

# **NHS BLOOD AND TRANSPLANT ORGAN DONATION & TRANSPLANTATION DIRECTORATE**

## **DONATION ADVISORY GROUP**

### **PREGNANCY IN POTENTIAL HEARTBEATING AND CONTROLLED NON HEARTBEATING SOLID ORGAN DONORS**

#### **Introduction**

1. UK Transplant was initially asked in 2004 by the UK Transplant Co-ordinators Association (UKTCA) to provide advice on whether potential heartbeating and controlled non-heartbeating solid organ donors should have a pregnancy test, and what steps should be taken if a potential donor is found to be pregnant.

A policy was developed in conjunction with Prof. J M Davison, representing the Royal College of Obstetricians and Gynaecologists. The General Medical Council Head of Standards and Ethics, Jane O'Brien was also asked to comment on the policy.

#### **Background**

2. In developing the policy the following information was considered:
  - 2.1 There has been one well-documented case in which a potential heartbeating organ donor – not known or suspected to be pregnant – was discovered to be pregnant during the surgical process of organ removal following the diagnosis of death by brain stem tests. This caused considerable distress to all concerned.
  - 2.2 The number of controlled NHBDs has increased and this has highlighted a concern as in the circumstances of organ removal from a heartbeating donor who has been confirmed dead by brain stem testing it is the act of organ removal that will cause the fetal heartbeat to cease and the fetus to die. However in the circumstances of organ donation from a controlled NHBD it is the act of withdrawal of treatment on the intensive care unit that will cause the fetal heartbeat to cease and the fetus to die.
  - 2.3 “Concealed” or “late diagnosis” pregnancy is not uncommon. In some patient groups the confirmation of pregnancy and compliance with antenatal care may be poor. For example, over 50% of women under the age of 18 do not receive ante-natal care until after 12-14 weeks gestation and an estimated 2% receive no ante-natal care at all. It has been suggested that in UK antenatal clinics, up to 1:200 women will have a “late” presentation.
  - 2.4 Under normal circumstances blood and urine pregnancy tests are reliable by 6 weeks gestation, and although the urine test may subsequently become negative after approximately 16 weeks blood tests for  $\beta$ -HCG will remain positive. However, we are aware of two false positive results from urine taken from brainstem dead patients, and therefore advise that in all circumstances

- where a urine pregnancy test is positive pregnancy is confirmed by blood  $\beta$ -HCG analysis.
- 2.5 Trans-vaginal ultrasound should be able to diagnose pregnancy by 6-8 weeks gestation, although this requires an expert practitioner. Trans-abdominal ultrasound is reliable after approximately 10 weeks.
  - 2.6 There is no clear definition of “reproductive age”. In the UK pregnancy under the age of 15 is rare. The legal age for sexual intercourse is 16 years. Pregnancy in females over the age of 45 is rare.
  - 2.7 To undertake a pregnancy test without the consent of the individual or (if consent cannot be obtained from the individual) that of her family/husband/partner is not appropriate.
  - 2.8 Current practice in UK intensive care units (ICUs) is not clear, and there are no national guidelines on routine pregnancy testing for female patients admitted to ICU.
  - 2.9 A fetus is deemed to be viable after 24 weeks gestation. Ultrasound is the appropriate technique to establish gestational age.
- 3.** In the light of these considerations the policy was developed based on the following:
- 3.1 It is not appropriate to screen all female donors for pregnancy. This would require consent, would be intrusive and is likely to have an extremely low yield of positive results.
  - 3.2 If a female potential donor is aged 15 - 45 it is recommended that the donor transplant co-ordinator (DTC) routinely:
    - 3.2.1 checks whether a pregnancy test has been performed
    - 3.2.2 if not, asks the relevant individual “is it possible that the patient/donor could be pregnant?”
    - 3.2.3 If the donor is known to have a negative pregnancy test, or if the answer to 3.2.2. is “no”, then no further action is required.
    - 3.2.4 If the answer to the Question 3.2.2. is “possibly” or “don’t know”, the DTC should recommend a pregnancy test from a blood sample and seek consent for this. However if consent is not given organ donation may still proceed without a pregnancy test.
- 4.** If a donor is found to be pregnant either before or during organ retrieval:
- 4.1 The retrieval process (if started) will be suspended
  - 4.2 The information should be discussed with the donor’s relevant individuals
  - 4.3 Expert obstetric advice should be obtained immediately and, if necessary, ultrasound examination should be used to confirm gestational age
  - 4.4 If the fetus is thought to be viable (at or close to 24 weeks) the intention should be to deliver a live baby.
  - 4.5 If there is no prospect that continued active treatment of the potential donor could allow the fetus to attain 24 weeks then organ donation could continue with the agreement of the relevant individuals. The fetus would inevitably die.

- 4.6 The most difficult situation is likely to arise when gestational age is thought to be above 20 weeks but below 24 weeks. Prolonged treatment of the patient following the diagnosis of death by brain stem tests may allow a limited but uncertain time for further fetal development. Management decisions will be required in the light of individual circumstances and would involve the relevant individuals.
5. The necessary obstetric, ultrasound and neonatal expertise may not always be available in the donor hospital and close collaboration with the appropriate regional centre will be required.