Hot Topic
May 2017 NA

Q: A 13 year old girl post menarche presents for adenotonsillectomy, would you insist on a pregnancy test prior to anaesthesia?

- Yes
- No

In April 2010 a NPSA rapid response alert was issued stating that 'the possibility of pregnancy should be considered in all relevant female patients before surgery which could pose risks to mother or fetus.' Relevant patients were described as being 'normally those who are menstruating'. This report arose as a result of NPSA receiving reports of 42 patients undergoing planned procedures without preoperative pregnancy testing. In 3 of these cases the pregnancy was lost.

All organisations undertaking surgery in the NHS and the independent sector were set the task of addressing this with the following directive:

1. Local preoperative assessment policies should be reviewed to ensure that pregnancy status is checked within the immediate preoperative period in accordance with NICE guidelines.

2. The check should be recorded on preoperative documentation used by staff performing final clinical and identity checks before surgical intervention.

3. Organisations should demonstrate robust reporting of incidents where pregnancy checks have not happened and any associated actions that may come from this (which may include local audit).

Hence each hospital should have agreed written policies, protocols or guidelines, following national guidelines, covering pregnancy testing before surgery.

Any policy must address the following areas

- Privacy and confidentiality (including discretion with the result of the test). The RCPCH has acknowledged the difficulty which can arise when attempting to separate children from their parents in order to ask sensitive questions. If it is felt that a patient under 16 years of age needs to be asked questions about the possibility of pregnancy then this should be undertaken away from the parents and confidentiality must be maintained.

- Consent - capacity and competence of the patient bearing in mind that capacity is defined by the Mental Capacity Act and applies to those 16 and over. Under 16 years of age a 'Gillick' or 'Fraser' competent patient has the ability to make a decision about the testing and whether the result should be shared with the parents.

- This process of obtaining consent for a urine pregnancy test should be undertaken by an appropriate member of the clinical team, this is usually a member of nursing staff. The responsibility for adherence to the policy rests with the whole team.

- The questioning should be part of a routine assessment process and it should be explained that this is asked routinely of all females of the same age group. Written information may be helpful. In the author's institution explanation that it is a routine urine pregnancy test which all female patients (post menarche) undergo has made the process much easier for families and staff. The institution of the routine test has meant that for most patients questioning can be limited to establishing if the patient is post menarche and obtaining consent for a 'routine' urine pregnancy test.

- Should there be any need for further questioning, then this should be phrased sensitively.

- Although the pregnancy test is not primarily undertaken as a safeguarding tool, the process may give rise to safeguarding concerns and clear mechanisms must be in place for involvement of social care.

- Social care may have to be involved in the event of a refusal.

- There should be provision for ongoing support in the event of a positive pregnancy test.

Hence it should be routine to test for pregnancy and for the scenario described above the answer would be yes in order to be compliant with national guidance.

Difficulty can arise e.g.

- A timely urine sample can't be obtained
- If a patient is not continent and a urine sample can't be obtained
- The pregnancy test is declined

Whilst elective surgery should be avoided during pregnancy, as there is a low prevalence of pregnancy in this age group it is unlikely that the patient described in the scenario is pregnant.

If a timely sample is not obtained then in order to comply with national guidance it would seem appropriate to wait until the sample has been provided.

Where urine samples are difficult to 'catch' then a blood test may be an option with consent.

One approach for when a sample can't be obtained:

- Ascertain and record the date of the last menstrual period. As cycles may be irregular this is not always be reliable.

- If within the last 10 days continue with procedure.
- If more than 10 days last menstrual period, seek permission to obtain a specimen of blood for B-HCG and send directly to laboratory.
- Procedure must wait until the result of the B-HCG test is known.

If a pregnancy urine or blood test is declined then a clinical decision should be made by the medical team as to whether the surgery should proceed on that day or whether it should be deferred whilst the issue of potential pregnancy is addressed (and social care may need to be involved in accordance with local policy). A blood test may be problematic in some situations and a degree of sensible pragmatism may be required.

In most situations the decisions will be made taking into account the broader context as well as the indication and urgency of surgery in order to meet the patient's best interests. Of course in an emergency priority is given to the immediate care of the patient.

This scenario does not involve exposure to radiation so if the decision was made to proceed without a pregnancy test (or if the pregnancy test was positive and it was felt that surgery was in the patient's best interests) the consideration would be how to evaluate and mitigate any risks to

- the patient
- to promote the continuation of an undetected pregnancy (early loss is a concern)
- the developing fetus.

The following points should be borne in mind:

Maternal physiology begins to adapt after approx. 6-8 weeks gestation.

Most drugs used in current anaesthetic practice, with the exception of nitrous oxide, are felt to be safe for use in humans during pregnancy.

Studies suggest that there is an increased risk of miscarriage following exposure to general anaesthesia and surgery particularly in the first trimester. Exposure to general anaesthesia and surgery is also associated with IUGR, prematurity and early infant death.

There is also concern about the potential for adverse neurodevelopmental outcome as a consequence of early exposure to anaesthetic agents but the evidence for this remains inconclusive.

Evidence for an association between exposure to drugs used in anaesthesia and congenital anomalies has not been found

It is considered that lower abdominal surgery presents a greater risk to the pregnancy although this has not been confirmed by studies.

http://www.rcpch.ac.uk/pregnancychecks

http://www.apagbi.org.uk/sites/default/files/images/Pregnancy%20Checking%20supplementary%20paper%20-%20Review%20of%20risk%20of%20anaesthesia.pdf