

## **RESOURCES REQUIRED FOR THE IMPLEMENTATION OF BETTER BLOOD TRANSFUSION HSC 2002/009**

The resources required to implement Better Blood Transfusion 2 will be quite variable depending on the size of the hospital and the level of transfusion dependent activity undertaken. It is expected that many organisations will have already managed to achieve some of the objectives outlined and that fewer additional resources will be required. However, a complete programme is described to achieve the ideal, to give an overview of the potential complexity of the process. The importance of this is that it is clear that any examination of transfusion related procedures commonly raises issues that have not been previously contemplated, therefore this paper covers all areas that should be considered. In particular, medical and nursing knowledge is frequently overestimated and this can impact on all aspects of transfusion practice.

The resources can be categorised into five headings. It is unrealistic to assume that all items will be in place by April 2003 but the list, by describing the ideal, will permit a hierarchy of goals to be planned, which can be worked toward. Aside from the equipment, all expenses will be recurring. *Appendix 1* tables a proposed hierarchy of need with attendant costs.

### **STAFF**

#### ***Transfusion Practitioner***

This role is vital for the organisation and provision of staff training, implementation of safe practice and assessment of appropriate usage. The postholder may be from a medical, biomedical scientist or nursing background and there are pros and cons attached to each. Depending on the size of the hospital there may need to be one or several people in post and in the larger Trusts the post should work in tandem with an Audit Coordinator (see below) . In this instance, consideration should be given to the advantages of individuals from complementary disciplines e.g. nurse and biomedical scientist or audit co-ordinator and nurse. Pertaining to nurses, each Trust has it's own

criteria for grading relating to remit and scope of practice. Post holders range from G – I.

All members of the HTT will require funding for study leave in order to develop and maintain the necessary skills and knowledge base to be effective in post.

### ***Audit Co-ordinator***

Audit plays a pivotal role in establishing an evidence base regarding local transfusion practice. As a minimum this should encompass review of the maximum surgical blood order schedule and compliance with policies and protocols. More specific projects could explore alternatives to red cell transfusion and the healthcare economics of changing and modifying practice.

In smaller hospitals the audit component may be undertaken as part of the biomedical scientist's or transfusion practitioner's duties. In larger hospitals serious consideration should be given to the advantages of a dedicated audit co-ordinator.

### ***Lead Consultant for Transfusion***

It is probable that all hospitals have a designated consultant responsible for blood transfusion. However, it is possible that there are no dedicated sessions. Between one and four sessions per week will be required depending on the volume of transfusion related activity undertaken.

As a guide the distinction in hospital size used by the Joint Intercollegiate Committee on Haematology and the British Society for Haematology in producing the document on 'Haematology Consultant Manpower in the 21<sup>st</sup> Century' should be used to determine sessional commitment. The smaller DGHs will require only one dedicated session, whereas the larger DGHs and the teaching hospitals will need at least four. In the latter, where the clinical activity is unusual or there is a particular interest, one WTE could be justified.

### ***Biomedical Scientists***

There needs to be adequate numbers of biomedical scientists trained in blood transfusion if these are not currently part of the establishment. This should enable good laboratory practice and participation in national accreditation schemes, and ensure the blood bank manager has time to fulfil their role in the Hospital Transfusion Team (HTT).

### **I.T. SUPPORT**

The laboratory computer system must provide adequate and robust functionality in order to enable data retrieval for both audit purposes and participation in the Blood Stocks Management Scheme. This issue becomes more significant in the context of integrated pathology systems.

There must be adequate I.T. support for all members of the HTT. Audit software may be beneficial in the development and analysis of questionnaires in particular. A laptop computer would be an advantageous tool in the collection of raw data for audit purposes. Combined with a data projector it would become invaluable in the delivery of educational programmes. A considerable amount of time can be saved by updating lectures in a PowerPoint format as opposed to OHP acetates. It also allows for the screening of information in a DVD format negating the need for transporting unwieldy television and video equipment to teaching sessions.

The costs identified in Appendix 1 may appear excessive as cheaper options are available in retail outlets. However, computer equipment that is not purchased via a hospital I.T. department may not be covered by their support and maintenance services.

### **CLINICAL EQUIPMENT**

Computerised blood fridge monitoring is expensive, but the Trusts that have introduced this technology believe it makes a noteworthy contribution to blood

stocks management. The level of 'out of temperature control' red cells is often underestimated. It is not unusual, on the appointment of a transfusion practitioner, for this figure to increase with improved staff awareness.

Computerised bedside monitoring technology can be applied to both the sample labelling and the administration aspects of transfusion practice. Indeed, the technology can also be applied to other aspects of clinical care including drug administration, which may make it a more attractive proposition. It may not be necessary to introduce this to all clinical areas however, some areas will need more than one device.

## **STATIONERY**

### **Patient information**

Patient information leaflets are provided by the National Blood Service, but an increasing number of hospitals will require translation of patient information. At Barts and The London where the local population speak 140 languages it is impractical to provide translation into all dialects. The Trust's Patient Advice and Liaison Service recommend that a statement be added to English leaflets advising who to contact. As it costs £500 for a two line translation this is generally limited to the six most prevalent languages. The use of audio cassettes should be explored but the logistics of ensuring that tapes and playback facilities are available in all areas are complex. It may be more effective to provide an adequate language interpreting service.

### ***Minimum data set labels***

Audit has demonstrated that documentation of transfusion episodes in the medical notes is inadequate. A pre-printed adhesive label with prompts detailing the minimum data set required may improve compliance.

### ***Teaching consumables***

Funding needs to be secured to support all educational activities including posters, handouts, videos etc.

## **ALTERNATIVES TO TRANSFUSION**

In addition to the costs outlined above additional resources will be required to fund alternatives to transfusion. In the context of this document it is not possible to attribute costs. The hierarchy of need will be determined by local clinical activity.

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**APPENDIX 1****Hierarchy of need with attendant costs**

	<b>ITEM</b>	<b>COST (£)</b>
<b>ESSENTIAL</b>	Dedicated biomedical scientist	BMS1 20,200
		BMS2 25,600
		BMS3 31,300
	Transfusion Practitioner (nurse)	G 29,500
		H 32,300
		I 35,900
	Lead Consultant (per session)	6,000
Desktop computer and printer	1,128	
Study leave expenses for HTT	5,000	
<b>HIGHLY DESIRABLE</b>	Teaching consumables	3,000
	Audit co-ordinator (A&C 6)	25,000
	Laptop computer	1,950
	Data projector	3,082
	Minimum data set labels (40,000)	370
	Audit software	935
	Translated patient information	5,000
<b>DESIRABLE</b>	Computerised blood fridge monitoring for 5 fridges (including system manager software)	46,140
	Computerised bedside monitoring – labelling samples/administration (for 50 units)	73,437

Pay does include on costs (employer's N.I. and superannuation @7%). It does not include Cost of Living Supplement or London Weighting. All posts are quoted at mid point to the nearest £100.

Costs per unit are based on quotes provided for Barts and The London NHS Trust.