VICTORIAN EMERGENCY BLOOD MANAGEMENT PLAN TEMPLATE

Template for use and health/pathology service adaptation

[Insert health/pathology service name]

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**National Blood Supply Contingency Plan**

Background

The National Blood Authority (NBA) developed a National Blood Supply Contingency Plan (NBSCP) in 2008 to facilitate and coordinate a rapid national response in the event of a threat or disaster that affects the provision of safe and adequate blood supply in Australia. This plan has been updated and approved by the Jurisdictional Blood Committee July 2019.

The NBSCP also includes tailored and specific guidance on product groups in short supply and the management of the risk of transfusion transmissible infection in a series of annexes:

* Annex A – Red Cell Response Plan
* Annex B – Plasma and Recombinant Products Response Plan
* Annex C – Platelets Response Plan (December 2013)
* Annex D – Transfusion Transmissible Infection (TTI)
* Annex E – Non Supply Crisis Management Event (to be developed by NBA)

The need for an agreed local contingency plan has been identified by the NBA as part of the wider plan aimed at ensuring that actions taken at a local level will be swift and effective enough to enable equitable access to blood and blood products across the country, should the need arise. Blood Matters developed an Emergency Blood Management Plan (EBMP) in 2009 to assist Victorian health services develop their plans. This plan has been revised (2020) in line of the revised NBSCP. The EBMP should be used in conjunction with the NBSCP including the annexures and the support document.

Definition of a crisis

A crisis for the blood sector is defined as an event that causes a significant threat to the supply or increased demand for blood and blood products in Australia (or both), or an event that threatens the safety of patients. Supply failure, demand surge or a risk to public health may require the plan to be invoked. These events may occur in isolation, in tandem or sequentially.

Supply failure

Based on the risk threat assessment undertaken to guide this plan, supply failures could arise from:

* significant decrease in the volume or quality of fresh blood components, or plasma-derived or recombinant products available for immediate distribution through the Australian blood products supply chain
* manufacturer unable to produce a significant amount of product
* significant delay or loss of product through a quality, storage or distribution issue
* batch failure or batch recall or
* contamination or suspected contamination of products.

Demand surge

Based on typical risk threat assessment to guide this plan, demand surges could arise from:

* significant trauma events that lead to multiple presentations at a number of health services within a short period. This may include multiple burns, radiation or chemical injuries.
* the response to the threat of a supply failure (local stock piling) or
* endemic disease burden (e.g. H1N1, COVID19).

A demand surge can normally be managed through national redistribution of supplies or release of reserve stock; however this may occur under NBSCP arrangements (NBA July 2019).

Public health risk

A supply failure may also be triggered by a possible public health risk to patients arising from a transfusion-transmitted infection, because a product is withdrawn or recalled to prevent further contamination. This scenario is explained further in Annex D. A management response specific to these circumstances is required and to be effective, it must integrate the interdependencies of other contingency arrangements such as those outlined in Annex D (NBA July2020).

Acute versus chronic shortage

A supply failure, demand surge or a public health situation may create an acute or a chronic shortage. An acute crisis may, after time, become a chronic shortage. In extreme circumstances, Australia may face a chronic blood supply shortage while concurrently managing an acute crisis.

**Alert levels**

The four phases are:

* White alert
* Yellow activate
* Red activate
* Green deactivate

The NBA will be responsible for the activation and deactivation of the NBSCP, as well escalating or de-escalating the plan between the phases. This process will be based on the information and data provided by suppliers, jurisdictional representatives and advice from relevant advisory bodies.

National Blood Supply Contingency Plan <https://www.blood.gov.au/nbscp>

**Blood management governance group**

Implementation of effective health service governance is essential for contingency preparedness in times of supply shortage and/or NBSCP activation.

Blood management governance processes would typically be provided through the blood management/transfusion committees or equivalent. This governance group should be multidisciplinary to support the health services response to the NBSCP. Further information about this group can be found at Department of Health and Human Services Policy circular details Blood management committee responsibilities at <https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/speciality-diagnostics-therapeutics/blood-matters/~/link.aspx?_id=48A7A451B920402D8A025BD2140B13DF&_z=z>

**Emergency blood management plan and team**

**The Emergency Blood Management Plan (EBMP) outlines the process to be followed in a health service should the NBSCP be activated.** The plan follows the traffic light system of the NBSCP and describes actions required during each phase.

The plan will need to be customised and ratified by health services’ blood management committee, emergency response committee (or equivalent) and Executive to ensure the appropriate use of blood at all times, especially when local blood stocks have fallen to very low levels.

An Emergency Blood Management Team should established to execute this plan which aims to work in line with the National Blood Supply Contingency Plan (NBSCP) to ensure that:

* Overall blood usage is reduced
* Blood is available for essential transfusions to all patients across the country
* The most urgent cases receive available supply.

Purpose of the emergency blood management team (EBMT) is to:

* Review and understand the hospital emergency blood management plan (EBMP)
* Review and understand blood access priorities with health service executive
* With the divisional directors/or equivalent of clinical areas review planned elective admissions/procedures that will or are likely to require transfusion.
* Review the blood shortage and understand its impact on patient care at regular intervals.
* Ensure changes to planned patient admissions are communicated effectively throughout the organisation and to the patients effected.

**Suggested membership of the EBMT is listed in Appendix 1.**

**An overview of the health service and pathology provider responses to NBSCP is provided in Section A.**

**Activation of the NBSCP**

The DHHS will escalate the response under State Health Emergency Response Plan 4 (SHERP) and communicate through Chief Health Officer’s Alert-via-Subscription system for emergency information [www.health.vic.gov.au/subscribe](http://www.health.vic.gov.au/subscribe)

State Health Emergency Response Plan 4 (Extract 6.3.2)

Health system practitioners, agencies and hospitals rely on notifications from DHHS to provide situational awareness of the health system. This is fundamental to support planning for mobilisation of resources and the creation of short term capacity (for example, through activating Code Brown) to accommodate additional health system demand and mitigate the adverse health consequences for communities. Health system practitioners, agencies and hospitals should also maintain their own situational awareness and mobile resources as necessary in the absence of notifications from DHHS.

The relevant Commander or Coordinator (or delegate) will issue a ‘first wave’ alert for any incident that may present a substantial risk to the health and wellbeing of Victorian communities. The alert provides a state-wide communication to the Victorian public and private health sector, including:

* all public health services
* all private hospitals
* other health sector stakeholders, as appropriate, to support the response (private pathologies).

Actions for the health system

All practitioners, agencies and hospitals operating within these arrangements are required to have:

* a single point of contact that is monitored at all times for receiving DHHS notifications
* a plan to escalate their response if and as required.

All health system services that receive a ‘first wave’ alert need to consider what, if any, impact the incident will have on their operations and respond as required.

**First wave alert health system service responsibilities**

Each health system service must provide the department with a ‘health service single contact point’ for emergency management purposes, comprised of the following contact points, all of which are monitored 24 hours, 7 days per week:

* a mobile telephone number service capable of receiving SMS
* an email address and a land line.

<https://www2.health.vic.gov.au/emergencies/shera>

Refer to Appendix 7 – Flowchart of activation.

**Acronyms and abbreviations**

|  |  |
| --- | --- |
| **AHMAC** | Australian Health Ministers’ Advisory Council |
| **AHPPC** | Australian Health Protection Principal Committee |
| **AHMC** | Australian Health Ministers’ Conference |
| **ANZSBT** | Australian and New Zealand Society of Blood Transfusion |
| **BMC** | Blood management committee |
| **CEO** | Chief Executive Officer |
| **COAG** | Council of Australian Governments |
| **DHS** | Department of Human Services |
| **EBMT** | Emergency blood management team |
| **EBMP** | Emergency blood management plan |
| **JBC** | Jurisdictional Blood Committee |
| **Lifeblood** | Australian Red Cross Lifeblood |
| **MBOS** | maximum blood order schedule |
| **NBA** | National Blood Authority |
| **NBSCP** | National Blood Supply Contingency Plan |
| **NHMRC** | National Health and Medical Research Council |
| **SHERP** | State Health Emergency Response Plan |

**References**

National Blood Supply Contingency Plan (NBSCP) Version 2, as endorsed by JBC June 2019. <https://www.blood.gov.au/nbscp>

Victorian Department of Health and Human Services State Health Emergency Response Plan 4 (SHERP) <https://www2.health.vic.gov.au/emergencies/shera>

Victorian First Wave Alert

<https://www2.health.vic.gov.au/emergencies/shera>

Guidelines for Transfusion and Immunohaematology Laboratory Practice1st Edition 2016, Revised January 2020 <https://anzsbt.org.au/guidelines-standards/anzsbt-guidelines/>

**SECTION A:**

**Health Service response to activation of the National Blood Supply Contingency Plan as outlined in Annex A, B, C & D, NBSCP 2019.**

**Health service organisations/clinician’s and EBMT’s Flow Chart**

**De-activate**

* Participates in briefing if appropriate.
* Health service organisations or emergency product management teams to undertake internal debrief and evaluation of their process and amend as necessary

**Red Activate – continue activities from white and yellow activate, plus:**

* Implements national strategies agreed by AHPPC/ COAG cancellation of elective surgery requiring affected product.
* Transfer product as directed by governments/NBA/Lifeblood using BloodNet

**Yellow activate – continue activities from white alert plus:**

* Activate emergency product management arrangements, which should include only ordering product for specific patient categories if requested to do this.
* Increase product minimisation strategies and treatment alternatives.
* Consider prioritising surgery to minimise product use.
* Commence centralised vetting process - EMBT/nominated clinician to coordinate and authorise all product orders.

**White alert phase – acute shortage in more than one jurisdiction or a shortage in one jurisdiction will impact on more than one jurisdiction**

* Reviews emergency product management arrangements to ensure currency.
* Activate emergency product management arrangements.
* Place institution on alert.
* Identify a clinician who will coordinate and authorise all product orders in following alerts.
* Provide inventory level updates and batch details to the NBA via BloodNet as requested.
* Arrange inter-hospital product transfer as requested by NBA to ensure equity of access nationally.

**Pathology provider response to activation of the National Blood Supply Contingency Plan as outlined in Annex A, B, C & D, NBSCP 2019.**

**Pathology Provider Flow Chart**

**White alert phase – acute shortage in more than one jurisdiction or a shortage in one jurisdiction will impact on more than one jurisdiction**

* Implements optimal inventory management practices such as reducing cross matching hold time.
* Comply with maximum blood ordering schedule (MBOS) (Australian and New Zealand Society of Blood transfusion Guidelines)
* Notify customer base of status.
* Identify a clinician who will coordinate and authorise all product orders in following alerts
* Provide inventory levels to the NBA at the frequency requested through BloodNet.
* Arrange inter-hospital/pathology transfer as requested by NBA to ensure equity of access nationally.

**Yellow activate – continue activities from white alert plus:**

* Participate with institutions emergency product management arrangements, which should include only ordering product for specific patient categories, if requested to do this.
* Commence centralised coordination and vetting process of all product orders from affiliated institutions.

**Red Activate – continue activities from white and yellow activate, plus:**

* Implement strategies to assist in the implementation of approach agreed by AHPPC/ COAG.
* Transfer product as directed by governments/NBA/ Lifeblood though BloodNet.

**De-activate**

* Participates in briefing if appropriate.
* Participate in affiliated health service organisation debriefing arrangements, as necessary

**Example Emergency Blood Management Plan**

The EBMP provides details to manage blood shortages. However, the first section describes best practice for transfusion services in both health service and pathology, when blood inventory is meeting demand and there is no imminent threat to supply.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **National stage** | **Invoked by** | **Desired outcomes** | **Health service response/ actions** | **Transfusion service** **(Pathology) response** |
| **Normal Inventory** |  | Maintenance of blood supply for optimal patient management. | Everyday best practice:   * Following the PBM Guidelines for the appropriate use of blood products. * Follow ANZSBT MBOS * Every request for transfusion clearly states the indication for transfusion. * Optimise preoperative assessment and action to correct anaemia and defects in haemostasis. * Promotion of blood conservation strategies, including the use of cell salvage techniques. * Use of pharmacological methods to minimise bleeding and maximise haemoglobin. * Advance notification to the transfusion laboratory of elective admissions that could impact on the blood supply. * Education/training sessions for staff of all levels on both the EBMP and optimal blood management practices. * Establish a Blood management committee or equivalent and Transfusion nurse/safety officer or clinical champion and development of an EBMT. | Ideal inventory levels  Ongoing monitoring of stock and wastage figures.  Liaise with Lifeblood.  Use of electronic blood issue to reduce the stock of blood held in hospitals. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **National stage** | **Invoked by** | **Desired outcomes** | **Health service response/ actions** | **Transfusion service** **(Pathology) response** |
| * **White Alert** | NBA Chief Executive  NBA in consultation with the suppliers will communicate a move to the white alert by normal communication channels to the manager of the transfusion laboratory or senior blood bank scientist. The shortage may apply to a single or multiple blood groups/products. | Maintenance of blood supply for optimal patient management.  Prepare for alert escalation. | Everyday best practice  No change in transfusion practice  Review Emergency Blood Management Plan to ensure current.  Chair of EBMT or nominee to place Emergency Blood Management Team on alert and identify a clinician who will coordinate and authorise all product orders in following alerts.  EBMT to review blood access priorities.  (Appendix 2 & 3)  Consider alternatives or other supportive therapies to blood transfusions (e.g. EPO, iron infusions, cell salvage, and tranexamic acid). | Inventory maybe reduced.  Assess inventory/stock levels and maintain optimal inventory management.  Haematologist or Haematology Registrar/or EBMT nominated clinician to vet blood requests outside the PBM guidelines.  Liaise with Divisional Directors/or equivalent regarding elective admissions/procedures that will or are likely to require blood transfusion.  Liaise with Lifeblood regarding inventory and expected need. |
| **National stage** | **Invoked by** | **Desired outcomes** | **Health service response/ actions** | **Transfusion service** **(Pathology) response** |
| * **Yellow Activate** | Escalation of White Alert  RBC: The initiating jurisdiction has < 3 days of stock, or national stock levels < 3 to 5 days  Plasma & recombinant product: stock or work in progress may be at known or potentially high risk of ‘failure’  Platelets:<0.5days of stock nationally  NBA in consultation with the suppliers will communicate a move to the yellow activate by normal communication channels to the manager of the transfusion laboratory or senior blood bank scientist and through BloodNet. The shortage may apply to a single or multiple blood groups/products.  After advice from the NBA the DHHS will communicate a move to the yellow activate via normal communication channels to the CEO/nominated contact. | Increased focus on best practice.  Prepare for action.  Decrease non-urgent blood product use, to ensure availability for emergency and priority patients (based on clinical assessment).  Prepare for escalation to red alert activation. | Chair of EBMT or nominee to activate/escalate local Emergency Blood Management Plan.  Commence centralised coordination of requests (Appendix 4).  EBMT and nominated clinician to review blood access priorities.  (See Appendix 2 & 3)  EBMT to review planned elective admissions / procedures that will or are likely to require transfusion.(See Appendix 5 & 6)  Consider earlier intervention with other supportive therapies/targeted therapy (e.g. recombinant Factor VIIa, tranexamic acid & DDAVP, use of point of care testing) as advised by a Consultant Haematologist.  Consider alternatives to blood transfusions (e.g. EPO, iron infusions, cell salvage).  Consider tolerance of anaemia and use of single unit transfusion. | Further reduction in inventory.  Reassess inventory / stock levels  Liaise with EBMT regarding elective admissions / procedures that will or are likely to require blood transfusion.  Liaise with Lifeblood regarding inventory and expected need.  Haematologist or Haematology  Registrar/EBMT nominated clinician to vet all blood requests and those > 2 units. |
| **National stage** | **Invoked by** | **Desired outcomes** | **Health service response/ actions** | **Transfusion service** **(Pathology) response** |
| * **Red Activate** | Escalation of Yellow activate  RBC: National stock levels < 3 days  Plasma & recombinant product: stock or work in progress may be at known or potentially high risk of ‘failure’  Platelets: continues at <0.5days of stock nationally or deteriorates further  After consultation with NBA and Lifeblood/other suppliers, DHHS will communicate a move to the red activate via normal communication channels to the CEO/nominated contact. Lifeblood will continue ongoing communication with the manager of the transfusion laboratory or senior blood bank scientist.The shortage may apply to a single or multiple blood groups/products. | Conserve blood stocks to allow on-going support to emergency and time-critical patients | Emergency Blood Management Team to critically review blood access priorities  (See Appendix 2 & 3)  Health service executive to review planned elective admissions/procedures that will or are likely to require transfusion (see Appendix 5 & 6).  EBMT/nominated clinician to review blood access priorities and blood requests. (See Appendix 2 & 3)  EBMT must communicate with theatre, surgeons and physicians to ensure that all units are made aware of the changes to patient lists and necessary cancellations.  Cancellations and re-scheduling of procedures must then be communicated to the individual patients via the administration of the sub-specialty units.  Health service support for earlier interventions and use of non-blood therapies as advised by a Consultant Haematologist.  Consider alternatives to blood transfusions (e.g. EPO, iron infusions, cell salvage) tolerance of anaemia and use of single unit transfusion. | Critical inventory reduction.  Reassess inventory / stock levels  Liaise with EBMT regarding elective admissions / procedures that will or are likely to require blood transfusion.  Liaise with Lifeblood regarding inventory and expected need.  Haematologist or Haematology  Registrar/EBMT nominated clinician to vet all blood requests.  Transfer blood products as directed by NBA/government/Lifeblood |
| **National stage** | **Invoked by** | **Desired outcomes** | **Health service response/ actions** | **Transfusion service** **(Pathology) response** |
| * **Deactivate** | Following NBA notification DHHS will inform the CEO that stocks have returned to pre-white alert level acceptable nationally. | Resume normal activities phased in as advised to ensure that the immediate demand does not return the stocks to below critical levels.  In particular, elective surgery backlogs should not be compressed into the immediate post recovery period.  Review of practices that will diminish likelihood of impact of similar situation.  Evaluate effectiveness of implementation of the EBMP. | EBMT to inform staff of the stand-down.  Revise elective patient management accordingly.  The EBMT should convene at the earliest opportunity to review the effect of the blood shortage and cancellation of procedures with a view to improve the EBMP.  Blood Management Committee to review any recommendations made by the EBMT regarding the EBMP.  Each clinical area to review their response to the EBMP. | Inventory increased.  Participate in internal and external debriefing programs as required. |

* To help prioritise the patients who should be treated, as shortages become more severe, three broad patient groups of blood access priorities are identified in ‘Guidance for red cell prioritisation’ Appendix 2 and Guidance for platelets’ Appendix 3.

**Appendix 1: Membership of Emergency Blood Management Team**

|  |  |  |
| --- | --- | --- |
| **Position\*** | **Name** | **Contact Details** |
| Chief Executive Officer or nominee |  |  |
| Executive Director of Medical Services or nominee |  |  |
| Executive Director of Surgical Services or nominee |  |  |
| Executive Director of Nursing or nominee |  |  |
| Director of Operations or Clinical Services |  |  |
| Director of Intensive Care or nominee |  |  |
| Director of Anaesthetics or nominee |  |  |
| Director of Emergency Department or nominee |  |  |
| Chair of Blood Management Committee/or equivalent |  |  |
| Senior Haematologist, Transfusion Laboratory/Transfusion Medicine Specialist |  |  |
| Senior Scientist, Transfusion Laboratory/pathology service |  |  |
| Transfusion Nurse or equivalent |  |  |
| Risk Manager |  |  |
| Divisional Directors as required |  |  |
| Unit Managers as required |  |  |

\* This list is a suggested guide and each health service should determine the members that will manage any activation of the NBSCP at their individual health service/pathology.

**Appendix 2: Guidance for prioritisation of red blood cell transfusions**

Governments cannot predetermine the treatment of patients nor generalise on what the most effective treatment regime may be, this is the responsibility of the treating clinician. In some circumstances such as those presented under an activation of the NBSCP, it may be necessary to restrict the availability of transfusions to patients with the greatest need. This decision should be made by the clinician, within the framework and arrangements established by the treating institution.

To support and assist clinicians and institutions with these decisions the following high level guide is suggested, which in descending order of urgency, classifies patients into **Blood Accesses Priority levels 1 – 3**, with patients in Blood Access Priority 1 having the highest priority for transfusion, noting these are suggested categories only and are not mandated. It is clearly the responsibility of the treating clinician and institution to determine the appropriate treatment of a patient based on available blood products. (NBA NBSCP Annex A)

**Blood Access Priority 1**

Resuscitation

* Resuscitation from life threatening or ongoing blood loss from any cause, including major trauma and obstetric haemorrhage.

Surgical support

* Emergency surgery (defined as a patient likely to die within 24 hours without surgery), including cardiac and vascular procedures.
* Urgent surgery (defined as a patient likely to have major morbidity if surgery not carried out).
* Organ transplantation that cannot be deferred.

Nonsurgical anaemia

* Life threatening anaemia, including patients requiring in utero support or in neonatal intensive care.
* Support for stem cell transplantation or chemotherapy that cannot be delayed.
* Patients with severe bone marrow failure, haemoglobinopathies or other conditions who cannot tolerate any delay in transfusion.

**Blood Access Priority 2**

Surgery and obstetrics

* Semi urgent surgery (defined as a patient likely to have minor morbidity if surgery is not carried out).
* Cancer surgery that cannot be deferred without risk to patient.
* Symptomatic, but non-life threatening, postoperative or postpartum anaemia.

Nonsurgical anaemia

* Symptomatic but non-life-threatening anaemia, (including postoperative) of any cause that cannot be managed by other means

**Blood Access Priority 3**

Surgery

* Elective surgery requiring cross matched red blood cell support of two or more units of homologous donor blood.

Nonsurgical anaemia

* Other non-urgent medical indications for transfusion.

**Note**: when considering priority of patients for transfusion, alternative actions may include:

* Transfusion alternatives e.g. erythropoietin, iron therapy, patient blood management
* Consider tolerance of anaemia and use of single unit transfusion.

**Appendix 3: Guidance for prioritisation of platelet transfusions**

**Platelet Priority 1** (NBA NBSCP Annex C, July 2019)

During periods when platelet supply is constrained, the following patients have the highest priority for platelet transfusion and are classified as “Platelet Priority 1”.

**Patients with clinically significant bleeding1**

* Patients with clinically significant bleeding in whom thrombocytopenia or platelet dysfunction is thought to be a major contributory factor.
* Patients with critical bleeding requiring massive blood transfusion.
* Patients with clinically significant bleeding in the presence of acute Disseminated Intravascular Coagulopathy (DIC) and a platelet count <50x109/L.
* Patients requiring platelet support for immediate or urgent surgery2
* Patients who require immediate or urgent surgery with a platelet count <50 x109/L or with functional platelet defects.
* Patients who require immediate or urgent neurosurgery, intraocular or neuroaxial surgery with a platelet count <100x109/L or with functional platelet defects.

**Platelet Priority 2**

During periods when platelet supply is constrained, the following patients have moderate priority for platelet transfusion and are classified as “Platelet Priority 2”.

**Patients at high risk of critical bleeding**

* Patients with head injury and a platelet count <100x109/L.
* Neonates with Neonatal Alloimmune Thrombocytopenia (NAIT) (platelet count <30x109/L).
* Neonates with severe thrombocytopenia (<25x109/L for term neonates and <30-50x109/L for preterm neonates).
* Patients requiring prophylactic platelet transfusion for prevention of bleeding
* Patients with severe thrombocytopenia undergoing chemotherapy and haematopoietic stem cell transplantation with a platelet count of <10x109/L in the absence of risk factors and at <20x109/L in the presence of risk factors (e.g. fever).
* Critically ill patients with a platelet count of <20x109/L.

**Platelet Priority 3**

During periods when platelet supply is constrained, the following patients have the lowest priority for platelet transfusion and are classified as “Platelet Priority 3”.

* Patients requiring platelet support for expedited surgery3 or invasive procedures
* Patients who require expedited surgery with a platelet count <50x109/L or with functional platelet defects.
* Patients who require expedited neurosurgery, intraocular or neuroaxial surgery with a platelet count <100x109/L or with functional platelet defects.
* Patients requiring expedited invasive procedure or biopsy with a platelet count <50x109/L or with functional platelet defects.

**Patients requiring platelet support for elective surgery**4

* Elective surgery in patients who may require platelet support for thrombocytopenia or functional platelet defects.

1 Immediate: Immediate life, limb or organ-saving operation. Resuscitation simultaneous with surgical treatment. Operation within minutes of decision to operate (e.g. laparotomy / thoracotomy for control of haemorrhage).

2Urgent: Acute onset or deterioration of conditions that threaten life, limb or organ survival or for relief of distressing symptoms. Operation within hours of decision to operate and normally once resuscitation completed (e.g. laparotomy for perforation). Australia & New Zealand Gastric & Oesophageal Surgery Association Audit Data Dictionary. Version 3. Morbidity Audits Department Research, Audit and Academic Surgery Division; Jan 2013. Urgency of Surgery; p. 43.

3 Expedited: Stable patient requiring early intervention for a condition that is not an immediate threat to life, limb or organ survival. Operation within days of decision to operate). Australia & New Zealand Gastric & Oesophageal Surgery Association Audit Data Dictionary. Version 3. Morbidity Audits Department Research, Audit and Academic Surgery Division; Jan 2013. Urgency of Surgery; p. 43.

4 Elective: Surgical procedure planned or booked in advance of routine admission to hospital. Operation at a time to suit both patient and surgeon. ). Australia & New Zealand Gastric & Oesophageal Surgery Association Audit Data Dictionary. Version 3. Morbidity Audits Department Research, Audit and Academic Surgery Division; Jan 2013. Urgency of Surgery; p.43

**Appendix 4: Emergency Blood Management Plan activation log**

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Time:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Incident: white alert/yellow alert/red alert/deactivate

Blood product/s implicated:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Available local supply

Available supply at Lifeblood

EBMT attendance

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Positon | Name | Present | ETA | Unable to contact |
| Chair/Commander |  |  |  |  |
| Executive representatives |  |  |  |  |
| Directors of Clinical Services, ICU, Anaesthetics, Emergency |  |  |  |  |
| Chair of Blood Management Committee/or equivalent |  |  |  |  |
| Senior Haematologist, Transfusion Laboratory/Transfusion Medicine Specialist |  |  |  |  |
| Senior Scientist, Transfusion Laboratory/pathology service |  |  |  |  |
| Transfusion Nurse or equivalent |  |  |  |  |
| Risk Manager |  |  |  |  |
| Divisional Directors/or equivalent as required and Unit managers as required |  |  |  |  |

**Appendix 5: Worksheet of surgical triage**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Patient ID and details |  | Type of Surgery | Surgeon/ Anaesthetist | Blood group | Blood product/s required | Estimated usage | Bleeding risk assessment | EBMP blood access priority status | Remarks | Decision to proceed/defer | Surgeon/unit informed | Patient informed/date rescheduled |
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**Worksheet for medical triage**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Patient ID and details | Medical diagnosis | Responsible medical officer | Blood group | Blood product/s required | Estimated usage | Bleeding risk assessment | EBMP blood access priority status | Remarks | Decision to proceed/defer | MO/unit informed | Patient informed/date rescheduled |
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**Appendix 6: Current status/action sheet**

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| --- | --- | --- | --- | --- | --- | --- |
| Date & time | Number of planned admissions | Number of cancellations | Estimated blood product usage | Planned action | Other | By whom |
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**Appendix 7: Emergency blood management plan activation communication flowchart**

Department of Health and Human Services - Victoria

Chief Health Officer – Victoria SHERP alert

Chair of Emergency blood management team (EBMT) & EBMT nominated clinician

Nominated health service personnel for first wave alert

Australian Red Cross Lifeblood

NBA NBSCP activation

EMBT:

* Executive representatives
* Directors of Clinical Services, ICU, Anaesthetics, Emergency
* Chair of Blood Management Committee/or equivalent
* Senior Haematologist, Transfusion Laboratory/Transfusion Medicine Specialist
* Senior Scientist, Transfusion Laboratory/pathology service
* Transfusion Nurse or equivalent
* Risk Manager
* Divisional Directors/or equivalent as required and Unit managers as required

Authorise appropriate action plan for declared NBSCP activation level, ongoing communication with CEO and nominee of transfusions service

Transfusion laboratory manager