FP87 04 (PSC22) **Operate and monitor equipment for processing intra-operative salvaged blood and complete salvaged blood processing**

About this Unit

This National Occupational Standard is about operating processing equipment, monitoring the equipment during salvaged blood processing and completing the salvaged blood process.

Users of this National Occupational Standard will need to ensure that practice reflects up to date information and policies.

Your **knowledge and understanding** will be specifically related to legal requirements and codes of practice and conduct applicable to your job, and the NHS Knowledge and Skills Framework. This will relate to your work activities; the job you are doing, and the setting, eg in hospital and community, domiciliary, residential care, and the individuals you are working with.

Values — the values underpinning this Unit are embedded within the 2009 NHS Code of Conduct for Health Care Support Workers. These are stated in full within the Assessment Strategy and Guidance document for the awards.

Key Words and Concepts — a glossary of definitions, key words and concepts used in this Unit is contained in the Assessment Strategy and Guidance document.

In occupational standards it is quite common to find words or phrases used which you will be familiar with, but which, in the detail of the standards, may be used in a very particular way. **You should read the Assessment Strategy and Guidance document before you begin working with the standards and refer to it if you are unsure about anything in the Unit.**

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Specific Evidence Requirements for the Unit
It is essential that you adhere to the Evidence Requirements for this Unit

SPECIFIC EVIDENCE REQUIREMENTS FOR THIS UNIT
Simulation:
♦ Simulation is **NOT** permitted for any part of this Unit.
♦ **The following forms of evidence ARE mandatory:**
♦ **Direct Observation:** Your assessor or expert witness must observe you in real work activities. Their confirmation of your practice will provide evidence for a significant amount of the performance criteria in this Unit. **For example**, recording the volume of processed salvaged cells and reporting completion. Your assessor may use a **checklist** to record this. ♦ **Professional discussion:** Describes your actions in a particular situation and reflect on the reason(s) why you practice that way. **For example**, why you document the amount of anticoagulant used and why some equipment is single use.
Competence of performance and knowledge could also be demonstrated using a variety of evidence from the following:
♦ **Reflective Account:** These are written pieces of work which allow you to reflect on the course of action you took in a specific situation to identify any learning from the piece of work and to describe what you might do differently in the light of your new knowledge. ♦ **Questioning/professional discussion**: May be used to provide evidence of knowledge, legislation, policies and procedures which cannot be fully evidenced through direct observation or reflective accounts. In addition your assessor/mentor or expert witness may also ask questions to clarify aspects of your practice. ♦ **Expert Witness**: A designated expert witness, eg a senior member of staff, may provide a direct observation of your practice, or record a professional discussion they have held with you on a specific piece of practice. ♦ **Witness Testimony**: Can be a confirmation or authentication of the activities described in your evidence which your assessor or mentor has not seen. ♦ **Products:** These can be any record that you would normally use within your normal role, eg you should not put confidential records in your portfolio; they can remain where they are normally stored and be checked by your assessor and internal verifier. ♦ **Prior Learning:** You may be able to use recorded prior learning from a course of training you have attended within the last two years. Discussion on the relevance of this should form part of your assessment plan for each Unit. ♦ **Simulation:** There may be times when you have to demonstrate you are competent in a situation that does not arise naturally through your work role, eg dealing with violent or abusive behaviour. The Evidence Requirements in each Unit provide specific guidance regarding the use of simulation.
GENERAL GUIDANCE
♦ Prior to commencing this Unit you should agree and complete an assessment plan with your assessor which details the assessment methods you will be using, and the tasks you will be undertaking to demonstrate your competence. ♦ Evidence must be provided for ALL of the performance criteria, ALL of the knowledge. ♦ The evidence must reflect the policies and procedures of your workplace and be linked to current legislation, values and the principles of best practice within the Health Care sector. This will include the National Service Standards for your areas of work. ♦ All evidence must relate to your own work practice.

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KNOWLEDGE SPECIFICATION FOR THIS UNIT

Competent practice is a combination of the application of skills and knowledge informed by values and ethics. This specification details the knowledge and understanding required to carry out competent practice in the performance described in this Unit.

When using this specification **it is important to read the knowledge requirements in relation to expectations and requirements of your job role**.

You need to provide evidence for ALL knowledge points listed below. There are a variety of ways this can be achieved so it is essential that you read the 'knowledge evidence' section of the Assessment Guidance.

	You need to show that you know, understand and can apply in practice:	**Enter Evidence Numbers**
1	The current European and National legislation, national guidelines, organisational policies and protocols in accordance with clinical/corporate governance which affect your work practice in relation to operating and monitoring equipment for processing salvaged blood and completing salvaged blood processing.	
2	Your responsibilities and accountability in relation to the current European and National legislation, national guidelines and local policies and protocols, code of conduct and clinical/corporate governance.	
3	The importance of working within your own sphere of competence and limits of personal responsibility and accountability in relation to operating and monitoring equipment for processing and completing salvaged blood processing.	
4	Infection prevention and control in the processing of salvaged blood and potential consequences of poor practice.	
5	The rationale behind the use of autologous blood transfusion.	
6	The indications and contraindications for the use of intra-operative cell salvage.	
7	The applications of intra-operative cell salvage in relation to patients who refuse allogeneic blood on religious or other grounds.	
8	The role of the individual in operating and monitoring equipment for processing salvaged blood, completing salvaged blood processing and how this relates to other members of the theatre team.	
9	The components of whole blood and the basis of centrifugal separation.	
10	The functions of red cells in the delivery of oxygen to body tissues.	
11	The differences between salvaged red cells and whole blood.	
12	Factors to be considered in the decision to proceed with processing the reservoir contents.	
13	The types, purpose and function of intra-operative cell salvage machines within your work area.	
14	The rationale behind the choices of machine programme for	

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You need to show that you know, understand and can apply in practice:		Enter Evidence Numbers
	intra-operative cell salvage machines in use in the work area.	
15	The purpose of the collection equipment and processing equipment.	
16	The dangers of re-using equipment designed for single use only.	
17	The effects of citrate or heparin anticoagulant on salvaged blood and the importance of documenting the amount of anticoagulant used.	
18	The possible contents of the collection reservoir during surgery, including potential contaminants.	
19	The choice of intravenous normal saline 0.9% as the wash fluid.	
20	The importance of using an appropriate wash volume.	
21	The advantages and risks of swab washing.	
22	The process of salvaging blood from swabs.	
23	The rationale for weighing all swabs during intra-operative cell salvage.	
24	How to estimate blood loss during intra-operative cell salvage.	
25	The potential composition of the contents of the re-infusion bag.	
26	How the re-infusion bag should be labelled.	
27	The rationale for and calculation of expiry time of the salvaged blood.	
28	The types of filters used when re-infusing intra-operative cell salvage blood and the potential limitations.	
29	The importance of recording all information, clearly and precisely in the appropriate documentation.	
30	The principles and methods of waste disposal related to the equipment.	
31	How to recognise hazards, errors and malfunctions of equipment and the appropriate action to take.	
32	The importance of immediately reporting any issues which are outside your own sphere of competence without delay to the relevant member of staff.	

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Performance Criteria		DO	RA	EW	Q	P	WT	PD
1	Apply standard precautions for infection control and other necessary health and safety measures.							
2	Confirm decision to process salvaged blood with the relevant member of staff.							
3	Use intravenous normal saline 0.9% as the wash fluid as recommended by the manufacturer.							
4	Monitor the progress of the processing procedure and report any problems to the appropriate member of staff.							
5	Correctly record the volume of processed salvaged cells for re-infusion.							
6	Report completion of the processing procedure to the relevant member of staff.							
7	Clearly label salvaged blood re-infusion bags with patient's name, hospital number, date of birth, 'use by' time and the volume of salvaged cells.							
8	Keep the processed blood with the patient.							
9	Clear and dispose of waste as appropriate in accordance with local guidelines.							
10	Complete and sign all relevant documentation.							

DO = Direct Observation *RA = Reflective Account* *Q = Questions*
EW = Expert Witness *P = Product (Work)* *WT = Witness Testimony*
PD = Professional Discussion

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To be completed by the candidate
I SUBMIT THIS AS A COMPLETE UNIT

Candidate's name: ……

Candidate's signature: ……..

Date: ……..

To be completed by the assessor
It is a shared responsibility of both the candidate and assessor to claim evidence, however, it is the responsibility of the assessor to ensure the accuracy/validity of each evidence claim and make the final decision.

I CERTIFY THAT SUFFICIENT EVIDENCE HAS BEEN PRODUCED TO MEET ALL THE ELEMENTS, PCS AND KNOWLEDGE OF THIS UNIT.

Assessor's name: …….

Assessor's signature: …….

Date: ……..

Assessor/Internal verifier feedback

To be completed by the internal verifier if applicable
This section only needs to be completed if the Unit is sampled by the internal verifier

Internal verifier's name: ……

Internal verifier's signature: ……..

Date: ……..……..