

ORIGINAL ARTICLE

Caution: deceased donor organ commercialism!Miran Epstein,¹ Dominique Martin² and Gabriel Danovitch³

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Introduction

Over the past 3 years, major international bodies have produced declarations and guidelines reflecting an unprecedented consensus against all forms of organ commercialism – global and local, unfettered and regulated – and an active commitment to make the organ market a thing of the past [1–3]. The impact of this campaign on the actual volume of the organ market is yet to be assessed. However, its achievements in such a short time have been impressive in terms of wide endorsement, international collaboration and impact on national legislation and enforcement [4,5]. Since the organ shortage is the driving force for the organ market, a critical parallel campaign, also with wide international

Summary

In the past 3 years there have been attempts to counter the international campaign against a market in organs from the living. In parallel to these attempts, support for a market in organs from the deceased has gained some traction. In this article we describe the various forms of this phenomenon, analyze its implications, and call upon policy makers to take steps to halt its progress.

support, is striving to increase the availability of deceased donor organs.

Despite these developments, there should be no illusion that the organ market will disappear [6]. As long as the conditions that make it an attractive option persist, it can be expected to respond and adapt to curtailment efforts by disregarding them, by going deeper underground, by concealing itself behind euphemisms, by taking advantage of various legal and regulatory loopholes and by attempting self-regulation [7,8].

Indeed, there have been attempts to counter the anti-market campaign. Most of them were confined to the ideological sphere only. Challenging the campaign's inclusive rejection of organ commercialism, these typically expressed support for regulation of some sort or another

[9–15]. Others have sought to amend or reconsider old anti-commercialist laws, sustain previously existing unfettered commercialist practices, or revive those recently banned [16–22].

In parallel to these attempts, support for a market in organs from the deceased has gained some traction. It is this phenomenon that we wish to consider by discussing its various forms and implications, and then calling upon policy makers to take steps to halt its progress.

What is Deceased donor organ commercialism (DDOC)?

We define DDOC as *policies and practices that treat deceased donor organs as commodities, that is to say, as objects of trade with an overt or covert monetary price.*

DDOC can be regarded as one of the two subspecies of *organ commercialism*, the other being living donor organ commercialism (LDOC). The Declaration of Istanbul defines organ commercialism ('transplant commercialism') *in general* as 'a policy or practice in which an organ is treated as a commodity, including by being bought or sold or used for material gain' [1]. This definition focuses exclusively on the commodification of the organ regardless of its source, whether from the living or from the dead. The WHO Guiding Principles are more explicit. This document regards the 'sale of organs by living persons or by the next of kin of deceased persons' as two forms of the same phenomenon [3]. U.S., British and European Union laws do not distinguish between DDOC and LDOC either [23,24].

There are two practices that need to be distinguished from DDOC. The first is payment for a variety of services that involve deceased donor organs, but not actual DDOC [25,26]. Some authors suggest that such payments effectively commodify the organ [14,27]. In itself, however, routine payment to service providers, whether reasonably priced or not, does not accord organs a monetary price any more than payment for appendectomy renders the appendix a commodity. Some practices such as awarding healthcare providers financial incentives for organ recovery and other forms of profiteering from transplantation are indeed ethically controversial. Moreover, we are concerned that commercialism in transplantation services could be used to disguise trade in organs by concealing payments to donors, kin, or other parties. However, where profitable service provision does not involve actual commerce in organs, it neither meets our criteria for DDOC, nor justifies DDOC as some authors argue [28].

The second practice that needs to be distinguished from DDOC concerns offering priority on transplant waiting lists as a means to encourage more people to sign a donor card [29,30]. Albeit controversial, such an

arrangement should not be confused with DDOC, since it gives the benefit conditional upon previously declared *willingness to become a potential donor* upon death, not in exchange for a deceased organ. Furthermore, the benefit conferred is not fungible and has no monetary price. In other words, this practice does not treat the organ as a commodity.

We also wish to draw attention to the *false distinction* between DDOC and what proponents of policies and practices that offer commodities in exchange for deceased organs often describe as 'incentives for charitable acts' [31]. Attempts to conceal DDOC behind euphemistic representations appear symptomatic of discomfort with the underlying function of such proposals and of reluctance to articulate what is strictly DDOC [32].

Categories of DDOC

DDOC may take different forms depending on the type of the transaction, the confines of the market, its legal status, the parties involved and the commodity exchanged for the organs. In cases of primary commodification of organs, the prospective provider of the organ contracts the sale in what has been termed as 'futures market'. As yet only a theoretical proposal, the buyer in such a market purchases the right to remove the vendor's organs upon their death. The vendor may receive a payment or a fungible commodity while alive, or payment may be made to their estate upon their death. In the case of *in vivo* payment, the value is likely to be relatively small, reflecting the low probability of the vendor dying in a manner suitable for organ recovery. In contrast, *post mortem* payments are likely to be relatively larger since the organs are actually recovered. Secondary commodification occurs when the buyer of the organ contracts with either the beneficiaries of the deceased, or with those in possession of the body or organs of the deceased such as hospital staff [33,34].

Experience has shown that, like LDOC, DDOC may operate within and/or across national borders [35–37]. And, like markets in organs from the living, a market in deceased donor organs can, in principle, be legal or illegal, unfettered or regulated. At present, most DDOC phenomena we are aware of are regulated or semi-regulated. At any rate, they are not explicitly unlawful.

Potential vendors of deceased donor organs include their original providers (as is the case of a futures market), those with a legal and/or socially recognized interest in the disposition of the corpse (i.e. relatives), and those who have *de facto* possession of the corpse, e.g. a hospital or its staff. Currently, DDOC only involves the last two kinds of vendors. Potential buyers of deceased donor organs include the state, quasi nongovernmental and

nongovernmental organizations (QUANGOs and NGOs), the recipient's medical insurer and the recipient themselves. DDOC transactions may also involve brokers.

A variety of fungible commodities has been either proposed or actually offered to vendors in exchange for deceased donor organs [38]. These include direct cash payments, various tax breaks, insurance premium rebates, life insurance, health insurance, funeral and memorialization expenses, educational funds for family members, and repatriation of the corpse. In China, a special office has been proposed to coordinate a package of benefits for donor families [39]. All these benefits have something in common: they all are commodities in that, in simple terms, they have a monetary equivalence. From the strictly ethical point of view it makes no difference whether money is given directly to the beneficiaries of the deceased for some designated commodity (e.g. funeral or memorialization), or to a third party, the seller of that commodity.

The pros and cons of DDOC

The motives of policy makers, health professionals, potential organ vendors and other individuals who favour DDOC may differ. Some may have primarily economic interests at heart [40–42]. Others believe that DDOC represents an effective and justifiable response to the organ shortage. Advocates of DDOC claim that payment for deceased donor organs will increase their supply, though at present, the likely impact of the various market proposals remains purely speculative, with no empirical study published on the effects of payment on deceased donation rates. Numerous surveys have explored attitudes of individuals towards futures markets and whether or not payment would influence relatives to consent to deceased donation. In one study from the United States over 90% of the respondents said that 'financial incentives would not have influenced their donation decision at the time of their family member's death', although 25% said that their own decision to donate would be influenced by incentives [43]. The results of such questionnaires are highly variable and unlikely to provide reliable guidance for policy making. Regardless of whether payment improves supply in some cases, the major factor impairing deceased organ donation in many countries is not willingness to donate but rather cultural barriers and a shortage of infrastructure required to enable organ recovery. Some authors argue that 'altruism has failed' [15]. However, they ignore the evidence from countries such as Spain, which highlight the impact of practical strategies to facilitate organ recovery. Matesanz reports steady improvements in organ recovery rates in Spain, despite the fact that refusal rates have remained stable at 25% [44]. Spain's success in deceased organ donation should

therefore be attributed not to better motivation of potential organ donors, but rather to more effective and efficient systems of organ recovery. Furthermore, even in countries with advanced organ transplant establishments, opportunities to advance donation from both the deceased and the living have not been exhausted. The achievements of the Organ Donor Collaborative in the United States and the development in several countries of living donor exchange programmes are but two examples [45]. Such cases should be carefully considered by policy makers hoping to improve recovery rates by focusing on consent legislation [46].

Nevertheless, refusal to donate remains an important cause of failure to recover organs from potential donors. A number of studies in various societies have examined the reasons for refusing consent to deceased organ donation. These include religious, cultural, philosophical and social concerns relating to the diagnosis of death [47–49]. Addressing these concerns will require respectful dialogue, and culturally and religiously sensitive education. Simply introducing financial incentives to overcome such concerns may occur at the expense of emotional distress to individuals, increased distrust in transplant professionals, and societal disengagement from the organ donation endeavour. Indeed, the introduction of payment may well undermine deceased organ donation in societies that currently rely on noncommercial motivations and hinder the promotion of the latter in societies where such motivations are not yet developed.

Some authors have argued that individuals should have the right to sell their organs if necessary to alleviate their poverty [41,42,50,51]. From this perspective, prohibition of DDOC may not only be seen as a violation of individual liberty, but as a particularly unjust attitude towards the poor. Such claims ignore two important points. Firstly, evidence from current markets in organs strongly suggests that DDOC will not improve the lot of the poor [52–56]. Secondly, governments and societies have a moral obligation to address poverty and provide for urgent human needs, including ensuring respectful burial and the repatriation of human remains. These obligations should not be made conditional upon the recovery of organs for transplantation. Endorsing the poverty argument effectively encourages societies to take advantage of poor communities. Poverty should be addressed and not taken advantage of in the form of DDOC.

DDOC may appear to be less ethically problematic than LDOC, given the fact that, where the integrity of death diagnosis is upheld, donors will not suffer physical harm as a result of DDOC [57–62]. However, this is not accurate. *Once an overt or covert commercialist interest in death is introduced into deceased organ donation, life itself can be put at risk.* Moreover, donors may well suffer emotional and

social harm in a futures market through pre-emptive partial commodification of their living bodies. At any rate, DDOC is not ethically unproblematic. We have already noted that commercialism may undermine the integrity of death diagnosis, at the very least promoting distrust on the part of potential organ donors and their families at a time when absolute trust is primal. Moreover, commercialism and professional conflicts of interest may also compromise, or be suspected to compromise, the quality of care of patients who may become potential providers. For example, efforts to treat trauma victims or those with neurological injuries might be influenced by financial considerations, thereby not only causing harm to potential providers, but possibly hastening or causing their death.

Claims that DDOC is culturally acceptable in some societies and should therefore be allowed neglect the significant practical and ethical issues that it raises [63]. Without entering into a debate about ethical relativism, we suggest that more fundamental and widely held ethical and cultural values as well as universal concern for the integrity of the diagnosis of death and trust in the healthcare profession should outweigh respect for alleged cultural diversity in this instance. For example, the stigma attached to living organ vendors suggests that willingness to participate in the market does not necessarily reflect genuine cultural beliefs or values, but merely economic desperation.

DDOC has significantly harmful practical and ethical consequences for organ recovery and transplantation, as well as for individuals and societies. Experience from both developed and developing countries indicates that when the motivation for organ provision is commercial in nature it comes at the expense of, and not in addition to, traditional noncommercial ('altruistic') related and unrelated donation [64]. There is no country that permits donation for material gain, openly or tacitly, that has parallel robust practices of unpaid living donation, or even deceased donation. Noncommercial and commercial organ donations cannot and do not flourish in parallel.

The introduction of commercialization into the profoundly sensitive and emotion-filled approach to newly bereaved family members is fraught with danger to the whole transplant endeavour. The solace that deceased organ donation can provide to the newly bereaved would be sorely strained by a financial motivation. Similarly, where payment is used to influence those with religious or cultural concerns about deceased organ procurement, it is likely to provoke significant distress, guilt and shame.

A core value in organ donation from both the living and the dead is trust between society and its medical community. Trust in the diagnosis of death of a loved one is surely the greatest of all such tests of trust, and would be undermined by the introduction of financial gain to any of those involved in decision making, be they

next-of-kin or medical staff. DDOC is likely to engender distrust in the diagnosis of death and the medical profession as a result of the inevitable association of financial interests with the process of organ procurement. James Childress notes that 'many people don't sign donor cards now because of distrust or mistrust. They worry about being declared dead prematurely, or even having their deaths hastened, if they have signed a donor card. Well, they would certainly be reluctant to enter a futures market, to sign a futures contract, when the only barrier to the delivery of their organs is the fact that they're not dead yet' [65].

DDOC unfairly places the burden of organ provision on the poor and results in an inequitable distribution of organ providers within society. The wealthy or middle class are not in need of financial incentives: only the poor and desperate, as experience from several countries has shown [66]. And if those poor and desperate 'take the bait' why would the wealthy donate organs which may be purchased from the poor? The need for organs is such that sufficiency can only be achieved if all possible providers are utilized, not just those from poorer populations. Strategies to enhance supplies of organs must therefore be designed to motivate *all* potential providers. In numerous countries, surveys reveal widespread support for deceased donation across all socioeconomic groups. Strategies to facilitate consent for donation, such as those noted earlier, should take priority over those strategies targeting potential provider motivation.

DDOC also risks impairing the safety of organ transplantation. Commercial organ donation, both from the living and deceased, is accompanied by an increased risk of infection [67]. Although such complications may be related to the quality of transplantation services, in particular the screening of organ vendors and the hazards of maintaining continuity of patient care in the setting of transplant tourism, DDOC may nevertheless contribute to increased risks. For example, prospective organ providers or their relatives may be reluctant to reveal information about the provider's health that might jeopardize the chance of sale, such as the presence of risk factors for infection or disease. Medical staff may also conceal such information to profit from organ recovery or transplantation. In this regard it is worth noting that in the U.S., paid blood donation was discontinued precisely because of the increased infection risk. The larger the amount of money at stake the greater may be the propensity to conceal critical information [68].

Conclusions

DDOC contributes to the commodification of the human body and of living human beings. Establishing a

commercial interest in the body – whether living or deceased – encourages the development of personal and social attitudes towards the living such that they risk being treated at least in part as a potential or actual source of financial gain. The arguments favouring DDOC are similar in many respects to those favouring LDOC and their acceptance would likely undermine efforts to prevent or discourage LDOC or be used as a guise to conceal it.

DDOC violates current declarations, guidelines and national laws and undermines the international campaign against organ commercialism. Its harmful impact is, we believe, underestimated and support for it, well-intentioned or otherwise, represents a threat to efforts to promote more effective and ethical practice of organ recovery and transplantation worldwide.

Authorship

The authors contributed equally to the design of this study, collection and analysis of data and the writing of the article.

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References

- Participants in the International Summit on Transplant Tourism and Organ Trafficking convened by The Transplantation Society and International Society of Nephrology in Istanbul, Turkey, 30 April to 2 May 2008. The declaration of Istanbul on organ trafficking and transplant tourism. *Nephrol Dial Transplant* 2008; **23**: 3375.
- World Health Organization. WHO guiding principles on human cell, tissue and organ transplantation. EB123/5 2008; 1.
- World Health Organization. WHO guiding principles on human cell, tissue and organ transplantation. Resolution WHA63. 22 May 2010; 1.
- Delmonico FL. The implications of Istanbul Declaration on organ trafficking and transplant tourism. *Curr Opin Organ Transplant* 2009; **14**: 116.
- Chacko KT. Fillip to transplant drive. *Gulf Times*. Available at: http://www.gulf-times.com/site/topics/article.asp?cu_no=2&item_no=384098&version=1&template_id=57&parent_id=56. Last access: June 2011.
- Epstein M. Sociological and ethical issues in transplant commercialism. *Curr Opin Organ Tran* 2009; **14**: 134.
- Epstein M, Danovitch GM. Is altruistic directed living unrelated organ donation a legal fiction? *Nephrol Dial Transpl* 2009; **24**: 357.
- Danovitch G, Shapiro M, Lavee J. The use of executed prisoners as a source of organs transplants in China must stop. *Am J Transplant* 2011; **11**: 426.
- Matas AJ, Hippen B, Satel S. In defense of a regulated system of compensation for living donation. *Curr Opin Organ Trans* 2008; **13**: 379.
- Reed AI, Merion RM, Roberts JP, et al. The declaration of Istanbul: review and commentary by the American society of transplant surgeons ethics committee and executive committee. *Am J Transplant* 2009; **9**: 2466.
- Rodrigue JR, Crist K, Roberts JP, Freeman Jr RB, Merion RM, Reed AI. Stimulus for organ donation: a survey of the American Society of Transplant Surgeons membership. *Am J Transplant* 2009; **9**: 2172.
- Friedman EA, Friedman AL. Reassessing marketing of kidneys from the 2008 perspective. *Blood Purificat* 2009; **27**: 53.
- Hippen B, Ross LF, Sade RM. Saving lives is more important than abstract moral concerns: financial incentives should be used to increase organ donation. *The Ann Thorac Surg* 2009; **88**: 1053.
- Cherry MJ. Embracing the commodification of human organs: transplantation and the freedom to sell body parts. *St. Louis U J Health L & Pol'y* 2009; **2**: 359.
- Satel S. *When Altruism isn't Enough: The Case for Compensating Kidney Donors*. Washington, D.C.: AEI Press, 2009: 250 pp.
- Organ donation clarification act of 2008: proposed specter bill. September 8, 2008, Available at: <http://www.asts.org/Advocacy/Legislative.aspx>. Last access: June 2011.
- Legal Advisor to the Israeli Ministry of Health. Letter of complaint to Ehud Keinan, Legal Advisor to the Ministry of Foreign Affairs. March 2010 (in Hebrew).
- Tao D. Worldwide market fuels illegal traffic in organs. *New York Times*. July 29, 2009. Available at: <http://www.nytimes.com/2009/07/30/nyregion/30organs.html>. Last access: June 2011.
- Bile KM, Qureshi JARH, Rizvi SAH, Naqvi SAA, Usmani AQ, Lashari KA. Human organ and tissue transplantation in Pakistan: when a regulation makes a difference. *Eastern Mediterranean Health Journal* 2010; **16**: 159–66.
- Nuffield Council on Bioethics. Give and take? Human bodies in medicine and research. May 2010. Available at: https://consultation.nuffieldbioethics.org/fileLibrary/pdf/Human_bodies_in_medicine_and_research_consultation_paper.pdf. Last access: June 2011.
- Dizon D. DOH to lift ban on organ donations for foreigners. abs-cbnNEWS.com, February 7, 2010. Available at: <http://www.abs-cbnnews.com/nation/07/02/10/doh-lift-ban-organ-donations-foreigners>. Last access: June 2011.
- Manongdo J. Kidney transplant ban remains. July 9, 2010. Available at: <http://www.tempo.com.ph/news.php?aid=53789#top>. Last access: June 2011.
- National Organ Transplant Act. S. 2048 Public Law 98–507, October 19, 1984, § 274e.

24. Human Tissue Act 2004 Chapter 30, Section 32; Directive 2004/23/EC of the European Parliament and of the Council. 31 March 2004. *Off J Eur Union*. April 7, 2004; **L102**: 48–58, Introduction, Pt. 18.
25. Martin D. Hospital flouts rules banning organ transplants for foreign private patients. *Daily Mail*. May 17, 2010. Available at: <http://www.dailymail.co.uk/news/article-1278963/Hospital-flouts-rules-banning-organ-transplants-foreign-private-patients.html#ixzz18jyNN0ns>. Last access: June 2011.
26. Alleyne R. Foreign patient given British NHS liver transplant. *The Telegraph*. May 16, 2010. Available at: <http://www.telegraph.co.uk/health/healthnews/7730822/Foreign-patient-given-British-NHS-liver-transplant.html>. Last access: June 2011.
27. Wilkinson S. Commodification arguments for the legal prohibition of organ sale. *Health Care Anal* 2000; **8**: 194.
28. Aziz P. Establishing a free market in human organs: economic reasoning and the perfectly competitive model. *U La Verne L Rev* 2009; **31**: 67.
29. Jarvis R. Join the club: a modest proposal to increase availability of donor organs. *J Med Ethics* 1995; **21**: 199.
30. Lavee J, Ashkenazi T, Gurman G, Steinberg D. A new law for allocation of donor organs in Israel. *Lancet* 2010; **375**: 1131.
31. Gerrand N. The notion of gift-giving and organ donation. *Bioethics* 1994; **8**: 127.
32. Epstein M. Pseudononcommercialism: the Trojan horse of the organ market. In: Weimar W, Bos M, van Busschbach J, eds. *Organ Transplantation: Ethical, Legal and Psychological Aspects. Expanding the European Platform*. Lengerich: Pabst Science Publishers, 2011: 135–141.
33. Estimo RC. Brain-dead OFW's family donates his organs to SCOT. Saudi Telegraph.com, December 14, 2010. Available at: <http://www.sauditelegraph.com/news/newsfull.php?newid=450006>. Last access: June 2011.
34. Woan S. Buy me a pound of flesh: China's sale of death row organs on the black market and what Americans can learn from it. *Santa Clara L Rev* 2007; **47**: 413.
35. Gal I. Family of organ donor received 10,000 shekels. *Ynet*, January 25, 2010. Available at: <http://www.ynet.co.il/articles/0,7340,L-3838412,00.html> (in Hebrew). Last access: June 2011.
36. Revill J. UK kidney patients head for China. *The Guardian*, December 11, 2005. Available at: <http://www.guardian.co.uk/society/2005/dec/11/health.china>. Last access: June 2011.
37. Carvajal D, Simons M. Report names Kosovo leader as crime boss. *The New York Times*, December 15, 2010. Available at: <http://www.nytimes.com/2010/12/16/world/europe/16kosovo.html>. Last access: June 2011.
38. Mayrhofer-Reinhartshuber D, Fitzgerald R. Financial incentives for cadaveric organ donation. *Ann Transpl* 2004; **9**: 25.
39. Yancheng L. Organ donors expected to receive compensation. *People's Daily Online*. March 8, 2011. Available at: <http://english.peopledaily.com.cn/90001/90776/90882/7311847.html>. Last access: June 2011.
40. Block W, Whitehead R, Johnson C, Davidson M, White A. Human organ transplantation: economic and legal issues. *Quinnipiac Health L J* 2000; **3**: 87.
41. Bakdash T, Scheper-Hughes N. Is it ethical for patients with renal disease to purchase kidneys from the world's poor. *PLoS Med* 2006; **3**: e349.
42. Kishore RR. Human organs, scarcities, and sale: morality revisited. *J Med Ethics* 2005; **31**: 362.
43. Rodrigue JR, Cornell DL, Howard RJ. Attitudes toward financial incentives, donor authorization, and presumed consent among next-of-kin who consented vs. refused organ donation. *Transplantation* 2006; **81**: 1249.
44. Matesanz R. Factors influencing the adaptation of the Spanish model of organ donation. *Transpl Int* 2003; **16**: 736.
45. Leichtman AB, Cohen D, Keith D, et al. Kidney and pancreas transplantation in the United States, 1997–2006: the HRSA breakthrough collaboratives and the 58 DSA challenge. *Am J Transplant* 2008; **4**: 946.
46. Quigley M, Brazier M, Chadwick R, Michel MN, Paredes D. The organs crisis and the Spanish model: theoretical versus pragmatic considerations. *J Med Ethics* 2008; **34**: 223.
47. Gal I. Heart recipient's father: we'll never donate organs. *Yediot Ahronot*, January 29, 2009. Available at: <http://www.ynet.co.il/english/articles/0,7340,L-3663653,00.html>. Last access: June 2011.
48. Sque M, Long T, Payne S, Allardyce D. Why relatives do not donate organs for transplants: 'Sacrifice' or 'gift of life'? *J Adv Nurs* 2008; **61**: 134.
49. Long T, Sque M, Addington-Hall J. What does a diagnosis of brain death mean to family members approached about organ donation? A review of the literature. *Prog Transplant* 2008; **18**: 118.
50. Veatch RM. Why liberals should accept financial incentives for organ procurement. *Kennedy Inst Ethics J* 2003; **13**: 19.
51. Savulescu J. Is the sale of body parts wrong? *J Med Ethics* 2003; **29**: 138.
52. Jha V, Chugh KS. The case against a regulated system of living kidney sales. *Nat Clin Prac Nephrol* 2006; **2**: 466.
53. Naqvi SAA, Ali B, Mazhar F, Zafar MN, Rizvi SAH. A socioeconomic survey of kidney vendors in Pakistan. *Transpl Int* 2007; **20**: 934.
54. Moazam F, Zaman RM, Jafarey AM. Conversations with kidney vendors in Pakistan: an ethnographic study. *Hastings Cent Rep* 2009; **39**: 29.
55. Padilla BS. Regulated compensation for kidney donors in the Philippines. *Curr Opin Organ Tran* 2009; **14**: 120.
56. Mendoza RL. Colombia's organ trade: evidence from Bogota and Medellin. *J Public Health* 2010; **18**: 375.
57. Hansmann H. The economics and ethics of markets for human organs. *J Health Polit Policy* 1989; **14**: 57.

58. Cohen LR. Increasing the supply of transplant organs. The virtues of a futures market. *George Wash Law Rev* 1989; **58**: 1.
59. Blumstein JF. The use of financial incentives in medical care: the case of commerce in transplantable organs. *Health Matrix* 1993; **3**: 1–30.
60. Erin CA, Harris J. A monopsonistic market: or how to buy and sell human organs, tissues and cells ethically. In: Robinson I, ed. *The Social Consequences of Life and Death Under High Technology Medicine*. Manchester: Manchester University Press in association with the Fulbright Commission, London, 1994; 134–157.
61. The Bellagio Task Force report on transplantation, bodily integrity, and the international traffic in organs. *Transpl P* 1997; **29**: 2739.
62. Lysaght MJ, Mason J. The case for financial incentives to encourage organ donation. *ASAIO J* 2000; **46**: 253.
63. Wang M, Wang X. Organ donation by capital prisoners in China: reflections in Confucian ethics. *J Med Philos* 2010; **35**: 197.
64. Danovitch G, Delmonico F. The prohibition of kidney sales and organ markets should remain. *Curr Opin Organ Tran* 2008; **4**: 386.
65. Knox R. Should we legalize the market for human organs? Available at: <http://www.npr.org/templates/story/story.php?storyId=90632108>. Last access: June 2010.
66. Malakoutian T, Hakemi MS, Nassiri AA, et al. Socioeconomic status of Iranian living unrelated kidney donors: a multicenter study. *Transpl P* 2007; **39**: 824.
67. Naqvi SAA, Rizvi SAH, Zafar MN, et al. Health status and renal function evaluation of kidney vendors: a report from Pakistan. *Am J Transplant* 2008; **8**: 1444.
68. Bentley JP, Thacker PG. The influence of risk and monetary payment on the research participation decision making process. *J Med Ethics* 2004; **30**: 293.