7. THE CHIEF MEDICAL OFFICER'S NATIONAL BLOOD TRANSFUSION COMMITTEE

The Chief Medical Officer's National Blood Transfusion Committee in England was established in December 2001. It was created as a consequence of two major events in blood transfusion in the 1990s, the re-organisation of Blood Services in England, and the United Kingdom (UK) CMOs '*Better Blood Transfusion*' initiative. This short review will provide some background information about these developments presented in chronological order, and the initial work of the NBTC.

Establishment of the National Blood Authority and National Blood Service

The National Blood Authority was established in April 1993, and took over responsibility in England for what was previously known as the National Blood Transfusion Service in April 1994. This development sought to change a regionally based service into a national one. In September 1994, the NBA published its proposals for the future of the Regional Blood Transfusion Services, now to be called the National Blood Service. The proposals included the establishment of three administrative Zones to replace the previous regional structure. Many concerns were raised about these proposals during the consultation period.

When the Secretary of State finally approved the NBA's revised plans in November 1995, an independent National Blood Service User Group (NBUG) was set up to monitor the services provided by the NBS, to bring to the attention of the NBA problems which could not be resolved at local level, and to report annually to the Secretary of State. Zonal Blood User Groups (ZBUGs) were established in each of the 3 Zones of the NBS to inform the work of the National Blood Service User Group by seeking the views of those using the services provided by the NBS.

CMOs 1998 Blood Transfusion Seminar and Health Services Circular

In July 1998, the UK CMOs held a Seminar on '*Evidence-based Blood Transfusion*' in London attended by a multidisciplinary audience including blood users, representatives of Blood Services, NHS managers and patients. The factors leading to this initiative included concerns about the blood supply in the face of increases in the demand for blood and intermittent blood shortages, increases in the cost of blood associated with universal leucocyte-depletion of blood components and nucleic acid testing, data from the Serious Hazards of Transfusion (SHOT) scheme showing that the safety of transfusion should be improved, and concerns about the transmission of variant Creutzfeldt-Jakob disease (vCJD) by blood transfusion.

After wide consultation, the Health Services Circular '*Better Blood Transfusion*' (HSC 1998/224)[1] was issued in December 1998, and was based on recommendations from the Seminar. It detailed actions required of NHS Trusts and clinicians to improve transfusion practice, including the:-

- Establishment of a Hospital Transfusion Committee (HTC) to oversee all aspects of transfusion
- Participation in the SHOT scheme
- Development of agreed and disseminated local protocols for transfusion practice, based on national guidelines and supported by in-house training
- Consideration of the use of autologous transfusion, particularly peri-operative cell salvage

This was intended to be a first step towards safer and more effective blood transfusion in the NHS, and it was envisaged that the implementation of the recommended actions would be reviewed after about 2 years.

National management structure for the National Blood Service and the establishment of the National and Regional Transfusion Committees (RTC) in England

In 1999, the NBS Zones were integrated into a new national management structure for the NBS, and the ZBUGs were disbanded. There continued to be a need for a formal mechanism for interaction of the NBS with blood users, and it was proposed that Regional Transfusion Committees should be established. It was also proposed that a National Transfusion Committee be established to replace the NBUG on the lines of recommendations by the WHO Blood Safety Unit for national committees on the clinical use of blood. The remit of these committees would be primarily focused on improving transfusion practice in hospitals and supporting the implementation of the actions recommended in the Health Services Circular '*Better Blood Transfusion*'[1], although they would retain the role of the ZBUGs and NBUG in monitoring the performance of the NBS.

An Interim National Transfusion Committee met on three occasions in 2000/01 with the remit of establishing the Regional and National Transfusion Committee structure by September 2001. Its membership included the ex-Chairmen and blood bank members of the NBUG and ZBUGs, providing a useful link with the previous User Group structure, and also with the clinical membership of the National Commissioning Group.

CMOs 2001 Blood Transfusion Seminar and Health Services Circular

A second UK CMOs' Seminar on blood transfusion '*Better Blood Transfusion*' was held in London on 29th October 2001. It was again attended by an invited multidisciplinary audience. The objective of the Seminar was to set the agenda for NHS transfusion services for the next three years by seeking the views of the audience, focusing on:-

- Providing better information to patients
- Avoiding unnecessary transfusion
- Making transfusion safer
- Ensuring '*Better Blood Transfusion*' is an integral part of NHS care

After introductory remarks by the 4 UK Chief Medical Officers, the Chief Executive of the National Audit Office (NAO) summarised their report on the NBS, and how the NAO had organised the Seminar in collaboration with the Department of Health and the NBS. He challenged the NBS to describe how it is meeting hospitals' demands for blood, support and medical advice. Martin Gorham (Chief Executive, NBS) responded by outlining how the NBS was implementing the NAO's recommendations, and emphasised the support of the NBS for the *Better Blood Transfusion* initiative.

An audit of the implementation of the HSC 1998/224 *Better Blood Transfusion* was presented showing that most hospitals had established Hospital Transfusion Committees, participated in the SHOT scheme, and had protocols for the administration of blood. However, there was evidence of poor provision of training for clinical staff and patient information, few protocols for the appropriate use of blood, few audits of transfusion practice, and limited use of autologous transfusion.

Presentations were given by a patient on providing better transfusion services for patients, and by a representative of the Jehovah's Witnesses on methods for avoidance of blood transfusion. How to make blood transfusion safer was discussed by representatives of the National Patient Safety Agency (NPSA) and SHOT. The final sessions of short presentations were on how to improve the quality of transfusion practice and how to make HTCs more effective. In the afternoon, the audience participated in 5 workshops on:-

- The needs of people at risk of transfusion
- Making blood transfusion safer
- National blood transfusion protocols
- Monitoring the use and effectiveness of blood transfusion
- Strengthening the HTC and the role of the Transfusion Nurse Practitioner

The main points from each workshop were presented to the whole audience in a final discussion led by the CMOs. The establishment of the CMO's National Blood Transfusion Committee and Regional Transfusion Committees in England was announced at the Seminar. Recommendations from the work carried out at the Seminar were published in a Health Services Circular *Better Blood Transfusion – Appropriate Use of Blood* (HSC 2002/009)[2] in July 2002. These included an action plan and an ongoing programme for *Better Blood Transfusion* to be taken forward in each Trust.

Initial meetings and work of the CMO's National Blood Transfusion Committee in England

The NBTC held its first meeting on 3rd December 2001. Professor E.Gordon-Smith, who was the Chairman of the National Blood User Group and the Interim National Transfusion Committee, was appointed Chairman by the CMO. The NBTC membership includes the Chairmen of the Regional Transfusion Committees, and representatives of the Royal Colleges, SHOT, NPSA, NBS, patients, and the Department of Health. Its primary remit is to support the *Better Blood Transfusion* initiative. It is envisaged that there should be a two-way flow of information between Hospital Transfusion Committees and the Regional and National Transfusion Committees to encourage good local blood transfusion practice and implement national transfusion guidelines. In addition, the identification of problems in any aspect of blood transfusion including the delivery of services by the National Blood Service remains within the remit of the Regional and National Committees.

There are two meetings of the NTBC each year. The work of the committee between meetings is carried out by an Executive Working Group comprising the Chairman, 5 members of the committee, two National Blood Service representatives, a patient representative and a representative from the Department of Health.
The work of the NBTC in 2002 focused on providing the 'toolkit' to assist Trusts in their implementation of the Health Services Circular *Better Blood Transfusion*. This has included the development of a revised version of the patient information leaflet for blood transfusion, a summary of indications for the use of blood components abstracted from national guidelines, and a document on the *'Resources required to implement Better Blood Transfusion'* (appendix 9). This document was intended to help HTCs develop a business case for:-

- The establishment of a Hospital Transfusion Team in each Trust, particularly for the role of Transfusion Practitioners, dedicated sessions for a lead Consultant in blood transfusion, and for audit and administrative support
- Information technology support for data retrieval for audit and participation in the Blood Stocks Management Scheme
- Clinical equipment e.g. for cell salvage, computerised blood refrigerator monitoring
- Funding of other alternatives to the use of donor blood, as determined by the clinical activity and priorities in each Trust

The NBTC also produced a discussion document on *'The use, availability and risks of fresh frozen plasma'*. This recognised that the indications for the use of fresh frozen plasma were last drawn up by the British Committee of Standards in Haematology in 1992 (and are currently being revised by the BCSH), and that audits of the use of FFP show variable compliance with the guidelines and some inappropriate use of FFP[10]. The main concerns about the use of FFP were thought to be viral transmission, the risk of transmission of vCJD, and transfusion-related acute lung injury. The NBTC considered that the most important requirements to enhance its safety were:-

- Viral inactivation steps of proven effectiveness should be applied to FFP.
- Donations should be sourced from low risk vCJD populations.
- Donations should only be taken from male, untransfused donors if single unit preparations are used. Pooled products may also be used to avoid TRALI.

The NBTC translated these requirements into the following recommendations for consideration by the Department of Health Advisory Committee on the Microbiological Safety of Blood and Tissues for Transplantation (MSBT) at its meeting on 22nd October 2002:-

Single unit, virally inactivated, donations from non-UK, untransfused males, should be used for most vulnerable groups (i.e. infants born after January 1996). An announcement had already been made by the Department of Health in August 2002 about the importation of FFP from the United States for single unit methylene blue-treated FFP for infants born after January 1996. The primary motivation for this initiative was to protect those individuals who had not been exposed to Bovine Spongiform Encephalopathy-contaminated beef from the possible exposure to vCJD from UK blood.

- Pooled, virally inactivated (by proven and preferably licensed methods) donations from populations at low risk of transmissible spongiform encephalopathy are acceptable.
- Untreated single donor or UK sourced products should only be permitted (a) if products from other sources cannot meet demand, (b) they are used in the least vulnerable group of recipients (i.e. older populations who will receive only a single or small number of treatments). Of these two considerations the first, i.e. non-availability of product from other sources, is the main consideration.

The NBTC has also established a Working Party on Information Technology (Chair: Dr.C.Morgan) with a remit to:-

- Collate information on projects directed at improving the safety and effectiveness of transfusion practice through the use of IT.

- Make recommendations on how to make best use of IT for improving transfusion practice, including the safety of the clinical transfusion process, appropriate use of blood, and the documentation of transfusion.

- Establish key standards and principles for clinical transfusion IT systems, including functionality, connectivity, security and confidentiality. Transfusion systems should integrate with the development of other hospital-based systems such as pharmacy, pathology and electronic patient records.

- Make recommendations on the development of IT links between hospital blood banks, users of their services in hospitals and primary care, and the NBS.

- Stimulate further progress in the use of IT for hospital transfusion practice, including consideration of new projects to further the field, and the provision of appropriate access to funding through NHS R & D, Health Technology Assessment, and Modernisation of Pathology initiatives.

- Work with other organisations involved in improving transfusion practice, including commercial suppliers.

The membership of this Working Group includes representatives from the NBTC, British Society for Haematology, National Patient Safety Agency, NHS Information Authority, Department of Health Information Policy Unit, UKBTS/NIBSC Standing Advisory Committee on IT, Specialist Practitioners of Transfusion (SPOT), Institute of Biomedical Sciences, and the NBS.

Further information about the terms of reference, membership, and work of the NBTC can be obtained from the Secretary, Dr.M.Murphy (National Blood Service, John Radcliffe Hospital, Oxford), from the Chair of the appropriate RTC or from the NBTC website http://www.doh.gov.uk/blood/nbtcommittee.htm. The website for the *Better Blood Transfusion* initiative is http://www.doh.gov.uk/blood/bbt.htm.

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