

TELL ME ABOUT CELL SALVAGE

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What is cell salvage?

Cell salvage is a way of collecting a patient's own blood lost during or after surgery. This blood can then be recycled by infusing it back to the same patient. If this process occurs during the operation, it is called intraoperative cell salvage. If the blood is collected after the operation, it is called post-operative cell salvage. The equipment and process for intraoperative and post-operative cell salvage are different.

What is intraoperative cell salvage?

The surgeon gently suctions blood lost during surgery. This blood is collected into a reserve and medications called anticoagulants are added to the blood to stop it from clumping/ clotting together. It is also filtered to remove any large particles. The blood then undergoes a process to separate the red cells (which carry oxygen) from other parts of the blood into a bag to be reinfused back to the same patient.

What is post-operative cell salvage?

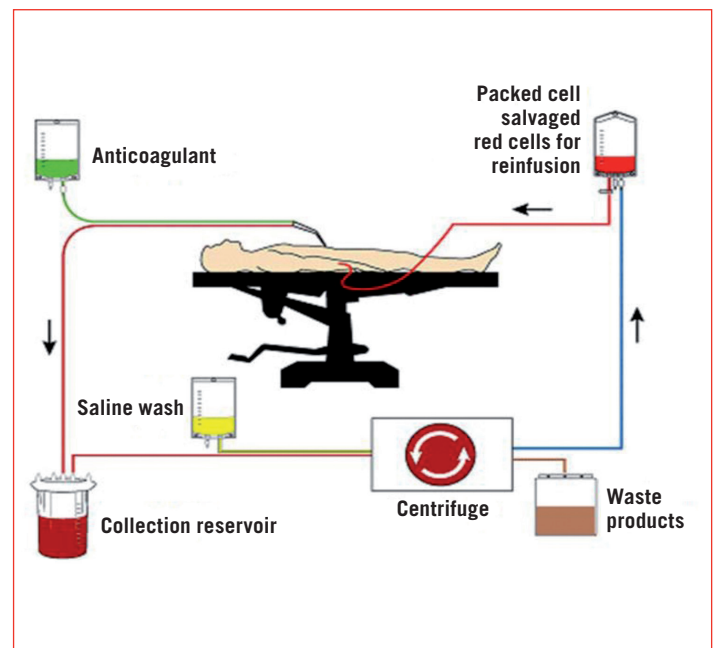
After surgery, blood can be collected from the patient and, for a limited time, can be reinfused back to the patient. This technique involves the collection of a patient's post-operative blood loss into a wound drain. It is then returned to the patient via a filter, either washed or unwashed depending on the equipment used.

Who is eligible for cell salvage?

Patients having a surgical procedure where significant blood loss is expected may be eligible for cell salvage. As a general rule, significant blood loss is about 20 per cent of the patient's total blood volume, which is around one litre of blood loss in adults. The blood collected for cell salvage must be 'clean', which means it is not contaminated (for example with infection, urine and bowel content, or bone chips).

What are the benefits of cell salvage?

Cell salvage may help reduce the likelihood of receiving a blood transfusion from a donor. This reduces some of the risks of blood transfusions from donors and also saves donated blood for those where cell salvage is not possible.



The illustration above is reproduced with kind permission of Dr Sarah Haynes, University Hospital of South Manchester NHS Foundation Trust, Manchester, UK.

What operations routinely use cell salvage?

Cell salvage can be used in emergency, unscheduled operations where a large amount of blood loss is expected. It can also be used in planned surgical procedures where the patient is expected to lose a lot of blood, such as orthopaedic operations or heart surgery.

BLOOD FACT

Cell salvage is one of a number of strategies to save blood collectively called Patient Blood Management.