RCS
ADVANCING SURGICAL STANDARDS

CORESS is a confidential reporting system for surgery. The purpose of CORESS is to promote safety in surgical practice, both within the NHS and in the independent sector.

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coress feedback

This issue of CORESS Feedback contains a case that underlines the importance of incident reporting in providing educational feedback to clinical staff. Four other cases illustrate the need for surgeons to maintain peripheral awareness while concentrating on technical aspects of surgical procedures. The potential risks of diathermy, a perennial theme in CORESS cases, are emphasised yet again and readers are directed to a useful educational web-based module on electrosurgery, prepared jointly by the Medicines and Healthcare products Regulatory Agency (MHRA) and The Royal College of Surgeons of England.

We are grateful to the clinicians who have provided the material for these reports. The online reporting form is on our website (www.coress.org.uk), which also includes all previous Feedback Reports. Published contributions will be acknowledged by a 'Certificate of Contribution', which may be included in the contributor's record of continuing professional development.

Reporting concerns (Ref 150)

I am retired from the National Health Service, having had full experience of emergency and elective general surgery with a 1 in 4 on-call responsibility throughout my career. I was invited to take on a two-month post as a consultant locum in general surgery at a large hospital.

On two occasions when I was on call, patients collapsed on the wards at around 10pm. The first patient was a 32-year-old woman who had undergone a laparoscopic cholecystectomy. Her charts showed (in retrospect) signs of internal bleeding with a gradual increase in pulse rate and a drop in blood pressure. She was resuscitated and brought to theatre, where I performed a laparotomy, evacuating a large volume of fresh blood and controlling bleeding, before she was returned to the ward.

The second case was a 64-year-old patient who had undergone a laparoscopic sigmoid colectomy for volvulus. She collapsed pulseless on the ward, and it was only thanks to the intensive efforts of a consultant anaesthetist that we were able to resuscitate her, bring her to theatre and, again, deal with the haemorrhage, in this case from a branch of the inferior mesenteric artery.

Reporter's comments

After completing the locum post, I wrote to the chief executive of the hospital requesting a copy of the serious untoward incident documentation on these two patients, for anonymous incorporation into my validation appraisal documentation. I was surprised to hear that there was no evidence that these cases had been reported and it was implied that I was remiss in not completing appropriate forms.

My feelings were that in these circumstances, it was the responsibility of the admitting consultants (who had both been involved in the original operations) to refer the cases. I did not think that it would be professionally polite for me to 'expose' the non-negligent complications of the original procedures. I believe this is a significant issue and would welcome comments from CORESS.

CORESS comments

Reporting untoward incidents and disseminating learning from such experiences is the ethical and professional responsibility of all clinical staff. The value of the morbidity and mortality meeting in a hospital cannot be overestimated in terms of the educational value to trained surgeons, trainees and ancillary staff, and it underpins the existence of CORESS. It is vital that reporting should occur in a blame and recrimination free environment but cases such as those described above contain essential learning material that must be shared if we are to improve outcomes for our patients.

'Stop before you chop' (case 1) (Ref 151)

I was performing a colonoscopy under general anaesthesia for diarrhoea in a young boy with cerebral palsy. On entering the terminal ileum, I asked for a biopsy forceps but the forceps I was given was too short. A longer forceps was found and passed to me. Unfortunately, owing to preoccupation with 'torqueing' the scope to stay in the terminal ileum, I did not check the forceps until deploying it in the terminal ileum. The forceps was in fact a rat-toothed, alligator-jawed grasping forceps and not a biopsy forceps. The view through the endoscope did not alert me to this fact and the packaging for these is identical to that for biopsy forceps, except for the name on the packaging. A terminal ileal perforation resulted in the patient requiring admission although conservative management sufficed.

Reporter's comments

Grasping forceps are packaged similarly to biopsy forceps. Checks were not in place to ensure selection of the correct instrument prior to use of the forceps. These should be undertaken in the same manner as instrument and drug checks. Warnings should be placed on the packaging for grasping forceps to ensure they are not used mistakenly for biopsies.

CORESS comments

It is the responsibility of the operating surgeon to check the kit that he or she uses and to ensure that the equipment is appropriate, just as medications or injected fluids

should be checked. It is very easy during endoscopic or laparoscopic surgery to become immersed in the procedure but part of the duty of the surgeon is to retain peripheral awareness in the operating environment.

'Stop before you chop' (case 2) (Ref 162)

During a laparoscopic cholecystectomy a disposable sucker was opened by an agency scrub nurse assistant who was unfamiliar with our equipment. The sucker was passed to me with rubber guard on the tip still in situ. However, as I was concentrating on the televised image, I did not notice this and inserted it into patient. The rubber guard dropped off inside the patient but at this point I recognised the problem. The guard was visible and was retrieved immediately.

Reporter's comments

The sucker had a small rubber guard that could easily be lost in a patient. Could the supplier modify this to prevent future similar events? The scrub nurse was not familiar with the equipment but the underlying responsibility for using this equipment was mine and I should have checked it before inserting it into the patient. It is easy for a surgeon to become distracted by the operation to the exclusion of all else.

CORESS comments

The comments on the previous case apply equally to this case. It is the duty of the surgeon to remain aware in the operating theatre environment, and to ensure that equipment used is appropriate and serviceable.

Electrifying experience (case 1) (Ref 149)

While I was assisting during a laparoscopic cholecystectomy, the diathermy hook was activated inadvertently inside the abdomen. I realised that this had occurred because, unrecognised at the time, I had trodden on the yellow diathermy 'cutting' pedal while immersed in the operative procedure. Fortunately, the patient came to no harm.

Reporter's comments

The diathermy pedals on this occasion had been placed away from the operating table rather than under the lip of the table, where the standing surgeon would usually expect to find them. As the operating surgeon takes full responsibility for the use of diathermy it is his or her duty to check the position of the pedals prior to commencing the operation, to ensure that they are not activated inappropriately. If a particular pedal is not required for a specific procedure, it should be placed out of reach of surgeon and assistant.

Electrifying experience (case 2) (Ref 161)

While performing a laparoscopic cholecystectomy, the cutting diathermy pedal had been placed on the base of the operating table. When the table was lowered, the pedal was compressed by the descending table pedestal, resulting in the diathermy being activated constantly. As the warning buzzer was set at a low volume, I did not hear it. When I attached the diathermy lead to the instrument I was using, there was a small spark between the lead and the terminal on the instrument. I did not appreciate the significance of this until I placed the instrument inside the patient and saw smoke arising from the tip of the instrument. I was not aware of contact with an intra-abdominal organ but assume that I must have touched the liver or falciform ligament during introduction. At that point, I realised the problem and although nothing untoward actually occurred to the patient, the potential for harm is obvious.

Reporter's comments

Contributory factors here were placing the pedal on to the table base, leaving the warning tone on low volume and not placing significant emphasis on the warning of the spark. When attaching diathermy leads to instruments, sparks should never be assumed to be unimportant and must be investigated fully before using the instrument or placing it inside the patient. Leave the diathermy pedal on the floor and ensure the volume of the warning buzzer is set at an audible level.

CORESS comments

Diathermy mishaps occur frequently. In a survey of the CORESS Advisory Committee, almost all surgeons across the range of surgical specialties had been involved in similar incidents to the two described above. Education about the risks of diathermy is a fundamental component of surgical training, and it is taught in the intercollegiate *Basic Surgical Skills* course and included in the Intercollegiate Surgical Curriculum programme.

When not in use, the diathermy pedals should be kept well out of the way of the operating surgeon. The diathermy alarm is there for a purpose and any activation warning alarm should not be turned off or set to an inaudible level. Never leave diathermy forceps lying on a patient and always place in a protective sheath during periods when not in use. It is not good practice for the operating surgeon to delegate activation of the diathermy to an assistant. ('Please buzz…') Although not directly relevant to this case, recent CORESS reports have also drawn attention to the risks of fire and burns due to pooling of flammable skin preparations ignited by diathermy.

The MHRA has developed an educational module on electrosurgery jointly with the Royal College of Surgeons. This useful educational tool can be found at: http://www.mhra.gov.uk/ConferencesLearningCentre/LearningCentre/Deviceslearningmodules/Electrosurgery/

The MHRA has also issued guidelines for the perioperative management of patients with implantable pacemakers or implantable cardioverter defibrillators, where the use of surgical diathermy/electrocautery is anticipated (another area that sometimes confuses surgeons): http://www.mhra.gov.uk/home/groups/dts-bi/documents/websiteresources/con2023451.pdf