TRANSFUSION OBSERVATIONS, ADVERSE REACTIONS AND CARE OF THE PATIENT

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WHY DO WE TAKE OBSERVATIONS DURING A BLOOD COMPONENT TRANSFUSION?

- Administration problems
- Febrile reaction (<24 hrs)
- Allergic reaction (<24 hrs)
- Acute haemolytic reaction (<24 hrs)
- Bacterial contamination
- Transfusion-associated circulatory overload
- Transfusion-related acute lung injury
- Delayed haemolytic reaction (>24 hours)
- Post-transfusion purpura
- Transfusion-associated graft-versus-host disease
HOW DO THINGS GO WRONG?

Figure 1: Cumulative data for SHOT categories 1996/7 to 2013 (n=13,141)

- Unclassifiable complications of transfusion
- Post-transfusion purpura
- Transfusion-transmitted infection
- Transfusion-associated cyanopoea
- Autologous
- Acute transfusion reaction
- Transfusion-associated graft vs host disease
- Alloimmunisation
- Transfusion-associated circulatory overhaul
- Transfusion-related acute lung injury
- Haemolytic transfusion reaction
- Avoidable, delayed or undetected transfusion
- Anti-D immunoglobulin
- Handling and storage errors
- Incorrect blood component transfused

Cumulative to 2012
2013

Pathological reactions which may not be preventable

Probably or possibly preventable by improved practice and monitoring

Adverse events caused by error

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WHEN DO WE CARRY OUT OBSERVATIONS?

- Before collection (<1hr of start)
- Within 15 minutes of start
- Blood Component Transfusion
- At appropriate intervals (if required)
- When complete (<1hr of end)
WHICH OBSERVATIONS DO WE DOCUMENT?

- Temperature
- Pulse
- Blood Pressure
- Respiratory rate
WHAT SIGNS AND SYMPTOMS SHOULD WE BE LOOKING FOR?

- Patient feeling feverish, hot and clammy
- Shivering or ‘cold chills’
- Breathing problems
- Extreme tiredness
- Passing much less, very dark or blood in the urine
- Swelling
- Itchy skin rash
- Pain in the lower back (loin pain)
- Unexpected or unexplained bruising
- Jaundice (yellow colour in whites of eyes or skin)
- Nausea or vomiting

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WHAT SHOULD HAPPEN IF YOUR PATIENT IS HAVING A SUSPECTED REACTION?

Stop
- Stop the transfusion if appropriate
- Maintain venous access
- Inform Nurse in charge / Doctor

Check
- Check and document patient observations
- Check correct unit given to patient

Test
- Take blood samples to identify type of reaction
- Return blood unit(s) to transfusion for further testing and microbiology
Advice following a blood transfusion

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Most blood transfusions take place without problems but having a blood transfusion carries with it a very small risk of developing side effects. These may develop within several hours, or in some cases may happen days or weeks later. These side effects are often mild, but it is still important to report any unusual or unexpected symptoms to a doctor or nurse (or midwife if your transfusion was related to pregnancy/childbirth).

Please contact the hospital for advice if you experience any of the following after having a blood transfusion:

- A high temperature – feeling feverish, hot and clammy
- Shivering or ‘cold chills’
- Breathing problems
- Extreme tiredness
- Passing blood in your urine
- Passing much less, or very dark, urine
- Itchy skin rash
- Pain in the lower back (loin pain)
- Unexpected or unexplained bruising
- Jaundice (yellow colour of the white of your eyes or your skin)

When contacting the hospital for advice, please inform the hospital staff that you have recently had a blood transfusion.

References

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How to contact us:

www.nbt.nhs.uk

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KEY POINTS TO REMEMBER

**Donor Exposure**
- Each blood unit comes from an individual blood donor
- The risk of reaction does not reduce if patient previously transfused
- Observations must be carried out for all components and all transfusions

**Patients At Higher Risk of Reaction**
- Patients who are allergic to other things are more likely to suffer an allergic reaction to blood
- Patients who have reacted to blood components before are more likely to react again
- These patients may require more frequent observations

**Key Management Requirements**
- Severe ATRs occur in about 1 in 7000 units transfused
- Transfusion should only take place when there are enough staff available to monitor the patient
- Transfusions overnight should be avoided unless clinically essential (or where staffing levels are maintained overnight)
ANY QUESTIONS?
REFERENCES
