

## UK Cell Salvage Action Group

### National Safety Standards for Invasive Procedures

National Safety Standards for Invasive Procedures set out the key steps for safe delivery of care for patients undergoing invasive procedures, and are intended to be modified in to Local Safety Standards for Invasive Procedures (LocSSIPs)<sup>1,2</sup>

Organisations using Intraoperative Cell Salvage (ICS) or Postoperative Cell Salvage (PCS) should account for this in LocSSIPs (where these are in use).

Elements relating to ICS or PCS use that are suggested for inclusion:

#### Workforce

- There is an identified clinical lead for cell salvage.
- It is clearly identified who co-ordinates/schedules provision of ICS.
- It is clearly identified who is responsible for setting up and operating ICS.
- All ICS operators must be trained and competency assessed prior to setting up or operating ICS equipment.

#### Scheduling and list management

- The provision of ICS for elective and emergency procedures both in- and out- of hours is clearly defined and publicised.
- It is clearly identified which procedures ICS is used for.
- Action to be taken if ICS not available for a procedure is clearly identified.
- The decision to use ICS/PCS is the responsibility of the surgeon and anaesthetist.
- The risks of ICS/PCS for each patient are assessed by the surgeon and anaesthetist.
- Patients undergoing ICS/PCS as part of their procedure are consented for this in advance (where possible).

#### Safety briefing

*At the beginning of each procedural session:*

- ICS operator identifies themselves.

*For each patient:*

- State anticipated blood loss.
- State if ICS/PCS is being used (including indications for use).
- Highlight safe ICS practice (do's and don'ts).
- Identify contra-indicated substances for ICS/PCS.
- Identify presence of tumour.
- Confirm availability of allogeneic blood components.

#### Sign in

*On arrival at the procedure area or anaesthetic room:*

- Patient details checked on the identity band: all core patient identifiers for transfusion are present and checked using positive patient identification wherever possible.
- Confirm patient has consented to ICS/PCS (where possible).
- Confirm availability of allogeneic blood components.

<sup>1</sup> NHS England (2015). National Safety Standards for Invasive Procedures (NatSSIPs).  
<https://improvement.nhs.uk/resources/national-safety-standards-invasive-procedures/>

<sup>2</sup> NHS Wales (2016). National Safety Standards for Invasive Procedures (NatSSIPs).  
<http://www.1000livesplus.wales.nhs.uk/news/42799>

## Time out

*Immediately before skin incision or start of the procedure:*

- Patient's identity band is accessible throughout the procedure in case of need for allogeneic blood components.
- State anticipated blood loss.
- State if ICS/PCS is being used (including indications for use).
- Identify contra-indicated substances/techniques for ICS/PCS.
- Identify presence of tumour
- Confirm availability of allogeneic blood components.

## Sign out

*At the end of the procedure, before the patient is awoken from general anaesthesia or leaves the procedure room, confirm:*

- Estimated blood loss.
- Volume of allogeneic blood components given intraoperatively.
- Volume of ICS salvaged blood given intraoperatively.
- If ICS salvaged blood has been processed.
- If PCS drain is in-situ.
- Salvaged blood for re-infusion must be labelled with:
  - patient's first and last name, date of birth, hospital/NHS/CHI/H&C number
  - expiry date and time, salvage method (ICS/PCS), ICS operator name.
- Salvaged blood for re-infusion is prescribed.
- Expiry time of salvaged blood for re-infusion is documented.
- Salvaged blood for re-infusion must be kept with the patient at all times.
- Salvaged blood for re-infusion must not be put in a fridge.

## De-brief

*At the end of each procedural session, discuss:*

- Any training/resource issues related to ICS/PCS use.
- Any ICS/PCS related adverse events or reactions.

## Patient observations

- Pre-transfusion checks and observations for re-infusion of salvaged blood should be carried out and documented as they are for allogeneic blood component transfusion.

## Record Keeping

- ICS/PCS use should be fully and accurately recorded in the patients records.

## Organisational culture and teamwork

- Adverse reactions or events related to ICS/PCS should be reported via the local reporting system and investigated, and local transfusion team informed. Incidents may need reporting to Serious Hazards or Transfusion (SHOT) or/and the Medicines and Healthcare Products Regulatory Agency (MHRA).

## Audit and review

- The clinical lead for cell salvage is responsible for ensuring quality assurance systems are implemented, and ICS equipment is maintained to the set standard.