

# When the physician becomes the executioner Evidence from the People's Republic of China

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# Organ transplantation

- Organ transplantation around the world is typically from voluntary donors
- Developed countries have systems of altruistic giving of organs, with informed consent from donor and/or family
- Legal organ ‘markets’ have been suggested, but never adopted so as to preserve the altruism of the gift of life
- The state enables, encourages, and polices a system of altruistic, voluntary organ donation
- The state has acted on medical expertise to modify the definition of death in light of advances in transplant therapy (brain death)

“The practice of using exploitation, coercion, or fraud to steal or illegally purchase or sell organs.” (Meshelemiah and Lynch 2019)

- Organ trafficking is considered normatively deviant
- Often carried out by transnational criminal gangs
- Involves kidneys and is from living donors
- States are supposed to criminalise and seek to suppress illicit trafficking activity

# Organ trafficking in China

- China is the only (known) country where state institutions are involved trafficking organs from prisoners on a systematic basis
- Growth of the system began in 1980s-1990s; very rapid expansion in 2000
- Tens of thousands of transplants annually (numbers disputed; claims range from 10,000 - 90,000)
- No legal framework until 2007
- System said to be reformed since 2015 to no longer use prisoners

- Information about transplantation is considered sensitive and secret.
- Up to 2015 organs claimed to be primarily via judicial executions (death row)
- Significant evidence of extrajudicial killing for organ procurement (political prisoners, other vulnerable populations)
- Data falsification by the state

## BMC Medical Ethics

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### Analysis of official deceased organ donation data casts doubt on the credibility of China's organ transplant reform

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#### Abstract

##### Background

Since 2010 the People's Republic of China has been engaged in an effort to reform its system of organ transplantation by developing a voluntary organ donation and allocation infrastructure. This has required a shift in the procurement of organs sourced from China's prison and security apparatus to hospital-based voluntary donors declared dead by neurological and/or circulatory criteria. Chinese officials announced that from January 1, 2015, hospital-based donors would be the sole source of organs. This paper examines the availability, transparency, integrity, and consistency of China's official transplant data.

- Co-authored with Dr. Jacob Lavee, leading cardiac transplantation surgeon and long-term collaborator
- Key player in reforms to Israeli law that prevented transplant tourism and encouraged domestic donations

# Inside the operating room

- What is the role of the medical professional in this programme?
- Anecdotes long circulated of surgeon involvement in killing via organ procurement
- In transplant medicine this is a violation of the dead donor rule (DDR). Foundational to transplant ethics
- DDR states donor must be dead when vital organs procured, procurement must not be the cause of death

# Inside the operating room

- If surgeons violate DDR, then they are implicated in the killing of the donor
- The medical establishment then becomes an extension of the coercive and predatory power of the state
- Can these claims be tested?



# Heart and lung procurement

- Involves a donor whose heart is beating
- If heart suffers cardiac arrest, it will in most cases be nonviable in new host
- This differs from kidney procurement after execution at a field site
- High degree of technological sophistication (pre-op, surgery, post-op)
- Demands tight coordination with security authorities who control the prisoner bodies

# The question of death

- Organ procurement from prisoners sits at juncture of medicine and state security
- The state sentences alleged criminals to death – medical professionals procure and transplant the organs
- PRC officials have long acknowledged the use of prisoners
- But who actually carries out the execution?
- PRC state appears to allow (or force?) medical professionals to do so
- Health care workers thus become de facto state executioners

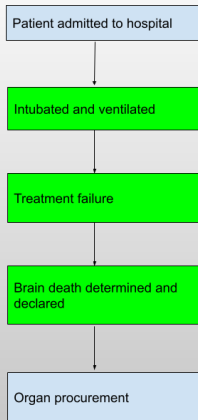
## Questions:

- ① What evidence would be most strongly diagnostic of physicians carrying out execution via organ procurement?
- ② Can it be obtained?
  - Are the prisoners properly declared brain dead?
  - This can be answered by asking: when is the donor intubated?

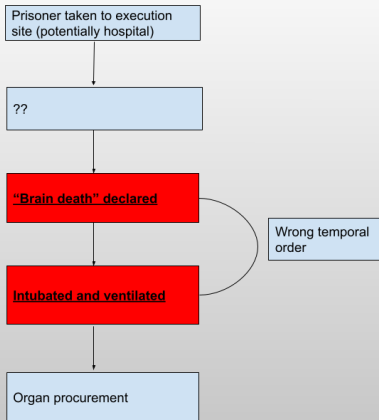
- If the prisoner is intubated after being declared brain dead, or immediately prior to procurement surgery, then they could not have been actually dead
- If brain death was not established, then heart procurement by the surgeon would be the proximate cause of death
- Health care workers would have become the executioners

# Appropriate versus problematic declaration of brain death

## PROPER BRAIN DEATH DECLARATION



## PROBLEMATIC BRAIN DEATH DECLARATION



- PRC scientists are prolific authors. Publish or perish
- Result: Enormous amount of material with highly explicit descriptions of surgical procedures
- Most useful are clinical reports that give accounts of everyday transplant surgeries
- These case reports would not typically be published in countries with established transplant systems
- Ways for surgeons in a small but rapidly growing field to share knowledge with peers

## 5 讨论

### 5.1 关于供心保护

供心的保护直接关系到移植心脏的成功。对于脑死亡的供者,自主呼吸丧失,心肌缺氧,在这紧急情况下,必须在紧急开胸的同时,进行紧急气管插管及辅助呼吸,以维持心脏的血液循环和氧供,缩短心脏的热缺血时间。本文供体开胸时,胸壁切口已苍白无血迹,心脏已紫绀,跳动微弱,但于气管插管供氧后心脏搏动迅即转为有力。取供心时自第 4 肋间切断胸骨进胸,速度快,显露良好,在野外操作无电源不能进行胸骨锯开的情况下采用此切口不失为一良好选择。本文从开胸到供心取出,耗时仅 3min。供心的心肌保护以冷停搏液灌注加低温最为适用。本文采用 3 个加有 4℃冷生理盐水的塑料袋配合小冰壶和大冰桶的使用,满意地保护了供心,使供心在远距离运送,冷缺血超过 4h 的情况下,心脏移植后仍有良好的心功能。

• 20 •

TODAY NURSE April 2015 No. 4

### 脑死亡无偿器官捐献供体维护期的护理

李 丹 罗碧丹 董 力

摘要 总结脑死亡无偿器官捐献供体维护期的护理方法,包括生命体征的维护、心功能的维护、呼吸功能的维护、肾功能的维护以及人文关怀。认为通过维护期有效的护理措施可保持脏器捐献的机能,确保其成功捐献,实现脑死亡器官供体捐献的最大实际量;通过对捐献者告知仪式,对其家属实施人文关怀,可减轻器官捐献给生命传承带来的冲击,让更多人认可器官捐献。

关键词 脑死亡;器官捐献;供体;维护期;护理  
中图分类号:447.5 文献标识码:B

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当器官捐献者家属处于难堪状态,脑死亡供体无延后解决器官捐献的合适办法,为广大患者带来了福音。自 2003 年卫生部颁布了“我国脑死亡判定标准”(成人)和脑死亡判定技术标准(征求意见稿)后<sup>[1]</sup>,为脑器官捐献工作提供了有力的理论依据。近年来,我国脑死亡器官捐献工作取得长足的进展,1010 已实施成功,被美国国家接受并报道。而中心于 2010 年 1 月、2012 年 11 月分别完成了 58 例和 10 例的器官捐献工作,使得 1040 例器官捐献的护理体会报告如下。

1 临床资料  
本组 1040 例供体病例中,男 12 例,女 3 例;年龄 12~41 岁,其中年龄最高者 40 岁(男),最低者 12 岁(女);血型为 A 型 1 例,AB 型 1 例,供体维护时间 12~48h,其中 2 例出现一过性血压升高。  
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本课题为(2014553)广西壮族自治区卫生计生委科研课题  
收稿日期:2014-09-30

器官捐献的维护期,让患者在提供护理的过程中,感受到生理、心理、社会及尊重等的需要,减轻了患者的身心痛苦和心理压力,满足了患者对舒适医疗的需求,提高了护理服务质量和患者满意度,改善了医患关系<sup>[2]</sup>。近年来,随着社会老龄化的逐渐上升趋势,2010 年的发展态势是整体上升趋势,由于其早期老龄化趋势,我国老龄化趋势日益明显,老龄化趋势不可避免,老龄化趋势和老龄化护理,可能给严重的心、脑、肺功能减退,甚至多脏器功能衰竭,同时因为 GFR 患者肾增长,发展发育并影响其生活和社会文、患肾衰竭或透析者,却得不到重视,尤其在急性肾功能衰竭,给予肾脏的心理和生理护理,可避免患者心理产生焦虑、恐惧,更好地配合治疗,可减轻肾衰竭给患者带来的痛苦,同时,减轻护理压力,以人为本的护理理念深入护理人员

所有病例均平均呼吸功能良好,超过脱水、电解质、呼吸兴奋剂等药物治疗,通过大量输入液体,经肾脏管理委员会认定符合器官捐献标准,符合器官捐献标准,脑死亡判定标准(成人)和脑死亡判定技术标准(征求意见稿)后<sup>[1]</sup>判定为脑死亡。

2 脑死亡判定  
首次判定经本医院病理科、心内科科专家鉴定,脑死亡判定标准(成人)和脑死亡判定标准(征求意见稿)后,经肾脏管理委员会认定符合器官捐献标准,符合器官捐献标准,脑死亡判定标准(成人)和脑死亡判定技术标准(征求意见稿)后<sup>[1]</sup>判定为脑死亡。

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(本文编辑:王 丹 李 丹)

### 参考文献

- 1 何家兴.慢性肾功能衰竭患者的心理护理及康复护理探讨[J].现代护理,2011,17(3):199-200.
- 2 董力.脑死亡在无偿器官捐献中的应用[J].当代医学,2010,2:110.
- 3 杜晓平.舒适护理于 C600 重症患者中的应用研究[J].中国医药导报,2011,18(1):136-137.
- 4 高秀华.脑瘫患儿家长的护理干预[J].当代护士(中旬刊),2012,2:34-35.

(本文编辑:王 丹 李 丹)

- Gathered ~124,000 papers like this for thesis
- How to filter those describing surgeon involvement in heart and lung procurement?
- How to then identify and corroborate specific possible violations?
- Steps: qualitative reading of a sample of papers; identify target strings; scale up the search process with R



```
ts_intubation <- as_utf8(c(“脑死亡后用麻醉机维持呼吸”, “死亡后迅速  
建立人工呼吸”, “自主呼吸丧失的脑死亡供体, 在特定条件下应尽可能迅速  
建立辅助呼吸支持循环, 维持供心的血氧供应, 避免或缩短热缺血时间, 同  
时迅速剖胸取心”, “供体大脑死亡后, 首先分秒必争地建立呼吸与静脉通  
道”, “经气管切开气管插管建立人工呼吸”, “快速胸部正中切口进胸”, “供  
者脑死亡后迅速建立人工呼吸”, “供心保护脑死亡后用麻醉机维持呼吸”,  
“供体确定脑死亡后, 气管插管, 彻底吸除气道分泌物, 用简易呼吸器人工控  
制呼吸”, “供体脑死亡后, 迅速建立人工呼吸”, “供体脑死亡后快速正中开  
胸, 同时插入气管导管人工通气”, “脑死亡后, 紧急气管插管”, “供者行气  
管插管”, “供者行气管插管, 球囊加压通气, 静脉注射肝素 200mg”, “脑死  
亡后, 用麻醉机维持呼吸”, “供体在确认脑死亡后, 气管插管, 建立人工呼  
吸”, “脑死亡后气管紧急插管, 纯氧通气”, “供体死亡后行人工呼吸、循环  
支持”, “脑死亡后, 气管插管”, “脑死亡后立即气管内插管给氧”, “脑死亡,  
面罩加压给氧, 辅助呼吸”, “脑死亡后, 将供体取仰卧位, 争取做气管插管”,  
。。。))
```

# Algorithm

```
get_string_matches <- function(file_text, target_string){  
  res <- afinf(file_text, target_string, window = nchar(target_string), m  
  location <- res$location  
  distance <- res$distance  
  match <- res$match  
  context <- substr(file_text, as.integer(location)-70, as.integer(location)+  
  res2 <- as.data.table(cbind(target_string, location, distance, match, con  
  return(res2)  
}  
  
get_full_match <- function(path, file_name, target_strings) {  
  file_text <- fread(paste0(path, file_name), sep = NULL, header = FAL  
  res_afind <- future_map(target_strings, ~get_string_matches(file_text  
  res <- rbindlist(res_afind)  
  res3 <- as.data.table(cbind(path, file_name, res))  
  names(res3) <- c("path", "file_name", "target_string", "string_location  
  return(res3)  
}
```

docid	year	Chinese text	translation
0748	2000	供体心肺功能正常,但胸廓小于受体10%。于脑死亡后立即气管插管接简易呼吸囊行控制呼吸,FiO <sub>2</sub> 0.2。迅速开胸,肝蒂化,分离心肺组织,阻断升主动脉后,从主动脉根部灌注冷晶体停搏液10	*** The donor's cardiopulmonary function is normal, but the thorax is 10% smaller than that of the recipient. Immediately after brain death the trachea was intubated and a simple breathing balloon was used to control breathing... Open the chest quickly, heparinize, separate the heart and lung tissues, block the ascending aorta, and infuse cold crystalloid cardioplegia ...
2067	2000	供体麻醉 供体确定脑死亡后,行气管插管、维持呼吸、循环、监测心电图、血压、留置导尿管。	*** Donor anesthesia. After the donor is determined to be brain dead, carry out intubation, maintain breathing and circulation, monitor ECG, blood pressure, indwelling urinary catheter...
4155	2001	2供心切取配合 2.1 麻醉配合 脑死亡后用呼吸机维持呼吸巡回护士迅速建立静脉通道,同时协助麻醉医生气管内插管。2.2 手术配合洗手护士提握30 min洗手上台迅速摆好器械台将无菌冰袋制成冰屑。协助医生消毒皮肤及铺巾,备好氧气刀、吸引	*** 2. Donor heart extraction and cooperation 2.1 Cooperation during anaesthetization After brain death use an anesthesia machine to maintain breathing, roving nurse quickly establishes a venous channel, and at the same time assists the anesthesiologist with endotracheal intubation. ...
0039	2002	因颅脑外伤而脑死亡。术前供心呼吸已停止。肝蒂化(3mg/kg体重)。经气管切开气管插管建立人工呼吸,快速胸部正中切口进胸。剖开心包游离上下腔静脉阻断,让心脏空跳大约15~20次后,阻断升主动脉,在其根部灌注温C高钾冷停搏液1000ml,压力6.5kPa停止肝蒂化(3mg/kg体重)	Brain death due to craniocerebral trauma. The donor stopped breathing before surgery, heparinization (3mg/kg body weight). Mechanical ventilation established through tracheostomy, and a sternal incision was rapidly made...
0741	2002	受体间ABO血型均相同 1.2原位心脏移植术方法 1.2.1供心采取供体年龄22~37岁,无心血管病史。脑死亡后气管插管机械维持呼吸,静脉输注维持循环功能。全身肝素化后,在主动脉根部插管向冠脉口灌注冷晶体停搏液,诱导心脏	1.2 Orthotopic heart transplantation method. 1.2.1 Donor heart procurement. Donors are 22-37 years old and have no history of cardiovascular disease. After brain death, tracheal intubation mechanically maintains ventilation and intravenous infusion maintains circulatory function.

docid	year	Chinese text	translation
3666	1997	供体脑死亡后,尽快气管插管人工呼吸并迅速开胸,速作升主动脉、肺动脉灌注冷停搏液,压力分别为11kPa(83mmHg)、6.67kPa(50mmH	After donor brain death, tracheal intubation was performed as soon as possible for artificial ventilation. The chest was opened quickly, and the ascending aorta and pulmonary artery were infused with cold cardioplegia ...
2181	1998	于1994年9月27日获20岁男性供体心脏(脑死亡)。其心肺保护过程为:确认脑死亡;气管插管,人工呼吸,吸氧。常规消毒依次解剖、暴露心脏、心跳良好。放置升主动脉冠脉灌注管,阻断升主动脉	On September 27, 1994, The cardiopulmonary protection process: confirmation of brain death, tracheal intubation, artificial respiration, and oxygen inhalation. Routine disinfection followed by dissection to expose the heart, heartbeat was good. Place the ascending aorta coronary perfusion tube to clamp the ascending aorta.
2062	1998	2讨论 2.1关于供肺保护 供肺的保护直接关系到肺移植的成败。本例供体开胸时心脏呈紫绀,但仍有跳动,行气管插管辅助呼吸后心脏变红,跳动迅速转为有力,因而缩短了肺的缺血时间。第4肋间横断膈骨进胸,速度快,显露好。供肺采取低温肺动脉灌注加低	*** 2. Discussion. 2.1 About donor lung protection... In this case, the heart of the donor was purple when the chest was opened, but still beating. After tracheal intubation and assisted breathing, the heart turned red and the beating quickly became forceful, thus shortening the warm ischemic time of the lungs...
2458	1999	1.3手术配合过程 1.3.1供者准备 取平(仰卧)位,胸腹部垫一硬枕。巡回护士选用带药盘16号静脉留置针迅速建立静脉通道。同时协助麻醉师气管内插管维持呼吸和循环。1.3.2灌注连接管准备巡回护士在无菌技术操作下将肺动脉灌注液连接管接上冷Collins灌注液瓶(第一瓶,so oml)	*** 1.3 Surgical cooperation process. 1.3.1 Donor preparation [Donor] takes the supine position, with a hard pillow on the chest, abdomen and back. Roving nurse selects a No. 16 intravenous needle to quickly establish an intravenous channel. At the same time, [she] assists the anaesthetist with endotracheal intubation to maintain breathing and circulation. ...
0004	2000	1.4供体手术气管插管通气管胸骨正中开胸纵行剖开心包并悬于切口两侧按富心脏外形恢复正常后	1.4 Donor surgery. Tracheal intubation for ventilation, sternal incision, longitudinal incision of the pericardium and mobilization of both sides of the incision to explore the normal appearance of the heart.

- This process whittled it down to a manual review of ~300 papers
- From these, we found 71 instance of apparently problematic, or apparently false, or medically impossible declarations of brain death
- Many cases report intubation after the declaration of brain death
- Many cases report intubation immediately prior to surgery

- Recall: if brain death was not effected, then heart procurement must be the proximate cause of death
- We thus infer that these are violations of the dead donor rule
- Recall: DDR states donor must be dead when vital organs procured, procurement must not be the cause of death
- Violation of the DDR, in procurement from capital prisoners, makes the physician the executioner

- All regimes claim power over the biological lives of subjects
- Physical integrity rights are not absolute, and the state balances them against its conception of the public good
- The PRC is a deviant case in the realm of organ transplantation, because it has empowered state agents to monetise the bodies of prisoners with little oversight or accountability
- Here, the imperative of a viable transplant (prolonging or saving life of recipient) supersede the rights of the coerced donor

# Theoretical contribution

- In the cases myself and Dr. Lavee have found, the medical establishment is deputised as the executioner — the execution is effected by heart extraction
- This reflects a highly unique attitude toward the physical integrity of prisoners
- In most cases globally, organ trafficking is a problem of state capacity
- In the PRC case, a high level of state capacity and sophistication instead enables a predatory organ trafficking regime
- An effective and durable authoritarian regime able to provide world-class healthcare to its elite, in this case making highly efficient use of a scarce resource that other countries refrain from exploiting