The Royal College of Radiologists

Radiology

Guidelines for radiologists in implementing the NPSA Safe Surgery requirement

In January 2009 the National Patient Safety Agency (NPSA) issued an alert supported by the Chief Medical Officer (Sir Liam Donaldson) and the Health Minister (Professor the Lord Darzi of Denham) requiring all healthcare organisations in England and Wales to implement the World Health Organization (WHO) Surgical Safety Checklist for every patient undergoing a surgical procedure by February 2010. It follows directly from the publication of a paper in the *New England Journal of Medicine*,[1] which demonstrated remarkable reductions in patient morbidity and mortality after introducing simple guidelines to the preoperative care of patients.

The NPSA clearly state that the guidelines will apply to all patients undergoing procedures under general and local anaesthesia. Enquiries by The Royal College of Radiologists prior to publication confirmed that the implementation will apply to all diagnostic and interventional procedures. The RCR was represented on the NPSA panel drawing up the final guidelines.

Many Fellows will read the guidelines and wonder how they can be interpreted to suit the particular requirements of Radiology. This paper provides radiologists with some guidance.

Individual trusts may already have policies in place. Radiologists should be aware of these and ensure compliance.

It is advisable that radiology departments do the following.
1. Involve all staff working in the department.
2. Find out about existing local policies and develop protocols that comply.
3. Have an open discussion about the merits and obstacles to using the checklist.
4. Take a step-by-step approach to creating effective processes, developed by those who will use them and flexible enough to adapt to the many different procedures that take place in a department of radiology.

In essence the guidelines require the following.

- Where there is laterality it must be ascertained which side is to undergo a procedure e.g. which kidney is to be biopsied, which femoral artery is to be angioplastied. This process should be done in conjunction with the patient and the checks taken should be documented. Pre-procedural marking of the appropriate side should be considered especially where there is bilateral disease or the patient might be turned prone.
    - *Some might argue that such marking would be covered by drapes prior to the procedure and therefore be of no value. However this is also true for open surgery. There is potential confusion if specialties differ in whether they adopt this approach. Side marking should act as a guide to the nursing staff preparing the patient as much as the radiologist performing the procedure.*
    - *Some radiologists argue that side marking is unnecessary because the organ is imaged prior to intervention. There are many examples of wrong side intervention, despite imaging, for this argument to stand scrutiny. Such experiences suggest that side marking should not be dismissed for this reason.*
    - *Many radiologists argue that side marking is unnecessary if there is good communication between the referring team, radiology team and patient as well as a fully informed team of radiologist, nursing staff and radiographers However side marking takes up very little time and could be considered as a back up to good communication.*
- All staff involved in the procedure must know their role during a particular patient episode. A meeting of all team members is increasingly being demonstrated to add value to the patient episode and is strongly recommended.
- Those trained to monitor sedated and elderly patients must know what to do if there are complications. It is important that good records of such monitoring are kept.
- Where antibiotics are appropriate it should be recorded whether they have been given within 60 minutes of the procedure starting.
- Monitoring equipment especially pulse oximetry should be regularly checked, known to be working and used on all patients, especially those who are sedated or elderly. All staff should understand the limitations of pulse oximetry.
- If there is a risk of significant (>500ml) haemorrhage due to the nature of the procedure and/or drugs, liver disease or bleeding diathesis causing low platelets and/or elevated INR the patient should be cross-matched so that blood is available. Suitable venous access must be in place.
- A member of the radiological team must be responsible for ensuring all patient checks have been carried out before a patient enters the procedure room (see suggested checklist below). In IR, nurses should be responsible for completing the checklist. In CT, US or Breast radiology this could be done by nurse assistants or radiographers. The radiologist or a designated deputy should always be responsible for side marking when appropriate.

It is important to recognise that the introduction of the Safe Surgery checklist will require additional consultant, nurse and radiographer time and this must be recognised in job plans. Audit of outcomes and complications, attended by all members of the team, is also an essential element of any patient safety system: please refer to the relevant RCR guidelines.

Suggested example of checklist

Patient's name	Proposed procedure Date		
	Yes	No	Not required
Name checked			
DOB matches name			
Hospital number matches patient & DOB			
Request form available			
Patient consented to the correct procedure (above)			
Allergies (stated)			
INR/APPT (stated)			
Platelets (stated)			
Hb (stated)			
SeCr / eGFR (stated)			
If >500ml blood loss expected, is the patient cross matched?			
Antibiotics			
Side marked or side site and procedure checked with radiologist			
Sedatives prescribed			
Analgesics required			
Anti-emetics required			
Pulse BP and O2 sats monitored			
Essential imaging available and reviewed			
Team briefing			
Post-procedure receiving ward have instructions regarding aftercare			
Patient has received aftercare advice and instructions			
Signed:	Date:		
Print name:	Position:		

The checklist should be scanned into PACS/RIS after the procedure and the form shredded at one month. Out or hours forms should be scanned early on the next working day. Audit of compliance with the checklist should occur at one month in the first instance and six monthly thereafter. An A+C staff member should be assigned to data collection for this audit.

1. Haynes AB, Weiser TG, Berry WR *et al.* A surgical safety checklist to reduce morbidity and mortality in a global population. *N Engl J Med* 2009; **360:** 491–499.

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