

Providing an Out of Hours Service

The provision of Intraoperative Cell Salvage (ICS) out of normal working hours should be considered in all hospitals where it is likely that emergency cases, suitable for ICS, may be undertaken.

Where provision of an out of hours service is appropriate, hospitals should determine how this will be delivered and ensure the staff and resources necessary are readily available.

The following provides an overview of the different options of delivering an out of hours ICS service. Hospitals may elect to use one of these methods, a combination, or adapt a method to meet the specific needs of their organisation.

The challenges of developing and sustaining an out of hours service include:

- Lack of available staff on duty (one ODP/Anaesthetic Nurse may not be able to carry out ICS as well as anaesthetic duties in an emergency)
- Lack of trained staff on duty
- Lack of funding (to support additional dedicated on call staff for ICS where a Trust has deemed this is the best available option)

Possible solutions to staffing issues include:

- **On duty staff (multitasking)** - Ensure staff rotas take into account availability of adequately trained staff who can carry out the ICS procedure **in addition** to their primary duties
 - On duty/on call primary ODP/Anaesthetic Nurse
 - On duty circulating scrub/recovery staff
- **On duty staff (dedicated)** - Ensure staff rotas take into account availability of adequately trained staff who can act as **dedicated ICS operators**
 - On duty/on call anaesthetic/scrub /recovery staff
- **On call/standby staff** - 2nd ODP/Anaesthetic Nurse on duty or on call who can be called in to act as a **dedicated ICS operator**
- **On call ICS operators** – an on call service specifically to provide ICS

The above options provide possible ways to address the provision of a 24 hour cell salvage service. The most appropriate solution for an organisation may depend on the hospital, staff and types of emergency cases undertaken out of hours. Any one of the above solutions, a combination, or a completely different solution may be the most appropriate. To help an organisation decide on an appropriate solution, an example of an option appraisal is included on the next page. It may also be appropriate to carry out a risk assessment.

Example Option Appraisal

A full explanation of the option appraisal is outlined below. Organisations should determine for themselves the most appropriate criteria to include and “weight” them accordingly. The higher the “weight”, the more important the criteria is to the process being examined. The total for all criteria “weights” should add up to 100. The “Raw Score” determines how well the option fulfils the specified criteria (1 – the option does not fulfil the criteria at all, 10 – the option fulfils the criteria completely).

RS - Raw Score (1-10) WS - Weighted Score		Do Nothing		On Duty Staff (Multitasking)		On Duty Staff (Dedicated)		On Call/ Standby staff		On Call ICS Operators	
Criteria	Weight (A)	RS (B)	WS (=AxB)	RS (B)	WS (=AxB)	RS (B)	WS (=AxB)	RS (B)	WS (=AxB)	RS (B)	WS (=AxB)
1. Availability	40	1	40	7	280	9	360	8	320	10	400
2. Flexibility	20	1	20	8	160	8	160	6	120	9	180
3. Timely	5	10	50	6	30	6	30	6	30	6	30
4. Quality	35	3	105	6	210	7	245	8	280	9	315
Total	100		215		680		795		750		925

Explanation of Example Criteria

Availability – To provide a 24 hour ICS service, where appropriate, to meet the requirements of Better Blood Transfusion¹ and to support the organisations conservation policy.

Flexibility - The flexibility of the system in unforeseen circumstances. For example, if the member of staff identified to cover the service on a particular shift is off sick, is there an alternative was of providing the service e.g. calling in a replacement member of staff who is also adequately trained to carry out the ICS procedure if necessary.

Timely - How quickly can the change in practice be implemented?

Quality – Are there quality implications/risks for the patient?

N.B. Consideration of Cost - Whilst the consideration of cost is vital, this is not a factor that is normally taken into consideration during the initial option appraisal as it is likely to bias the results. Once the option appraisal has been completed, the organisation can determine which of the most favourable options is financially viable.

Explanation of Option Appraisal

The “criteria” should reflect what is required from the possible options. The first step in developing the option appraisal is to determine how important each of the criteria is by weighting them. In the example, availability and quality are considered to be the most important criteria and are therefore “weighted” the highest.

Each of the possible solutions is then given a raw score for the specified criteria. A low raw score reflects that the possible solution does not fulfil the criteria. For example, for the quality criteria, the “Do Nothing” option is given a low raw score because of the known risks associated with allogeneic blood (the alternative if 24 hour ICS is not available). The “On Call ICS Operators” option however, is given a high score because this option allows for a dedicated machine operator who is unlikely to be distracted by other duties, therefore providing a high quality service.

The total weighted score indicates the most/least favourable option **before cost is taken into consideration** (the lowest score being the least favourable).

This example used the possible options outlined at the start of this document. The possible options, criteria and the weight/raw scores assigned to each category are dependent upon the hospital/department, therefore this should only be viewed as an example.

Example Risk Assessment

Risk Assessment The Risk of Not Providing a 24/7 Intraoperative Cell Salvage Service
<p>1. Describe the process, task, activity and the environment including any materials or equipment used.</p> <p><u>Process</u> 24/7 Intraoperative Cell Salvage (ICS) service to cover emergency operations where:</p> <ul style="list-style-type: none">- The provision of autologous salvaged red blood cells is indicated due to the nature of the surgery- The provision of autologous salvaged red blood cells is deemed appropriate to the type of surgery and will reduce the drain on allogeneic red blood cell stocks- The provision of autologous salvaged red blood cells is necessary due to the patients refusal to accept allogeneic red blood cells where ICS would otherwise may not be indicated <p><u>Environment</u> Operating Theatres, Trauma (e.g. Accident and Emergency Department)</p>

Materials/Equipment

ICS machine, ICS disposable equipment, Anticoagulant (ACD-A/Heparin Saline)

2. Identify the hazards involved

To not provide a 24/7 ICS service would result in the following identifiable risks:

- Inappropriate/unnecessary patient exposure to allogeneic blood (and therefore to the known risks of allogeneic blood transfusions e.g. Incorrect Blood Component Transfused, Transfusion Transmitted Infections)
- Inappropriate transfusion
- Increased demand on allogeneic blood stocks
- Lack of patient choice
- Patient death if the patient refuses to accept allogeneic red blood cells
- Patient death in the event of a shortage of allogeneic red blood cells/patients refusal to accept allogeneic red blood cells

3. Who is affected

Patients

Allogeneic Blood Stocks

4. Are there existing control measures in place? Are they acceptable Y/N?

Allogeneic (donor) red blood cells (N):

- Unnecessary exposure of patients to allogeneic blood - The Better Blood Transfusion Health Circular (HSC 2007/001) outlines the requirements for the safe and appropriate use of allogeneic blood. This incorporates the use of alternatives where appropriate to avoid the unnecessary exposure of patients to allogeneic blood.
- Shortages – Allogeneic blood stocks are subject to the threat of shortage and therefore should not be solely relied upon.

Access to emergency allogeneic blood supplies from the Blood Services (N)

- Transport time – The time needed to transport blood from the Blood Services to the hospital could endanger patients lives
- Shortages - Allogeneic blood stocks are subject to the threat of shortage and therefore should not be solely relied upon

5. Risk Rating

The risk of exposure to allogeneic blood because ICS is not available 24/7 (Severity) Vs The likelihood of this risk occurring (Likelihood)

(Explanations of “Severity” and “Likelihood” can be found in Appendix I)

Likelihood		Severity				
Predicated Occurrence	Re-Occurrence	Minimal	Minor	Moderate	Major	Catastrophic
Frequent	Almost certain	Low	Low	Medium	High	High
Probable	Likely	Low	Low	Medium	High	High
Occasional	Possible	Very Low	Low	Medium	High	High
Remote	Unlikely	Very Low	Very Low	Low	Medium	High
Improbable	Rare	Very Low	Very Low	Low	Medium	High
Incredible	Never	Very Low	Very Low	Very Low	Low	Medium

Safety Risk Identified	Acceptance Category	Action required for identified hazards
Medium	Tolerable	Appropriate senior management, clinical leads and clinical governance to be notified of the hazard as soon as practicable and appropriate mitigating action agreed.

A full explanation of all of the Safety Risk Levels (Very Low, Low, Medium and High) can be found in Appendix I.

6. Additional control measures to reduce risk

24/7 ICS service

Explanation of Risk Assessment

The above risk assessment provides examples of the types of information that may be useful in a risk assessment for exposure to allogeneic blood if ICS is not available 24/7.

The risk assessment should be completed on the documentation approved by the organisation.

In the above example, the risk assessment assesses *the Organisational risk* generated by the Organisation, to a number of patients, who cannot avoid exposure to allogeneic blood because ICS is not available. The risk of exposure to allogeneic blood if ICS is not available 24/7 was categorised as Moderate (this is actually a minor risk, but because of the likely frequent occurrence of the risk (more than 10 times per year), it is given a higher severity rating – See Appendix I). The likelihood of this occurring was deemed to be frequent as allogeneic blood is likely to be used in the event that a suitable alternative is not available. Therefore, the overall risk classification is deemed to be medium.

Any clinical risk that scores medium or above on the matrix, requires a form of mitigation. The medium classification means that clinical governance leads need to be notified of the risk as soon as practicable and appropriate mitigating action agreed. The mitigating action should be tailored to the Organisation's needs and could be based on one or more of actions outline in this Out of Hours Framework.

References

1. Better Blood Transfusion: Health Service Circular (HSC) 2007/001 – “Safe and Appropriate Use of Blood”

Risk Rating

Appendix I

Highlighted descriptions relate to the example risk assessment in this Out of Hours Framework document.

Severity	Description
Catastrophic	Permanent harm and/or death to a patient - <i>also applies to a hazard that causes frequent occurrences of risk that is of Major severity</i> (see below).
Major	Inherent and immediate threat to a patient's life. Harm is unlikely to be prevented by Clinician - <i>also applies to a hazard that causes frequent occurrences of a risk that is of Moderate severity</i> (see below).
Moderate	Serious and imminent safety risk to a patient by allowing a life-threatening situation to develop. Harm may be prevented by Clinician - <i>also applies to a hazard that causes frequent occurrences of a risk that is of Minor severity</i> (see below).
Minor	Significant risk to a patient, though not one that is immediately or necessarily life-threatening. Harm is likely to be prevented by Clinician - <i>also applies to a hazard that causes frequent occurrences of a risk that is of Minimal severity</i> (see below).
Minimal	Latent risk, which may impact on the quality of patient care if ignored. The hazard may be corrected and/or managed.
Benign	No impact on patient care.

Likelihood	Description
Frequent	Likely to be continually experienced
Probable	Likely to occur regularly
Occasional	Likely to occur several times
Remote	Likely to occur some time
Improbable	Unlikely, but may exceptionally occur
Incredible	Extremely unlikely that the event will occur at all

Safety Risk	Acceptance Category	Action required for identified hazards
Very Low	Acceptable	Hazard and any controls to be documented according to local policy. No justification is required unless explicitly requested.
Low	Justifiable	<i>Justification</i> for the acceptability of the hazard and any controls to be recorded according to local policy and supported by evidence.

Medium	Tolerable	Appropriate senior management, clinical leads and clinical governance to be notified of the hazard as soon as practicable and appropriate mitigating action agreed.
High	Unacceptable	Appropriate senior management, clinical leads and clinical governance to be notified of the hazard as soon as practicable. Re-specification or re-engineering is required to eliminate the hazard. This hazard may only be accepted under exceptional circumstances.