Journal of Philosophy and Ethics in Health Care and Medicine, No.3, pp.64-85, July 2008

Scientific Contribution

Ethical Issues of Presumed Consent in the Use of Patient Materials for Medical Research and the Organ Donation for Transplantation

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Abstract: The National Cancer Center (referred to as the "NCC") in Japan has adopted the presumed consent system, which is an opt-out or contract-out system, to collect and use patient materials, such as blood or tissues, for medical research. This presumed consent system has also been legally adopted in France to increase organ donations for organ transplants. This article discusses the background to the adoption of the presumed consent system by the NCC, the regulations and guidelines regarding the use of patient materials in medical research and the organ transplantation, and arguments both for and against presumed consent.

Presumed consent is often rationalized on the basis of solidarity, beneficence of human nature, and utilitarianism. However, the presumed consent system compels a patient who refuses or hesitates to donate his/her material to express his/her will regarding the donation. Such a patient must express his/her will, otherwise the patient material will be used for medical research or the patient organs will be harvested for transplantation.

This presumed consent system violates the spirit of voluntary beneficence with regard to the donation of patient material and individual autonomy. Therefore, presumed consent is contrary to the spirit of informed consent and not ethically justified.

Keywords: Presumed consent, Solidarity, Medical research, Patient material, Donation, National Cancer Center, Guidelines

Introduction

Human blood and various kinds of tissues are required for medical research. These biological materials are collected or removed from patients for diagnosis or treatment of their disease. Physicians then use the remnants of such patient materials for other studies. In the past, many Japanese medical researchers have used such materials without obtaining consent from the patient. However, in recent times, procurement of such consent has become necessary. To obtain patient consent, physicians have adopted a comprehensive consent system[1]. This refers to consent that is not specific to a single medical research study but is applicable to any medical study.

As one of the means for obtaining comprehensive consent from a patient, the National Cancer Center (referred to as the "NCC") in Japan has adopted a new system for easily obtaining consent in using patient material for medical research from a large number of patients. The NCC considers that a patient agrees the NCC to use his/her biological material for medical research if he/she does not refuse it. This is the presumed consent system, which is an opt-out or contract-out system, for collecting and using material from patients, such as blood, tissues, and organs, for medical research. This presumed consent system has also been legally adopted in France to increase organ donations for organ transplants. Today, in the United Kingdom the organ donor shortage has prompted calls to introduce legislation to allow for presumed consent for organ transplants[2].

In the presumed consent system a patient who refuses or is hesitant

to allow a physician to use his/her biological materials for medical research or to organ donation for organ transplants must express his/her will with regard to the donation of the materials. In other words, this presumed consent system compels such a patient to express his/her will and violates the spirit of voluntary beneficence with regard to the donation of patient material.

Why has this presumed consent system been adopted by the NCC, Japan, and the French legal system? In this article, the presumed consent system is analyzed from the following ethical and legal viewpoints: (1) the background in the adoption of the presumed consent system by the NCC, (2) the regulations and guidelines regarding the use of patient materials in medical research or organ transplants, (3) arguments for/against presumed consent.

1. Background in the adoption of the presumed consent system by NCC, Japan

NCC, Japan, is a central institution for cancer research as well as clinical medicine and is involved in promoting medical research[3]. In this section, the social background regarding consent for the use of human materials in medical research and the progress toward the adoption of a presumed consent system in the NCC will be described.

1.1 Social background of Japan regarding consent for the use of human materials

In the past, the NCC and many other research facilities used patient materials, such as blood, for medical research without obtaining consent from individual patients. Many physicians who used patient

materials without consent probably reasoned that using material that has left the patient's body would not directly injure the patient's body. Patient materials are also made anonymous therefore privacy of a patient would be protected. This justified the use of materials without patient consent[4].

However, some Japanese individuals with deep concerns for human rights, especially in medicine, have asked physicians to obtain informed consent from their patients. Under these circumstances, the use of blood or tissues without patient consent has become a social issue. There have been newspaper reports on physicians obtaining materials without patient consent. For example, blood from approximately 2000 residents was used for gene analysis at the Kyushu University School of Medicine without obtaining patient consent (Mainichi Newspapers, February 3, 2000). The sections of the brain of some children were dissected at the Tokyo Medical Examiner's Office, Tokyo Metropolitan Government, without obtaining consent from the families involved (Mainichi Newspapers, August 15, 2000). At the Yokohama City University School of Medicine, a part of the large intestine of several patients was used for medical research without obtaining patient consent (Asahi Shimbun, March 28, 2001)[5].

Until recently, medical school hospitals, as well as general hospitals, used blood or tissue for medical research without obtaining patient consent. The use of human materials has become important in pharmaceutical studies as well as medical research. For researchers other than physicians, it is very difficult to collect material from patients. Therefore, the establishment of a human tissue bank was proposed so that researchers other than physicians would have access to patient materials. Therefore, the Health Science Research Resources Bank (HSRRB)[6] was established in 1995 with the support of the

Ministry of Health and Welfare. Since then, the procedures used to obtain patient consent for the use of patient materials have become an important issue.

The Japanese government tried to define procedures for the use of a patient's biological materials in medical research. In 2001, the Ethics Guidelines for Human Genome/Gene Analysis Research[7] were introduced. These were followed by the Ethics Guidelines for Epidemiological Research[8] in 2002 and the Ethics Guidelines for Clinical Research[9] in 2003. Researchers must comply with these three guidelines and obtain informed consent from subjects.

1.2 Adoption of the presumed consent system by the NCC[10]

After establishment of the three guidelines, the NCC decided that physicians must obtain patient consent for the use of patient materials in medical research. The NCC began by requesting physicians to explain the use of patient materials in medical research to each patient and then obtain their consent. It adopted an opt-in or contract-in system. However, almost all the physicians at the NCC neglected to explain the use of patient materials and forgot to provide consent forms to the patients, mainly because they were very busy. Consequently, the NCC adopted a new system in which physicians could not make an appointment for a clinical examination through the computerized system unless they first explained the use of patient materials for medical research to the patient. As a result, many physicians began to provide explanations to their patients. However, only a few patients submitted the consent or refusal document. Therefore, in order to collect materials from as many patients as possible, the NCC decided that all patients who did not explicitly refuse to provide patient

materials for medical research would be considered to have consented to such use of their materials. Thus, the NCC changed from an opt-in system to an opt-out system, i.e., the presumed consent system.

According to the presumed consent system used by the NCC, a new patient receives an explanatory document from the receptionist[11] and a document[12] expressing consent for the use of patient materials for medical research. The patient then signs a receipt[13] confirming that he/she has received the documents and returns it to the receptionist. The presumed consent system stated on the receipt as follows:

"I have received the explanatory document (the attached document expressing agreement or refusal) regarding the use of patient material and a patient medical chart records for medical research today. If I do not submit a document of refusal within two months from this date, the NCC may assume that I have consented to the use of my biological materials and medical chart records for medical research." (trans. mine)

2. Regulations and guidelines regarding medical research and organ transplants

The Japanese government adopted the Ethics Guidelines for Human Genome/Gene Analysis Research (in 2003), the Ethics Guidelines for Epidemiological Research (in 2002), and the Ethics Guidelines for Clinical Research (in 2003). These three guidelines propose the use of an opt-in consent system, not an opt-out system like the presumed consent system, and that physicians should obtain written informed consent from patients before using any of their biological materials.

Physicians may use patient materials without obtaining patient consent under exceptional conditions that are specified in the Ethics

Guidelines for Human Genome/Gene Analysis Research[14]. The physicians must endeavor to the best of their ability to obtain informed consent and approval from an ethics review committee. Thus, the basic principle regarding the use of human material in these ethics guidelines is informed consent, not presumed consent.

Some Japanese scientific societies have discussed the use of patient materials for medical research. The Japanese Society of Pathology[15] officially released "The Use of Pathological Samples for Scientific Research and Medical Education" in 2000. The view expressed in this document is that it is desirable for pathologists to obtain written consent from patients or their representatives (persons with parental authority or relatives) in the use of pathological specimens for educational or medical research purposes. The Japanese Society of Laboratory Medicine[15] also published "The Use of Residual Samples for Methodological Study, Teaching and Research in the Clinical Laboratory" in 2002. These guidelines emphasized that in principle, researchers need to obtain written consent from subjects in order to use their residual samples for medical research. Almost all university hospitals have adopted an opt-in system, not an opt-out system i.e. the presumed consent system.

The Osaka University Hospital adopted an opt-out system in 1997 in which physicians at the hospital do not explain that the remaining portion of laboratory specimens would be used for research and educational purposes and quality control of laboratory tests. The request documents are posted on the walls of the central clinical laboratory and hospital lobby. The dissent and request document forms are available at the desks. Patients can freely obtain the documents and place a signed dissent document in a box placed in the waiting areas of the hospital or the central clinical laboratory. Hayashi[16]

studied this opt-out system and reported that out of a total of approximately 400,000 patients who underwent laboratory tests, there were only 54 dissent documents placed in these boxes between 1997 and 2000. Furthermore, there had been no complaint against this "informed consent process." Questionnaire-based examination was not conducted for these patients. Therefore, some patients may have not known about this presumed consent system in which the remaining portion of laboratory specimens are used for research and educational purposes and quality control of laboratory tests.

Donation of organs for transplantation is another issue that also needs to be discussed in this context. In Japan, the Law on Organ Transplantation[17] was enacted in 1997. This law and the Guidelines for Operation of the Law on Organ Transplantation[17] state that physicians must obtain written consent for the donation from the donor, a person aged 15 years or more can donate his organs, the donor accepts the diagnosis of brain death, brain death is viewed as personal death only in the case where the donor is brain dead, has a written consent card (donor card) for the donation of his/her organ, and the donor family members do not refuse the organ donation.

Regarding consent from the donor, many nations have adopted opt-in systems. In the United States of America and elsewhere, even if the deceased does not have a donor card, the family may donate his/her organs. However, Japanese law requires written consent from the donor. Meanwhile, France has adopted a presumed consent system in its Law Concerning Organ Donation and Usage, Assisted Reproductive Medicine and Prenatal Diagnosis[18] (enacted in 1994). In Japan, the presumed consent system has been discussed with regard to organ donations from children for organ transplants.

3. Arguments for presumed consent

Regarding the use of patient materials in medical research, the presumed consent system compels a patient who refuses or hesitates to donate his/her materials to express his/her will. A patient material will be used for a medical research if a patient does not express that he/she refuse donation of his/her material for medical research. The principle of "donation" should be based on the free will of the giver, in other words, the donor. What is the ethical rationale for adopting the presumed consent system? In this section, the arguments for presumed consent are discussed. The presumed consent is principally based on organ donation in France and in arguments for amendment of the Law Concerning Human Organ Transplants in Japan.

3.1 Solidarity—arguments in France

In France, the presumed consent system has been adopted by the Law Concerning Organ Donation and Usage, Assisted Reproductive Medicine and Prenatal Diagnosis in 1994[18]. An organ may be removed from a patient unless the patient explicitly refuses to donate it.

Why was the presumed consent system adopted in France? What is the justification for presumed consent? Koide[19] has summarized this as follows: "It may seem that the duty of offering organs is implicit in this concept of 'presumed consent,' but this inference in fact is in contradiction to the principles of 'inviolability and indisposability of a human body,' the ethical principles which the 'public order' requires prior to any regulation in French society." The principles of "inviolability and indisposability of the human body" never oblige a person to offer his/her own organs and do not equate the absence of will

of refusal to any voluntary consent. Lastly, these principles require that the bereaved family of the deceased permit organ extraction from the body, despite the absence of expressed consent by the owner of the body. Koide further describes the important concept of "solidarity" as follows. Solidarity may be called for in this respect to justify the duty of offering organs, but it also stipulates for the voluntary consent of both the person and the family concerned. If, however, the term "solidarity" should appear and prevail in such an ideal society that are so matured as to freely transcend the distinction between one and the others, or the individual and the society, it would be possible that "presumed consent" could be justified by the idea of "solidarity" in terms that the act of offering organs is not merely donation for others but is equal to donation for oneself.

Citizens live in a society and receive the benefits offered by this society. From this viewpoint, it is the citizen's duty to repay to the society. If we apply this idea to the use of patient materials for medical research and to organ donation for organ transplants, the citizen is a potential recipient of organ transplants and, so by the same token, is a potential donor also. Therefore, the concept of reciprocal help is the basis of the principle of solidarity. If a citizen has the right to receive an organ transplant, then this citizen may also be obligated to donate his/her organs. If citizens benefit from their society and are happy, they should repay their society, for example, by donating their organs to the society.

A prerequisite for solidarity is the spirit of reciprocal help that must permeate society. Does the Japanese society satisfy this condition? In 2005, 551 live persons, who were related to the recipient, donated their livers for transplant. In contrast, only three donated livers were from unrelated deceased individuals[20]. This shows that the spirit of

reciprocal help is very strong among family members and relatives but is weak in the case of other members of society. Japanese society has yet to recognize the principle of solidarity. Considering this, introduction of the presumed consent system in Japanese society is not justified.

Another issue of concern is the perception of human body and life, including whether there is a spirit of reciprocal help in our society. Should an organ be regarded as a material or as a possession? An organ is not merely a material[21]. If a person feels that human organs should not be removed from a body, or that he/she should not receive organs donated by another person, how can he/she donate any part of their body? Why can we donate an organ or receive a donated one? In Japan, few people donate organs[22], and since 1997, there have been only 70 brain-dead donors (June 11, 2008).

If one feels that an organ contributes to the personality of the donor, he/she would hesitate to become involved in organ transplants. In other words, the use of human biological materials, such as organs, is related to an individual's perception of the human body and life, as well as to the extent of their feelings of solidarity with their society.

3.2 Beneficence of human nature—arguments in Japan

In Japan, presumed consent has been discussed with respect to donation of organs from children for transplants. In a report on the legal issues surrounding organ transplants, Machino[23] presupposes that humans are naturally beneficent to others and proposes that if this presupposition is true, human beings would donate organs after death, even if the actual desire for such a donation has not been expressed. Of course, if a person refuses to donate organs, then his/her wishes must

be respected. In other words, Machino describes humans as beings that would willingly donate their organs after death. Is this view of human beings really acceptable? What proportion of the Japanese public is convinced that human beings are essentially beneficent?

Machino rationalized presumed consent in terms of the logic that allows organ donations from children who are not competent enough to decide for themselves. Considering the information presented in the previous section, an individual's perception of the human body, and other such factors, presumed consent cannot be taken for granted. Japanese society will not insist that we should donate our organs. Therefore, it is difficult to justify presumed consent.

Incidentally, in the presumed consent system, why is a patient allowed to refuse donating his/her organs, and what is the rationale for this refusal? Presumed consent postulates that all persons should donate organs or biological materials for organ transplants or medical research. Thus, the presumed consent system should not recognize refusal to donate. The admission that certain individuals may refuse to donate is the recognition of a person's will and the right to self-determination. To respect the autonomy of an individual, physicians or other medical staff should properly explain the use of donated organs and other patient materials and then obtain consent from the concerned individual.

3.3 The concept of utilitarianism

In the past, many physicians have used patient materials without obtaining patient consent, such as blood and tissues, to produce new medicines and techniques for diagnosis and therapy. The use of patient materials does not directly harm the patient and often benefits the

society. Physicians are busy, and obtaining consent from each patient is not easy. Even if physicians do not obtain consent from each individual, the patient is not directly harmed, and the physician can concentrate on treating patients and producing new medicines and techniques for diagnosis and therapy.

From the viewpoint of utilitarianism, presumed consent may be acceptable. However, in the presumed consent system, if a patient is not aware of the request document regarding the use of patient materials for medical research, his/her materials may be used before the patient can submit a withdrawal document. It would not be difficult for physicians to at least briefly explain the use of patient materials for medical research, and from both historical and human rights perspectives, it is necessary to respect an individual's autonomy and right to self-determination. The Universal Declaration on Bioethics and Human Rights[24] adopted by UNESCO in 2005 lists "autonomy and individual responsibility" as one of its principles. Respecting autonomy includes consideration of the ethics of the process of decision making. Therefore, the benefits accruing from presumed consent do not necessarily justify presumed consent.

Without informed consent, patient materials can be used for medical research only under the conditions stated in the Ethics Guidelines for Human Genome/Gene Analysis Research and the Ethics Guidelines for Epidemiological Research, i.e., if the research is very necessary for the advancement of medicine or public health, if there is difficulty in obtaining consent from the subject, if approval has been obtained from an ethics review committee, and if the research protocol has been approved by the head of the research institution. Still, in principle, every effort should be made to obtain consent from a subject or patient for using his/her materials for medical research.

There is another viewpoint in support of presumed consent. Consider the statistical methods employed in research data, especially in epidemiological research. Researchers may insist that if patients refuse permission to use their biological materials for medical research, the required data cannot be obtained; therefore, the presumed consent system is necessary. However, in both the presumed consent (opt-out) and opt-in systems, researchers cannot obtain data from persons who refuse the use of their biological materials for research. The presumed consent system has some problems which are discussed in the next chapter. Therefore, presumed consent system should not be adopted.

4. Arguments against presumed consent

In this section, arguments against presumed consent are considered from the following viewpoints: compulsion to express will, utilization of a patient material without consent, and patient's fear of being refused health care.

4.1 Compulsion to express will

Is the presumed consent system ethical? In the presumed consent system, a patient is assumed to accept the situation that his/her biological materials will be used for medical research, unless he/she specifically refuses. If a patient refuses or is hesitant, he/she must express their will, otherwise the patient materials will be used for medical research.

In such a case, the presumed consent system compels a patient to express his/her will with regard to the use of his/her materials for medical research. The donation of a patient material for medical

research whose object is not medical treatment of the patient is not directly beneficial to the patient. Therefore, it is important for such medical research that physicians obtain voluntary consent from each patient. However the presumed consent system on use of patient materials for medical research does not require informed consent for a specific medical research. This system functions as one of specific methods of a comprehensive consent system[1].

The concept of informed consent is to respect an individual's autonomy. This is emphasized in the Declaration of Helsinki (WMA) and the Universal Declaration on Bioethics and Human Rights (UNESCO). To compel a patient to express his/her will, will be violation of an individual autonomy and an outrage against informed consent.

Compelling patients is unethical. Donations should not be forced but should be voluntary. The presumed consent system is not adopted in the Human Tissue Act 2004[5] in the UK and in the 'Research Involving Human Biological Materials[25]', which is a report of National Bioethics Advisory Commission in the USA.

4.2 Utilization of a patient material without his/her consent

In the presumed consent system, if a patient forgets to submit a refusal document regarding donation of his/her biological material for medical research[26], the said material would be available to the researcher even without his/her consent. In the Declaration of Helsinki, the World Medical Association states that the physician should obtain the subject's freely given informed consent, preferably in writing. The presumed consent system is not adopted in the Declaration of Helsinki.

In addition, if a hospital loses a patient's refusal document regarding the donation of his/her biological material for medical research, a

researcher would still be able to use such material without the patient consent. On the other hand, in the informed consent system (opt-in, contract-in), if a hospital loses a consent document regarding the donation of a patient's biological material for medical research, the loss would be that the will of the patient who submitted the consent document was not respected.

There is a large difference between presumed consent and informed consent in such cases, and the presumed consent system is unethical in such scenarios.

4.3 Patient's fear of being refused health care at the NCC[27]

What happens if a patient does not accept the presumed consent system at the NCC? Each patient receives an explanatory document regarding the use of patient materials for medical research from the receptionist. After the patient returns a signed receipt for the documents to the receptionist[27], the patient receives a medical record form to submit to the clinical department. If the patient does not comply with the presumed consent system, he/she cannot sign the receipt. Without such a receipt, the patient cannot obtain the medical record form from the receptionist and in turn cannot undergo the medical examination. Most patients are unaware that by signing the receipt, they have given consent for the use of their biological materials in the presumed consent system.

The author observed a conversation between a patient and a receptionist at the NCC. While the receptionist was handing the explanatory document regarding the use of patient materials, she calmly said "This is the explanatory document regarding the use of a patient's biological materials for cancer research. Please read this

document later and submit the document that expresses your intentions in this regard to the medical cooperation room within two months." The patient was oblivious to the meaning of the receptionist's statement and took the documents. The patient seemed anxious about his/her illness and wanted to see the physician and explain his/her symptoms. Similarly, almost all patients will sign the receipt of the explanatory document without even knowing that they have given consent for the use of their biological materials. Even if a patient has a few questions or doubts regarding the presumed consent system, he/she will in most cases sign the receipt and submit it to the receptionist, otherwise they will be unable to consult the physician[27].

Thus, the author regards the presumed consent system at the NCC to be an abuse of the patient's position, which is already weak since he/she is unwell and anxious to consult a physician. This presumed consent system is unethical because it compels patients to express their will and the patients are apprehensive that the physician may refuse health care.

Conclusions

Informed consent or in other words respect of individual autonomy, is one of most important principles in bioethics and medical ethics. The Japanese government has released three ethics guidelines for medical research based on informed consent. UNESCO adopted informed consent as a bioethics principle in its "Universal Declaration on Bioethics and Human Rights" in 2005. Therefore, physicians should obtain informed consent from a patient prior to using their material for medical research. However the presumed consent system, which has been adopted for easily obtaining consent of using a patient material for

medical research by the NCC and in a French law concerning organ donation for organ transplants, compels a patient to express his/her will with regard to the use of his/her materials for medical research. To compel a patient to express his/her will, will be a violation of individual autonomy and an outrage against informed consent. Therefore, the presumed consent system is unethical.

Notes

[1] In comprehensive consent, when patients provide consent, they know where the donated materials will be used. After obtaining comprehensive consent, the physician should obtain informed consent from patients for the specific research area. The Ethics Guidelines for Human Genome/Gene Analysis Research (http://www.mext.go.jp/a_menu/shinkou/seimei/genomeshishin/html/shishin/rinrishishin_english.pdf) has granted exceptions under certain conditions to allow patient materials to be used without patient consent. It is unfortunate and unethical that physicians obtain comprehensive consent from patients without explaining the specific research protocols and then present the protocol to the ethics review committee for approval. The comprehensive consent system is discussed in the following article: "Regarding consent and comprehensive consent for the utilization of patient-derived biological materials and medical records for medical research—an examination by the National Cancer Center," *Journal of Medicine and Ethics*, 6, 47-57, 2006 [In Japanese].

[2] The British Medical Association (BMA) supports a 'soft' system of presumed consent for organ donation in which relatives' views are also taken into account. Relatives can refuse organ donation of their patient (http://www.bma.org.uk/ap.nsf/Content/OrganDonationPresumedConsent).

[3] On their web site, the NCC discloses the results of medical research in which patient materials have been used after an ethics review committee approves the study. In the presumed consent and comprehensive consent systems, patients give their consent for the donation of patient materials without knowledge of the specific research protocols. The titles of research protocols can be accessed by patients by viewing the web site. Patients can withdraw consent if they dislike the research study in which their materials will be used.
*the research using reserved patient materials:
http://www.ncc.go.jp/jp/information/rinri/archive_use/list.html
*the research using comprehensive consent-derived patient materials:
http://www.ncc.go.jp/jp/information/rinri/hokatsu.html

[4] The author also discusses "Violation of human rights in medicine and medical care in Japan after World War II" (*Current Topics in Forensic Science, Proceedings of the 14th International Association of Forensic Sciences*, Volume 2, 123-126, 1997)

and "Clinical incidents in Japan during fifty years after World War II" (*Journal of Japan Association for Bioethics, Bioethics*, 6(1), 17-21, 1996 [In Japanese]).

[5] In the United Kingdom, the unauthorized removal, retention and disposal of human organs and tissues following post mortem examination at the Royal Liverpool Children's Hospital came to light, and an inquiry panel was appointed to investigate this 'Alder Hey organs scandal' in 1999 (the repot of this inquiry panel: http://www.rlcinquiry.org.uk/index.htm). Then the Human Tissue Act 2004 was enacted (http://www.opsi.gov.uk/acts/acts 2004/ukpga_20040030en_1). This act adopted not presumed consent (opt-out) system but informed consent (opt-in) system.

[6] The HSRRB site is http://www.jhsf.or.jp/index_b.html.

[7] The Guidelines suggest that researchers concentrate on gene research and delegate the handling of personal information to the administration staff. They also emphasize that physicians should exercise care to avoid leaking personal information regarding patient material and thereby placing the patient at a disadvantage. Therefore, a preventive system that would avoid leaking personal information should be put in place (for example, the use of "anonymous"). The Guidelines can be viewed at http://www.mext.go.jp/a_ menu/shinkou/seimei/genomeshishin/html/shishin/rinrishishin_english.pdf.

[8] The Guidelines lay down the following conditions for epidemiological research using organs removed from deceased patients: (1) the deceased demonstrated no intention of refusing to donate organs during their lifetime, (2) surviving relatives gave their consent, (3) the ethics review committee approved the study and (4) the director of the institution granted permission. The Guidelines can be viewed at http://www.mext.go.jp/a_menu/shinkou/ seimei/epidemiological/04122801.htm.

[9] The Guidelines can be viewed at http://www.imcj.go.jp/rinri/index.html. The Declaration of Helsinki by the World Medical Association addresses the issue of the conflict of interest. The Japanese government has begun to oversee medical research on the source side of research funding and plans to direct research institutes to establish committees for dealing with conflict of interest. The guidelines for dealing with conflict of interest were announced in 2006 by the Group for Clinical Research Ethics and Conflict of Interest, which was sponsored by the Ministry of Education, Culture, Sports, Science and Technology. Regarding intellectual property rights, researchers who are supported by public and private funding can make substantial financial gains from patents arising from medical research in which patient materials have been used. In other words, researchers can use patient materials and public funding to obtain substantial wealth. In contrast, the patients would not benefit financially from any such patents because by donating their materials, they surrender their intellectual property rights. Is the conduct of researchers, including physicians, ethical? How should the substantial wealth generated by patient materials, public funding, and researchers' efforts be fairly distributed among researchers, patients, and the public? This is an issue that needs to be addressed.

[10] M. Sasako, a physician at the NCC, presented "Necessity for comprehensive consent: the progress and the practice of adoption of presumed consent" at the 34th Liaison Council of Ethics Committees of Medical Colleges in 2005. The

presentation abstract is included in the Book of Abstracts, p. 70-71 [In Japanese]. The proceeding of this presentation has been published in *Medical Ethics*, 34, 64-68, 2006 [In Japanese].

[11] The explanatory document can be viewed at http://www.ncc.go.jp/jp/ncch/consultation/kenkyu_setsumei.html.

[12] The consent document can be viewed at http://www.ncc.go.jp/jp/ncch/consultation/kenkyu_ishihyoji.html.

[13] The receipt can be viewed at http://www.ncc.go.jp/jp/ncch/consultation/kenkyu_onegai.html.

[14] Exceptional conditions under which patient materials can be used without patient consent are given in Chapter 4, section 11 of the Guidelines[7] and are as follows. A Group C human specimen (a human specimen for which consent for its use in research has not been obtained) provided prior to the enforcement of the Guidelines may be used in human genome/gene analysis research when any of the following requirements is met but only if the use is authorized by the ethics review committee and approved by the director of the research institution: 1) causing risk or disadvantage to a donor or equivalent person is not possible because the specimen has been anonymized in an unlinkable fashion, 2) the specimen has been anonymized in a linkable fashion and all of the following requirements are met: a. the possibility of causing risk or disadvantage to a donor or equivalent person as a result of human genome/gene analysis research is extremely low, b. the intended human genome/gene analysis research using the specimen will make a significant contribution to the public interest, c. conducting the intended research in another way is virtually impossible, d. measures are taken to have information related to the progress of human genome/gene analysis research made public and also to guarantee an opportunity for donors, proxy consenters and/or equivalent persons to make inquiries and/or refuse the use of a human specimen in research.

[15] The Japanese Society of Pathology's guidelines can be viewed at: http://www.genome.tokushima-u.ac.jp/dgi/JAPDGI/pathology.htm. The Japanese Society of Laboratory Medicine's guidelines can be viewed at http://www.jscp.org/english/kentai-e.htm.

[16] S. Hayashi, et al., reported on the opt-out consent system at the Osaka University Hospital in the following article: "Regarding the use of remaining portions of laboratory specimens for education, research, and quality control of laboratory tests", *Rinsho Byori (the official journal of Japanese Society of Laboratory Medicine)*, 49, 273-277, 2001 [In Japanese].

[17] The Law on Organ Transplantation and the Guidelines for Operation of the Law on Organ Transplantation can be viewed at http://law.e-gov.go.jp/cgi-bin/idxselect.cgi?IDX_OPT=2&H_NAME=&H_NAME_YOMI=%82%bb&H_NO_GENGO=H&H_NO_YEAR=&H_NO_TYPE=2&H_NO_NO=&H_FILE_NAME=H09HO104&H_RYAKU=1&H_CTG=1&H_YOMI_GUN=1&H_CTG_GUN=1 and http://www.medi-net.or.jp/tcnet/DATA/ guide.html respectively. The age for organ donation is provided in these Guidelines. "The process and characteristics of legislation of an organ transplant law in Japan" is discussed in the *Proceedings of the 6th Indo-Pacific Congress on Legal Medicine and Forensic Sciences, INPALMS-1998-KOBE*, 517-520, 1999.

[18] The French law on organ transplants can be viewed at http://www.chu-rouen.fr/uchpg/LOI5.html.

[19] Y. Koide discusses presumed consent in the following article: "Can presumed consent be a satisfactory condition for organ extraction in France" in the Journal of Japan Association for Bioethics, *Bioethics,* 12(1), 78-83, 2002 [In Japanese].

[20] Data from the article "Liver transplantation in Japan: Registry by the Japanese Liver Transplantation Society," *Japanese Journal of Transplantation*, 40(6), 518-526, 2005 [In Japanese].

[21] Other issues concerning organs are as follows: Should an organ be regarded as a material or a possession? Is my organ mine? Can I sell it? Why can we donate an organ or receive a donated one? An organ is not merely a material or possession but an entity linked to the nature of the person in which it is present. What is the reason for organ donation from infants? It cannot be based on the principle of respect for autonomy since an infant does not have the competence to make such a decision. According to the Civil Code, parental authority does not include organ donation from one's child. What is the ethical reason for organ donation? There are some views based on altruism and utilitarianism. Although organ donation can be a display of beneficence, the author is concerned that people may regard the human body as a medical resource. These issues are discussed in the author's article "Ethical legal issues on the donation of human organs and so forth," *Journal of Medicine and Ethics*, 4, 41-50, 2005 [In Japanese].

[22] The number of donors can be viewed at http://www.jotnw.or.jp/datafile/offer/index.html. The number of brain dead donors can be viewed at http://www.jotnw.or.jp/datafile/offer_brain.html. The number of registered patients waiting for transplants can be viewed at http://www.jotnw.or.jp/datafile/index.html.

[23] S. Machino discussed presumed donation in the "Report on the legal issues regarding organ transplants (1) the way of amending the law regarding organ transplants for children" (supported by the Ministry of Health, Labour and Welfare), 357-368, 2003 [In Japanese].

[24] The Universal Declaration on Bioethics and Human Rights was adopted by UNESCO in 2005. The declaration emphasizes respect for human vulnerability and personal integrity, cultural diversity and pluralism, solidarity and cooperation, and the sharing of benefits. With regard to human vulnerability and personal integrity, this declaration states that "In applying and advancing scientific knowledge, medical practice and associated technologies, human vulnerability should be taken into account. Individuals and groups of special vulnerability should be protected and the personal integrity of such individuals respected. This declaration can be viewed at http://portal.unesco.org/shs/en/ev.php-URL_ID=1883&URL_DO=DO_TOPIC&URL_SECTION=201.html.

[25] The Research Involving Human Biological Material can view at http://bioethics.georgetown.edu/nbac/hbm.pdf.

[26] The NCC only examined the ratio of consent and presumed consent in 39,651 patients in 2005. The percentages of consent, presumed consent, no consent (= refusal), and withdrawal of consent were 61%, 37%, 2%, and 0% (12 patients)

respectively. The proportion of presumed consent is more than one-third of the total. Therefore, the assumption that a considerable number of patients forget about the consent document cannot be ignored. Approximately two-thirds of the patients submitted a consent document, and the NCC obtained a great deal of patient material. Therefore, with regard to the donation of patient materials from individual patients, the NCC does not really need presumed consent and should be able to obtain sufficient amounts of such material from informed consents. M. Sasako presented this data at the 34th Liaison Council of Ethics Committees of Medical Colleges in 2005. The presentation abstract is included in the *Book of Abstracts*, p. 70-71 [In Japanese].

[27] Recently, the NCC has changed the reception system for a new patient to be able to undergo to the medical examination even if he/she sign a receipt and submit it or not. This change is right from the viewpoint of respect of patient rights. However the NCC did not change the presumed consent system.