Health Service Circular

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sets out a specific action on the part of the recipient with a deadline where appropriate

Better Blood Transfusion

Appropriate Use of Blood

For action by:

Health Authorities (England) - Chief Executive

Health Authorities (England) - Directors of Public Health

NHS Trusts - Chief Executives

Primary Care Trusts - Chief Executives and Main Contacts

For information to:

Chief Medical Officers Wales/Scotland/Northern Ireland

Chief Executive: National Blood Authority

Medical Director: National Blood Authority

Nursing Statutory Bodies - Chief Executives

Professional Associations and Royal Colleges

Regional Directors of Public Health

Regional Directors of Performance Management

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http://www.doh.gov.uk/publications/coinh.html

Better Blood Transfusion

Appropriate Use of Blood

Summary

This Health Service Circular replaces HSC 1998/224 *Better Blood Transfusion* and sets out a new programme of action for the NHS to:

- Ensure that *Better Blood Transfusion* is an integral part of NHS care
- As part of clinical governance responsibilities, make blood transfusion safer
- Avoid unnecessary use of blood in clinical practice
- Provide better information to patients and the public about blood transfusion

The programme of action should be considered in conjunction with Annex A of this circular that provides further detail on implementation.

There is an expectation that implementation/compliance to this guidance will be subject to inspection by CHI or its successor organisation.

A toolkit to assist Trusts is being developed and will be placed on the *Better Blood Transfusion* website and will include access to national guidance, patient leaflets and examples of good practice.

Rationale

The appropriate use of donor blood and the use of effective alternatives to donor blood are becoming increasingly important public health and clinical governance issues.

- Appropriate blood transfusion is an essential support to many medical treatments and is life-saving.
- Donated blood is a limited resource. As a result of further measures that may have to be taken to reduce the unknown risk of transmission of vCJD by blood transfusion, such as the introduction of a future screening test and limitations on the number of donors, blood supplies may be reduced.
- The safety of blood transfusion is highlighted yearly through the Serious Hazards of Transfusion (SHOT) scheme (a confidential enquiry for the reporting of serious complications of blood transfusion and near miss events in the UK). This scheme has shown that avoidable, serious hazards of blood transfusion continue to occur in Trusts the most common being giving the wrong blood to patients.
- There is continued wide variation in the use of blood (particularly in surgery and surgical specialities) even with the existence of national and local clinical guidelines developed by clinical professionals on the appropriate use of donor blood.

ACTION

- This guidance is addressed to all Trusts providing blood transfusion
- Primary Care Trusts (PCTs) and NHS Trusts should work together to implement the attached action programme
- NHS Trust Boards should formally review arrangements for Better Blood Transfusion and the appropriate use of blood at least annually;
- Health Authorities should ensure that the NHS has robust Better Blood Transfusion arrangements (including the implementation of clinical governance arrangements) in accordance with the timetable set out in this Circular

Action

- **Ensure that *Better Blood Transfusion* is an integral part of NHS care**

Objective	Action	By whom and when
Secure appropriate arrangements for *Better Blood Transfusion* and the appropriate use of blood.	• Ensure senior management and Board level commitment	Chief Executives of NHS Trusts By December 2002
	• Secure appropriate membership and functioning of the Hospital Transfusion Committee	Chief Executives of NHS Trusts By December 2002
	• Secure appropriate composition and functioning of a Hospital Transfusion Team (Annex A) including support staffing and resourcing	Chief Executives of NHS Trusts By April 2003
	• Ensure that appropriate blood transfusion policies are in place, implemented and monitored	Chief Executives of NHS Trusts with Hospital Transfusion Committees and Teams By April 2003
	• Ensure that education and documented annual training on blood transfusion policies are administered to all health care staff involved in the process of blood transfusion and is included in the induction and orientation programmes for new staff	Chief Executives of NHS Trusts working with Hospital Transfusion Committees and Teams By April 2003
Improve the quality of service provision through clinical audit and continuing professional development	• Review the blood transfusion content of clinical multi-disciplinary audit and CPD programmes for NHS Trust staff, including the Hospital Transfusion Team	Chief Executives of NHS Trusts working with clinical governance leads and Hospital Transfusion Committee and Teams By April 2003
	• Ensure participation in the Blood Stocks Management Scheme	Chief Executives of NHS Trusts with Hospital Blood Banks and Hospital Transfusion Teams By April 2003

- **Make blood transfusion safer**

Objective	Action	By whom and when
Improve the safety of the blood transfusion process	• Ensure that policies on patient identification are in place, implemented and monitored throughout the blood transfusion process from prescription, sampling, laboratory testing and issue of blood to collection and administration of blood transfusion	Chief Executives of NHS Trusts working with clinical governance leads, clinicians, hospital staff, blood transfusion laboratories, Hospital Transfusion Committees and Teams By December 2002
	• Ensure good hospital transfusion laboratory practice and encourage participation in national laboratory accreditation schemes	Chief Executives of NHS Trusts working with blood transfusion laboratories and Hospital Transfusion Committee By April 2003
Ensure that information for the traceability of blood is recorded and retrievable	• Review the data recording and retrieval systems for blood transfusion	Chief Executives of NHS Trusts working with clinical governance leads, Hospital Transfusion Committees and Teams By April 2003
Ensure that information is available for monitoring the safety and appropriate use of blood	• Ensure appropriate staffing and IT support to undertake monitoring	Chief Executives of NHS Trusts working with clinical governance leads, Hospital Transfusion Committees By April 2003
	• Ensure that a minimum dataset (see Annex A) for each transfusion is documented	Hospital Transfusion Committee and Teams working with clinicians By April 2003
Ensure that reporting of serious adverse events related to blood transfusion and near misses is being undertaken	• Ensure that appropriate and timely information is provided to the Hospital Transfusion Team	Chief Executives of NHS Trusts working with clinicians, blood transfusion laboratories, Hospital Transfusion Teams By December 2002
	• Ensure timely feedback to blood users on subsequent lessons learnt	Hospital Transfusion Teams By December 2002
	• Ensure participation in the Serious Hazards of Transfusion (SHOT) scheme and that timely reporting is in place	Chief Executives of NHS Trusts By December 2002

- **Avoid unnecessary use of donor blood in clinical practice**

Objective	Action	By whom and when
Ensure the appropriate use of blood and use of effective alternatives in clinical practice	• Implement existing national guidance (see Annex A) on the appropriate use of blood and alternatives	Chief Executives of NHS Trusts working with clinicians and Hospital Transfusion Committee and Teams By December 2002
Secure appropriate and cost-effective provision of blood transfusion and alternatives in surgical care	• Ensure that mechanisms are in place for the pre-operative assessment of patients for planned surgical procedures	Chief Executives of NHS Trusts working with clinicians and Hospital Transfusion Teams By April 2003
	• Ensure that indications for transfusion are in place, implemented and monitored	Hospital Transfusion Committees and Teams By April 2003
	• Review and explore the use of effective alternatives to donor blood and the appropriate use of autologous blood transfusion; pre-donation, peri-operative and post-operative cell salvage	Chief Executives of NHS Trusts working with clinicians and Hospital Transfusion Committees and Teams By April 2003

- **Provide better information to patients and the public about blood transfusion**

Objective	Action	By whom and when
Ensure patients at risk of transfusion are informed of their choices	• Ensure that timely written information is made available to patients on blood transfusion and alternatives	Hospital Transfusion Committees working with clinicians, patient groups and Primary Care Trusts By April 2003

- **Monitoring of arrangements for Better Blood transfusion**

Objective	Action	By whom and when
Promote the safe and appropriate use of blood and cost-effective alternatives in Trusts	• Ensure that services commissioned are safe and value for money in relation to *Better Blood Transfusion*	Primary Care Trusts working with NHS Trusts By April 2003
	• Ensure that services for *Better Blood Transfusion* being provided are operating effectively and are part of local performance management arrangements	Health Authorities By April 2003

Background

The Chief Medical Officer's *Better Blood Transfusion* conference was held in October 2001 jointly organised by the National Audit Office, the National Blood Service and the Department of Health and chaired by the UK four Chief Medical Officers. The aim of this multidisciplinary conference was to share views on how clinical blood transfusion practice could be improved with the following aims:

- Ensure that *Better Blood Transfusion* is an integral part of NHS care
- Make blood transfusion safer
- Avoid unnecessary use of blood in clinical practice
- Provide better information to patients and the public about blood transfusion

A survey of NHS Trusts in England of progress that had been made in blood transfusion practice since the first Evidence-Based Blood Transfusion conference in 1998 was presented at the conference.

It highlighted that in some areas of blood transfusion practice, there was very good progress:

- The establishment of Hospital Transfusion Committees
- Participation in the Serious Hazards of Transfusion (SHOT) scheme

In other areas, more needed to be done:

- Multidisciplinary staff training in the process of blood transfusion
- The availability of Hospital Transfusion Practitioners
- Local approved protocols based on national guidelines for the appropriate use of blood
- Audit of blood transfusion practice
- The use of autologous blood transfusion
- The provision of written information to patients on blood transfusion.

The results of the survey, presentations and conclusions from the conference workshops can be found on the *Better Blood Transfusion* website www.doh.gov.uk/bbt2.

Associated Documentation

ANNEX 1 - Information for Implementation of Better Blood Transfusion:

This Circular has been issued by:

Sir Liam Donaldson
Chief Medical Officer

ANNEX A

Information for Implementation of Better Blood Transfusion Managing Better Blood Transfusion at Trust level

1. Trusts involved in blood transfusion should establish a **Hospital Transfusion Committee** (HTC) with the authority and resources to take the necessary actions to improve transfusion practice or share a committee between Trusts.

   An HTC should:

   - Promote best practice through local protocols based on national guidelines.
   - Lead multi-professional audit of the use of blood components within the NHS Trust, focusing on specialties where demand is high e.g. certain surgical specialties and haemato-oncology.
   - Audit the practice of blood transfusion against the hospital policy and national guidelines, focussing on critical points.
   - Provide feedback on audit of transfusion practice and the use of blood to all hospital staff involved in blood transfusion.
   - Promote the education and training of all clinical, laboratory and support staff involved in blood transfusion, including the collection of specimens.
   - Have the authority to modify and improve existing blood transfusion protocols and to introduce appropriate changes to practice.
   - Be a focus for local contingency planning for and management of blood shortages.
   - Report regularly to Regional Transfusion Committees, and through them, to the National Blood Transfusion Committee.
   - Participate in the activities of the Regional Transfusion Committee.
   - Consult with local patient representative groups where appropriate.
   - Contribute to the development of clinical governance.

2. Trusts involved in blood transfusion should implement arrangements for promoting good transfusion practice through the development of an effective clinical infrastructure. Trusts should establish a **Hospital Transfusion Team** (HTT). This should consist of the **lead consultant for transfusion** in the Trust (with sessions dedicated to blood transfusion), a **hospital transfusion practitioner** or equivalent (e.g. nurses, biomedical scientists, medical professionals), and the **blood bank manager** with or without other members of the HTC. There should be identified clerical, technical, managerial and IT support as required, and access to audit and training resources to promote and monitor safe and effective use of blood and alternatives.

   The role of the HTT is to:

   - Assist in the implementation of the HTCs objectives
   - Promote and provide advice and support to clinical teams on the appropriate and safe use of blood
   - Actively promote the implementation of good transfusion practice
   - Be a source for training all hospital staff involved in the process of blood transfusion

3. Large Trusts or Trusts with more than one site will need to ensure they have adequate coverage by the hospital transfusion team and the hospital transfusion practitioner to ensure that good transfusion practice is implemented in all clinical areas. Further information on the role of the hospital transfusion practitioner will be made available through the *Better Blood Transfusion* website.

4. If a HTC or HTT and its members cover more than one Trust, arrangements should be in place to ensure that there is sufficient cross-Trust representation. Trusts should also ensure that there are adequate resources and mechanisms for ensuring the safe, effective and appropriate use of blood at all the Trust sites involved in blood transfusion.

5. HTCs should implement good transfusion practice through Trusts' frameworks for clinical governance, and performance and risk management (Clinical Negligence Standards for Trusts (CNST) standards). Senior Trust management should be represented on the HTC. There should

be HTC representation on the Trust's clinical governance / risk management committee and the HTC representative invited to present an annual report on blood transfusion.

6. HTCs should work in a partnership with blood users, blood services and patients to improve the safety and effectiveness of blood transfusion.

7. HTCs should participate in the appropriate activities of the Regional and National Blood Transfusion Committees for implementing and monitoring good transfusion practice.

Training and Education

8. Trusts should provide regular (annual) documented training in safe and effective transfusion practice for all staff involved in the transfusion process from prescription to final administration and monitoring (including phlebotomists, laboratory staff, porters, nurses and medical staff) in line with national guidelines. Examples of training modules and how they may be accessed will be made available through the *Better Blood Transfusion* website.

9. Trusts should review the blood transfusion content of clinical multi-disciplinary audit and CPD programmes for NHS Trust staff, including the Hospital Transfusion Team.

10. Trusts should ensure that blood transfusion is included in the induction and orientation programmes for new staff.

Patient Information

11. Trusts should provide timely written information about blood transfusion and its alternatives, wherever possible, to patients at risk of a blood transfusion.

12. National leaflets can be used and adapted for local use. An example of these and contacts for examples of leaflets for specific patient groups will be made available through the *Better Blood Transfusion* website.

Guidelines for Good Practice and Standards

13. Trusts should have agreed and disseminated protocols for safe and effective transfusion practice, based on national guidelines and supported by in-house training. Guidelines should include indications for transfusion, the laboratory details to be checked and actioned before and after transfusion, the monitoring required during transfusion, and the documentation required in the clinical records.

14. Trusts should adopt national guidelines for the appropriate use of blood.

15. The following national guidelines and web sites for the safe, effective and appropriate use of blood are recommended to all Trusts. These and additional guidelines, where available electronically, will be linked through the *Better Blood Transfusion* website.

- Scottish Intercollegiate Guidelines Network. ***Perioperative Blood Transfusion for Elective Surgery – A national clinical guideline.*** Number 54. October 2001. http://www.sign.ac.uk/

- The Association of Anaesthetists of Great Britain and Ireland. ***Blood Transfusion and the Anaesthetist. Red Cell Transfusion.*** December 2001.

- British Committee for Standards in Haematology, Blood Transfusion Task Force. ***Guidelines for the administration of blood and blood components and the management of transfused patients.*** Transfusion Medicine 1999; 9 :227-238. http://www.bcshguidelines.com

- British Committee for Standards in Haematology, Blood Transfusion Task Force. ***Guidelines for the clinical use of red cell transfusion***. British Journal of Haematology 2001; 113:24-31. http://www.bcshguidelines.com/

- The Stationary Office. ***Handbook of Transfusion Medicine***. Third Edition, 2001. https://www.thestationeryoffice.co.uk/nbs/handbook2001/index.htm]

- Joint National Institute of Biological Standards and Control and United Kingdom Blood Transfusion Services guidelines www.transfusionguidelines.org.uk .

Safety

All Trusts that undertake blood transfusion:

16. Should participate in the Serious Hazards of Transfusion (SHOT) scheme on the reporting of serious and near miss events. http://www.shot.demon.co.uk/

17. Should ensure that all patients (including outpatients) receiving a blood transfusion have a patient identification wristband or equivalent, and are monitored during transfusion according to national guidelines.

18. Should ensure good hospital transfusion laboratory practice and encourage participation in national laboratory accreditation schemes

Audit

All Trusts undertaking blood transfusion should:

19. Carry out regular multidisciplinary audit of transfusion practice and regularly feed back the results of audits of transfusion practice and the use of blood to relevant staff and ensure that improvements suggested by audit are put in place.

20. Participate in the joint Royal College of Physicians and National Blood Service national comparative audit of the clinical transfusion process and the use of blood and other future national audits.

    Initial information is available at http://www.doh.gov.uk/bbt2/lettertoce.htm and further information will be made available through the *Better Blood Transfusion* website.

21. Participate in the Blood Stocks Management Scheme. http://www.blood.co.uk/bsms/body.asp

Monitoring and traceability

22. Trusts should ensure that there is routine data recording and collection to enable the traceability and monitoring of the safe, effective and appropriate use of blood. Trusts should review and explore the development of electronic systems for this purpose.

23. Trusts should ensure that a minimum dataset for each transfusion is documented in the clinical notes (indication for transfusion, amount of blood transfused, assessment of the effectiveness of the transfusion, and any adverse effects and their management).

24. Trusts should ensure that the clinical indication for transfusion is provided on the request form for blood transfusion.

Pre-operative assessments, use of patient's own blood and alternatives to blood transfusion

25. Trusts should ensure that that there are adequate arrangements for the pre-operative assessment of patients. For planned surgery, the arrangements for pre-operative assessment should permit the diagnosis and correction of anaemia in advance of surgery and optimisation of haemostatic function peri-operatively (including discontinuation of anti-platelet drugs and haematological advice for patients on oral anticoagulation). Most patients undergoing elective surgery should not require transfusion support if their pre-operative haemoglobin level is normal. Formulae are available to calculate individual patients' transfusion requirements depending on the predictable blood loss from the procedure, and patient characteristics. The use of such formulae should allow each surgical team to set its own parameters for transfusion, and allow their use of blood to be audited to these parameters. Further information will be available through the *Better Blood Transfusion* website.

26. Trusts should review and explore the use of effective alternatives to donor blood and the appropriate use of autologous blood transfusion. Further information will be made available through the *Better Blood Transfusion* website

National Initiatives
Better Blood Transfusion Conference and Website

27. The website for '*Better Blood Transfusion*' has been created to promote the initiative and to share examples of good practice and is in development. This will be further developed and contain tools to assist in implementing *Better Blood Transfusion* initiative. The current website from the conference can be found at www.doh.gov.uk/bbt2.

Regional and National Transfusion Committees

28. The overall objective of the newly established National Blood Transfusion Committee and the Regional Transfusion Committees is to promote safe and effective good transfusion practice in hospitals in accordance with the *Better Blood Transfusion* initiative and with this HSC. The committees provide a framework to channel information and advice to hospitals and their transfusion committees on best practice and performance monitoring. The Regional Transfusion Committees support the activities of Hospital Transfusion Committees within their region. Further information about these committees will be made available through the *Better Blood Transfusion* website.

    - The National Blood Transfusion Committee provides national support and advice on national *Better Blood Transfusion* initiatives
    - Regional Transfusion Committees have a role to engage with HTCs in assisting in the safe and effective use of blood and alternatives to transfusion

National Blood Service

29. Other supporting arrangements for Trusts Hospital Transfusion Committees for *Better Blood Transfusion* include the Hospital Liaison Service provided by the National Blood Service (through its Link Consultants, Hospital Liaison Managers and Transfusion Liaison Nurses).

Recommendations requiring further work

30. The need for further work to support the *Better Blood Transfusion* initiative was highlighted at the CMOs conference. Several of the following areas are already in initial development and will be placed on the *Better Blood Transfusion* website when progressed.

    - Consideration of a national transfusion episode record. Consideration should also be given to the development of a standard format for reporting of transfusion incidents and errors in Trusts. Future examples of these will be available through the *Better Blood Transfusion* website.
    - Explore the application of new technologies to improve the safety and effectiveness of transfusion practice.
        - Development of electronic systems to improve the safety of the process of transfusion and to monitor the appropriate use of blood. Examples of studies in this area will be made available through the *Better Blood Transfusion* website.
    - Development of a tool for assessing the 'resources' required to implement *Better Blood Transfusion* at Trust level (e.g. the bed numbers/case-mix/specialties/blood use parameters required to help inform the 'critical mass' for an HTC and the make-up in 'sessional' time of a HTT)
    - Development of national training and educational materials
    - Continued development of patient information leaflets
    - Systematic review and research into the clinical and cost-effectiveness of transfusion practice including alternatives to donor blood transfusion

Abbreviations

CMO	Chief Medical Officer
CNST	Clinical Negligence Scheme for Trusts
CPD	Continuous Professional Development
HA	Health Authority
HSC	Health Service Circular
HTC	Hospital Transfusion Committee
HTT	Hospital Transfusion Team
NBS	National Blood Service
NBTC	National Blood Transfusion Committee
PCT	Primary Care Trust
RTC	Regional Blood Transfusion Committee
SHOT	Serious Hazards of Transfusion
vCJD	Variant Creutzfeld-Jakob Disease