



Organ donation in A&E: the legal and ethical implications for the A&E nurse

B. L. Neades

In the U.K. the requirement for organs grows daily and sadly many people will die before an organ for transplant becomes available. In an effort to improve the supply of organs some clinicians are now looking to the A&E department to identify potential organ donors occurring as a result of a sudden death in the department. Many people take the view that hundreds of potential organs are wasted every year, as a result of the A&E departments' failure to notify the organ transplant co-ordinator of a potential donor in sufficient time to seek consent from the relatives. This paper will explore the legal and ethical principles which underpin the current organ donations system in the U.K. and explore the rationale for the reluctance of the majority of A&E departments to utilise this option. Some possible solutions to the conflicts which this option presents to the A&E nurse will be proposed. © 2001 Harcourt Publishers Ltd

Introduction

The United Kingdom Transplantation Support Service Authority (UKTSSA 1999) reports that during the past decade initiatives to recruit individuals to donate their organs for transplantation have identified 8 million people out of a population of 56 million willing to add their name to the NHS Organ Donor Register. A survey of the population reported that 70% of those interviewed stated that they would donate their organs (Gallup 1992). This finding was supported by Gibson (1996) and Gill and Hulatt (1999) who also report that between 70% and 90% of those questioned respectively claimed that they would be willing to donate their organs. Despite these reports, each year since 1990, the number of solid organs made available for transplantation in this country has reduced by 18% (Sweeny 1999). During this time, deaths in the total population have also decreased, but by only 3%. Sweeny (1999) suggests that these changes in mortality statistics might be possibly explained by the

changes in the care of individuals who suffer a Road Traffic Accident or a Cerebral Vascular Accident. Improved survival rates in these conditions, which had previously resulted in high numbers of fatalities, have had a detrimental effect on the numbers of organs available for transplantation. Other factors, including a drop in the numbers of people willing to donate their organs from 13.0 per 10,000 population in 1991 to 11.9 per 10,000 population in 1998, may have contributed to the shortage in the supply of organs for transplantation in the U.K. Currently, 7,033 individuals are on the waiting list for an organ transplantation, with a total of 3,528 transplantation operations being performed in 1999 (UKTSSA 1999). The gap between those waiting for a transplant and the numbers of organs available grows every year.

To resolve this increasing problem, the U.K. has developed medical, legal and ethical strategies that facilitate the donation of a human organ after death. According to the Human Tissue Act 1961 s 1 (1) (HTA1961), if an

Barbara L. Neades MPhil BN., RMN., RGN., RNT., Lecturer, Department of Adult Nursing, Napier University Faculty of Health Studies, 74 Canaan Lane, Edinburgh. E-mail b.neades@napier.ac.uk

Manuscript accepted: 22 January 2001

individual wishes to donate their organs they can volunteer to do this and notify the appropriate authorities of their intention. The HTA 1961 allows the removal of an organ from the deceased for therapeutic, educational and research purposes if there is evidence of the specific request from the individual. This 'opt in' system allows the individual to choose to donate their organs and notify their intention to do this prior to their death. In the event of a sudden death in A&E if the deceased carries evidence of consent to organ donation there is an opportunity to procure organs for transplant. Hassan et al. (1996); Magrath & Boulstridge (1999) and Sutherland (1999) all report that the use of this approach to early organ retrieval can be very successful. Sadly, this option is under-used as a method of increasing the supply of organs for transplant by A&E staff. Poor understanding of the requirements for organ donation, pressures of other responsibilities and ethical dilemmas are often cited as a rationale for this. The aim of this paper is to explore the legal and ethical principles which underpin the supply of organs for transplant within the U.K. It will also explore the practical problems and conflicts which may prevent the A&E nurse from contributing to the supply of organs using this option. Finally it will put forward some possible solutions to the difficulties and dilemmas presented to the A&E nurse by this issue.

Existing law and the cadaver donor

Currently the main approach to organ transplantation is cadaver donation, where the individual can determine what they wish to have done with their body tissues following their death. Prior to death an individual can validly consent to the removal of organs after their death for transplantation, education or scientific purposes both in common law and statutory law.

(i) Common law

Dworkin (1970) highlights how a corpse cannot ordinarily be the subject of ownership. The executor or the next of kin will have lawful possession of the body and has a duty to arrange for burial. He suggests that this gives rise to a person being unable to determine what shall

happen to his body after his death, however, in most situations the wishes of the deceased are observed.

(ii) Statute

The first statutory regulation of donation of cadaver tissues was framed within the Anatomy Act 1832, passed as a result of the prosecution of Burke and Hare who supplied corpses for payment to medical schools in Edinburgh. This allowed a person to make a declaration donating their body to medical science following their death. The Corneal Grafting Act 1952 allowed for the donation of eyes for therapeutic purposes and was closely followed by the HTA 1961 which regulates the use of cadaver organs and tissues and details the regulation of cadaver transplantation under the following five headings:-

a) Ensuring that Life is Extinct

Under the terms of the HTA 1961 the transplant surgeon must establish the death of the donor utilising accepted criteria. This may include using brain stem death criteria to establish death. Brain stem death is said to occur when a person has sustained acute irreparable, structural damage to their brain usually the medulla oblongata (Pallis 1987). The Conference of Medical Royal Colleges and Faculties of the U.K. (1979) recognised these brain stem death criteria as being sufficiently robust to demonstrate whether the patient with a severe brain injury retains any brain stem function. In the event of the brain stem function being permanently lost the patient is legally recognised as being dead but continues to have a cardiac output and respiration with the support of medical technology. The patient could therefore be described as a heart - beating cadaver.

b) Authorisation to Remove Tissues

Under s1 (1) of the HTA 1961 the removal of an organ is authorised, if there has been a specific request to this effect by the deceased prior to their death. The individual wishing to undertake this course of action usually does so by giving consent in writing prior to their death. This would indicate freely given consent to the use of

any organs or tissue including the use of specific organs or tissues. This is commonly known as the 'opting in' system where the individual makes known his or her willingness to be a donor.

c) Appropriate Indication of Wish to Become a Donor

Currently within the U.K. should an individual wish to donate his or her organs, this is demonstrated by the consent via one of three methods. Ward (1973) describes a system introduced by her in 1971, where freely given consent to the donation of organs by an individual can be demonstrated by the carrying of a signed donor card. In the event of his/her sudden death this recognised documentation authorises the person lawfully in possession of the body to proceed with the removal of the indicated organs as soon after death as possible. The second method introduced in 1995, allows the individual to register him/herself as an organ donor by placing their name on the NHS Organ Donor Register. Thirdly, during his or her last illness the individual can verbally give permission to the use of their organs. This request should be witnessed by at least two people.

d) Valid Request

The request must also have been made by a competent person, who has the capacity to make this decision. The required level of this comprehension has been described by Kennedy and Grubb (1994) as being similar to that which one would require to make a valid will as held in *Banks v Goodfellow* [1870]. The standard tests for competence required for valid consent as held by Lord Brandon in *F v West Berkshire Health Authority* [1989] would also apply in this situation. In addition, the request must also come from a person over the age of consent as suggested by the Wills Act 1831, which is principally relevant in England and Wales but also applies in Scotland.

e) Authorization to Proceed

In the absence of such a statement from the deceased, s 1(2) of the HTA 1961 allows the removal of an organ for these purposes by the person lawfully in possession of the body at the

time of death. This allows the lawful possessor of the body to proceed to organ donation, usually the hospital administrator, "having first made such reasonable enquiry as may be practicable" to establish if the deceased has raised any objection to such an action. They are also required to establish that the deceased did not withdraw this request and whether any surviving spouse or any other significant person objects. Having done so they can decide on the disposal of the corpse as they deem appropriate, respecting the sensitivities of any surviving relative. A summary of these requirements appears in Figure 1.

- Removal of an organ for therapeutic, educational and research purposes
- Capacity and competence required by individual to give consent
- Notification of consent by donor card or NHS Organ Donation Register
- Authority of person lawfully in possession of the body at time of death to remove organs "having first made such reasonable enquiry" to establish any objection by deceased

Fig. 1 The Human Tissue Act 1961 Requirements.

It can be concluded therefore that donation of organs for transplant is legally permitted both in common law and statutory law. Cadaver organ donation is currently the chief source of organs for transplantation within the U.K. Under the terms of the HTA 1961 prior to their death, an individual can validly consent to the removal of their organs after death for transplantation, education and scientific purposes. Once these conditions have been addressed the current legislation provides considerable flexibility to procure organs for transplant.

In the event of a sudden death, regardless of whether the deceased person carries a signed donor card or the name appears on the NHS organ donor register, before the health care professional considers removal of organs or tissues for transplant, it is customary, although not required by law, to request the permission to do so from the next of kin of the deceased. Despite this being a very distressing time for the relatives most health professionals agree that it is appropriate to ask the

relatives' permission to proceed to organ donation, or to ask them to confirm that the deceased did indeed wish this action, having given consent prior to their death. Dimond (1995) and Mason and McCall-Smith (1999) agree that it is professionally unacceptable to proceed to removal of organs from a body should the relatives object. They take the view that the relative represents the deceased's wishes and best interests. Failure to obtain their consent could be considered disrespectful of the wishes of the deceased's surviving relative who objects to the removal of any organ or tissues. Kennedy (1988) challenges this view suggesting that if written consent in the form of a signed donor card is available, then there is no requirement to seek the relatives' consent to proceed with organ procurement.

Organ retrieval procedure in the emergency setting: the non-heart beating donor in A&E

In attempts to reduce the chronic shortage of organs for transplant, Hassan et al. (1996); Magrath & Boulstridge (1999) and Sutherland (1999) all report that using a system of early retrieval of organs following a sudden death within the A&E setting can be very successful. These non - heart beating donors are pronounced dead in the A&E department and if no objection or contraindication to donation is revealed organ retrieval is undertaken very soon after death. Consent for this procedure is usually obtained from the deceased's possession of a donor card or consent to the procedure being gained from relatives subsequent to them being informed of their loved one's death. The criteria for identification of a potential non-heart beating donor is found in Figure 2.

Nathan et al. (1999) report that the organ donation pool could be increased by 20 to 25% using this approach combined with in situ cold perfusion technique. This procedure involves the infusion of the corpse intra-peritoneally with cold perfusion fluid very quickly following cessation of resuscitation procedures in order to preserve the organs. This procedure, adopted by Booster et al. (1993) in the U.S. and Varty et al. (1994) in the U.K. has been successful in procuring organs, especially kidneys, that would otherwise be lost. There is a limited time interval however for some organs to remain viable. In the case of the kidney

Age	18-60 years
Cardiac Arrest	Less than 30 minutes (this does not include the period of effective resuscitation but does include time between initial cardiac arrest and start of resuscitation)
Resuscitation Time	No more than 2 hours resuscitation in total
No	Long standing untreated hypertension Renal impairment Malignancy (other than certain brain tumours which have not metastasised)
Social	Not a high risk for HIV or hepatitis and excluding IV drug users, homosexuals, others classified by D.O.H. as high risk

Fig. 2 Criteria for Identification of a Potential Non - Heart Beating Donor

Reproduced with permission from Newcastle Upon Tyne Hospitals NHS Trust 2000

Kievit et al. (1997) report that only 45 minutes are available to retrieve the organ before it becomes non-viable. Newcastle Upon Tyne Hospital Transplant Information (2000) suggests that more than 30 minutes of asystole will result in damage to the kidney. A small scale study undertaken by Wellesly et al. (1997) and personal experiences by Cansdale & Cansdale (1999) support the requesting of organ donation from grieving relatives in the event of a sudden death within the A&E department. Findlay and Dalimore (1991) agree, suggesting that the option of organ donation in the event of a sudden death may assist the relatives to begin the grieving process and therefore come to terms with their loss. To date this procedure has met with considerable resistance from the majority of A&E nurses.

In the event of a sudden death the duty of the health care professional is three fold. The U.K.C.C. (1992) identifies that the professional has an obligation to care for the dying person to the best of their abilities and ensure that even in death, no act or omission results in the detriment of their patient or client. The second duty of care is owed to the relatives and friends of the deceased in that their physical, spiritual and psychological needs are also met. Thirdly, the

professional has a duty to use the resources of the health care system in the most efficient manner to gain the best outcome for society. Balancing these three competing obligations can often provide dilemmas for the staff involved.

Factors which influence the low uptake of non-heart beating donors in A&E

a) Problems with obtaining consent in the emergency setting

Many people die every year as a result of a traumatic or sudden event. Social surveys suggest that up to 78% of the population are willing to donate their organs after death however only 26% of people indicate this by carrying a donor card (Gallup 1992). Large amounts of the population however, may not carry their signed donor card or have discussed their wishes with their relatives prior to their untimely death. Lack of knowledge of the deceased's wishes, combined with absence of consent from relatives often prohibits the donation of organs for transplant in the event of a sudden death.

Difficulties in obtaining consent in this situation have to be considered in the context of the sudden death within an A&E environment. Davies (1997) citing the work of Corless, Germina and Pitman highlights how the grief and mourning after a sudden traumatic death in the emergency situation is a very complicated affair. Miles et al. (1986) discuss the feelings of fear, hopelessness, despair and overwhelming sense of chaos that the grieving relatives experience when informed of their loved one's death in the emergency situation. Stein et al. (1995) identified the difficulties for health care professionals of approaching grieving relatives in this situation to request permission for cadaver organ donation. This supports Gore et al. (1992) in their suggestion that in the sudden death situation up to 30% of families who were asked to donate their loved one's organs refused, often because they did not know their family member's wishes, or were too distressed at the time of the sudden death to consider this aspect. Often in the event of a sudden death in A&E the relatives of the deceased are not present therefore requesting

organ donation is either impossible or delayed until the relatives arrive.

b) Limited Time and Facilities

Lack of time to access and inform the bereaved relatives of the death and care for them appropriately prior to the request of organ donation is a major issue of concern to A&E staff. Ewins and Bryant (1992); Cooke et al. (1992) and a joint report by the British Association of A&E Medicine and the RCN A&E Association assessing the facilities for grieving relatives in A&E (BAAEM & RCN, 1995), have identified shortcomings within the A&E setting in the standard of care provided for these relatives. In response to these identified deficits in care provision for the bereaved, they all recommended the introduction of standards and additional training for professionals in this setting in order to improve the care of the bereaved. These include the provision of appropriate time and support for the bereaved to come to terms with their loss. Many organs are lost because the A&E or Transplant team is unable to obtain permission from relatives in time to utilise the organ before the organ deteriorates. Given the limited time following cessation of circulation for some organs to be usefully removed, A&E staff often feel under pressure to access and request permission to proceed from relatives within a short time scale. Wijnen et al. (1995) report problems accessing relatives quickly enough to obtain consent and remove the organs in optimum condition. However they suggest the 45 minutes between certification of death and damage to the kidney may offer a solution to the problem. They suggest that this time provides an opportunity for the emergency department staff to address their professional and ethical obligations to respect the autonomy of the deceased by caring for them and their relatives appropriately and yet still address their social utilitarian obligations by contributing to the supply of organs for transplant.

This is challenged by A&E staff, who take the view that this limited time period does not allow them to address the competing requirements of caring for the wishes of the deceased or relatives adequately and for the other patients within the department. Schroeter and Taylor (1998) suggest that conflicts arise when pressures of work force the

A&E staff to choose between their primary responsibilities of providing an acceptable standard of care for the other patients or relatives in the department and the desire to participate in the supply of organs for transplant. Given this situation many staff elect to allow the opportunity for organ retrieval to pass rather than explore this option.

c) Inadequate Preparation of A&E Staff

Lack of appropriate preparation of staff in A&E departments may also hinder efforts to obtain consent for donation. Kennedy & Grubb (1994) suggest that it is a lack of medical experience in the diagnosis of brain stem death and requesting of organs for donation that results in loss of organs for transplant. This view is supported by Gore et al. (1992) and Ehrle et al. (1999) reporting that lack of specialist training in this area and pressure to care for the surviving patients within the emergency setting, may mean that staff elect not to request organ donation from relatives at all. In an effort to address this problem, Sells (1998) suggests that a radical review of the education of intensive care and other staff within the acute areas is needed in order to improve their understanding and skills in requesting organ donation from relatives. He highlights the specialist knowledge and training required for the health care professional to be successful in obtaining consent from the relatives at this distressing time, recommending access to a transplant co-ordinator in this situation. This specially trained member of the transplant team is ideally prepared to address the needs of the suddenly bereaved and provide the information and support required to obtain their consent to organ donation. Sells (1998) is of the view that an increase in the numbers and availability of these professionals would result in an increase in the numbers of organs offered for donation as is reported to be the case in Spain.

d) Potential Harm Caused to the Relatives

Kubler-Ross (1970) and Parks (1972) discuss the reactions to sudden death and the stages of the grieving process that bereaved relatives experience in this tragic event. They suggest that patterns of grief can be influenced by the support provided at the time of the sudden death. McDonald et al. (1995) in reviewing the care and

- Separate the acknowledgement of death from any introduction of a discussion of organ donation. Timing of initiation of discussion varies for each family. Brain death may have to be explained again.
- Provide a description of donation options as needed. Assist procurement staff in obtaining informed consent and in answering all questions. Respect the families' decisions.
- Provide the family members with opportunities to be with the donor before and after donation
- Provide follow-up information on the organ procurement organisation, information on recipients, donation and transplant literature, autopsy information as required, community referrals and grief and bereavement literature.

Fig. 3 Care of the Family of a Potential Organ Donor
Reproduced with permission from Phillips and Beatty (1999)

support of relatives in the A&E situation discuss how new standards of care for these individuals have now been developed, aimed at assisting them through the initial critical hours of the grieving process which occur following a sudden death. Niles and Mattice (1996) suggest that it is inappropriate to inform the family of the sudden death and request the donation of the organs at the same time. They advise that the separation of the communication of the death from the requesting of organs is required if successful consent for organ donation is to be obtained. They cite research by Kozlowski (1998) who suggests that the families need to acknowledge the death before they are approached with regard to organ donation. It is suggested here that to rush to obtain organs for donation might be detrimental to the grieving process for the family. Garrison et al. (1991) suggest that consent rates for organ donation could be improved from 18 to 60% if there was a delay between death and the request for donation. Cutler et al. (1993) concur with this view concluding that separating the request for organs from the news of the death can be beneficial to donor rates as well as allowing time for the relatives to adjust. Phillips and

Beauty (1999) agree with this, stating how the timing and the method adopted for a discussion regarding organ donation is vital if the family's needs at this time are to be respected. Figure 3 lists the 4 stages of intervention that they suggest are required in the sudden death situation to support relatives if organ donation is to be considered. This they suggest will reduce the distress to relatives and ensure that the decision made is the correct one for the relatives, a decision that they will not regret later.

The difficulty of arguments in favour of a time delay for the relatives to come to terms with their loss before they consider the option of organ donation, lies in the limited time available between the death and the deterioration of organs. Staff have to balance the competing interests of the grieving relatives and the optimum condition of the organs for transplant. Kass (1985) suggests that this may possibly induce harm to the relatives if they are not allowed time to grieve. To professionals working in this area this would be morally unacceptable.

Proceeding without the consent or knowledge of relatives

Given the difficulties in accessing relatives and obtaining consent to donation in the sudden death event, supporters of the non - heart beating procedure (Hassan et al. 1996) suggest that the cannulation of the deceased in preparation for organ donation should be undertaken even if the relatives are not present. They suggest that it is acceptable in terms of the organs that can be obtained, even if the prior consent or objection of the deceased's relatives has not been established. It is stated that under the terms of the HTA 1961, in which only the permission of the person in legal possession of the body, i.e. the hospital administrator, is required to consent to organ donation, if a donor card is found within the deceased's personal effects, it is acceptable to proceed with this option without the permission from the relatives. They suggest that in the event of a time delay in accessing relatives, then the cannulae used to prepare the tissues could be inserted into the deceased and the cooling procedure commenced as soon as the person was pronounced dead. They also suggest that in the event of relatives refusing permission on their arrival then the procedure could simply be

halted. They do not however report whether the relatives would be informed if the procedure had been commenced prior to their arrival. It is questionable whether this practice is legally or ethically acceptable.

a) Legal Issues Related to Consent in Non-Heart Beating Donors

The removal of organs for donation in this situation is permitted under the terms of the HTA 1961 provided that the hospital administrator has made reasonable efforts to contact relatives. In the event of a sudden death there is also a legal requirement under the Coroners Act 1988 and the Fatal Accident and Sudden Death (Scotland) Act 1976, to inform the coroner or procurator fiscal and request permission to proceed to organ donation. He/She will then decide if any enquiry into the circumstances of the death and indeed if a post mortem examination of the body is required. Mason cited in Dyre (1992) states that it is an offence to obstruct the coroner in the execution of his/her duties by the removal of organs without permission. The Home Secretary's Circular (1997) stresses that the coroner should not place obstacles in the way of the development of medicine and science or take moral or ethical decisions in this matter. In practice permission to proceed is usually granted, provided that the organ which has been requested for transplantation is not linked to the cause of the deceased's death and would not be relevant to the coroner's enquiry. In some areas the Coroner has granted permission for this procedure to be undertaken before he/she is informed of the death providing that there are no suspicious circumstances related to the death (Newcastle Upon Tyne Hospitals Trust, 2000). This however is a local policy and as yet is not applicable to other areas of the U.K. Whilst this might be acceptable in these circumstances, proceeding with organ donation without consulting relatives may potentially give rise to other legal actions alleging breaches of the HTA 1961 under the following headings:-

i) Negligent Practice

In organ or tissue transplantation as with all other forms of treatment a duty of care is owed to the person receiving the organ or tissues as held in *Donoghue v Stevenson [1932]*. Should that duty of care be breached and the recipient of the organ

be harmed by any negligent action by the health care professionals or other parties involved, an action under the law of tort may result as in *Bolam v Friern Hospital Management Committee* [1957]. On this basis action can potentially arise against the donor of the organ or tissue should the recipient be harmed as a result of a transplant of tissue. Kennedy and Grubb (1994) suggest that there is a growing body of law in the US that may assist in future cases related to liability for the transmission of infections or other conditions. This view held by the U.S. court has not been upheld in the UK but may change as a result of recent events.

An action could potentially be brought by the donee against the doctor or the procurement agency alleging negligence in the carrying out of a procedure. On this basis reports that utilization of organs from cadavers can potentially lead to the transmission of fatal viruses or other diseases have given rise to the further possibility of actions for negligence against the NHS. Ellis et al. (1992) and Markus et al. (1992) indicated that pituitary glands removed from cadavers in order to develop growth hormone for children might cause the transmission of Variant Creutzfeldt-Jakob Disease to these children. In the event of any organ being procured for transplantation the hospital authorities would be under a duty of care to ensure that the organ was suitable for transplant and free of disease. Whilst all potential organs are routinely screened for infectious diseases such as HIV, hepatitis and syphilis, this is also established by having an adequate history of the deceased's medical condition prior to death. This is facilitated by having access to the deceased's medical records or making enquiries of the surviving relatives during the request for organ donation. Failure to establish that the deceased was a suitable candidate for organ donation, i.e. free of any infective conditions or transmittable genetic disorder may result in action against the authorities.

ii) Nervous Shock

Those relatives who felt that they were not consulted prior to the removal of organs for donation and suffered as a result could also potentially bring action for nervous shock. Under section 1 (2) of the HTA 1961 the person in legal possession of the body is charged with making

'reasonable enquiry as may be practicable' to establish an objection to the removal of organs for donation. In the twenty first century with very different methods of communication at their disposal from those open to their colleagues in 1961, it is unclear as to what would be viewed as reasonable enquiry to establish any objection by the deceased or his/her family. Other references to statements such as 'any surviving relative' also bring the HTA 1961 into question. Under these terms it is unclear whether enquiries should be limited to the deceased's current immediate family or should the views of estranged members be obtained before proceeding with the removal of the organs for therapeutic, educational or research purposes. A guidance health circular produced by the DHSS (1983) advises that in reference to the enquiries of surviving relatives:-

In most instances it will be sufficient to discuss the matter with any one relative who had been in close contact with the deceased, asking him his views, the views of the deceased and also if he has any reason to believe that any other relative would be likely to object.

It is envisaged that this would provide the health professional with sufficient information to verify the deceased's wishes about the disposal of his remains. Skegg (1974) and McHale et al. (1997) concur that grounds to pursue an action for nervous shock are open to relatives who believe the conditions for reasonable enquiry have not been met, as in *Wilkinson v Downton* [1897] and *Janvier v Sweeney* [1919]. They suggest that establishing this claim would be difficult as one element of tort, the necessary intention to inflict harm, would be impossible to demonstrate. Theoretically, a spouse or close relative could bring about an action for damages claiming negligence that resulted in psychiatric injury caused by mutilation of the body for the purposes of transplantation. McHale et al. (1997) suggest that if it could be demonstrated that a recognisable psychiatric illness had been caused by the distress of seeing a body after organ donation then this action might succeed. This would rest on the successful demonstration that the relative was in close proximity to the procedure to remove the organs and was harmed as a result, as held in *Hambrook v Stokes* [1925]. This view was supported by the court in *Alcock v Chief Constable of South Yorkshire Police* [1991]

where the court recognised a bystander's claim for psychiatric injury if they were closely involved with a traumatic event. Applying this view to the removal of organs from a loved one without the knowledge of the relative would suggest that the recovery of damages for nervous shock may be possible if the relative witnessed the removal or its consequences for him/herself and could demonstrate psychological trauma as a result.

The wording of the HTA 1961 appears to establish a duty to make such reasonable enquiry as may be practicable. The ambiguity surrounding this issue continues. Indeed, recent media reports relating to the disposal of body parts from children without their parent's consent have re-ignited the debate on this issue. The parents suggest that they had not consented to the removal of their children's organs for research and educational purposes merely by agreeing to post-mortem examinations on their children. The parents involved in this situation claim psychological distress on hearing the news that the organs of their dead children were retained within pathology departments and not buried with the corpse. Whilst this practice may appear to many as distasteful and possibly unethical, it may be within the terms of the HTA 1961 if it can be established that the accepted procedures for obtaining consent and inquiry of objections were undertaken.

The Interim Report of the Bristol Royal Infirmary Inquiry (2000) explores this point further. The report suggests that under present legislation there is no requirement for the Coroner (or Procurator Fiscal in Scotland) investigating a child death to seek the consent of parents to use any human materials for therapeutic, educational or research purposes. It is enough that the coroner ensures the parents do not object to this action. The onus is on the parents to object, not for the hospital to seek consent. The report team challenge this position suggesting that the HTA 1961 does not respect the views or the needs of the parents at this distressing time. Should the suggestion that the HTA 1961 does not pay appropriate regard to the needs of relatives in the cases related to the death of a child be upheld, it could be argued that this deficit in the law may equally apply to the consideration of relatives in the death of an adult. This may impact on the procedures that should be adopted to uphold the rights of the relatives in

the procurement of organs for transplantation. The debate may yet produce legal challenges to previous court rulings on this matter.

b) Ethical Issues Related to Consent in Non-Heart Beating Donors

Ethical questions are also raised by this option. A&E staff suggest that proceeding to organ donation without first establishing the wishes of the deceased or the possible objections of any relative is in conflict with their obligations to respect the autonomous wishes of the deceased and care for the relative. Orr et al. (1997) suggest that utilization of the deceased as a source of organs in this manner may cause some disquiet, i.e. the deceased is being subjected to a procedure unrelated to the preparation of the body for burial, but for the good of the potential donee. Orr et al. (1997) question whether, if the cooling process has already been commenced before the relative gives consent, will that process be somewhat hurried and thus compromise the consent.

Lewis and Valerius (1999) highlight that in order for organs to be retrieved in a manner that is acceptable under codes of medical ethics, the patient must make the transition to donor and that an acceptable time must elapse for death to be confirmed by asystole on the cardiac monitor. Riad and Nichols (1995) suggest that only when this time has passed, usually 5 minutes, and the patient has no chance of auto resuscitation, can the patient be pronounced dead and organs removed. This also fulfils the requirements of the HTA 1961 and the Institute of Medicine (1997) to certify death before proceeding to organ donation. Lewis and Valerius (1999) take the view that in the event of a sudden death the emergency staff involved are required to act in the best interests of the deceased but also adequately to care for the relatives. To allow the procurement of organs from the non-heart beating donor without evidence of their consent is thought to be disrespectful to the deceased and in conflict with their obligations to the bereaved. While acknowledging that this procedure allows relatives to fulfil the last wish of a relative to donate, they suggest that without prior consent, the retrieval of organs from the non-heart beating donor may raise concerns in the mind of the relative. They may wonder perhaps that in the

haste to acquire organs for transplant, whether all methods of resuscitation were exhausted by the emergency staff prior to the certification of death of their loved one. This perception would surely impact on the trust that they place in the A&E staff to always act in the best interests of their loved one.

Discussion

It would appear that the use of non-heart beating donor options in the A&E setting has considerable resource and educational implications for the health care professionals who decide to implement this scheme. The majority of health care professionals employed within the setting where organ donation is an option are in favour of organ donation. Provided that the correct environment and the appropriate circumstances exist, most will attempt to procure organs for donation. Sadly, many opportunities to acquire organs from cadaver donors which could be utilised are lost every year because the staff involved are reluctant to use this option as a result of practical, organizational or ethical difficulties which they perceive will arise from the attempt.

Confusion exists as to the extent of these enquiries and how any objection may be established. In the absence of a donor card providing consent or consent to proceed being established via the deceased's name being present on the national organ donation register, the permission to proceed is usually achieved by a request made to relatives. In an anticipated death, for example, one that occurs in the hospital intensive care setting, although this may be a distressing obligation to fulfil, it may be established with comparative ease. In a sudden death situation however, relatives may not be present therefore establishing the deceased's or their objection may be difficult. Presented with these practical difficulties in ascertaining the deceased person's wishes, A&E staff with limited access to information often do not consider this option and the opportunity for organ donation is missed. Procedures designed to access relatives quickly in the event of a sudden death in A&E may increase the potential for organ donation. Easy access to transplant co-ordinators and availability of evidence-based information on

procedures for the retrieval of different organs might assist the A&E nurse to facilitate organ donation. Access to the national organ donation register for all departments would perhaps provide staff with evidence of the deceased's wishes quickly. This may encourage the A&E nurse to prepare for organ donation and the support of the bereaved relative, safe in the knowledge that they were indeed respecting the wishes of the deceased.

Practical measures have to be undertaken to improve the likelihood of staff making this request of relatives if no prior consent of the deceased can be established. Improved access to information regarding the deceased's wishes prior to death may reduce these perceived difficulties and may make staff more willing to explore this option. Recruitment to the national organ donation register relies on the knowledge and altruistic behaviour of individuals in society. Many members of the public have a poor understanding of the need for organ donation, of the existence of an organ donation register or how they might register their consent to this. If a national strategy to improve the numbers of people placing their names on this register could be undertaken, coupled with a commitment to improve access to this data base for all relevant NHS trusts, this may allow the current legislation to be more effective. These measures would require a considerable financial and organizational undertaking from the Department of Health.

Corneas

1 year to 100 years
Retrieved within 24 hours of asystole

Heart Valves

6 months to 60 years
Retrieval within 48 hours of asystole

Skin

16 years to 65 years
Retrieval within 48 hours of asystole

Bone

18 years to 65 years
Retrieval within 48 hours of asystole

Fig. 4 Criteria for Donation of Tissues
Reproduced with permission from Newcastle NHS Hospitals Trust (2000)

Should the retrieval of organs within the limited time period prove impossible due to lack of consent, other tissues can be donated up to 72 hours after death. Figure 4 provides examples of this information, which if available within the department, may encourage staff to request the donation of these tissues from relatives when they are sure that the relative is in an appropriate condition to consent.

Controversy also exists surrounding the need to undertake the practice of requesting consent from the immediate family to proceed to organ donation, in the presence of legally recognized consent from the deceased. Kennedy (1998) takes the view that this is unnecessary under the present legislation given that prior consent from the deceased has been established. Kennedy also suggests that it would be beneficial to the relatives to remove the need to make a request at this distressing time. Mason and McCall-Smith (1999) together with Galbraith (2000) take the view that the achievement of consent from the relatives to proceed to organ donation is essential from a professional and ethical perspective, if not legally required. This role is both difficult and stressful for the staff and the relatives within the organ procurement situation and requires specialist education and effective communication skills. Views on the potential harm caused to relatives by the requesting of organs in the sudden death situation are divided. In contrast to the arguments put forward by A&E staff for the refusal to utilise the non-heart beating donor option, and suggesting that this option may not be so potentially harmful and distressing for the bereaved, some suggest the action of donating an organ for transplant may be beneficial in the long term for the response to a sudden bereavement. Further research to support or refute these views may provide evidence assisting the A&E nurse to make decisions about the most appropriate course of action in this situation. Any practice developed must address the rights of the relatives to receive an appropriate standard of bereavement care together with the obligation to procure organs for transplantation.

In the U.S. Light et al. (1997) acknowledge that relatives are often unable to cope with the decision making process. They suggest rather than remove the ability to consent or refuse organ donation from relatives, it is more appropriate to appoint an individual to advocate for them at this

crucial time. Light et al. (1997) report the provision of a system where family advocates will support and assist the bereaved to make an informed choice regarding their relative's organs. They suggest that this facility has increased the consent rates in this situation. The Department of Health (2000) encourages the appointment of a patient's advocate available within NHS trusts to support patients and relatives with decision making about health care in general. The availability of such a professional in the event of a sudden death may assist the relative to make an informed choice about organ donation. Whilst this option is available in the US the effectiveness, validity and reliability of providing this facility in A&E has yet to be explored in the U.K.

Given that the professionals involved feel obliged to proceed with this request of the relatives to ensure no objection exists, it would be logical to assume that the professional undertaking this request was suitably prepared for this difficult task. Strategies which would prepare the professional for this role might increase the frequency with which the task was undertaken. Ideally, in order to obtain the best outcome in terms of successful consent rates and appropriate support of the relatives at this crucial time, this role would be undertaken by specially prepared transplant co-ordinators. However, limited access to these professionals results in A&E staff having to undertake this role unsupported. Strategies designed to improve the rate of requests of relatives to proceed with donation are urgently required. These include an increase in the numbers of transplant co-ordinators available to make the request. The provision of these personnel would require considerable resources both in terms of recruitment, training and financial remuneration. Currently, within the NHS, appropriately trained staff are few in number and are often only available within the locality of a large teaching hospital with an organ transplant unit. Many A&E departments do not have readily available access to a transplant co-ordinator. In addition, the cost of providing these co-ordinators is currently borne by the individual trusts that employ these staff. No central funding schemes are currently available to develop and resource these personnel. Increased financial resources in addition to organizational re-structuring of the transplant co-ordinator system would be

required to make this viable. Within the present financial climate this seems unlikely.

As an alternative, the specialist preparation of the A&E staff who may find themselves in the position of having to make the request without the aid of a transplant co-ordinator should be urgently explored. A specially prepared link nurse in A&E could raise the awareness of organ donation as an option and provide colleagues with research based evidence regarding organ donation protocols. This could allay anxieties and promote the supply of organs. This individual could undertake the request for organ donation and prepare other A&E staff to undertake this role. Despite these initiatives the distances between the A&E department and the transplant team may preclude the donation of organs in some settings.

Confusion appears to exist about the level of information that should be given to the relatives about the organ procurement procedure and the purpose and destination of tissues or organs removed. Recent news reports of the distress caused to relatives resulting from their not being informed about the destination of their children's organs has awakened fears that the medical profession may abuse their position as custodians of the organs afforded by the law. The public needs to be reassured that the powers invested in the health care professional to dispose of the body appropriately will not be abused, and their loved one's body parts will be treated with due respect.

Guidance is required about the procedure to be adopted by the hospital authorities to adequately inform relatives of the organ donation or post-mortem procedure and establish any objection by the deceased and any surviving relatives. This would reassure the public and would help hospital managers to exercise their duty under section 1(2) of the HTA 1961. New guidelines are provided by the Royal College of Pathologists (2000) about the request to proceed to post-mortem examination and the appropriate steps required to ensure that relatives are adequately informed about the procedure. This may hold implications for the requesting of organs for donation, encouraging more people to donate their organs and those of their loved ones.

Conclusions

The merits of the new development involving the use of non-heart beating donors who die

suddenly in the emergency setting is currently being debated. Supporters hail this as a breakthrough in the fight to procure organs which would otherwise be lost, while other commentators warn of the impact on the relatives of requesting and removing organs quickly in the event of a sudden death. Fundamental questions arise with this option however, such as the appropriate care of the bereaved in the emergency setting and the ethical implications of removing organs from cadavers before allowing the relatives time to object. The use of non-heart beating donor options in the emergency setting has considerable resource, ethical and educational implications for any A&E department where this scheme is implemented. The responsibility for the co-ordination or financing of such an option has yet to be established. Debate should be undertaken within the multidisciplinary team, at individual NHS trust and at Government level to explore the viability of this option to improve the supply of organs for transplant. The A&E nurse must be a party to these discussions ensuring that the best interests of the deceased, the suddenly bereaved and A&E nursing are represented. The development of this option will require further research into the impact on the A&E department and the care of the bereaved. New roles and practices within A&E may be needed in order to facilitate organ donation in this setting. This should be undertaken in collaboration with colleagues from the transplant teams. If the bereavement support in the A&E department can be enhanced and the legal and ethical objections addressed, this option may provide a great source of organs for transplantation. Until these issues are explored many organs which could be available as a result of a sudden death in A&E will continue to be lost.

Acknowledgement

My thanks to Kim Russell, Transplant Co-ordinator, The Freeman Hospital, Newcastle-Upon-Tyne for her assistance in writing this paper.

Organ Donation Register

For registration forms, please telephone 0845 6060 400

For further information contact the UKTSSA on 0117 975 7574

References

- Alcock v Chief Constable of South Yorkshire Police* [1991] 4 ALL ER 907 at 915, 917, 932
- Banks v Goodfellow* [1870] LR 5 QB 549 at 567
- Bolam v Friern Hospital Management Committee* [1957] 2 ER 118, [1957] 1 WLR 582
- Booster MH, Wijnen RMH, Ming V, Vroenen JPAM, Kostra, G 1993 In Situ Perfusion of Kidneys from Non-Heart beating Donors, Maastricht Protocol. Transplant Proceedings 25: 1503-1504
- Bristol Royal Infirmary Inquiry 2000 *Interim Report* (Kennedy Chairman) www.bristol-inquiry.org.uk 18th June
- Cansdale S, Cansdale R. 1999 Don't be Afraid to Ask. Nursing Standard 13 (39): 20
- Conference of the Medical Royal Colleges and Faculties of the UK 1979 Memorandum on the Diagnosis of Death. British Medical Journal i 332
- Cooke MW, Cooke HM, Glucksman GE 1992 Management of Sudden Bereavement in the Accident and Emergency Department. British Medical Journal 304: 1207-1209
- Corless I, Germma B, Pitman M 1997 Cited in Davies, J Grieving After a Sudden Death: The Impact of the Initial Intervention. Accident and Emergency Nursing 5: 181-184
- Cutler JA, David SD, Kress GJ 1993 Increasing the Availability of Cadaveric Organs for transplantation: Maximising the Consent Rate. Transplantation 56: 225-228
- Department of Health and Social Security 1983. Cadaveric Organs for Transplantation: Code of Practice DHSS London
- Department of Health 2000 National Health Service National Plan. D.O.H. London
- Dimond B 1995 Legal Aspects of Nursing (2nd ed), Prentice Hall London
- Donaghue v Stevenson [1932] AC 562
- Dworkin G 1970 The Law Relating to Organ Transplantation in England. Medical Law Review 33: 353-378
- Ehrle RN, Shafer TJ, Nelson KR 1999 Referral, Request and Consent for Organ Donation: Best Practice - A Blueprint for Success. Critical Care Nurse, 19 (2): 21-23
- Ellis CJ, Katifi H, Weller RO 1992 A Further British Case of Growth Hormone Induced Creutzfeldt Jakob Disease. Journal of Neurology and Psychiatry 55 (12): 1200-1202
- Ewins B, Bryant J 1992 Relative Comfort. Nursing Times 88 (52): 61-63
- F v West Berkshire Heath Authority. [1989] 2 ALL ER 545 [1990] 2 AC 1, [1989] 2 WLR 938, [1989] 2FLR 476
- Finlay I, Dalimore D 1991 Your Child is Dead. British Medical Journal 302: 1524-1525
- Galbraith S 2000 Timing Vital on Life and Death Issue. Scotsman, 27th April
- Gallup 1992 Social Surveys Attitudes Towards Kidney Donation. Gallup London
- Garrison RN, Bentley FR, Raque GH 1991 There is an Answer to the Shortage of Organ Donors. Surgery, Gynaecology and Obstetrics 173: 391-396
- Gibson V 1996 The Factors Influencing Organ Donation: A Review of the Research. Journal of Advanced Nursing 23: 353-356
- Gill, P Hulatt, I 1999 Organ Procurement: Pitfalls and Pathways Nursing Times 95 (15): 46-47
- Gore SM, Cable DJ, Holland AJ 1992 Organ Donation From ICU in England and Wales: Two Year Confidential Audit of deaths in Intensive Care. British Medical Journal 304: 349-355
- Hambrook v Stokes [1925] 1 KB 141 at 152, 159, 165
- Hassan TB, Joshi M, Quinton DN, Elwell R, Baines J, Bell PRF 1996 Role of the Accident and Emergency department in the Non-Heart beating Donor Programme in Leicester. Journal of Accident and Emergency Medicine 13: 321-324
- Home Secretary. Circular on Organ Donation 1977 HC (77) Aug 28
- Janvier v Sweeney [1919] KB 316
- Kass L.R. 1985 Thinking About the Body. New York Hastings Report Centre Feb 20-30
- Kennedy I 1988 Donation and Transplantation of Kidneys in. Treat Me Right: Essays in Medical Law and Ethics. Clarendon Press Oxford
- Kennedy I, Grubb A 1994 Donation and transplant of Human Tissue and Fluids. Medical Law: Text with Materials (2nd ed) Butterworths London
- Keivit JK, Oomen APA, Heineman G 1997 The Importance of Non-Heart Beating Donor Kinneys in Reducing the Organ Shortage. EDTNA / ERCA Journal 23 (2): 11-13
- Kozlowski LM 1998 Case Study in Identification and Maintenance of an Organ Donor. Heart and Lung 17: 366-371
- Kubler-Ross E 1970 On Death and Dying. Routledge London
- Lewis DD, and Valerius W 1999 Organs from Non-Heart Beating Donors: An Answer to the Organ Shortage. Critical Care Nurse 19 (2): 70-74
- Light JA, Kawalski AE, Sadak TM, Barhyte DY, Richie WO, Gage F, Harviel JD 1997 A Rapid Organ recovery Program of Non-Heart Beating Donors. Transplant Proceedings 1997 29: 3553-3556
- Magrath HP, Boulstridge LJ, 1999 Tissue Donation After death in the Accident and Emergency Department: An Opportunity wasted? Journal of Accident and Emergency Medicine 16: 117-119
- Markus HS, Duchon LW, Parkin EM, Krutz AB, Jacobs HS, Costa DC, Harrison MJ 1992 Creutzfeldt Jakob Disease in Recipients of Human Growth Hormone in the UK: A Clinical and Radiographic Study. Quarterly Journal of Medicine 82 (297): 43-51
- Mason J, 1992 Cited in Dyre, C. *Doctors, Patients and the Law* Blackwell, Oxford
- Mason JK, McCall-Smith, RA 1999 The Donation of Organs and Transplantation. Law and Medical Ethics (5th ed), Butterworths London
- McDonald L, Butterworth T, Yates DY 1995 Grief Support in Accident and Emergency: A Literature Review 1985-1995. Accident and Emergency Nursing, 3: 154-157
- McHale J, Fox M, Murphy J 1997 Death and Organ Transplantation in Health Care Law: Text, Cases and Materials. Sweet and Maxwell London
- Miles M.S. Deni A.S. Guilt in Bereaved Parents 1986 Cited in Rando, T. (ed) Parental Loss of a Child: Clinical Research Considerations, Research Press Illinois
- Nathan HM, Jarrel BE, Broznik B 1999 Estimation and Characterisation of the Potential Renal Organ Donor

- Pool in Pennsylvania: Report of the Pennsylvania State Wide Donor Study. *Transplant* 51: 142-149
- Newcastle Upon Tyne Hospitals NHS Trust 2000
Non-Heart Beating Donation: Information for Health Professionals RUSCH Newcastle
- Niles, PA, and Mattice C 1996 The Timing Factor in the Consent Process. *Journal of Transplant Co-ordinators* 6: 84-87
- Orr RD, Grundly SR, Bailey LL 1997 Reanimation: Overcoming Objections and Obstacles to Organ Retrieval from Non-Heart Beating Cadaver Donors. *Journal Of Medical Ethics* 23: 7-11
- Pallis C 1987 Brain Stem Death: The Evolution of a Concept. *Medico-Legal Journal* 55 (2): 84-107
- Parks CM 1972 Bereavement. Penguin Harmondsworth
- Phillips L, Beatty M 1999 Needs of Families of Organ Donors: Facing Death and Life. *Critical Care Nurse* 19(2): 53-59
- Re K [1988] Ch 310 [1988] 1 ALL ER 358*
- Riad H, Nichols A 1995 Elective Ventilation of Potential Organ Donors. *British Medical Journal* 714-715
- Royal College of Pathologists 2000 Guidelines for the Retention of Tissues at Post Mortem Examinations, www.rcpath.org.uk 18th June
- Schroeter K, Taylor GJ 1998 Ethical Considerations for Critical Care Nurses. *Critical Care Nursing* 19 (2): 60-69
- Sells, R. 1998 Kidney Sales; *Presentation at Medicine and the Law, University of Edinburgh Conference* August
- Skegg, P 1974 The Human Tissue Act 1961 *Medicine Science and Law* 16 197
- Stein A, Hope T, Baum JD 1995 Organ Transplantation: Approaching the Donor Family. *British Medical Journal* 310: 1149-1150
- Sutherland FR 1999 Non-Heart Beating Donors as a Source of Kidneys for Transplantation. *Canadian Medical Association Journal* 160 (11): 1573-1576
- Sweeny F. 1999 Investigating The Fall in Donor Numbers United Kingdom Transplant Authority Users. *Bulletin for the Transplant Community* 34: 6-7
- The British Association for A&E Medicine and Royal College of Nursing A&E Association 1995 Bereavement Care in the A&E Department. BAAEM & RCN London
- The Anatomy Act 1832
- The Corneal Grafting Act 1952
- The Coroners Act 1988
- The Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1895, 1906, 1976
- The Human Tissue Act 1961
- The Institute of Medicine 1997 Non-Heart Beating Organ Transplantation: Medical and Ethical Issues in Procurement National Academic Press Washington D.C.
- The Wills Act 1831
- United Kingdom Central Council for Nursing Midwifery and Health Visiting 1992 Code of Professional Conduct UKCC London
- United Kingdom Transplant Support Service Authority Users' Transplant Statistics 1999 Bulletin For Transplant Community 34 19
- Varty K, Veitch PS, Morgan JDT, Kehinde EO, Donnelly PK, Bell PRF 1994 Response to Organ Shortage: Kidney Retrieval Programme Using Non-Heart Beating Donors. *British Medical Journal* 308: 575
- Ward E 1993 Opting Out *Nursing Times* 89 (20): 44-45
- Wellesly A, Glucksman E, Couch, R 1997 Organ Donation in the Accident and Emergency department: A Study of Relatives Views. *Journal of Accident and Emergency Medicine* 14: 24-25
- Wijnen RMH, Booster MH, Stubenitsky BM, De Boer J, Heineman E, Kootstra G 1995 Outcome of Transplantation of Non-Heart Beating Donor Kidneys. *Lancet* 345: 1067-1070
- Wilkinson v Downton [1897] 2 QB 57