coress Feedback

This series of cases illustrates potential for errors and adverse events, in cases in which patient care is pooled. This situation is increasingly likely to occur in large Units where care is centralised. Communication is key, and responsibility for the patient's care by individual clinicians must not be avoided or ignored. Situations in which errors have occurred should be carefully analysed so that the systems allowing these can be changed to reduce risk.

We are grateful to those who have provided the material for these reports. The on-line reporting form is on our website www.coress.org.uk which also includes previous ***Feedback Reports***. Published cases 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

OMENTAL EXTRUSION

(Ref: 212)

A 25 year-old patient underwent an emergency laparoscopic appendicectomy. During the procedure it was noted that the appendix was perforated and there was purulent fluid in the pelvis. A 24F Robinson drain was inserted and placed through the supra-pubic port into the right iliac fossa. The patient recovered well and two days post-operatively, the drain was removed on the ward.

When the drain was retrieved, a large part of the patient's omentum extruded from the wound with the drain. The patient was returned to theatre for omentectomy and re-laparoscopy. On inspection, the omentum had been pulled out of the abdominal cavity because 4cm of omentum was firmly stuck in the distal drain lumen.

Following discharge from hospital, the patient was subsequently re-admitted with a hospital-acquired pneumonia, requiring CT PA and CT abdomen and pelvis. Necessity for a second general anaesthetic may well have contributed to this further complication, readmission and radiation exposure.

Reporters Comments:
A smaller drain might have prevented omentum becoming stuck in the lumen. When a drain is placed during laparoscopic surgery, if a clip is not applied to the end, the positive pressure pneumoperitoneum will vent out of the drain, potentially entraining omentum or even bowel into the drain lumen. Over a period of several days, this tissue becomes oedematous and trapped within the lumen, complicating drain removal as above.

An appropriately sized drain should be selected for each case. When inserting a drain in the presence of a pneumoperitoneum, care must be taken to prevent entraining of intra-abdominal contents into the lumen, by clipping the end of the drain to prevent venting.

CORESS Comments:
Ensuring that all gas is adequately vented at the end of laparoscopic surgery should reduce the risk of forcible entrapment of peritoneal contents within a drain. The drain should be the smallest required to do the job effectively. Use of suction drains should be avoided in the abdomen.

MORE PERILS OF POOLED LISTS: CAROTID CONFUSION *(Ref: 211)*

To meet guidelines with respect to urgent carotid surgery, I was asked by a colleague to undertake a right carotid endarterectomy on a 75 year-old lady. I met the patient on the morning of surgery. On review of the notes, there seemed to be some confusion as to which side her neurological symptoms had occurred. Notes written by different doctors variably documented left or right-sided symptoms, and the overriding reason for listing for surgery had been documentation of *"free-floating thrombus"* in the right internal carotid artery, on CT angiogram. A conflicting ward-based duplex scan, of only the right carotid artery, had been obtained, on which no thrombus was noted, but plaque causing a *"50-69% stenosis"* was seen at the origin of the internal carotid artery.

The notes also documented concern by a junior doctor that the patient seemed too confused to provide informed consent. On undertaking a careful history from the patient, it emerged that she was fully lucid, but had a significant residual expressive dysphasia (interpreted by the junior doctor as confusion), from a previous left hemispheric CVA, which made obtaining an accurate history, convoluted. On the morning of her supposed recent symptoms her blind partner had thought that her speech was a little worse, and had dutifully examined her, believing, that on palpation, she seemed to have a weakness on one side of her face. This had resulted in her referral to hospital and the prompt for CT angiography. The patient, herself, denied any significant symptoms.

Rather than proceed to surgery, a further duplex scan of both carotid arteries was undertaken in the vascular laboratory, at which time, both carotids were noted to be free of thrombus and with less than 50% ICA stenoses. The patient was relieved to be discharged from hospital without an unnecessary operation, on best medical therapy, with a routine follow-up outpatient appointment.

Reporters Comments:

This case illustrates the risks of pooled lists. A series of factors contributed to inappropriate listing of the patient for surgery. The history was not straight forward, and was compounded by the patient's expressive dysphasia. Existence of clear symptomatology was not established and there were discrepancies between investigations. Weight was placed on the blind partner's assessment of the patient for facial weakness.

CORESS Comments:

When undertaking pooled operation lists, or surgery on a patient previously unknown to the surgeon, it is the duty of the operating surgeon to ensure that he or she is satisfied that the patient will undergo the correct procedure. This involves obtaining an adequate history, examining the patient and reviewing relevant investigations. Good handover communication is essential. The operating surgeon remains responsible (and liable) for surgery, and must reassure himself that the appropriate procedure is performed for the correct indications.

DELAYED HEALING DUE TO RETAINED GRANUFOAM IN NEGATIVE PRESSURE (VAC) THERAPY *(Ref: 213)*

A 72 year-old diabetic male, with a BMI of 39, underwent laparotomy and bowel resection for perforated diverticulitis. On the 7th day postoperatively, the cephalic section of his abdominal wound started to discharge purulent fluid and a superficial wound infection was diagnosed. He was commenced on antibiotics and but the wound broke down. A cavity of approximately 10cm developed and negative pressure (VAC) therapy was employed to manage exudation, to encourage granulation, and to expedite healing.

Granufoam was used with the VAC system and after several dressing changes the patient was discharged home, for his wound to be managed with VAC by the district nursing team.

The wound responded with reduction in depth and development of granulation tissue. After 6 weeks, VAC was discontinued, a surface dressing was applied to encourage epithelialisation, and he was discharged to primary care.

He was referred back to the Tissue Viability Nursing team 9-months later with a chronic

abdominal sinus. The surgeon responsible for the original procedure reviewed the patient and re-explored the wound. At re-operation, a 2cm piece of foam dressing was found incorporated within the granulation tissue, preventing the wound from fully healing.

Reporters Comments:
It became apparent that it was not common practice to document the number of foam pieces packed into a cavity during negative pressure wound changes. It was also uncommon to count them out again. Dressing changes were rarely performed by the same clinician. To prevent this incident from occurring again, foam dressings which are cut to shape and do not dissolve, should be counted in and out of wounds and documented in the clinical records, to prevent retention of a foreign object causing infection. This may require changes in routine practice.

The wound subsequently healed completely, nearly a year following the original emergency surgery.

CORESS Comments:
This case raises awareness that foreign objects can prevent wound healing. Foam dressings should be designed to function with the appropriate VAC system and all foreign materials should be removed to aid healing in such circumstances. Wounds should be carefully inspected to ensure that this has taken place.

MALIGNANT PATHOLOGY MISSED

(Ref: 214)

I was conducting a general surgery clinic in a peripheral hospital where my registrar saw a patient who had been referred with an axillary lymph node. On examination, it was clear that this was in fact a solitary group of firm lymph nodes. The registrar took a careful history, which included the fact that two years previously, the patient had undergone removal of a skin nodule from his back under local anaesthesia. This had been performed by a locum GP, at another practice, before the patient moved areas and changed GP practice. The scar on the patient's back had healed well but there was a little local induration. My registrar phoned the laboratory for a copy of the histology report, which had not been included with the referral. The report suggested that the lump was suspicious and was incompletely excised. The lesion was in fact a carcinoma. The original report was not in the patient's GP records and could not be found. The original GP practice admitted liability. The locum GP had left the country and was not contactable.

Reporters Comments:
This was a major system error. An appropriate outcome depended on one person seeing the report and taking action. There was no back-up system. The GP practice had provided the patient with a follow-up appointment, which he failed to attend because he had moved, but the practice did not follow up the report when they had no response from the patient; the patient assumed that all was well having not been contacted; there were no checks in the pathology department to ensure that someone was acting on the report of malignancy. Clinicians are under pressure to reduce outpatient follow-up appointments at which important clinical data can be reviewed, before a patient episode is formally closed.

CORESS Comments:
This is an increasing problem in which individual responsibility for patient management and follow-up has been eroded by introduction of pooled clinics; MDTs at which the primary clinician responsible for the patient may not be present, and failure to develop red-flag systems which ensure that important clinical results are acted on. Some sort of system should be in place in to ensure that relevant pathology reports are reviewed by the responsible clinician and acted on appropriately.

INADEQUATE PREPARATION FOR EMERGENCY SURGERY *(Ref: 215)*

As the Vascular Consultant on-call, I was asked by the Consultant covering the wards to undertake a femoral endarterectomy and femoro-popliteal bypass for a diabetic patient with critical ischaemia and a gangrenous toe. The patient had been on the ward for several days while his INR was corrected following excessive warfarinisation for atrial fibrillation. I saw the patient on the ward and consented him, having discussed him with the ward Consultant. Unfortunately the ward-based PACS system was down and I did not review the angiograms.

Whilst reviewing another patient in the Emergency Department I was called to the emergency theatre to undertake the femoro-popliteal bypass. When I got there the patient had already been anaesthetised by the on-call anaesthetist. Prior to scrubbing, I called up the patient's angiograms on the theatre computer to find that the patient did indeed require the intended procedure, but also had an extensive iliac stenosis. An earlier MDT report on the computer was not filed in the patient's notes but had commented on the fact that angioplasty and stenting of this lesion was indicated, possibly as part of a combined (hybrid) procedure. If the surgery alone was carried out it was likely that this would fail due to poor inflow.

With the patient already asleep, I went to the radiology department, where fortunately the interventional radiologist had finished a case and reviewed the films. Another lucky break occurred in that the hybrid theatre had just finished their case. The surgeon using that theatre agreed to defer his next case and the radiologist agreed to undertake the necessary iliac stenting as a combined procedure with the fem-pop. After a delay of some 40 minutes the patient was transferred from the emergency theatre to the hybrid theatre where the combined stenting and surgery took place uneventfully.

Reporters Comments:

This case was a serious untoward incident (SUI) in which the patient would have had to be awakened from anaesthesia because the correct procedure could not be undertaken. A series of events contributed to the adverse event: poor communication at handover; failure of ward-based imaging; absence of the MDT report in the notes; lack of presence of the surgeon at sign-in checks; but the principal cause was my failure to review the necessary imaging before taking responsibility for the procedure. The time-out WHO check would not have prevented this because the imaging review check occurs after the patient has been anaesthetised.

A happy outcome only occurred because of the professionalism and team-work of the on-call anaesthetist, the radiologist and the hybrid theatre team, all of whom adapted to the situation without fuss or complaint. I have learned a significant lesson from this. The operating surgeon MUST undertake scrupulous review of all relevant investigations and management plans prior to operating on a pooled list or on a handed-over patient, to reduce risk to the patient (and liability to the operator).

CORESS Comments:

The Advisory Board agreed with these comments. The recently published National Safety Standards for Invasive Procedures (NatSSIPs), state that the surgeon, or member of the operating team should be present at the sign-in. Anaesthetic induction should not have been commenced until the surgeon was present. The surgeon should have reviewed all relevant imaging prior to commencement of the case. Responsibility of handover of care from the ward-based Consultant to the operating surgeon should be formally recorded.