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**Description**  
The Report was commissioned in DH’s ‘Liberating the NHS: Report of the arm’s-length bodies review’ published on 26 July 2010. The Review considered ways to deliver better value for public money through improvement in the quality and cost effectiveness of service and ensuring consistency of practices with wider NHS reforms.

**Cross Ref**  
DH’s ‘Liberating the NHS: Report of the arm’s-length bodies review’ published on 26 July 2010

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Preface

NHS Blood and Transplant (NHSBT) is a joint England and Wales Special Health Authority, established in October 2005, which is responsible for securing the safe supply of blood to the NHS in England and North Wales. It similarly provides solid organs, tissues and haematopoietic stem cells to the NHS, and has UK-wide responsibility for the provision of solid organs from deceased donors for transplantation. Among its core responsibilities, NHSBT manages the NHS Organ Donor Register, the British Bone Marrow Registry and the NHS Cord Blood Bank.

NHSBT relies solely on the altruism and loyalty of its donors for delivering nearly two million units of blood per annum and supporting the transplantation of 3,742 organs (2010/11). It has made significant improvements in areas of its business over recent years particularly in driving improvements in productivity. An example is the reduction in the number of processing and testing centres from twelve and eleven respectively in 2007 to five and three by the end of 2011/2012. This has supported the reduction of red cell prices from £140/unit in 2008/9 to £125/unit in 2010/11 representing savings to NHS hospitals of £30 million per annum before inflation on the two million units supplied.

The Department of Health's (DH's) review of arm's-length bodies (ALBs) concluded that there were strong arguments for retaining the majority of NHSBT's functions within a single national system. However, it also concluded that there may be opportunities for more cost-effective operations and commercial arrangement within the divisions of NHSBT, such as contracting out some discrete functions, provided there was no conflict with public health considerations in relation to quality, safety and consistency across the blood, tissue and transplant services.

It is important that NHSBT operates as cost-effectively as possible, as this demonstrates good stewardship of public money and also, by reducing its costs, releases more money to be invested in patient care. Contracting out certain functions is only one way of achieving greater cost-effectiveness; other ways include the introduction of different technologies or approaches to improve performance or efficiency, and looking for opportunities to make more effective use of existing services or assets.

This Review has focused on the various functions of NHSBT and looked at opportunities for them to be provided more efficiently and economically: it has taken into account the views of private sector providers, to establish whether there is market willingness and capability to develop these functions. Other UK blood services are not included in detail within this Review, but the Review does note that there are opportunities for all the UK blood services to achieve efficiency savings through closer collaboration. The donor-facing activities of NHSBT were outside the scope of the Review.

In this Report the Department of Health is recommended to lead on certain future work. However, a decision on which body will ultimately be responsible is yet to be confirmed and is subject to the passage of the Health and Social Care Bill 2010-11.

A summary of all the recommendations can be found at Annex A.
Executive Summary

Overview

The safe and timely discharge of NHSBT’s functions is essential to enable the NHS to provide appropriate treatment to patients, many of whom are critically ill. NHSBT has strong public support for its core services, and it is important that its activities be reported transparently, in order to help maintain the confidence of its NHS customers, patients who benefit from its products and services, and its donors.

DH has approved the NHSBT strategy for 2011-14. As indicated in the published strategy, NHSBT, like many public bodies, already engages with the private sector for some services and the NHSBT Board is clear that it will continue to look at appropriate opportunities to do so in the future in order to deliver NHSBT’s objectives, providing there is no compromise on safety and quality.

As part of its continuing drive for efficiency, NHSBT has plans to generate additional income, eg from maximising its use of assets, and further developing activities, such as its tissues services, where there are a number of alternative NHS trust and third party providers.

Financial and commercial risks associated with non-core services and activities must continue to be appropriately managed and, where necessary, ring-fenced, so that they do not have the ability to impact on the financial stability or resource requirements of the core services.

Governance

NHSBT is funded from a mixture of grant-in-aid (GIA), predominantly for its organ donation services (along with contributions from the other UK Health Departments), and income from its NHS blood supply and other associated products and services. Its activity is mainly with NHS hospitals, and it is the only supplier for the provision of blood in England and North Wales. For some other services, such as provision of certain tissues (eg bone), NHSBT already competes with a number of NHS and external suppliers.

To ensure proper accountability for public money, NHSBT is prohibited from using a cross-subsidy between GIA and its other income streams, and the rules governing fair competition mean it must not subsidise the competed services from other areas of activity. The appropriateness of its costing and pricing cannot be validated using information provided in the current format of its Annual Report and Accounts and of reports to DH although information is available at management account level. The Review proposes improvements be made to the transparency of financial disclosures. This may require a change in accounting classification, or change to NHSBT’s financial directions. DH will work with NHSBT to ensure that this can happen.

As indicated above, NHSBT is the monopoly provider for blood and some blood components and some allied services in England and Wales and the reimbursement to NHSBT of the costs for these products and services is through the nationally agreed blood price. As services develop and change both at NHSBT and within NHS trusts, it is important that the blood pricing mechanism continues to be robust and transparent to its customers, and to demonstrate that the price does not cross-subsidise other NHSBT services. Additionally, care needs to be taken as trusts develop their own services that the core blood price does not assume costs for services that trusts may choose to perform themselves. This will help NHSBT to maintain customer confidence.

In the future measures to maintain a safe blood supply may have direct cost implications for the blood price. This is alongside a significantly changing NHS landscape as pathology services are modernised and made more efficient within the NHS in England. The current blood (and services) pricing process is overseen through the National Commissioning Group for Blood (NCG), which formally reviews and agrees the blood and services prices. However, we think this forum needs more resources and a more transparent system to challenge the financial assumptions in sufficient detail. Our proposal is that a more formal system of price regulation is adopted.

**Trust demand**

The key driver of service requirements and therefore ultimately cost is the level and nature of demand from the NHS and various initiatives have made progress on the safe use of blood and improving patient treatment.

However, notwithstanding the improvements over the past decade, there is still work to do to minimise the number of blood transfusions (including the use of platelets and plasma) that are prescribed outside of current clinical guidelines (termed “inappropriate use”).

As well as being best practice, it also makes financial sense for hospitals to ensure that blood (including platelets and plasma) are used only when needed, which means where they are clinically indicated. Reducing demand from hospitals would also directly reduce the direct costs for NHSBT and potentially some fixed costs.

**Development of centralised and integrated transfusion services**

There is evidence from within this country and from abroad that centralised or integrated transfusion systems offer a range of benefits in terms of cost, efficiency and safety; for example assisting in the reduction of inappropriate use. Such services introduce a higher level of specialism and co-ordination across a geographic area rather than all services being replicated on a site-by-site basis. Services can be provided across a number of trusts from a co-ordinating central point that can be led by a trust (or trusts) coordinating across a particular area; or alternatively, NHSBT is looking to develop capability to co-ordinate transfusion services within hospitals. NHSBT has supported work involving trusts and specialist providers in places such as at the Oxford Radcliffe Hospitals NHS Trust, where the IT systems and hardware are provided under a managed service by private providers to very good effect.
NHSBT will be undertaking pilots this year to examine the scope to offer or assist with integrated transfusion services to a broader range of trusts.

NHSBT has limited resources in terms of both workforce and risk capital to be able to develop projects at multiple trusts. The primary focus needs to be on locally developed solutions, which link to the national NHSBT blood supply network. Where capabilities are available in the trusts, NHSBT’s resources are likely to be best-spent facilitating services rather than developing the whole system as an extended monopoly provider. Such an approach is also likely to allow quicker adoption.

**Logistics and supply chain**

NHSBT has a complex supply chain - from the set up of the donor collection sites to the transportation of blood and organs. NHSBT has already identified a number of areas for improvement in its logistics and transport requirements and it is important that these be acted upon. We noted the imperative to ensure security of services, and NHSBT’s concerns that a robust system is maintained. This is a key consideration for any potential service development.

As the potential develops for supply chain and stock control systems that are more integrated between trusts and NHSBT, it is important that NHSBT should define and publicise its operational interface and technical system requirements, so that all interested parties, particularly trusts, are able to link their systems with NHSBT’s stock systems to best effect and make best use of the standard NHS GS1 barcoding initiative. It is important that trusts and third parties have access to the relevant technical information to allow that interface to be developed; for example so that software developers can adapt existing platforms or develop new systems and tools.

If NHS parties have a clearer picture of use and stockholdings, particularly of the more specialist products, it will allow use that is more efficient and will help reduce product wastage. This is highly relevant given the relatively short shelf life of the products.

The Review explored the capabilities and systems that the NHS and private sector are developing, or in some cases have already developed and introduced. In certain areas, the Review process found opportunities for NHSBT to consider alternatives to its existing plans, for example the option to buy in a transport management system (TMS) rather than developing one of its own. In the developing area of centralised or integrated transfusion services a number of providers already supply the core infrastructure to trusts such as the IT and the refrigeration services. It is important that NHSBT (and trusts) consider where most value from investment can be added and where resources should be focused.

**Wider UK opportunities**

Currently the four UK blood services largely work independently of each other, except in emergency planning and some joint procurement activity. The Review only included an initial exploration of possibilities and we have not had detailed conversations with the other UK bodies. However, there appear to be a number of opportunities for the UK blood services to discuss sharing resources and/or co-
ordinating approaches in their respective blood services to achieve savings or greater efficiency. These include, for example, further joint procurement programmes for their specialist items, and joint marketing strategies. We note that some of these possibilities are now under discussion. In addition, we note that NHSBT has capacity in certain areas that could be used by other UK services if this was appropriate. Given the pressure on health budgets, these areas should be explored further with the respective governments and UK bodies.

The requirements and specifications for an updated UK-wide NHS Organ Donor Register are being developed. The development and maintenance of such a register will require certain skills and resources, which are potentially beyond the core skills of NHSBT. Additional support is likely to be required to deliver a robust and secure system.

**Implementation**

Unless otherwise stated, NHSBT will be responsible for developing plans to implement the recommendations detailed in this report. The key exceptions to this are:

- the development of the formal system for blood price regulation, in which DH and the Welsh Government will lead on review and implementation;
- the strategic leadership required from DH and the Welsh Government in reducing the inappropriate use of blood; and
- pursuing opportunities to explore efficiencies with the respective governments and UK bodies.

NHSBT's implementation plans will need to be agreed with both DH and the Welsh Government as appropriate. Where recommendations relate to services for Northern Ireland and Scotland, they will also need to be agreed by the Department of Health, Social Services and Public Safety (Northern Ireland) and the Scottish Government. The UK Health Departments will then need to monitor and report to Ministers on progress against these plans. Other stakeholders including NHS trusts and the National Blood Transfusion Committee (NBTC) will need to be consulted at the outset, and additionally throughout the development of the plans to implement the recommendations detailed in this report.
Background to the Review

Wider Government context

DH’s ‘Liberating the NHS: Report of the arm’s-length bodies review’ published on 26 July 2010 sets out the Government’s approach to the Department’s ALBs.

It stated that ‘Over the next four years the Government is committed to reducing NHS administrative costs by more than 45 per cent and to simplifying and radically reducing the number of NHS bodies, including the Department’s arm’s-length bodies’. The ALB Review’s objective is to reduce bureaucracy and improve efficiency by abolishing ALBs that do not need to exist, streamlining the functions of those that do, and transferring functions that can be better delivered by other organisations.

The long-term aim is to simplify the national landscape, removing duplication and better aligning the ALB sector with the rest of the health and social care system.

Commercial Review

The ALB Review did not recommend a change in status for NHSBT stating:

“There are strong arguments for retaining the majority of these functions within a single national system. These arguments include economy of scale and supply; public health requirements in relation to quality, safety and consistency across the blood, tissue and transplant service; and critically, public sensitivities regarding the voluntary donation of blood, tissues and organs. We consider that transferring NHS Blood and Transplant out of the arm’s-length bodies sector and moving to a different delivery model would risk destabilising the current national donor system.”

However, the ALB Review stated that DH would commission a commercial review of NHSBT to identify potential opportunities to make NHSBT more commercially effective. The ALB Review also stated that, subject to the findings of the commercial review, DH proposes to work with the Devolved Administrations to explore the potential for the UK blood services to enhance opportunities for cost-effective working between them.

Current NHS Blood and Transplant strategy

DH has approved NHSBT’s strategic plan for 2011-14. The detail underneath the Strategic Plan has been considered when looking at the various options under this Review.

Review process

Scope

Both DH and NHSBT agreed it was essential to maintain:

- a robust supply chain for the provision of critical services to the NHS; and
- the relationship with the altruistic and loyal donor base, as the service relies on the continued goodwill of the public for its donations of blood, tissues and organs.

Privatisation of NHSBT was not within the scope of the Review. Donor-facing parts of the blood collection sessions were also excluded.

Also excluded were back office functions such as HR, general procurement and finance, which are subject to a separate project for ALBs.

Governance

A Steering Group was set up to oversee the Review, which consisted of representatives of:

- Department of Health Policy team for blood safety and supply;
- Department of Health Commercial Review team;
- Department of Health ALB transition team;
- NHSBT; and
- representation from the Welsh Government.

The purpose of the Steering Group was to agree and oversee the work programme, and agree the final report, exploring practical and deliverable options for NHSBT that:

- find commercial solutions that deliver better value for public money through continuous improvement in the quality and cost effectiveness of the activities delivered by NHSBT whilst meeting the critical supply and quality requirements;

- explore wider commercial opportunities to secure better value for the public sector by exploiting NHSBT capacity and expertise, for example by income generation activities;

- ensure NHSBT and the functions it delivers are compatible with the wider reforms of the NHS; and

- provide sustainable and politically acceptable solutions, including being consistent with the public sector principle of increasingly focussing on core functions.

The Steering Group met approximately every four weeks in London throughout the Review. Officials in the Department of Health, Social Services and Public Safety (Northern Ireland) and Scottish Government were also consulted during the process.
Overview of NHSBT

Organisational form and governance

NHS Blood and Transplant was established as a Special Health Authority in England and Wales in October 2005 to perform functions in connection with:

- collecting, screening, analysing, processing and supplying blood, blood products, plasma, stem cells and other tissues to the health service;
- the preparation of blood components and reagents;
- facilitating, providing and securing the provision of services to assist tissue and organ transplantation; and
- such other functions as the appropriate authority (i.e. the Secretary of State and the Welsh Ministers) may direct.

Under the NHS Blood and Transplant (Gwaed a Thrawsblaniadau’r GIG) (England) Directions 2005, the Secretary of State directs NHSBT to carry out specific functions in order to promote or secure (a) the effective supply of blood, stem cells and tissue; and (b) the transplantation of organs and tissues. Similar Directions have been made by Welsh ministers.

NHSBT was formed from three existing bodies, namely National Blood Authority (“NBA”), UK Transplant (“UKT”), and Bio Products Laboratory (“BPL”). Following the recent transfer out of BPL, NHSBT is now comprised of three divisions, Blood & Components, Organ Donation & Transplantation, and Specialist Services, delivering an integrated supply chain for blood, organs for donation and transplantation, and specialist services such as tissues and stem cells for transplantation and diagnostic services (see Diagram 1 below).

Diagram 1: Structure of NHSBT
NHSBT is responsible for securing the safe supply of blood to hospitals in England and North Wales with Scotland, Northern Ireland and Wales (for Mid, South and West Wales) each having their own separate blood services. In addition, NHSBT performs organ donation functions for all of England, Scotland, Wales and Northern Ireland.

**Funding and costs**

NHSBT currently receives the majority of its operational funding from Blood Component revenues (£308.8 million in 2010/11). The next greatest source of operational funding is in the form of GIA direct from the Department of Health (£62.2 million in 2010/11). The majority of the GIA (£55.2 million in 2010/11) supports the provision of Organ Donation and Transplantation services (see Table 1 below).

**Table 1: NHSBT accounts**
*For year 1 April 2010 to March 2011*

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Total</th>
<th>Blood Components</th>
<th>Specialist services</th>
<th>Organ Donation and Transplant</th>
<th>Group services</th>
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<tr>
<td>Blood product income</td>
<td>304,282</td>
<td>304,282</td>
<td></td>
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<tr>
<td>Income from the Scottish</td>
<td>2,680</td>
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<td>2,680</td>
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<tr>
<td>Government</td>
<td></td>
<td></td>
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<tr>
<td>Income from the Welsh</td>
<td>2,065</td>
<td></td>
<td></td>
<td>2,065</td>
<td></td>
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<tr>
<td>Government</td>
<td></td>
<td></td>
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<tr>
<td>Income from the Northern</td>
<td>727</td>
<td></td>
<td></td>
<td>727</td>
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<tr>
<td>Ireland Executive</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Other income</td>
<td>62,247</td>
<td>4,479</td>
<td>44,634</td>
<td>1,182</td>
<td>12,020</td>
</tr>
<tr>
<td><strong>Gross Income</strong></td>
<td>372,069</td>
<td>308,761</td>
<td>44,634</td>
<td>6,654</td>
<td>12,020</td>
</tr>
<tr>
<td>Revenue Grant in Aid</td>
<td>62,247</td>
<td></td>
<td>3,921</td>
<td>55,207</td>
<td>3,119</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>434,316</td>
<td>308,761</td>
<td>48,555</td>
<td>61,861</td>
<td>15,139</td>
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<td>Expenditure</td>
<td>419,996</td>
<td>201,514</td>
<td>39,152</td>
<td>53,261</td>
<td>126,069</td>
</tr>
<tr>
<td>Operating Surplus</td>
<td>14,320</td>
<td>107,247</td>
<td>9,403</td>
<td>8,600</td>
<td>(110,930)</td>
</tr>
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</table>

Add Notional cost of capital included in expenditure above

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>(6,953)</td>
<td></td>
</tr>
<tr>
<td>Less Revenue Grant in Aid (62,247)</td>
<td></td>
</tr>
<tr>
<td>Less Capital Charges paid to Department (18,765)</td>
<td></td>
</tr>
<tr>
<td><strong>Net Expenditure (per I&amp;E statement)</strong></td>
<td>(59,739)</td>
</tr>
</tbody>
</table>
Blood and blood components

Key issues facing NHSBT and DH

Trust usage and demand

The critical demand driver for NHSBT’s blood products is trust usage. From an efficiency perspective, the Review considered trust requirements and information on trust usage.

Overall usage in England / North Wales for red cell usage per head of population is comparable with France, Spain and the Netherlands, approximately 25 per cent better than USA and Japan and 30 per cent better than Germany. However, a number of factors including national health care approaches drive the use of red cells and it is difficult to draw firm conclusions from this data.

One of NHSBT’s statutory functions (through its Directions) is linked to this area:

“to promote, through advice and guidance, the appropriate use of blood, stem cells and tissue, (having regard in particular to promote the effective use of blood)…..”

NHSBT leads the Better Blood Transfusion initiative, which has seen blood usage by trusts reduce. It publishes data in its National Comparative Audit of Blood Transfusion; the latest report for 2010/11 has been published and includes an action plan to deliver further improvements. NHSBT therefore has and should continue to have a key role in improvement in this area.

Improvements in the use of blood and improving patient treatment involve many stakeholders. NHSBT, together with other partners, including DH, England's Chief Medical Officer's NBTC, the British Committee for Standards in Haematology (BCSH), and the Serious Hazards of Transfusion Haemovigilance Scheme (SHOT), have made progress over the past decade.

The focus on the improvement process is continuing. However, there is still work to do. The Chief Medical Officer’s NBTC’s ninth Annual Report 2010/11 states:

"National and regional audits of the use of red cell, platelet and FFP transfusions continue to indicate 20% or more inappropriate use of these blood components."

The Review examined a range of publicly available clinical audits and these appeared to provide evidence of an opportunity to improve efficiency through the better clinical use of red blood cells, platelets and fresh frozen plasma. As well as potential clinical benefits there is the consequential opportunity to reduce the demand on NHSBT for products allowing a reduction in both its direct costs, and potentially some fixed costs.

3 Inappropriate use refers to blood transfusions that are prescribed outside of current clinical guidelines
4 Audits are available at http://hospital.blood.co.uk/safe_use/clinical_audit/national_comparative/NationalComparativeAuditReports/index.asp
5 The detailed reports indicate that the inappropriate use of platelets and fresh frozen plasma is higher than 20% which is the figure for red blood cells.
A small sample test of views from clinicians conducted for this Review showed that most felt that a more concerted effort is required to give blood appropriately and improve the use of blood particularly in oncology, haem-oncology and gastrointestinal medicine. Alongside that was a desire for improved stock control, improvements in logistics and reduction in wastage.

There are good clinical and financial reasons for increasing focus on more efficient use at trust level. The main driver should be ensuring appropriate clinical care. However, if blood is being inappropriately used, then trusts are also paying for blood that they do not need. This drives the entire supply chain process, which in turn sets the cost for blood.

**The potential for modernisation**

Various initiatives have been implemented to try to deal with use and demand more efficiently. For example, Oxford Radcliffe Hospitals NHS Trust, in partnership with NHSBT and specialist providers and led by a consultant haematologist, has successfully implemented an electronic blood transfusion system (see Annex B) The Trust has reported this has had a substantial effect in safety and productivity:

**Safety**

The safety of the hospital transfusion process was improved, i.e. fewer errors, for example pre- and post-implementation audits showed improvement from 11.8 per cent to 100 per cent of staff following the process for correct patient identification at the bedside. Importantly there have been no serious transfusion errors in the Trust involving mis-identification since the system was fully implemented.

**Effectiveness**

Before the implementation of electronic remote blood issue from electronically controlled blood fridges, the median time to deliver urgently required red cell units to patients from the time of the telephone request was 18 minutes (range 5 to 47 minutes). After implementation, red cell units were obtained from the blood fridges in a median time of 45 seconds (range 30 seconds to 2 minutes).

Wastage of blood has been reduced. Blood usage has reduced, producing a patient benefit of reduced inappropriate blood use, and also cost savings.

**Productivity**

Cost savings from reduced use of blood were estimated at £400,000 per annum and cost savings from reduced nursing time estimated at £500,000 per annum.

In addition, there were reduced number of rejected samples leading to decreased laboratory staff time (estimated as costing £20,000 per annum) and wastage of consumables (estimated as costing £1,000 per annum). Savings due to reduced wastage of blood were estimated at £20,000 per annum.

The costs for the Oxford Radcliffe Hospitals NHS Trust for the electronic transfusion management system were reported as £350,000 per annum in a managed service contract with an external supplier for the hardware, including bedside handheld computers, software, and some support with troubleshooting, training and monitoring of
the correct use of the system. In addition, the Trust employs a senior manager to ensure the correct day-to-day running of the system.

Clearly, there are costs and resource requirements to setting up and maintaining this system however the improvements to safety and clinical care along with the reported financial benefits provide a powerful case for change.

Some trusts are developing their own systems and different trusts will have different needs. The type of system in place at Oxford may not be appropriate for every trust and the development of these strategies needs to be balanced against their other priorities. However, it is important to note that this is not new and unproven technology. The system at Oxford has been in place since 2006/07 and has been developed further so it now integrates the service for hospitals over several sites and has been highlighted previously as good practice.

Transfusion safety and the wrong use of blood is an issue on which the National Patient Safety Agency issued guidance in 2006. This guidance covered the need to explore IT solutions and also to consider other solutions such labelling and photo-identification of some patients, as well as a structured approach to training.

The lack of interoperable IT systems accounts for some of the inefficiencies and inaccuracies in the transfusion system. There is no comprehensive record and analysis of what is needed, ordered and used by hospitals.

In a paper produced on behalf of the NBTC on Modernising Hospital Transfusion Laboratory Services, key enablers for improvement in the transfusion system were identified as being “better IT connectivity and an adequately staffed and funded service”.

The report concluded that it is unrealistic to expect that each acute hospital will maintain comprehensive blood transfusion services, and that other models for transfusion services should be considered. End-to-end electronic control of transfusion and remote blood issue were considered to be practical steps towards a better system.

In developing a new system, the report sees NHSBT’s role as including “engaging in new approaches for delivering transfusion services such as a centralised transfusion services” and “supporting a modern IT infrastructure for transfusion safety and monitoring the effectiveness of transfusion”.

Developments along these lines would be consistent with the broader policy on pathology modernisation.

**Pathology modernisation and transfusion services**

Pathology modernisation is a major policy area. The pathology sector is under pressure to reduce costs and consequently there is an intention to consolidate the currently widely dispersed services by creating pathology networks or hub and spoke systems.

Currently, transfusion services are provided within hospitals, which are required to maintain a transfusion capability on site. As a result, there are over 200 hospital laboratories, and within NHSBT there are eight Red Cell Immunohaematology
laboratories and 15 stock holding units across England and North Wales. This results in duplication of resources, facilities and equipment, inefficiencies and higher costs and a lack of transparency in the system, leading to higher blood stocks and subsequent higher wastage.

NHSBT is a key stakeholder in this area of modernisation and sees a clear link between the modernisation of pathology services (making greater use of efficiencies of scale in pathology services) and the provision of transfusion services (hospitals providing transfusion services will need laboratories).

Trust networks and/or hub and spoke systems will require the development of logistics and stock control systems between trusts (for tests, delivery of blood etc.). However, increasing centralisation and integration may also lead to the larger laboratories wanting to undertake regional stock control themselves and/or carry out more services themselves, which could alter what is traditionally considered as the core NHSBT service. Conversely some trusts may wish to pass over responsibility for some or all of their transfusion services to an alternative provider such as NHSBT. This means that a degree of variability could develop in the range of services that NHSBT could offer trusts nationally; as a result the content of the standard unit price of blood will need to be carefully reviewed to ensure that it remains robust.

**Testing and processing**

Through a series of site rationalisations NHSBT has increased its testing productivity by 70 per cent since 2005. NHSBT’s strategy is to achieve top quartile productivity compared to its European peers and, via further announced rationalisation steps, it will achieve this by the end of 2011/12 and will exceed it by some 5 per cent in 2013/14. One country in Europe is achieving significantly higher productivity (approximately 50 per cent higher), so there may be potential for further testing productivity improvement. However, the significant capital investment in automation that would be required would potentially have an adverse impact on blood prices.

We noted that testing productivity varies significantly between NHSBT’s five testing sites. This may not be surprising given the investment that has been made at Filton in recent years. However it is important that best practice should be continually adopted across all the sites, and variability in performance is expected to reduce when NHSBT consolidates testing to three sites by the end of 2011/12.

Manufacturing productivity measured as the number of units produced per whole time equivalent (WTE) compares favourably with most other national providers benchmarked. There is evidence of higher productivity and some degree of variability between NHSBT sites.
Supply chain management including transport and logistics

The NHSBT transport and logistics function is a highly complex operation, both within the NHSBT organisation itself, and with its interaction with customers (see Diagram 2 below).

Diagram 2: NHSBT Blood Supply Chain

The function involves around 290,000 deliveries and collections per annum with a fleet of nearly 500 vehicles and an overall spend of approximately £20.7 million per annum. However, there is currently no Transport Management System (TMS) and as a result, journeys are not planned as efficiently as they could be under a comprehensive and computerised system. A review previously undertaken by NHSBT has identified a number of areas for improvement to the systems and processes.

There is a risk that sub-optimal stock control (see above in relation to trust usage and demand) and ordering systems both internally and within customer organisations could be leading to too many ad-hoc deliveries and possible wastage or products and resources.

Associated issues that need to be dealt with in this area are high rates of staff sickness and vehicle under-utilisation (17 per cent of vehicles are not used in a weekly period).

Blood collection sessions are currently organised so that blood collection teams are responsible for the set-up and set-down of blood collection sessions including organisation of stock and consumables (including everything from equipment needed for blood collection to drinks and snacks for donors, which are offered after donation...
to replace fluid and sugars). There may be more efficient ways of organising sessions, for example using ‘logistics teams’ to set up and set down to allow the trained blood collection teams more time on donor-facing activities.

**Proposals in NHSBT’s Strategic Plan**

NHSBT has sought to address many of the issues above in its Strategic Plan 2011 – 14 (the Strategic Plan).

NHSBT is rolling out the implementation of an Online Blood Ordering System to hospitals during 2011. This will help with efficiency in the ordering of blood, but does not include usage or stock control.

NHSBT also intends to “partner with NHS transfusion laboratories to develop, pilot and evaluate alternative models that enable improvement in the effectiveness of the supply chain and provide greater visibility of usage, enable better planning of demand and minimise wastage through the entire supply chain from donor to patient.” NHSBT envisages setting up pilot schemes with interested trusts, in which NHSBT will provide an integrated transfusion system which would include:

- shared stock management systems;
- automatic replenishment systems; and
- integrated transfusion laboratories.

This would not necessarily involve “electronic issuing” as has been implemented at Oxford Radcliffe Hospitals NHS Trust, although NHSBT considers that a more complex system could be piloted if a trust wished to pursue such an option.

The plan is to set up the pilot schemes during 2011/12. The costs and savings associated with these pilots are not built into the Strategic Plan. However, NHSBT has estimated that savings of £40million per annum may be realised by implementing an integrated system nationally. This system would involve the development of hardware and software, and NHSBT intends to consider whether it would be better to develop its own bespoke systems or purchase existing “off the shelf” systems.

NHSBT is further rationalising its testing facilities to three sites in line with its Strategic Plan. This will see testing at Sheffield and Newcastle consolidated into Manchester. In addition, NHSBT have initiated a LEAN project to deliver improvements in NHSBT supply chain processes.

As part of its overall supply chain strategy, NHSBT plans to develop “new logistical processes in support of the movement of people, equipment and consumables to session in order to minimise wastage and reduce infrastructure costs”. This will involve the “optimisation of logistics costs through the introduction of modern tools and technology and better planning of movements”. NHSBT is planning to work with logistics companies in designing new processes and tools and is open to partnering with such suppliers to implement the solutions.

NHSBT has produced a Blood Donation Strategy (BDS) as well as two Project Concept Documents – for the development of a Warehouse Management System (WMS) and a Transport Management System (TMS). One facet of the BDS is to look at delivering greater efficiency and effectiveness, including “improving session
logistics and reducing the costs of facilities and supplies” by ensuring the “movement of people, equipment, consumables and products as efficiently as possible”.

**Commercial Review recommendations**

DH supports the strategy that NHSBT has outlined to address the issues highlighted above. The following recommendations are made in relation to the further development of NHSBT’s plans.

**Trust usage and demand**

NHSBT supplies blood components (red cells, platelets, and plasma) predominantly to the NHS to meet hospital requirements. Together with other partners, including DH, NBTC, BCSH and SHOT, progress has been made on ensuring best use.

In spite of improvements over the past decade, there is still work to do to minimise inappropriate usage. As well as being necessary to protect patients, it makes financial sense for hospitals to ensure that blood is used only where clinically indicated. While it is beyond the scope of this Review to make specific recommendations on inappropriate use, NHSBT’s plans to work with hospitals in England to develop and pilot integrated transfusion services may help underpin new approaches to the problem of inappropriate use. Whilst trusts’ use of blood is on the borders of the scope of the Commercial Review it clearly has a major impact on the volume of demand for NHSBT’s products and consequently its costs.

**Recommendation 1**

*That more work, with strategic leadership from the Department of Health and the Welsh Government, should be done both at national and trust level to support trusts, in achieving and maintaining best practice, to reduce the inappropriate use of red cells, platelets and fresh frozen plasma; this would improve patient care and reduce costs to trusts and would in turn reduce demand and direct costs on NHSBT.*

**Pathology modernisation and transfusion services**

There are various initiatives being developed within DH and the NHS that overlap with NHSBT’s integrated transfusion service plans. Consideration should be given to whether efficiencies can be gained by interfacing with such initiatives (eg Standard NHS barcoding (GS1)). This would lend itself to common stock control systems across a trust that could be applied equally to blood stocks. This may limit the need for a separate stand-alone blood stock system.

As the potential develops for supply chain and stock control systems that are more integrated between trusts and NHSBT, it is important that NHSBT should define and publicise its operational interface and technical system requirements, so that all

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6 In this Report the Department of Health is recommended to lead on certain future work. However, a decision on which body will ultimately be responsible is yet to be confirmed and is subject to the passage of the Health and Social Care Bill 2010-11.

interested parties are able to link their systems with NHSBT’s stock systems to best effect and make best use of the GS1 barcoding initiative. It is important trusts and third parties have access to the relevant technical information to allow that development to happen; for example, so that software developers can adapt existing platforms or develop new systems and tools.

Evidence suggests that as well as promoting better clinical use of blood, improvements could lead to a more efficient supply chain. However, different trusts are dealing with this issue in different ways and this will continue. Transfusion services are likely to vary between trust networks and geographical areas as they develop, and NHSBT’s role will need to vary accordingly. This is another reason why it is important that NHSBT’s technical and interface requirements are publicised.

The role of NHSBT needs to evolve to meet demands and constraints. NHSBT needs to be part of and consistent with the wider modernisation agenda. A balance needs to be struck between central co-ordination and allowing a range of provision to develop to meet the different needs of trusts.

A range of options will need to be developed to fit with different trusts’ requirements. The private sector is able to offer a range of skills to analyse and support some of these requirements, such as external infrastructure and technology that is being used in current examples where transfusion services have been modernised. NHSBT does not have the capability and resources to support trusts in all aspects of centralising transfusion services, and the specialist providers are willing and have demonstrated capability.

It is, however, essential that all service models are capable of delivering the same level of basic information that is needed to allow the blood supply chain to operate effectively from “vein to vein” and support better usage and demand of blood and appropriate blood price setting. As outlined above, NHSBT should ensure it communicates its data/logistic interface requirements so that developers of service models can ensure these requirements are implemented going forward, whether delivered by NHSBT, the NHS itself or a private sector partner. So that, for example, a trust managing its own stock control systems can interface smoothly with any existing or developing NHSBT operational stock systems.

**Recommendation 2**

*That NHSBT should publicise its operational and technical data requirements related to its stock control and transport systems. This will allow all projects developing improvements in NHS stock control systems to be compatible with NHSBT requirements.*

NHSBT’s pilots in this area should consider all options available, including private sector services and/or partnerships, so that a range of options (and NHSBT’s role in those options can be flexible to meet need) can be offered to trusts.

**Recommendation 3**

*That NHSBT should continue to develop its pilot studies on integrated transfusion services and should publish the findings and results.*

**Recommendation 4**

*That as NHSBT pilots and launches services with particular trusts, it should maintain a clear segregation (in accounting and reporting) between its developing transfusion services and its core blood supply service.*
Testing and processing

NHSBT is exploring further opportunities for site efficiencies and DH supports this. The modernisation of pathology testing is an area where NHSBT faces increasing competition for some services from NHS trusts and external providers.

NHSBT does not regularly use financial data for benchmarking; instead it benchmarks predominantly against its peers by using productivity data, so as to avoid variances caused by national factors and different costing structures. Therefore it was not possible for the Review to examine in detail the costs of testing and processing and compare them to market data but was able to compare productivity data.

Whilst it may not be used for benchmarking, NHSBT should ensure it develops its cost analysis as this will help to assess whether there are further efficiencies that can be driven forward. It is also extremely important to have accurate costing information if NHSBT is seeking to sell its own services and capabilities to the NHS and external clients.

Supply chain management including transport and logistics

NHSBT already has plans to develop these areas internally, as set out in the Project Concept documents for TMS and WMS. However, the market feedback showed a strong possibility for buying in products and services rather than NHSBT developing its own with the associated cost and development risk. NHSBT is now considering this.

DH also recommends that NHSBT should consider joining the initiatives together (eg TMS and WMS) looking at how the entire supply chain can be improved, particularly through use of IT and technology. This links to the intention to develop “vein to vein” traceability and improve demand and usage by trusts. There are existing systems and products (eg TMS) that can be implemented relatively quickly.

Recommendation 5
Before investing in new projects, NHSBT should ensure it checks whether products or services are already available from existing providers. This could avoid unnecessary cost and risks associated with new developments.
Specialist Services

Issues facing NHSBT

Tissues

NHSBT currently operates a tissues retrieval, processing, storage and supply business from Speke, a new state of the art facility. Specialist nurses talk to the families of potential donors to discuss the consideration of donating tissues to those in need. This is done at the same time as discussing organ donation and NHSBT considers it critical that a single discussion takes place in order to limit the potential stress on grieving families.

The tissues function is small compared to the blood and organ donation functions of NHSBT. Revenue forecast for 2011/12 is £7.6 million. However, NHSBT is the sole supplier to the NHS of skin.

Other tissue banking activities exist within the NHS and there are also many different private sector competitors in this sector.

The key issues facing the tissues operation include the need to utilise capacity through developing the business and increase recognition of services within the NHS; responding to the developments of external suppliers and generating additional income streams. It is important that the operation is able to be self-funding. In the short to medium term further investment will be required in the operational infrastructure to support the growth plans.

Proposals in NHSBT’s Strategic Plan

NHSBT plans to develop the visibility and recognition of “NHS Tissues” as an operation and a NHS brand. It plans to develop new products and compete with other providers within the appropriate sectors of the tissues market, by establishing a direct sales team and developing sales and marketing plans, making the business run more commercially.

NHSBT plans to increase the revenue from the tissues business to £9.1m by 2013/14. By this time, it also plans to contribute £1.4m per annum to the costs of Group Services.

NHSBT is also considering “partnering with new start-ups through offering spare capacity in processing services”.

The role of NHSBT in providing ‘next generation’ products derived from stem cells (which includes stem cell/tissue composites) has recently been recommended in a joint BIS/DH report ‘Taking Stock of Regenerative Medicine in the UK’ (July 2011). In that report, it states that ‘DH will work with NHSBT to investigate how their involvement in regenerative medicine supply and delivery chains might be extended and developed’.
Commercial Review recommendations

This area of the business is small in comparison to other core functions such as blood products and organ donation/transplantation.

One of the key drivers for growing this side of the business is to utilise assets that have already been paid for (e.g. facilities at Speke), which are currently under-used.

NHSBT’s functions in relation to tissues are “to provide an organ and tissue matching and allocation service”. NHSBT is not directed to provide a “collection, storage and delivery” service in the same way as it is for blood products, and therefore tissues do not constitute core business for NHSBT in the same way as blood products do.

DH’s policy in relation to tissues will be to be remain open to multiple suppliers. There are suppliers of tissues both from within the NHS and outside, and no negative public health concerns, so there is no need for a sole state supplier to be established. There is a balance to be maintained between developing the NHSBT “NHS Tissues” operation as a means of service recognition and being clear that this is not a mandated monopoly provision.

It is important, given the relative sizes of the operation, that the NHSBT Board’s main focus should remain on its core businesses. In addition, the tissues business that NHSBT does provide should be financially self-sufficient. This means that:

- NHSBT should recover costs from trusts where tissues are retrieved on their behalf;
- full transparent financial reporting (including full recovery of group overheads) is required;
- Tissues income/costs should be clearly separated from those of other business;
- there should not be any cross subsidisation between services; and
- the NHSBT Board and DH sponsor branch should ensure that development of the services does not distract from the core NHSBT business.

It is also important that where commercial contracts are established with third parties, the risks are properly managed to prevent the potential for any financial or service impact on the core NHSBT operations.

If it becomes clear that the tissues business is not able to be self-funding or if significant investment is required, then alternative funding or different structural models for this function should be considered by NHSBT and DH.
Organ Donation & Transplantation

Issues facing NHSBT

Need to increase the number of donors

NHSBT is directed to “provide an organ...matching and allocation service” in order to “promote or secure the effective transplantation of organs...for the purposes of the health service”. NHSBT is also directed to “maintain a list of persons who are in need of or are considered suitable for an organ tissue transplant and to determine the criteria for inclusion in such a list”.

NHSBT was formed in 2005, when the NBA merged with UKT. NHSBT took over matching and allocating donated organs for transplantation, and managing the registrations of 12.5 million people on the NHS Organ Donor Register (ODR). This has increased to 18 million people being on the register now and the target is to increase this number by around 1m per year.

In 2008, NHSBT became the Organ Donor Organisation for the UK responsible for implementing seven of the 14 recommendations of the Organ Donation Task Force report, aimed at improving UK organ donation rates. Currently, more than 10,000 people in the UK need an organ transplant. Three people a day die for the want of an available organ, and UK donor rates are significantly lower than those of other European countries. In addition, there is an economic case for organ transplantation given the savings that are made in relation to medical treatments as a result. The 25 per cent increase in the number of deceased donors since April 2008 has meant that more than 850 additional lives have been saved or dramatically improved through transplantation with an estimated £150 million annual saving. NHSBT’s role is to manage, facilitate, support and drive the various elements of the pathway from (potential) donation through to transplant.

Development of the NHS Organ Donor Register

In 2010, the Secretary of State for Health commissioned a review by Professor Sir Gordon Duff of the ODR, following the discovery of a systematic error in the recording of organ donation wishes under the current system. The ensuing Report made various recommendations following the review, the first of which was that “the longer-term solution for the ODR is to create a secure, interactive system designed specifically to handle projected operational requirements in relation to organ donation”. It was recommended that “as soon as funding permits, the design and commissioning of a new replacement ODR should be taken forward”.

Proposals in NHSBT’s Strategic Plan

NHSBT has developed seven strategic themes as part of its overall strategic objective, which includes increasing “deceased organ donation by 60 per cent in 2013/14 and sustain and improve thereafter”. Part of the action plan includes a
“review of the current ODR infrastructure, following publication of the Duff report, leading to the development and implementation of a modern, fit for purpose ODR”.

NHSBT has already started a process of engagement with stakeholders in order to determine what a “fit for purpose ODR” should be. NHSBT has commissioned a report that should determine the requirements that can then be developed into a system specification.

Once the report has been received, NHSBT will develop a business case to be approved by DH and the Devolved Administrations. This will consider the options of NHSBT developing and implementing the new ODR itself as well as conducting a procurement for any private sector expertise to develop and implement the new ODR.

NHSBT anticipates that the cost of a new ODR would be in the region of £4 million, non-recurring, over two years. There will be some maintenance and support costs, which will be better known following receipt of the report referred to above.

**Commercial Review recommendations**

It is important that lessons are learnt from other NHS IT projects to ensure that the development and implementation of a new ODR is as effective as it can be. DH recommends that NHSBT should continue to work closely with Department IT teams to ensure that this happens.

DH agrees that NHSBT should consider specialist solutions given the willingness and capability of the private sector to deliver systems of this nature. Therefore, DH supports the proposal to develop a business case for the delivery of a new ODR that includes options involving any necessary private sector expertise. It is noted that the cost of delivering the new ODR has not yet been included in NHSBT’s Strategic Plan.

**Recommendation 6**

*That in its current investigation of the requirements for the NHS Organ Donor Register, NHSBT should ensure it has access to all necessary skills and resources to ensure the Register is successfully developed and is fit for purpose.*
Opportunities with the Devolved Administrations

**Proposals in NHSBT’s Strategic Plan**

The NHSBT Strategic Plan assumes revenues inwards of £5.5 million per annum from the Devolved Administrations for the organ donation services provided, reflecting the ongoing provision of this service. NHSBT has also identified the continued focus on procurement savings in manufacturing consumables through partnership with the other UK blood services and also the European blood services.

NHSBT has also written to the Welsh Government presenting data on opportunities to reduce the overall cost of blood supply to Wales. The opportunities identified included NHSBT undertaking processing and testing on behalf of the Welsh Blood Service. This is being considered as part of the review currently being undertaken on the costs and benefits of planning and securing a blood transfusion service for the whole of Wales.

**Commercial Review recommendations**

The report to the ALB review highlighted that DH should work with the Devolved Administrations to explore the potential for the UK blood services to enhance opportunities for cost effective working between them.

There appear to be a number of opportunities for the UK blood services to discuss sharing resources or co-ordinating approaches in their respective blood services to achieve savings or greater efficiencies. These include, for example, joint procurement programmes and joint marketing strategies. The blood services have already begun exploring some elements of specialist procurement. In addition, we note that NHSBT has capacity in certain areas, such as testing, that could be used by other UK services if this was appropriate and more cost-effective. We would recommend that these areas should be explored further with the respective governments.

**Recommendation 7**

*The Department of Health*\(^8\) *should work with the other UK Health Departments to ensure that the UK blood services work together where possible to operate as effectively and efficiently as possible.*

The requirements and specifications for the updated ODR are currently being developed, and this is a UK wide service. The views of the other UK participants need to be considered as this develops and care needs to be taken, collectively, that competing requirements do not limit effectiveness or lead to over-complication of the system.

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\(^8\) In this Report the Department of Health is recommended to lead on certain future work. However, a decision on which body will ultimately be responsible is yet to be confirmed and is subject to the passage of the Health and Social Care Bill 2010-11.
Governance

Transparency and reporting

NHSBT is mainly funded from recovering the cost of its blood service from trusts through the blood pricing system. Separate to this NHSBT has an exclusive right to provide certain services for which it receives parliamentary funding directly from the Department of Health as GIA. As such the State Aid Transparency Directive (implemented into UK law through the Financial Transparency (EC Directive) Regulations 2009) need to be applied. It should be noted that any risk of State Aid is an issue for DH rather than NHSBT itself.

GIA is predominantly given for NHSBT’s organ donation/transplantation services, however a lower level of GIA funding is also present for each of the operating segments reported in NHSBT’s published accounts. Under the Regulations, NHSBT must “maintain separate accounts for its activities under the exclusive right and for its other activities. Those separate accounts must (i) show the respective costs and revenues associated with the different activities, (ii) show the methods by which the costs and revenues are assigned to the different activities, and (iii) be based on clearly established, consistently applied and objectively justifiable cost accounting principles”.

In addition, to ensure proper accountability for public money, NHSBT is prohibited from using a cross subsidy between GIA and trading activity, and the rules governing fair competition also mean it must not subsidise the competed services from other areas of activity.

NHSBT allocates overheads between the different areas of activity and reports this in the management accounts, but this is not presented or audited within its published accounts. Currently NHSBT discloses cost information by differentiating its service lines in its published accounts (2010/11) between:

- Blood Components,
- Specialist Services,
- Organ Donation & Transplantation, and
- Group Services.

Group Services include research and development activity, and other group overheads including finance, HR, IT, estates and logistics, communications which support the other operational segments reported. GIA is provided by DH to support the NHS Cord Blood Bank (part of Specialist Services), the British Bone Marrow Registry (part of Blood and Components), the International Blood Group Reference Laboratory, and Organ Donation and Transplantation.

We recommend that the level of disclosure be increased so that on a segmental basis all costs are reported by service line and that all the group services costs (including overheads) are fully allocated across all the respective service and business lines.

We recommend this should be reported formally in NHSBT’s year-end accounts. For management purposes and for the purpose of supporting blood pricing a more
detailed allocation of costs is appropriate in order to provide costing transparency, including for the specific services within tissues and diagnostic services.

We recommend that a clear distinction should be drawn and reported between the services and costs funded through different income sources. We recommend that this should be reported formally in NHSBT’s year-end accounts. If needed, the Department may need to review its instructions to NHSBT to facilitate this change.

**Recommendation 8**

That NHSBT should ensure complete transparency in its financial reporting between its different services and its separate funding sources. The Department of Health\(^9\) should review whether any formal changes to its financial instructions to NHSBT are required to facilitate this.

**Blood price regulation**

NHSBT is the monopoly provider for blood components and some associated services and the cost mechanism for payment for these services is through the blood price. The blood price is agreed each year through the NCG for Blood. Prior to the creation of the NCG, 15 blood centres operated in three distinct zones (London and South East, Midlands and South West and Northern) with prices varying considerably between and within these zones.

In August 1998, the terms of reference and membership of the NCG were developed. The purpose of the NCG was to support the development of a national blood service through the introduction of a transparent national price for blood components (red cells, platelets, FFP) and the use of a national contract setting out the minimum standards of service and quality for the provision of basic services. The contract provides flexibility for the local negotiation of more specialist local service issues. The group continues to review and agree the annual pricing of blood components, including ongoing discussions about NHSBT’s future strategy, advising on any service developments that might lead to a price increase for the NHS, and making recommendations to DH about monitoring of performance against the national contract.

Current NCG membership includes representatives from DH sponsor branch (who act as Chair), DH finance, NHSBT, NBTC, NHS clinicians and NHS finance directors and representatives. A finance sub-group of the NCG focuses on the pricing of components relating to the annual NHSBT Commissioning Plan. There are difficulties recruiting and retaining membership of this group. Given these resource constraints, the level of review has had limitations.

Following the successful implementation of a national price and a national contract for basic services, the focus in recent years has been on reducing and stabilising the unit price of red cells. In its latest Strategic Plan, NHSBT sets out its intention to maintain the red cell unit price at or below £125 (assuming there is a 1 per cent per annum growth in demand and no new blood safety initiatives are mandated).

\(^9\) In this Report the Department of Health is recommended to lead on certain future work. However, a decision on which body will ultimately be responsible is yet to be confirmed and is subject to the passage of the Health and Social Care Bill 2010-11.
Commercial Review recommendations

Measures to maintain a safe blood supply may have direct cost implications for the blood price in future years. This is alongside a significantly changing landscape as a result of modernisation in pathology services. As services develop and change both at NHSBT and within NHS trusts it is important that the blood pricing mechanism continues to be robust and transparent to its customers and to demonstrate that the price does not contain cross subsidy. Care needs to be taken as trusts develop their own services that the core blood price does not assume costs for services that trusts may choose to perform themselves. This will help NHSBT to maintain customer confidence.

Even the current level of scrutiny that the NCG sub-group can currently bring to examine the NHSBT business plans is unlikely to be maintained going forward. This is amplified by the relatively small level of cost for blood at individual trust level compared to trusts’ other cost lines, and the competing demand on the time of finance staff at trusts.

Whilst the use of blood is predominantly driven by the NHS there is scope for NHSBT to further develop its management of its systems. For example, NHSBT may be able to offer differential pricing for customers who are able to provide reliable information about the stocks they hold, including stock that may be made available to other customers so that there are incentives within the NHS for ensuring efficient use of these short life products.

Recommendation 9

That the Department of Health\(^{10}\) reviews and oversees the mechanism for setting the blood price. The new process to be agreed with NHSBT and the other key stakeholders as a method that continues to command the confidence of NHSBT’s customers, takes account of blood policy and safety requirements, drives improvements in operational and financial efficiency and is transparent.

\(^{10}\) In this Report the Department of Health is recommended to lead on certain future work. However, a decision on which body will ultimately be responsible is yet to be confirmed and is subject to the passage of the Health and Social Care Bill 2010-11.
Implementation and timetable

NHSBT will be responsible for developing plans to implement the recommendations detailed in this report. The three exceptions to this are:

- the development of the formal system for blood price regulation, where DH\textsuperscript{11} and the Welsh Government will lead on review and implementation;
- reducing the inappropriate use of blood, with strategic leadership required from DH and the Welsh Government; and
- pursuing opportunities to explore efficiencies with the respective governments and UK bodies.

It is expected that recommendations will be implemented at the earliest appropriate opportunity.

NHSBT’s implementation plans will need to be agreed with both DH and Welsh Government as appropriate. Where recommendations relate to services for Northern Ireland and Scotland, they will also need to be agreed by the Department of Health, Social Services and Public Safety (Northern Ireland) and the Scottish Government. The UK Health Departments will then need to monitor and report to Ministers on progress against these plans. Other stakeholders including NHS trusts and the NBTC need to be consulted at the outset, and then throughout the development of the plans to implement the recommendations detailed in this report.

\textsuperscript{11} In this Report the Department of Health is recommended to lead on certain future work. However, a decision on which body will ultimately be responsible is yet to be confirmed and is subject to the passage of the Health and Social Care Bill 2010-11.
# Glossary

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>ALB</td>
<td>Arm's-length body</td>
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<td>BCSH</td>
<td>British Committee for Standards in Haematology</td>
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<td>BDS</td>
<td>Blood Donation Strategy</td>
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<td>BIS</td>
<td>Department of Business, Innovation and Skills</td>
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<td>BPL</td>
<td>Bio Products Laboratory</td>
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<td>DH</td>
<td>Department of Health</td>
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<td>FFP</td>
<td>Fresh frozen plasma</td>
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<td>GIA</td>
<td>Grant in Aid</td>
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<td>GS 1</td>
<td>Global Standard 1; an international barcoding standard</td>
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<tr>
<td>LEAN</td>
<td>A management approach to eliminate waste and improve efficiency</td>
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<td>NBA</td>
<td>National Blood Authority</td>
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<td>NBTC</td>
<td>National Blood Transfusion Committee</td>
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<td>NCG</td>
<td>National Commissioning Group for Blood</td>
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<td>NHSBT</td>
<td>NHS Blood and Transplant</td>
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<td>ODR</td>
<td>NHS Organ Donor Register</td>
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<td>QiPP</td>
<td>Quality, Innovation, Productivity and Prevention</td>
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<td>SHOT</td>
<td>Serious Hazards of Transfusion Haemovigilance Scheme</td>
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<td>TMS</td>
<td>Transport Management System</td>
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<td>UKT</td>
<td>UK Transplant</td>
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<td>WMS</td>
<td>Warehouse Management System</td>
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Summary of Recommendations

Recommended 1
That more work, with strategic leadership from the Department of Health and the Welsh Government, should be done both at national and trust level to support trusts, in achieving and maintaining best practice, to reduce the inappropriate use of red cells, platelets and fresh frozen plasma; this would improve patient care and reduce costs to trusts and would in turn reduce demand and direct costs on NHSBT.

Recommended 2
That NHSBT should publicise its operational and technical data requirements related to its stock control and transport systems. This will allow all projects developing improvements in NHS stock control systems to be compatible with NHSBT requirements.

Recommended 3
That NHSBT should continue to develop its pilot studies on integrated transfusion services and should publish the findings and results.

Recommended 4
That as NHSBT pilots and launches services with particular trusts, it should maintain a clear segregation (in accounting and reporting) between its developing transfusion services and its core blood supply service.

Recommended 5
Before investing in new projects, NHSBT should ensure it checks whether products or services are already available from existing providers. This could avoid unnecessary cost and risks associated with new developments.

Recommended 6
That in its current investigation of the requirements for the NHS Organ Donor Register, NHSBT should ensure it has access to all necessary skills and resources to ensure the Register is successfully developed and is fit for purpose.

Recommended 7
The Department of Health should work with the other UK Health Departments to ensure that the UK blood services work together where possible to operate as effectively and efficiently as possible.

Recommended 8
That NHSBT should ensure complete transparency in its financial reporting between its different services and its separate funding sources. The Department of Health should review whether any formal changes to its financial instructions to NHSBT are required to facilitate this.

Recommended 9
That the Department of Health reviews and oversees the mechanism for setting the blood price. The new process to be agreed with NHSBT and the other key stakeholders as a method that continues to command the confidence of NHSBT’s customers, takes account of blood policy and safety requirements, drives improvements in operational and financial efficiency and is transparent.

In this Report the Department of Health is recommended to lead on certain future work. However, a decision on which body will ultimately be responsible is yet to be confirmed and is subject to the passage of the Health and Social Care Bill 2010-11.
ANNEX B

Electronic Blood Transfusion Systems

See separate attachment