The danger of that of course is that you lose the basic freedom to use common sense and lose the flexibility of professional guidelines and when they become law, you can end up with idiotic or completely unforeseen implications such as the story we heard about the doctor who was unable to establish whether he had a risk of HIV infection from an accidental injection. So in my view there's a lot of advantage in retaining the flexibility of professional guidance and self-regulation, and if that is the case and is working in Japan then the key thing is to make sure that self-regulation is seen as effective by the public, because what happened in the UK was that many of these areas were seen to be deficient. That is what caused the huge backlash on certain issues which led to regulation and the threat of further regulation. So that is an impression that came out from today's discussions.

The final point I want to make today is concerned with internationalization since I know the original agenda had the scope for internationalization on the list. I wonder if it's really possible to move very far in this direction. The presentations this weekend have shown how policies are influenced by religious and political considerations and how strong are the differences between countries on this issue. There are already difficulties in reaching an international consensus on key international issues such as stem cell research; that's been raised in the Council of Europe and has led to a predictable split between Catholic countries who object and Protestant countries who think it is suitable to consider research. This disagreement has also extended into the United Nations and reflects the very fundamentals split between catholic and non-catholic countries (I am not sure where Muslim countries lie on this). So I think that the chance of an international consensus is not that good. However if you have international trade then you do need some basis on which to regulate, or at least there will be pressures in that direction. So I think you saw the approach being taken in UK under the Human Tissue Act to say that not only must UK law apply but you must also have the consent and compliance with the regulations in the other country with which are trading. But I don't think we have really discussed that, so that's just my initial reaction.

So I think that is all the time I have to make these comments, so I hope that my focusing on these differences has been helpful.

Short Comments on Session 3: Diversity in rules among countries with references to the cultural background of individual countries, and where to seek for international harmonization

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Preface

Thank you very much for Prof. Utsugi's and Dr. Matsumura's giving me this valuable opportunity to comment on this session, but it is very difficult for me to comment on the wonderful presentation by Dr. Matsumura and Dr. English in this third Session. So please show my comment paper. This is my only memorandum. Last night I hesitated to distribute this paper today, because it has not yet been fixed.

I major in criminal law and medical law in Waseda University. I have studied various subjects in medical law from the viewpoint of comparative law in my study life. Especially, I am interested in German law and English law, so I often compare the medico-legal system in Germany with the system in the UK in connection with it in Japan; for example, on the problems of euthanasia, artificial reproduction, human cloning and so on. I learn many things from these two countries. Recently, I am interested also in Dutch and Oceanic system.

By the way, needless to say, every country has its own cultural legal history and therefore has different legal system each other. In Germany, the notion of "human dignity" is taken very seriously in bioethics and medical law. In the UK, I think that utility is so. And for example, concerning the legislation of protection of human embryo, German model is hard (see Embryonenschutzgesetz), contra it in the UK's model is more soft and flexible than in Germany. Personally, I think that HFEA in the UK is more appropriate than Embryonenshutzgesetz in Germany. I often find out the solution-model (mixed model) in these two legal systems. So, I was very interesting in the lecture of Dr. English and the concrete discussions on it last night. Here I'd like to avoid duplication and comment shortly on the basic problems from the viewpoint of comparison between the Japanese system and the UK's system.

1. Differences of cultural background and bioethics or medico-legal rules

I think that there are some differences of cultural background between the UK and Japan and therefore also some differences of bioethics or medico-legal rules between there.

From the viewpoint of religion, it is true that there are many Buddhists in Japan, but Buddhism is various. And in addition to it, many people are not religious in their daily life. So it is difficult to say in a word, however, if I must find something characteristic to say about it, I'd mention its heteronomy (so called "Tariki Hongan" in Japanese, but it originally means another implication). Traditionally and culturally, we trend to rely on another person in deciding on important things in Japan. The notion of "autonomy" is not so strong in Japan. Many people think that they would like to escape from troublesome problems, and often say, "Don't try to get me into anything troublesome". Therefore it appears for me that some important problems (e.g. on treating human embryo or human tissues) are not being discussed daily in Japan. Nevertheless whenever an important problem is taken up by the mass media, they trend to be very excessive and sensitive to it. So we are very week in decision-making or making a social agreement in the field of bioethics and medical law. Thus some important subjects are often decided without our noticing. As the UK has a good tradition "rule of law" and autonomy, the system is originally different from Japan. I think that the internalization of norm is not so enough, but the role of family and medical paternalism are stronger in Japan than in the UK.

Incidentally, in the earlier time, Japanese norm consisted of the notion of "Haji" (we may safely call it shame), which was a kind of emotion "not being criticized by others". This is a very important notion in Japan. Once upon a time Ruth Benedict, who was a very famous cultural anthropologist in USA, said that Japanese culture was the "Culture of Haji".

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On the other hand, naturally we have many Christian and scientific citizens, persons who decide calmly, and so on in Japan. And fortunately, we are very diligent in learning the foreign legal or ethical systems and we have various influences mainly from Anglo-America and Europe in Japan. Therefore recently the situation is gradually changing into westernization. So in a sense we have multi-cultural aspects in Japan. The right of self-determination of the patient or informed consent is emphasized in the field of medical law and bioethics. However these trends often collide with the present Japanese situations because of Japanese spirit and combined with Western learning (so-called "Wakon Yousai"). Dr. Matsumura shows us one tentative proposal to help us focus our discussion with being aware of it, and it is very useful. It is desirable to set more appropriate rules in Japan.

2. How can we make a reasonable rule in Japan ?

The question is how we can make a reasonable rule in Japan. It is often said that we are week in the notion of "public health". So that, especially recently, it is difficult to collect the medical information and data (including cancer registration system) or materials for medical research. And e.g. also IRB or committee system and genetic counseling or consultation system are not enough. That is to say, the system can't catch up the progress of technology. It is different situations from in the UK. I ask to Dr. English how we can harmonize with international dimension with keeping the merits of Japanese system. Please advise us from the viewpoint of "rule of law" in the UK, where is the mother country of the rule, in the field of this biomedicine.

As we're running out of time, that's all today. Thank you very much.

Discussion

Tamura: Collective autonomy

I just would like to add a little comment. First of all, as a genetic counselor I counsel a lot of people who lost their family members and incidentally it was not a too long a presentation by Professor Emiko Namihira, I guess. I think you people have already had that presentation that she has talked, she is a cultural anthropologist and she investigated when we had a huge accident of the Jet plane and then she investigated how family members who lost their families reacted in terms of their feelings for the deceased body of the deceased. And then she concluded that somehow, I feel the same way though, the Japanese people tend to feel that the soul, the happiness or unhappiness of the soul of the deceased could affect us in a way. So, for instance, we originally had this tragedy that a little girl was raped by a person, and the family, when the trial was held, the family, the parents, they held a picture in a frame of the girl but when they were sitting in the court and when the criminal came into the court place, the parents wanted to cover the picture because they did not want the girl, the deceased, to see the criminal. And their behavior was almost like as if that the girl was still living, and I think many Japanese people would understand that kind of feeling and we often say that if we do this and then the deceased might feel unhappy or happy, and that kind of feeling of the deceased could affect us in a way. That is one thing I would like to make a comment.

The other thing was autonomy or collective autonomy versus individual autonomy and as a genetic counselor, often I am in a position where I have to help the people to make a decision and I have to protect them from intertwined relationship among family members for instance, or pressure from the society. And I do not quite agree with Dr. Matsumura's position where he is thinking about the collective autonomy because once we agree with the idea of collective autonomy, if there is, and then if the family member knows that there is an option that an individual can involve other people into the decision making process, then an individual, even if she or he wants to make a decision by himself or herself, needs to think about the pressure of the other family member because they may know that they can be involved. So, I do not think collective autonomy can exist if we really have to protect individual autonomy…

Matsumura: Point of no return and the responsibilities of bereaved

If we go to discuss about the point of no return, it may always be endless, since there are some cases that make the discussion subtle and difficult. My position is Yes, we have one out of thousand cases in that a patient may come back, even after brain death is determined medically. But even so, I am going to ask the agreement of the family member to decide for the procurement of organs for transplantation. This is what I am proposing. So, I am not asking the medical entity to make the point of no return perfectly sure and scientific. I am asking the bereaved to decide organ donation even if the scientific and medical bases of brain death is not perfect.

Another point: Ms. English mentioned that our family is becoming small, due to the increase of nuclear family. This is the same in this country. There are a number of quasi families. Now for organ donation, particularly for living organ donation, the current rule of the Japanese Society for Transplantation is that living donation is acceptable within a family, close relatives, or those who are regarded as similar to a family.

Then, we are facing to the question what kind of relationship is acceptable or not as similar to a family for live organ donation. Do you have any discussion on that point.

The third point is to Dr. Norton. Yes, because of this, the rate of organ transplantation from a cadaver is small in Japan. I understand that the reason why the rate of living will for organ donation is small is not because people do not want donate organs, but because, many times, they are hesitating to extend their wishes on things after their death. In Japan, we inherit the idea that things after one's death are to be up to the bereaved. So, my proposal is to give more free choice for the bereaved, than to encourage and appreciate signing to a donor card. I may even appreciate that sometime, the bereaved may even be permitted to disregard the wish written in the donor card. The rate of organ transplantation from a cadaver will increase in Japan, therefore, not by disregarding the will of the bereaved, but by encouraging the bereaved to be more responsible for organ donation than the deceased.

English

Thank you. That's actually very helpful as it covers one of the questions that I wanted to ask you. Let me take those three points.

The first is about the point of no return and informing relatives and discussing brain stem tests. I think the point is that what relatives want to know is that it is impossible to go on living after this stage. It's not that there's a small chance that they might go on living, it's that it is impossible for them to go on living, and that is what medical opinion is about when brain stem tests are done. With this set of tests, if these are satisfied, it is not possible for that person, under any circumstances, to carry on living. That is very persuasive in the UK with explaining to relatives. That brings me on to one of the points that I wanted to raise about what you were saying and from what Dr Norton was saying because it seems to me that this is a huge issue here. In Japan it's about understanding – not just understanding but accepting this concept of death. Dr Norton talked about explaining to the public and entering into a debate with the public and informing the public, but I wonder whether in fact that information is enough. Based on what you have said in terms of the tradition, culture and religion do you think if people have more information about the diagnosis of death by brain stem tests that they would still accept it or that they would not accept it? That's a question I wanted to ask you but which follows on.

The second point is this one about the role of the family. It's very interesting that you said that donors do not want to make the decision because they see it as the responsibility of the bereaved and the right of the bereaved and that's what I had expected the situation to be here, having read a little bit about the cultural background, which is why it surprised me so much to hear yesterday that in fact if you are talking about a heartbeating donor, you have to have the consent of the individual and you cannot proceed with only the authorization or consent of the family. That surprised me and that obviously is a reason why the rates are so low. It would be same in the UK because the number of people who have made their wishes known are 22% in the UK – that's the people who are signed up to the Organ Donor Register, where there is evidence of their wishes. So if we were only relying on that, we would also have a very small number of cadaveric organ donations, but because we allow the relatives to make the decisions if the individual hasn't consented, that obviously takes the numbers up. That's something that I think is really interesting.

You also asked me about how we define "family" in relation to living donation but, presumably, generally with consent, and the Human Tissue Act sets out who should be consulted and it actually provides a hierarchy, so it starts off with the spouse – husband or wife – or partner, and then parents or child. It includes things like niece or nephew, aunt or uncle, and it ends with a friend of long standing. So if you have no relatives, and you haven't given consent, then a friend of long standing, however that is defined, could actually give consent to transplantation, to a post mortem examination, to the use of organs or tissue in research. So the relationships are actually set down. In terms of living donation, which is the context in which you mentioned it, a lot of living donation is between family members but not all and in fact a lot is between partners – long-term partners or friends – so it isn't necessary for there to be a genetic relationship but there would be a DNA test if you were claiming a family relationship, to ensure that there is a genetic link. If there is not a genetic link but it's somebody with whom you have a long-standing relationship or emotional attachment, then the independent assessors I mentioned yesterday would consider every case to check that there is evidence that you do actually have a long-standing relationship with that person. Who the family member is, is less important I think in living donation but it is specified in the legislation about who can actually give consent.

Mitsuishi: Presumed consent

Thank you very much, Ms. English. I'd like to ask about presumed consent for donation. You said everybody be a doner after death What is the social or cultural background for this presumed consent?

English

The main reason for supporting presumed consent is that we do know, from many surveys and public opinion polls, that the vast majority – at least 90% – of people are willing to donate their organs after death. So that's our starting point. If the majority of people are willing to donate

organs, then if you have a system whereby that is the default position, those who do not wish to donate organs can opt out of that. So you are protecting their interests but you are making it easy for people to follow the wishes that they have. There have also been a number of surveys of public opinion about whether the public would support such a shift and in those surveys I think that I mentioned that 60% of people said that they would support such a change.

The reason why most people say they will support the change is because they always intend to register their wishes about donation but they never get around to doing it. So they want something that is easier for them. But of course there is the issue – I think a genuine concern – about people not wanting to be told what to do and feeling that it should be a gift which is positively given – a positive gift as opposed to something that is assumed, and I think that there are people who take that view as well.

But because the majority view is in support of transplantation our view is that we should make it as easy as possible. We also believe that more attention should be given to the people who are dying waiting for an organ and who may die if they don't get an organ. Because we don't have the same view as you do here about the soul after death, for the vast majority of people in the UK, once somebody is dead then that's it. They may believe, if people have a particular religious view, that the soul leaves the body and goes to heaven but that does not prevent them from donating organs after death. We also have the background, as Dr Norton said, about giving and a view that if something positive can come out of this, then that is a good thing. Although the survey that he quoted didn't show, or the research didn't show, that bereaved people benefited, talking to families who have donated – and it is only anecdotal evidence –we find that they do get a lot of satisfaction from the feeling that something positive has come from their bereavement.

Mitsuishi: Brain stem death

I understand that .But I am asking, because you said that brain stem death is not widely understood among public.

Brain stem death is quite British Idea. That is not undestood by public. Why it is presumed concent for donation, because informed consent doctrine requests four requirements for consent, i.e. ①competance, ②explanation, ③understanding, and ④voluntary, so that it lacks the requirement③.

English

I think the reason it is not widely understood is because people see it as just one way of diagnosing death and so, in the same way that they might not have information about how particular medical conditions are diagnosed, there is an acceptance that it is death which is simply diagnosed in different ways.

Mitsuishi

So that professionals think they should teach people about brain stem death, but people do not understand or have no interest, so that professionals can presume that people consent for donation. Brain stem death even if people do not understand, but you say people are dead. And then people are suppsed to say "OK, I will donate." Is this UK way?

English

Well, it's saying that people agree to donation after their death and death may be diagnosed in different ways. If they want information, they can get information. There is information available, for example, when people sign up to the Organ Donor Register. So there is information available for those who want it. And it is explained to families, when they are in a situation where they have a relative on a ventilator. There is a lot of discussion with families I think a lot of hospitals do actually take them through the tests, and actually show them what they're doing, and explain the tests so in that situation there is information but I also think that most people are not interested in how death is diagnosed – they're dead, and they accept that.

Mitsuishi

Your system shows lack of informed consent because understanding is a very important factor of informed consent.

English

Well, no, I don't think that's true. I think it comes back to the point I made yesterday about how much information people want to have. If people want to have information about how death is diagnosed, that information is widely available and is easily accessible for them. But most people really don't want that information – they're not interested in how death is diagnosed. That doesn't make the consent invalid, because the information is there and available if they want it. What they need to know is that they are dead when their organs are removed. So I would challenge the suggestion that it isn't consent, because I think it is.

Masui

Evaluating autonomy is something different and contradictory to the trusting scheme. As Yonas once mentioned that trust is not based on the equal partnership, therefore, it may be different from the philosophy of negotiation or conversation. In the medical practice people are interested in the diagnosis but not interested in the process and doctors attitude supported by trust may different from evaluating autonomy. This seems the point that Dr. Mitsuishi mentioned.

Kurihara: Credibility of diagnosis

I would like to add one thing. There is not only social issue but also issue of medical science, which means that there is a complete difference between the Anglo-Saxon style of measurement of the diagnosis and Japanese way of diagnosis. This may depend upon a culture of medicine, culture of medical science, not only social issue. For example, my husband is working in the field of psychiatry, and then we know that Japanese psychiatrists hesitate to accept operational measurement of diagnosis such as ICD or DSM. On the other hand, Anglo-Saxon people have conducted many, many epidemiological studies whether this kind of operational type of measurement of diagnosis is credible or not, but Japanese people, Japanese medical scientists did not conduct such kind of epidemiological studies.

So that may be one of reasons why Japanese people do not trust medical diagnosis, this is same in the case of brain death. You know, Mr. Mitsuishi is an expert who surveyed such a thing, he found that in Japan there have been several kinds of misdiagnosis, incorrect, misdiagnosis of brain death. So this is a feeling of Japanese people, they cannot trust in medical science.

English

I think that is an important point. One of the things that does help in the UK is that for many years we have had a very clear code of practice which is agreed by all medical groups, about how to diagnose death. There are very clear tests that have to be done, that have to be repeated twice. You have to have doctors of a certain level, including a consultant. The people who are diagnosing death have to be separate from the transplant team. So all of these safeguards have been built in for a number of years. I think I mentioned that one or two doctors have questioned the diagnosis of death but even they have not questioned the fact that people cannot carry on living, but rather they have queried whether those people are actually dead or are in the process of dying. They're simply saying that this is a stage where this person cannot continue to live, but it is not the same as death. So there is a lot of trust and a lot of confidence in the system for diagnosing death which I think does help.

Kato (interpreted by Sato): Donor-recipient relations

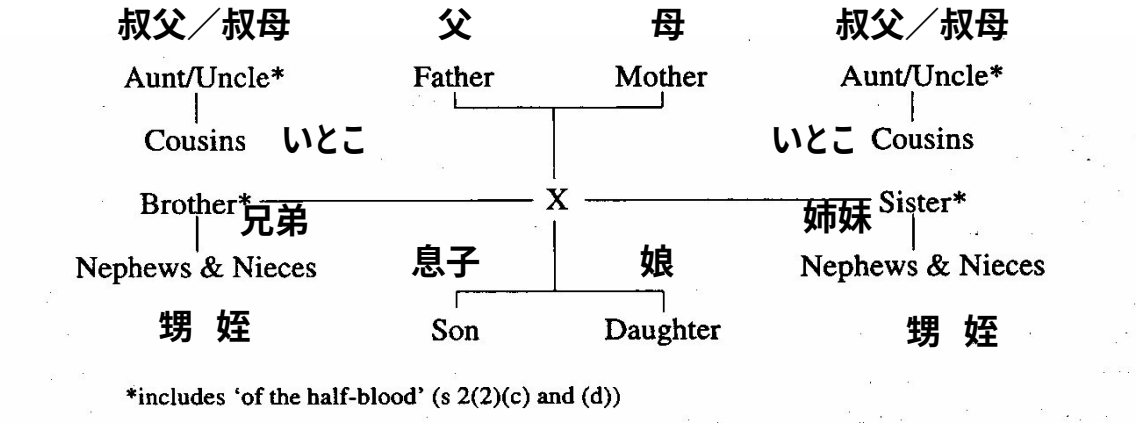
The Japan Society for Transplantation will be held in this hotel in this afternoon, so I would like to ask you. I would like to be told on what we should think of "related", it is now based on emotional relationship. Problems arise on the procedure of transplant in related, but mass media do not question on the notion of related. Should we restrict it, say, as within the third degree of relationship?

Sato

It would be helpful if you would explain the definition of "genetically related" in OTA 1989.

English

This act was repealed, so it is no longer in use. That is now taken over by new HTA. And I am sorry that I am not sure about the definition now.



I could, except that that Act has now been repealed and is no longer in use. It has been taken over by the Human Tissue Act so I'm not sure how helpful that would be and I'm not sure I know off the top of my head what the relations are, to be honest, which were permitted, so I can't answer that – I'm sorry.

Shinozaki

As attending the WHO meeting, this is a big problem, for especially in the United States and many of the European countries, starting a living donation, which is not limited between genetically related persons. Then we had realized that for the status, it is genetically limited, so then we expand it to start using a terminology of emotionally related as a WHO guiding principle. That caused a little problem in last decade, due to the fact that in the United States, the population of the paired organ was getting larger. In some of the European countries, they also decided to start the paired organ. The meaning of paired organ is, if you post your HLA with your spouse's, and an unrelated person who has the matched HLA typing, switches the organ to other spouses. The recent data shows about 50 percent of living kidney transplantations in the United States are done by the paired organ.

The meaning of the emotionally related is too vague and which also caused the problem in the developing countries i.e. the Philippines, for exchange of the organ with the some compensation. And now renewing the WHO guiding principle regarding the meaning of the compensation is also discussed. In this manner, the word emotionally related has no limitation to the donor from the recipient of the organ. The new guiding principle could not prohibit such an act due to the severe shortage of donors. Moreover, it is very important to keep in mind that the WHO guiding principle based on goodwill not to limit illegal acts.

English

As I mentioned yesterday, in the UK the Human Tissue Act does now allow paired and pooled donation, so we are now specifically starting to do that in the UK and also going further than that and allowing donation to strangers. So I could go and just say "I would like to donate a kidney to anyone that needs one" and that would now be considered whereas previously such requests would have been rejected. Having said that, we have developed a system which includes checks to avoid the risks of trafficking and payment and coercion which I think are big issues both within families and with people who are emotionally related. The feeling in the UK was that if people are willing to donate to a stranger, then why not allow them to do it? What reason is there to stop them from doing that, provided you have safeguards in place to ensure that they are doing it for a reasonable motive and that they are not motivated by money or some other reward that they may be getting? So that is something that is developing in the UK and we don't know yet how much that will take off. We

think there will be small numbers. I think for paired and pooled donations, there will be quite a few of those. Again, the feeling there is that if I want to donate to my spouse or my partner but I am unable to do that because we are not compatible, and there is another couple in the same situation, what objection is there to swapping, because the motivation is still the same and, again, there are safeguards to protect against abuse of that?

Shinozaki

What are the safeguards?

English

The safeguards are that with any living donation an application has to be made to the Human Tissue Authority in every single case and then there is an independent assessor who is accredited and trained by the Human Tissue Authority who has to interview the donor and the recipient and has to ensure that the donor has understood the issues, they have to ensure that there is no money exchanging hands. They have to ensure that the relationship is as claimed, so that might be a genetic test or it might be, if they claim to have been friends or partners for 20 years, it might be a wedding photograph or some evidence of the relationship. Once the accredited independent assessor is happy, then the case needs to go to the Human Tissue Authority in order to get approval and all of that has to happen before the donation can go ahead. That's whether they're related or unrelated. There are additional safeguards where the donor is a child who is not able to give consent or an adult who lacks capacity, and for paired donations and for donations to strangers approval has to be given by a panel of at least three members of the Human Tissue Authority. So there are these safeguards built into the system.

Shinozaki

Is the Human Tissue Authority set up by law?

English

The Human Tissue Authority was set up by legislation, by the Human Tissue Act, so it's a body set up with statutory powers.

Matsumura

One comment to Dr. Norton. You mentioned that you appreciate the mind of 'good to society' very much. I just want to say that we did have that mind in Japan. But we spent out, we were exhausted of, great amount of that mind during the second world war, because the government squeezed to the last drop of this mind from Japanese people. We are now coming back, but not to the level that you have in the U.K.

As to the collective decision. I am not saying this is the primary choice. This should be done on the basis of self decision. If you want to do this, then, I think, it is acceptable.

The point is that our decision mechanism is still very brittle in Japan. In old Japan, there was a saying that you must not go shopping by your self. You must go with someone else. Otherwise you will drop in an impulse buying.

Please imagine if you are involved in liver organ donation to your own baby. Many times parents are very keen to donate their own liver organ to the baby. I just do not want say that such a decision is not a good decision. But a decision in such cases is made very emotionally, particularly when it is made by a single person.

Tamura

I hear your point. I think, I counsel many families in the United States and in Japan too, and from my experience, there are not many difference between two countries and the important thing for me is to have a good mechanism or process where we can have an individual to make a decision whereas this individual came and think about your family member's values or friend's value or individual value at the same time and it happens in United States too.

So, I think we can still have an individual autonomy by having a process where this individual can think about their family or involve other's value, but we can still protect this person to make his or

her own decision. And I do not think it is a good idea to just announce that the family can be involved into one individual decision-making process because if we do that, then other family member can mad at the person because this person may not involve the other person into this process. But we can still, you know, make an individual think how other people can affect. And then having said that, I would like to also make a comment for Dr. Kato that I have been counseling a lot of family members, and families are so different even among Japanese people or even among American people or Western people, and then it really depends on them. And I think it is very, very important to have a good mechanism or process where we can have a good counsel session with a family or an individual so that they can think about all of the things. And there are many, many intertwined *yayakoshii* relationship in Japanese families, so I think you said cohesion is important to think about. But I think especially in Japanese society, people may have internal sort of responsibility or cohesion. Even if other people do not put a lot of pressure on this person, they may feel like I have a pressure by others even if it does not exist. So, the family is very, very difficult to, I mean, they may have different values and they have different generations and the family member have disagreement sometimes and so we have to have really good process where an individual can have a good insight and to think about him or herself plus other family members and we really, it is hard and I have been still trying to improve my counseling skills but it is enormous.

Norton

You want a conclusion? I think one very important area that we have touched on but haven't really delved into enough is what People feel but they don't express. And I think you touched on that. In English we have this thing called the yuck factor-it means I don't want to think about it or talk about it- and death is obviously one of those things, and so too having things cut out of your body and put on a silver tray is also something we don't like to think about. I think quite a lot of individual decisions are actually motivated not by high ethics, not by philanthropy or even self-promotion, but just by that feeling of uneasiness or queasiness about the whole issue. How to address this is quite a big challenge and I am quite surprised that the number of permissions in the UK has been so high and has maintained itself at such a high-level. We do still have such a big difference between the intuitive or automatic reaction of Japanese people and English people to the same situation we all have to deal with.

I saw some figures and the results of public opinion polls on whether you agree to your own Organ being used, or your relative’s organ being used is quite startlingly different between Japanese and English people, and while we can rationalize this difference in very clear ethical or religious terms, it may basically reflect a wish not to have to confront the messy business of life and death. One of the cultural anthropologists you mentioned has the dubious distinction of being the only person who comes up on any Internet search on Shinto and death. You find her words requoted on many other web pages on transplantation. Shinto really sees death as a very messy and decaying business to be ignored and avoided if at all possible, and these things have I think combined with the natural tendency of people not want to think about things which are really distressing, to prevent the Japanese approaching it in a more rational and detached manner. That's my final point.

Facts on human tissue issues and factors that influence differently the UK and Japan: Concluding remarks for mutual understanding as attached after the workshop

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Availability of organs and tissues

Throughout of this workshop, the U.K. and Japan have been compared extensively in facts regarding human tissue issues and in background factors which might cause differences in the facts between the two countries.

As to facts, a remarkable difference has been noted between the two countries in the availability of organ and tissues from cadavers, particularly of brain-dead donors, for transplantation as well as for research uses, which is high in the U.K. in comparison with that in Japan.

Another remarkable difference noted is in the high incidence of live-donor organ transplantation in Japan as compared to that in the U.K.

As to factors causing these differences, it has been noted that brain-death as defined in the present form is accepted only very narrowly in Japan, while widely in the U.K. In other words, it is accepted in Japan only in restricted circumstances where Japanese organ transplantation law permits it. Here, the restricted circumstances permitted by the law are where donor-card holders, with their wills for organ transplantation, die. Otherwise, it is not accepted as death in Japan.

However, other causative factors have also been pointed out: Japanese law permits organ transplantation from a heat-beating brain-dead donor only when donor's written will is in an agreement with the bereaved. Further, any organs once removed and not used for transplantation by some and other reasons must be cremated, and not be used for other purposes including researches. This is in a sharp contrast with the HTA, 2004, in which the donor's will is appreciated in the first priority, the intervention of the bereaved to the donor's will being accepted only in limited cases where it is inevitable, and the research use of those organs that have been removed for transplantation but not used for that purpose being widely accepted.

Still another point mentioned is that the Japanese law does not permit a donor to appoint the destination of one's organ in his/her will, the destination of which being controlled by the Japanese organ transplant authority (Japan Organ Transplant Network) is not revealed to any of the donor's bereaved.

Why the Japanese law system is so severe and narrow in accepting the concept of brain death, and in admitting the organs for social uses while poor domestic availability of organ and tissues could cause serious international problem.

In discussion, at least three points in term of causative background culture have been raised in relation to the above differences between the U.K. and Japan. In one, it is pointed out that, generally speaking, Japanese people do not have will to serve to the society altruistically as much as British people. Another point raised has been that the common Japanese way of understanding death, which has been strongly influenced by the polytheistic inheritance of Japanese culture, cannot meet well with the process of organ removal from heat-beating, and even non-heart beating donors. The third and possibly most fundamental point raised is that putting the highest priority to the appreciation of donor's will, or respect for autonomy principle, is in a sharp contrast to what Japanese people have been appreciating for more than a thousand of years, i.e., respect for harmony principle, and therefore, there are many cases where donation is not accomplished due to the bereaved negative wish which is against the positive will of a donor.

Analyses in Japanese cases may suggest what is required, and what not, to establish rules for handling human tissues that can be understood and appreciable by people in other countries. Although time was limited for discussion in the workshop, a set of Japanese rules and a set of international rules haves been proposed with the speaker's hope that they may be understood and accepted to British people and to people of other countries.

T. Matsumura et al. (eds). Law and Ethics of Human Tissue Uses: A Comparison of the Approach to Regulation in England(Human Tissue Act 2004) and Japan, 2008, Published by T. Matsumura, Fujisawa, Japan

Organs from live donors verses heart-beating donors

A remarkable difference has been noted between the U.K. and Japan in the incidence of live donor organ transplantation, particularly for liver organ transplantation. The relative incidence of liver organ transplantation from brain-dead donor to live donor is around fifty to one in the U.K. while it is less than one to a hundred in Japan!

It has seriously been discussed in the workshop that the risks to liver donor's health may have to be considered more seriously, at the present circumstances where available research data are still limited regarding the donor's health.

While people are so reserved for taking organs from brain-dead donors in Japan, why do they easily accept live organ donation, and tend to give their own live organs for transplantation while the accompanying risks are not much known? The point mentioned has been that, in the case of donation from a cadaver, one cannot appoint the destination of one's organ in one's will, and the destination is not revealed to any of the donor's bereaved, while in the case of live organ transplantation, the destination can be determined by the donor, if a donation is allowed only within a family.

At the presence when demands for organs for transplantation are increasing, the risks and benefits of live organ donation is to be carefully studied and discussed in further chances.

Law-based regulatory system verses guidance-based regulatory system

As to facts in regulatory system, a contrastive difference between the two countries has been mentioned in that laws regarding human tissue issues with wide views, as represented by Human Tissue Act, 2004, have been developed in the U.K. much more than in Japan where such laws have been very limited within a certain narrow views, such as of organ transplantation, pathological use of human tissues, and of a couple of other special subjects.

No laws, applicable to research and industrial uses and banking of cells and tissues have been developed in Japan.

On the other hand, Japanese government has been developing a special regulatory system the essence of which lays in a set of guidelines delivered from the government ministries under bureaucratic leadership. In most of cases, they are delivered without little law bases.

It may be generally agreed that law-based regulatory system is essential in the democratic society. However, causative factors which discourage law making in Japan are also pointed out, as well as those with which such guideline-based regulation have long been in effects in Japan .

Where is the motivation for law making, if Japanese people rather lack strong motivation for it while people in the U.K. do? It has been pointed out that high pressure for law making in the U.K. is related to the high activity of non-governmental authorities in the country, and that many of these non-governmental authorities are particularly sensitive to ethical issues. On the other hand, the capability and authority of non-governmental organizations are generally low in Japan, which may results in the insufficient motivation to promote law-making here in Japanese society.

It has been pointed out that the poor development of non-governmental organizations, or relatively low motivation to devotion to the society in other words, is not unrelated with the second world war, since the Japanese government during that war strongly suppressed people's free activities, and squeezed the altruistic mind of people to the society to its last drop. Since then, it appears that Japanese people are, although recovering from it, still skeptic about the governmental readership for altruistic action and for devotion to the society.

It is easily understood that guidelines can be issued, and can be updated promptly following the advancement of science and technology, while law making takes time. It is also pointed out that, with historical background, Japanese people tend to obey bureaucratic leadership.

The central difficulty with the Japanese guideline system, as pointed out, is in that it lacks any penalty clause, except for some administrative sanction, such as withdrawing governmental research money from ethically doubtful researches. Can the basic understanding that all modern Japanese people are faithful to follow rules with no mentioning about sanctions when breached? Recent cases of live-organ transplantations from diseased donors cast strong doubts to this question.

Although law-based system is preferable, a question has been raised as to the difficulty in its enforcement, particularly when it requires money and men. Successful enforcement of the THA 2004 is therefore anticipated and looked forward to. As expected, Human Tissue Authority (HTA) as

introduced in THA 2004 has received the most attention in the workshop. Considering that modern science reveals the potential human capability of human tissues more and more, and that HTA indicates to set the first registering authority in the world for human tissues, we may anticipate that, in future, it may grow to the first ministry for the protection of human life out of our body.