Process Visualisation in the NHS

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Aim: To publish process illustrations of all processes within a NHS Model Hospital. Through an iterative process, via the WWW and front line NHS Staff, best practice will be identified and promulgated for each process.

In addition to identifying best practice there are a number of other issues that can be addressed through process visualisation. Most of these were identified in the 'Productive Ward' initiative.

Example Process Visualisation: National Safety Standard for Invasive Procedures (NatSSIPs)

Sign In

All patients undergoing invasive procedures under general, regional or local anaesthesia, or under sedation, must undergo safety checks on arrival at the procedure area: the sign in. Along with the time out and sign out, this is based on the checks in the WHO Surgical Safety Checklist and forms part of the Five Steps to Safer Surgery. Noise and interruptions should be minimised during the sign in.

Participation of the patient (and/or parent, guardian, carer or birth partner) in the sign in should be encouraged when possible.

The sign in should not be performed until and omissions, discrepancies or uncertainties identified in the handover from the ward or admission area to the receiving practitioner in the procedure are or anaesthetic room have been fully resolved. On rare occasions, the immediate urgency of a procedure may mean that it may have to be performed without full resolution of any omissions, discrepancies or uncertainties. Such occurrences should be reported as safety incidents.

A sign in must be completed and documented on arrival at the procedure area or anaesthetic room. The checks performed during the sign in should include when relevant, but are not limited to:

a. Patient name checked against the identity band.

b. Consent form.

c. Surgical site marking if applicable.

d. Operating list.

e. Anaesthetic safety checks: machine, monitoring, medications.

f. Allergies.

g. Aspiration risk.

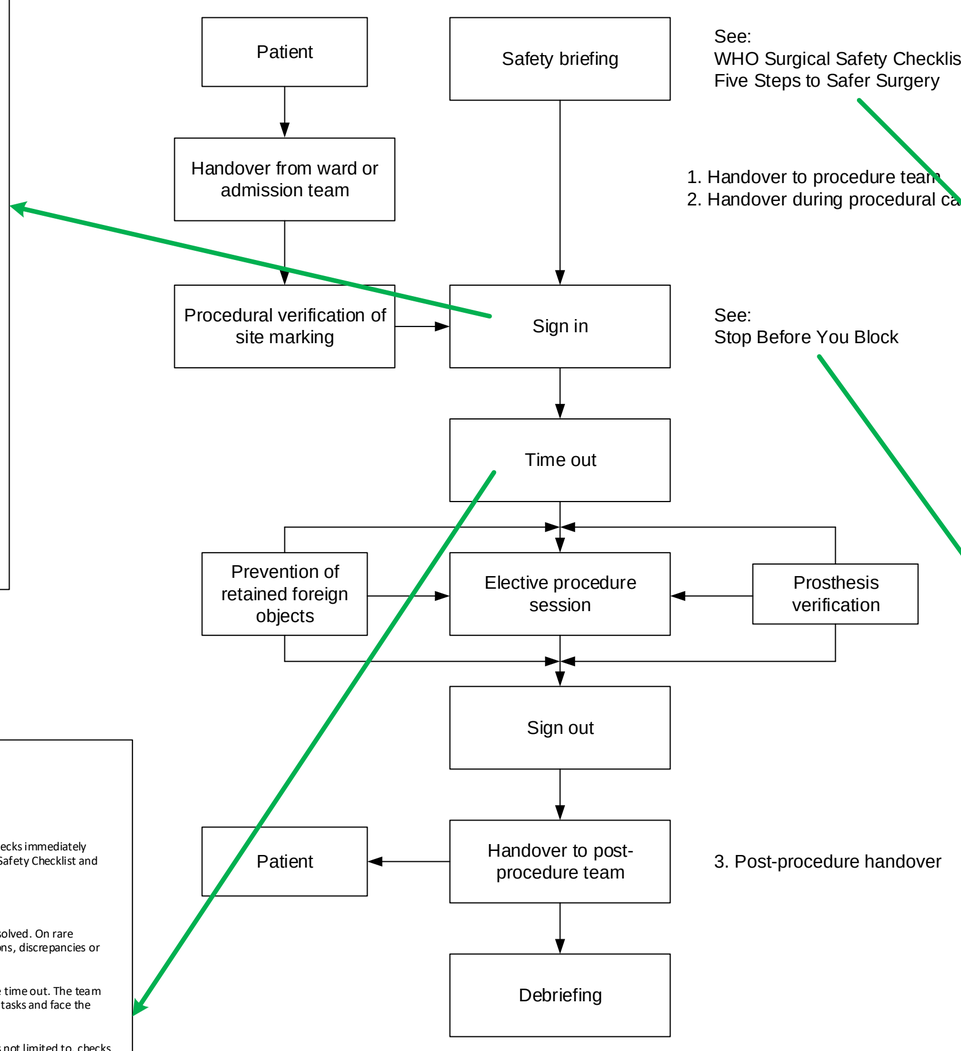
h. Potential airway problems.

i. Arrangements in case of blood loss.

The sign in must be performed by at least two people involved in the procedure. For procedures performed under general or regional anaesthesia, these should include the anaesthetist and anaesthetic assistant. For procedures not involving an anaesthetist, the operator and an assistant should perform the sign in.

Any omissions, discrepancies or uncertainties identified during the sign in should be resolved before the time out is performed or any procedure starts. On rare occasions, the immediate urgency of a procedure may mean that it may have to be performed without full resolution of any omissions, discrepancies or uncertainties. Such occurrences should be reported as safety incidents.

Immediately before the insertion of a regional anaesthetic, the anaesthetist and anaesthetic assistant must simultaneously check the surgical site marking and the site and side of the block (Stop Before You Block).

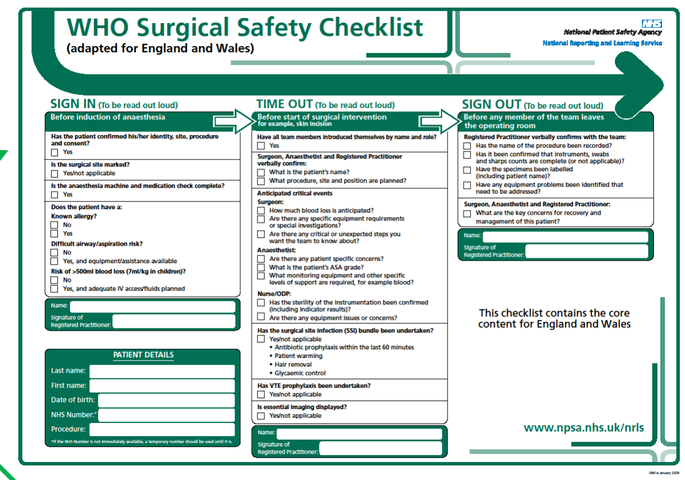


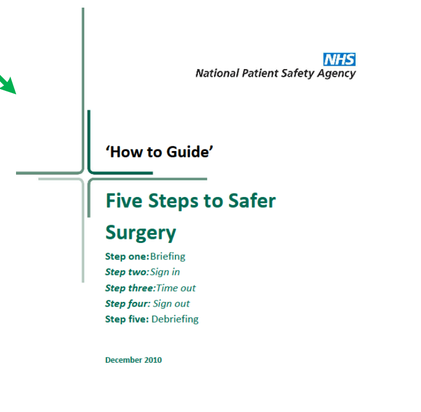
See:
WHO Surgical Safety Checklist
Five Steps to Safer Surgery

1. Handover to procedure team
2. Handover during procedural care

See:
Stop Before You Block

3. Post-procedure handover





Time Out

All patients undergoing invasive procedures under general, regional or local anaesthesia, or under sedation, must undergo safety checks immediately before the start of the procedure: the time out. Along with the sign in and sign out, this is based on the checks in the WHO Surgical Safety Checklist and forms part of the Five Steps to Safer Surgery. Noise and interruptions should be minimised during the time out.

Participation of the patient (and/or parent, guardian, carer or birth partner) in the time out should be encouraged when possible.

The time out should not be performed until any omissions, discrepancies or uncertainties identified in the sign in have been fully resolved. On rare occasions, the immediate urgency of a procedure may mean that it may have to be performed without full resolution of any omissions, discrepancies or uncertainties. Such occurrences should be reported as safety incidents.

Any member of the procedure team may lead the time out. All team members involved in the procedure should be presented at the time out. The team member leading the time out should verify that all team members are participating. This will usually require that they stop all other tasks and face the time out lead.

A time out must be conducted immediately before skin incision or the start of the procedure. It should include when relevant, but is not limited to, checks of:

Patient's name and identity band against the consent form.

The results of any relevant tests that must be present and available in theatre, e.g. imaging, hearing tests and eye tests.

The procedure to be performed.

Verification of surgical site marking.

Operator:

1. The anticipated blood loss.
2. Any specific equipment requirements or special investigations.
3. Any critical or unexpected steps

Anaesthetist:

1. Any patient specific concerns.
2. Patient's ASA Physical Status.
3. Monitoring equipment and other specific support, e.g. blood availability.

Scrub practitioner or operator's assistant:

1. Confirmation of sterility of instruments and equipment.
2. Any equipment issues or concerns.

Surgical site infection:

1. Antibiolic prophylaxis.
2. Patient warming.
3. Glycaemic control.
4. Hair removal.

VTE prophylaxis.

Patient allergies.

When different operator teams are performing separate, sequential procedures on the same patient, a time out should be performed before each new procedure is started. This may be a modified version of the initial time out.

Any omissions, discrepancies or uncertainties identified during the time out should be resolved before the procedure starts.

Process selection is based on the NHS Improvement's 'Model Hospital' design.

Once best practice has been established the Model Hospital data can be used to identify specific areas for improvement. It could be possible for a large network of practitioners to have an input on improvement ideas and test them using the PDCA cycle prior to process change.

A future phase of this research will use Bayesian theory to analyse data and identify issues leading to improvement.

Care does not just evolve. For the very highest standards of care, safety, dignity, and for empowered teams, care teams need to design the way they organise and deliver care.

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