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Blood Transfusion and IV Fluids Policy

CM06

Date Written	
Author(s)	
Version	
Date Signed Off	
Reviewed by	

Date: [ ]

Review Data

Initial Production

Name	Role/Department	RACI	Date

R = Responsible for writing the policy; A = Accountable; C = Consulted; I = Informed

Change History

Version	Date	Details of Change	Author

Emergency Contact Details

Name	Email	Mobile

CQC Fundamental Standards

Regulation Number	Regulation Details
Regulation 12: Safe care and treatment	Care and treatment must be provided in a safe way for service users including the proper and safe management of medicines.

Key Lines of Enquiry

KLOE	How this applies to Administration of an Enema or a Suppository
Safe	Ensuring that transfusion is provided safely and as prescribed promotes the overall safety of the service.
Caring	Ensuring that the dignity of the service user is maintained at all times supports the delivery of a caring service.

Related Documents

This policy should be read in conjunction with our:

- CM17 - Dignity and Respect Policy
- HS01 - Health and Safety Policy
- CM24 - Infection Control Policy
- CM25 - Medication Administration Policy
- HR23 - Training, Development and Qualifications Policy

Policy Statement

Policy Aims

Delivering the right blood to the right Service User is essential; failure to do this can result in serious morbidity or mortality for the Service User. Evidence demonstrates that the majority of incidents are due to failure to carry out proper Service User identity checks throughout the transfusion process. The aim of this document is to describe the essential procedures which need to be followed during the administration of blood and blood components to ensure the safest possible outcome for the Service User.

A Service User is required, wherever possible, to give informed verbal consent to transfusion in accordance with Careville Ltd's Consent Policy.

Only blood and blood components prescribed by Medical Staff can be administered to a Service User.

There are 3 key components to blood administration, these are; Service User identification, documentation and communication.

Appropriate identification of the Service User is an essential part of delivering a safe transfusion. All Service Users requiring a transfusion must be positively identified using 3 key identifiers - first name, surname, date of birth.

The appropriate preparation and care of the Service User receiving a transfusion is outlined in the procedure, this includes the requirement for appropriate Service User observations to ensure the transfusion is not having an adverse effect on the Service User.

The policy also states how the administration of blood and blood components must be recorded to allow compliance with the Blood Safety and Quality Regulations 2005.

Our Commitment

Careville Ltd is committed to providing the highest possible standard of care for Service Users undergoing transfusion procedures.

Careville Ltd will ensure that this procedure reflects best practise guidelines in order to provide the best possible outcome for Service Users undergoing transfusion.

Careville Ltd will provide appropriate training to staff involved in this procedure through corporate induction and localised training sessions.

Staff are responsible for compliance with this procedure.

Careville Ltd will provide necessary resource to support this procedure.

Definitions

- Blood refers to red cells suspensions.
- A Blood component refers to platelets, plasma (fresh frozen plasma and Octaplas), cryoprecipitate orgranulocytes.
- Administration is the process of giving the blood or component to the Service User.
- Prescription refers to the written authorization to administer a blood component to a Service User.

Role & Responsibilities

All staff involved in the blood transfusion process should receive regular training and be assessed as competent every 3 years (in accordance with NPSA SPN 14 (2006) for the tasks they are involved in.

Key Question: What are the responsibilities of medical staff?

The medical practitioner prescribing the transfusion should make a full clinical assessment of the Service User including evaluation of the Service User's age, body weight and concomitant medical conditions, to ensure that the transfusion is appropriate.

The rationale for the decision to transfuse, the specific components to be transfused and the volumes required must be documented in the Service Users' Care Records. The relevant pre-transfusion indices and discussion with the Service User must also be documented. The medical practitioner must also communicate any extra observations/special requirements/medications required during the transfusion, to the person administering the transfusion and also document this on the drug chart.

Currently blood and its components must be prescribed by a Medical Practitioner. The prescription MUST be written legibly on a blood transfusion record sheet which carries full Service User identification details.

The Medical Practitioner must complete the transfusion record sheet. The information must include the date and time of transfusion, the donation number and volume given, and the time the transfusion is completed.

If the Service User's condition deteriorates during transfusion the Registered Nurse must contact the prescribing Medical Practitioner to communicate their assessment findings and decide on the appropriate course of action.

The prescribing Medical Practitioner has a responsibility to review the Service User post transfusion and document the outcome in the notes, including any adverse reactions or failure to increment.

It is the responsibility of the prescriber to ensure that the recipient has received an explanation of the risks, benefits and alternatives to transfusion, in line with Careville Ltd's Consent Policy.

Nursing and Allied Health Professionals

Staff must only undertake this procedure once they have completed the training and competency assessment.

Staff must ensure the transfusion has been prescribed by a Medical Practitioner.

Staff must ensure they carry out positive Service User identification using the 3 identifiers; first name, surname, date of birth at all stages in the transfusion process. Where the Service User's core identifiers are unknown, at least one unique identifier and the Service User's gender must be used. If the Service User is unable to participate then a second member of staff should confirm the identity of the Service User.

The Service User must have baseline observations taken prior to transfusion, 15 minutes after the start of the transfusion and at the end of the transfusion. These observations must include pulse rate, blood pressure, temperature and respiratory rate as well as visual inspection for any abnormal clinical features such as fever, rashes or angioedema. Observation must be recorded on the appropriate observation chart to allow calculation of the Early Warning Score. If the Service User's condition should deteriorate during the transfusion, nursing staff must stop the transfusion and alert the prescribing Medical Practitioner.

Staff must complete the transfusion record sheet when the blood and components are being transfused to the Service User. This must include the date and time of transfusion, the donation number and volume given, and the time the transfusion is completed.

Staff must dispose of blood and component bags according to the Infection Control Policy.

Service Users should be observed during the subsequent 24 hours for (or, if discharged, counseled about the possibility of) late adverse reactions.

Procedure

Overnight transfusions should be avoided. Evidence demonstrates that a disproportionate number of errors occur overnight therefore it is recommended that all transfusions be completed by 22:00 hours.

The check must be performed at the side of the Service User about to be transfused.

Checks Prior to Administration

The pre-administration check should be made by two individuals. One, who must be trained & assessed to do this, acts as the primary checker and is responsible and accountable for the bedside identity check - they also administer the transfusion. The secondary checker acts as witness to the accuracy of the checking process.

Check the Service User has consented to receive a transfusion providing they are able to do so.

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Check the Service User's surname, first name and date of birth.

Check the baseline observations have been completed within an hour of the transfusion start time and documented on the observation chart. These must include pulse rate, blood pressure, temperature and respiratory rate, as well as visual inspection for any abnormal clinical features s

The Service User, whenever possible, must be positively identified by asking them to state their name and date of birth and checking the details on the Service User notes.

NO IDENTITY CONFIRMATION = NO BLOOD

The Service User ID must be identical on:

- the Service User notes
- the identification label attached to the unit to be transfused.
- the blood transfusion record sheet

Be particularly diligent in the checking procedure where Service Users are confused or unable to communicate as they cannot verbally confirm their identity, nor are they ideally placed to report early symptoms of a serious transfusion reaction.

Check the donation number (the 'G' number) is identical on the Service User compatibility label on the back of the unit (or on the attached luggage label in the case of platelets) and the NHSBT label on the front of the pack. Ensure that the unit has not passed its expiry date and time.

On occasions the blood group of the unit issued may differ from that of the Service User. The unit will, however, still be compatible with the Service User. Contact blood bank if there is any doubt.

Check that any special requirements have been met e.g. irradiation, CMV negative

Check the expiry date and integrity of the pack for clots, leaks or discolouration.

Should any discrepancies in identification be noted, the unit found to be beyond its expiry date or special requirements appear lacking, do not commence transfusion of the unit. Return the unit to blood bank and report to the prescribing Medical Practitioner immediately. All discrepancies must be investigated and rectifiedbefore the Service User can be transfused.

The checking procedure must be repeatedfor each unit to be transfused.

Administration of Blood and Components

No drugs should be added to blood or component packs. Other intravenous fluids should not be co-administered via an infusion line being used for blood and bloodcomponents.

Blood should not routinely be warmed.

NEVER WARM BLOOD ON RADIATORS, IN HOT WATER OR IN A MICROWAVE OVEN – the result will be potentially lethal red cell damage.

Electronic Infusion pumps may be used for the administration of red cells PROVIDED that the manufacturer's instructions confirm that the pump has been validated for that purpose (Graseby 500 and IVAC pumps are safe to use) and they are CE marked. Otherwise red cell damage and haemolysis can result. Platelets must never be given through an infusionpump.

Standard peripheral intravenous cannulas are suitable for blood component infusion. All blood components can be slowly infused through small-bore cannulas or butterfly needles, e.g. 21 G. For rapid infusion, large-bore cannulas, e.g. 14 G, are needed.

Blood should be transfused through a sterile giving set designed for the purpose. Such sets contain an integral filter (170-200µm) sufficient to remove fibrin debrisetc.

- If blood is being transfused to small infants via syringe, however, a screen filter should be included in the circuit(170-200µm).
- Use 0.9% sodium chloride intravenous infusion for priming the giving sets however this is not normally required.
- The number of red cells units to be transfused via a single giving set is subject to manufacturer's instruction; however, a maximum of eight hours use for transfusion is thenorm.
- The giving set must be changed when the blood/component changes i.e. if platelets are to follow a red cell transfusion, use a new blood or platelet giving set. Platelets can

be given through a standard blood administration set.

- If an I.V. infusion is to continue after the transfusion, do NOT flush the line, use a new giving set
- If multiple venous accesses are present, ensure that blood is not administered at the same time as any other drug likely to also cause an anaphylactic reaction.

Wash hands, and connect the administration set. Gloves and an apron should be worn whilst attaching the blood to the administration set.

Start the transfusion as soon as possible after collection. Ensure the component is administered at the prescribed rate.

- Red cell transfusions must be completed within 4 hours of removal from temperature controlled storage. If you cannot start the transfusion straight away do not put the units in another fridge or near a heat source. If the transfusion cannot be started within the 4-hours then return the component to the blood bank laboratory.
- The expiry date shown on units of RBCs and Platelets is 23:59 hours on the date shown. For liability reasons NO units must be infused beyond this time. If a unit is still running it must be stopped and discarded immediately.

The administrator should observe the Service User for the first 5 minutes after each unit of blood is commenced to identify any indication of transfusion complications.

Recommended Transfusion Times

All transfusion products should be given in the minimum time possible as dictated by the clinical situation. A general guide for routine transfusion on adults is given below.

Component	Routine	Rapid	Exchange
Red Cells	2 hours per unit (Min 90 minutes, Max 3.5 hours)	5-10 minutes per unit (haemorrhage).	Apheresis: 2-hours continuous flow to achieve HbS < 30%* Manual: Partial exchange: (30%blood
Platelets	30 – 60 minutes per unit		
FFP	10-20ml/kg/hour Maximum of 30 minutes per adult pack		
Cryoprecipitate	10-20 ml/kg/hour Maximum of 30 minutes per adult pack		
Granulocytes	1- 2 hours		

* www.sicklecellsociety.org/app/webroot/files/files/CareBook.pdf

Care and Monitoring of Service Users Undergoing Transfusion

Transfusion must only take place when there is enough staff to monitor the Service User and the Service User can be readily observed.

For each unit transfused:

- The Service User should be asked to inform the nurse if they feel at all "different" during the transfusion.
- Observations MUST be performed, recorded and timed on the Service User observation sheet prior to collection of each unit, 15 minutes into each unit's transfusion and at the end of the unit.
- Observations must be taken should the Service User become unwell or show signs of transfusion reaction.
- During the transfusion observe the Service User for signs of: flushing, itching, fever, vomiting, diarrhoea, urticaria, pain at or near transfusion site, rigor, backache, haemoglobinuria, collapse, anaphylaxis and circulatory failure. If any of these occur the transfusion should be stopped and a member of the medical staff should be contacted immediately.
- If the decision is to stop the transfusion, disconnect the administration set immediately and withdraw blood (approx 2mls) from the venous access device. This prevents any further transfused blood from entering the Service User's circulation. Flush with normal saline to maintain its patency. The Service User's observations MUST be recorded.

Post Transfusion

- The time the transfusion ended must be written on the transfusion record sheet and the end observations completed.
- Service Users should be monitored for 24 hours post transfusion.
- Once the transfusion is completed, disconnect the blood administration set. It is not necessary to flush the administration set after transfusion. Further infusion of IV fluids should given using a new IV administration set.
- Empty blood bags do not need to be kept and should be discarded according to the Careville Ltd Clinical Waste Policy and Infection Control Policy. Half empty bags and administration set should be disposed of together in a new sharps bin containing absorbent gelling agent.
- The clinical outcome should be recorded in the Service User notes.
- The recording of all Service User details and the donation number of the packs given is now a legal requirement to allow complete traceability of all units for a period of thirty years.

IV Fluids

Introduction

All staff who undertake the administration of intravenous (IV) therapy via an established route must have attended training with Careville Ltd or be able to provide evidence of recent and suitable study in other organisations. This must be followed by successfully passing a competency based assessment.

The emphasis is to meet the holistic needs of the Service User. Careville Ltd Nurses should only administer IVs to Service Users in their own care.

Indications for IV Therapy

a) Administration of prescribed IV fluids and medication.

b) To maintain and correct electrolyte imbalance.

c) Administration of emergency and life saving medication – where rapid effect is required.

d) Administration of blood and blood products.

e) Administration of Total Parenteral Nutrition.

f) Administration of medication that may not be administered by any other route.

Contra-indications

a) When alternative routes would be as effective e.g. oral

b) When the patency of the vascular access device is indoubt.

c) When administration exceeds a Nurse's competence. This should be passed on to a more experienced Nurse and not omitted.

d) When workload exceeds the ability to carry out administration safely.

e) If a Service User does not give consent.

f) Where it is not clinically indicated.

Principles for Practice

a) IV therapy may only be administered by a currently registered Nurse who has received appropriate training and successfully completed a competency based assessment.

b) First and subsequent doses of medication may be given by a Nurse, provided they are confident that it is safe to do so.

c) The Nurse should only administer drugs with which he/she is familiar. All therapy must be administered via an established vascular access device. E.g. cannula, central venous catheter.

d) IV therapy should be administered according to a correctly completed prescription. i.e. legible, correct Service User details, correct drug, dose, time, route of administration, signed and dated. If this is not the case, the Nurse should not administer the IV. The person's General Practitioner or other appropriate Medical staff must be informed of any omissions and it must be documented in the notes.

e) The Nurse must positively identify the Service User to whom the IV is being administered.

f) 2 registered Nurses must check medication to be administered intravenously,one of whom should also be the Nurse who administers the IV medication.

g) Each Nurse is responsible for checking

- The fluid/drug is the one prescribed
- The integrity of the container

- The expiry date of the drug/fluid
- The appearance of the fluid
- The mode of reconstitution from a powder to a liquid
- Date and time of previous dose
- Any allergies
- Blood levels
- The patency of the vascular access device.

h) Health Care Assistants are not permitted to check IVs

i) All IV therapy must be administered using anaseptic non-touch technique.

j) When an infusion is in progress, the Nurse must ensure that drugs to be given and infusion fluids are compatible. If this is not the case, flushes should be given prior to administration, in between drugs and following administration.

k) All IV therapy should be administered using a 10ml syringe or larger, to comply with manufacturer's guidelines.

l) For intermittent injection, the patency of the vascular access device must be demonstrated with a flush of 5 mls of sodium chloride 0.9% in a 10ml syringe. If more than one drug is being given, the Nurse should administer 2- 3mls flush in between administration. Once administration is complete, the Nurse must administer a flush to ensure that the vascular access device is clean. The amount may vary depending on the device in use.

m) All flushes must be prescribed and the amounts administered documented on fluid balance charts.

n) Intravenous fluids should be prescribed on the correct infusion chart. Rates should be checked hourly. All fluid administered should be documented accurately on a fluid chart

o) All fluids containing potassium must be administered using a volumetric pump. Ideally all fluids should be administered using pumps if they are available.

p) All lines should be clearly labelled with the date and time they were connected.

q) Cannula sites should be checked for signs of phlebitis, infection and infiltration every shift and each time a drug is administered, or infusion connected.

Training and Implementation

Training

All staff must receive full training and complete competency assessment satisfactorily before administering blood or blood products. All records of training attendance are kept on file.

Implementation

This Blood Transfusion and IV Fluids Policy will be introduced to each Registered Nurse at

induction and made available electronically.

Equality Impact Assessment

An equality impact assessment has been undertaken on this draft and has not indicated that any additional considerations are necessary.

Environmental Impact Assessment

An environmental impact assessment has been undertaken on this draft and has not indicated that any additional considerations are necessary.

Key Points to Take Away

- Service User is required, wherever possible, to give informed verbal consent to transfusion in accordance with Careville Ltd's Consent Policy.
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- Only blood and blood components prescribed by Medical Staff can be administered to a Service User.
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Policy Review

A Director will review this policy at least once a year to make any updates needed.

Authorisation and Signature

This Policy is the authorised version agreed by the Directors of Careville Ltd. All employees are expected to follow this policy and failure to do so could result in disciplinary action.

Director's Signature

Director