

POSTOPERATIVE CELL SALVAGE (PCS) CONTRAINDICATIONS

AREA of APPLICATION

To ensure that autologous postoperative cell salvaged blood is used safely and appropriately in line with recognised guidelines and existing evidence. The risk/benefit of PCS for each individual patient should be the decision of the surgeon and anaesthetist involved.

STAFF

All nursing / medical staff who administer salvaged autologous blood.

CONTRAINDICATIONS

PCS must not be used:

- Where there is localized infection in the surgical site
- In patients with clotting disorders or red cell disorders e.g. sickle cell disease
- Where non-IV substances have been introduced into the wound e.g. infiltration of wound edges with local anaesthetic
- If the patient declines the use of PCS
- If any of the clinical team are unfamiliar with the use of the PCS device

PCS may not be appropriate for:

- Patients with malignancy

CAUTIONS

Risks of PCS

The risks of PCS are minimal provided that a standard 40 micron filter is used for reinfusion and that the device manufacturer's standard operating procedure is followed.

The Association of American Blood Banks (AABB) states that these components may contribute to theoretical risks:

- Clerical error (if device leaves patient's side)
- Air embolus (if non-adherence to manufacturer's instructions)
- Free haemoglobin
- Tissue debris/clot
- Red cell debris
- Bone marrow fat embolus (PCS device filters should remove fat)
- Fibrin degradation products and/or activated coagulation factors (risk of developing coagulopathy)
- Toxic irrigants (not a risk if wound thoroughly washed out with IV grade saline prior to closure/drain insertion)
- Methacrylate ('cement') debris
- Acute anaphylaxis

Reference

AABB Standards for Perioperative Autologous Blood Collection and Administration, 4th edition, 2009, ISBN #978-1-56395-288-3