coress Feedback

In a deviation from normal CORESS practice, the clinical emphasis in this issue has been provided by the Clinical Board for Surgical Safety of the Royal College of Surgeons of England, at the behest of the NPSA, who wish to draw the attention of surgeons to the risks of inadvertent removal of tissue of other histological origin, when operating on pregnant women for presumed appendicitis. Publication of the vignettes below illustrates a sample from a larger series of similar cases reported to NPSA, and represents collaboration between our organisations, in which education of surgeons and improvement of patient safety are common goals.

We are grateful to the clinicians who have provided the material for these reports. The online reporting form is available to download at **www.coress.org.uk**. The website also provides access to all previous Feedback reports. Published contributions submitted by individuals will be acknowledged by a "Certificate of Contribution", which may be included in the contributor's record of continuing professional development.

Frank C T Smith
Programme Director, on behalf of the CORESS Advisory Board

OVARIAN TISSUE MISTAKEN FOR APPENDIX (CASE 1) *(Ref: 157)*

An eleven year old girl presented to the Emergency Department with abdominal pain in the early hours of the morning. She was reviewed in the department, referred to the paediatric team and admitted to the Children's Ward where she was subsequently seen by the surgical registrar who indicated the likely diagnosis was appendicitis.

The following morning (a weekend) the child was seen by the consultant surgeon on his post take ward round and it was explained to the child's mother that, although the clinical picture was not 'classic for appendicitis', it was recommended to proceed to appendicectomy.

The surgery was carried out that afternoon by a locum registrar and this was this registrar's first operation in the hospital. The operating registrar was the senior surgical doctor in the operating theatre. The consultant attended the operating theatre and enquired during the surgery if there were any problems and was told by the operating registrar that the appendix had been removed. The operation note in the medical record describes the appendix as 'inflamed retrocaecal 3cm appendix', and there was turbid peritoneal fluid.

The child made an uneventful recovery, but three days later the consultant histopathologist reported to the consultant surgeon that the tissue removed was pre-pubertal ovarian tissue and that no appendiceal tissue was present. Investigations confirmed there were no errors in the labelling of the specimen in theatre and subsequent DNA testing confirmed the ovarian tissue to be that of the child in question. The parents were contacted by the consultant surgeon as soon as the error was discovered and a full explanation was provided.

The Trust identified the following points as contributory factors:

- The absence of any written guidelines on paediatric surgery within the Trust.
- The locum registrar was filling a vacancy left by a middle grade doctor who had recently left the Trust.

Following this incident, the Trust developed protocols and lines of responsibility in line with the national and regional guidelines for paediatric leads. The Trust stated that children should usually be operated on by a consultant or under direct consultant supervision.

This incident had been discussed at NPSA's response meeting as a 'never event' and a letter had been sent to the Trust's Medical Director in line with the processes in place at the time. The response included details of the investigation as summarised above.

CORESS Comments:
The Advisory Committee drew attention to the responsibilities of the Trust to ensure certified competence of employees for the role in which they are employed. It was felt that the consultant who takes clinical responsibility for the patient has a duty to satisfy himself or herself of the operator's competence, and that, in this case, the consultant should have been supervising in a scrubbed capacity.

FALLOPIAN TUBE MISTAKEN FOR APPENDIX (CASE 2) *(Ref: 158)*

A 28 year old patient, who was 15 weeks pregnant, presented to the Emergency Department with low abdominal and acute iliac fossa pain. Diagnosis of acute appendicitis was made by the surgical SpR and discussed with the consultant surgeon. Arrangements were made for an open appendicectomy to be carried out by the SpR. The consultant was happy for the SpR to undertake the surgery as he was in a non-training post and had been operating independently for some months. Surgery was undertaken late at night, at the end of a prolonged on-call period. There was no first assistant at the operation and the scrub nurse performed the dual role of assistant as well as scrub nurse.

The surgical findings were recorded as a mildly inflamed very long appendix adherent to the right ovary. An inflamed structure lay between pregnant uterus and caecum. The mesoappendix was ligated and divided. The appendix stump was tied, but not buried. The right ovary was large and contained a cyst and the gynaecology register was asked to attend and give an opinion. By the time he came, the appendix was already separate from ovary, so he only visualised the ovary. The opinion was that the appearance of the ovary was consistent with pregnancy.

The patient made a good recovery and was discharged on the second post–operative day. Four days post-operatively, a consultant histopathologist contacted the on-call surgical registrar, to advise that the structure removed at operation was not an appendix but a fallopian tube. The consultant subsequently arranged to see the patient in out-patients. The situation was fully explained to her and a laparoscopic appendicectomy was recommended following the delivery of her baby.

Root causes as identified by Trust investigation:

- A protocol regarding management of women presenting to A&E in early pregnancy with emergency abdominal pains, which required joint Surgical/O&G assessment was not widely known or followed.
- There was a practice within the specialty to work an unacceptable on-call pattern. There was a breach of the working time directive re: adequate rest.
- The role of the scrub nurse within theatres was variable. Acting as first assistant is not part of their job description; additional support for this is based on goodwill and level of competence.
- The incident reporting culture and awareness amongst certain staff groups was poor – there was lack of clarity regarding the process and the mechanisms that could be triggered and accessed via this route, which would have ensured that the patient was informed in a more timely and supportive manner, as well as providing support for the SpR/consultant.

CORESS Comments:

The Advisory Committee drew attention to the fact that, where possible, such operations should not be carried out semi-electively at night. It was felt that the role of the scrub nurse as assistant was not a specific contributory factor here and that it was acceptable for an experienced nurse to act in this capacity in these circumstances.

FALLOPIAN TUBE MISTAKEN FOR APPENDIX (CASE 3) *(Ref: 159)*

A 34 year old patient, 17 weeks pregnant, was admitted to hospital with lower abdominal pain. After review by the obstetric SpR she was referred to the surgical team. The next morning, following the SpR ward round and discussion with the consultant surgeon on-call, an ultrasound was carried out confirming the diagnosis of acute appendicitis. The SpR discussed the results with the consultant and it was agreed that an appendicectomy should be undertaken. The patient initially refused this option despite the explanation by the SpR of the risks to herself and her unborn baby. Consequently, a conservative management plan with intravenous antibiotics was commenced, but later that day the patient relented and consented to undergo surgery.

The consultant was happy for the SpR to undertake the procedure and was confident in his ability to perform open appendicectomy unsupervised. The surgery took place that evening and post–operative recovery was uneventful. Post-operatively it was discovered that the pathology results for the excised tissue were inconsistent with the clinical picture, and that the tissue excised was a fallopian tube, eliciting an urgent telephone call to the consultant. The patient was contacted and met with the consultant surgeon to discuss the outcome of the surgery and to make appropriate arrangement for any follow up care in line with the Trust's Being Open Policy.

The incident was investigated internally and an external surgical review was undertaken by the local Deanery.

The SpR's clinical knowledge, skills and experience were independently reviewed and it was concluded that he had the knowledge, skills and experience to have carried out this surgical procedure and his log book demonstrated evidence of assessed competency in carrying out this procedure on a number of occasions, inclusive of three cases where there were pregnancies. Upon interview, the SpR was able to provide clear and concise recollection of the procedure and he was confident at the time the structure he removed was the appendix. He recalls demonstrating the anatomy to the FY1 as he proceeded and commented that he did not recall seeing any fimbriae. It was concluded that it was reasonable for the registrar, with assessed competence, to undertake this level of surgical procedure unsupervised.

Following the incident, the SpR was relieved of emergency care duties and operating in any capacity until the outcome of the investigation was known. A further period of supervised training was organised by the Deanery in another acute Trust under the guidance of a consultant surgeon, with clear objectives agreed.

Root cause as determined by the Trust:

- It was concluded that this incident was the result of human error.

CORESS Comments:

These salutary cases are among a number of similar cases received by NPSA. The Clinical Board of Surgical Safety has been directed by the NHS Central Commissioning Board to set up a "Never Events" Task Force to reduce (eradicate) such incidents. CORESS is represented on this task force and supports this initiative. The problems of appropriate assessment, disorientation because of disordered anatomy, and failure to request help when unsure of one's ability to make safe progress, remain common themes in reported incidents. Readers contemplating appendicectomy in a pregnant woman or female child should consider the lessons arising from these cases.