Northern Ireland Blood Transfusion Service

Report on the Audit of Information Systems

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1. Background

1.1 Introduction

In line with Equality Commission requirements, the Northern Ireland Blood Transfusion Service has committed to undertaking an audit of information systems by 23 Sept 2012.

In this report we:

- spell out what exactly we have committed to and outline what approach we took
- report the outcome of our audit and
- describe what we will do as a result of the audit (our priorities).

1.2 Who we are and what we do

The list below summarises the major functions of the Northern Ireland Blood Transfusion Service.

Supply of Blood and Blood Products:

Blood and blood products used for transfusion are almost entirely dependent on human donors and with a few exceptions this position is likely to continue for the foreseeable future. The supply of blood and blood products is the core function of NIBTS and is carried out by:

• Assessing and anticipating the needs of the province for blood and blood products;

• Recruiting and maintaining adequate numbers of healthy, voluntary, non-remunerated donors;

• Ensuring the health and safety of blood donors during their contact with the Service;

• Performing appropriate processing and testing of blood and blood components;

• Ensuring that an effective quality assurance programme is applied to all aspects of the production process and other areas of the Service;

• Providing a relevant educational and advisory service in the use of blood and blood products;

• Undertaking relevant research and development;

• Maintaining appropriate links with organisations in Great Britain and elsewhere in pursuit of these objectives.

Other Blood Transfusion Service Functions

1. Reference Laboratory Service

This service is provided to all hospital blood banks in the province and involves the investigation of problems related to transfusions (adverse reactions, cross match difficulties etc) and the investigation of certain immunohaematological diseases. A 24hour on call service is provided.

2. Antenatal Service

The Antenatal service receives and tests blood samples from all antenatal clinics throughout the Province. These samples are tested to establish the mother's blood group and also determine if the sample contains clinically significant red cell antibodies, which may potentially cause harm to the foetus or newborn baby.

Antenatal blood samples, with patient consent are also tested for viral markers to Hepatitis B, HIV 1&2 and Rubella and Syphilis.

3. Belfast Cord Blood Bank

The Belfast Cord Blood Bank recruits, collects, processes, tests and stores cord blood units for both public and directed/family purposes.

4. Quality & Regulatory Affairs

The Quality & Regulatory Affairs and Compliance Departments work closely to deliver effective Quality systems within NIBTS. In addition the Quality Department leads Information Governance, Risk Management and Emergency Planning across the NIBTS.

5. Finance & Information Management &Technology

The Finance & Information Management &Technology department is responsible for the delivery of two key services, Financial services and Information Management and Technology. The services provided by staff include financial accounting, management accounting and reporting, capital assets accounting and financial planning. Information management and technology identifies plans and manages all aspects of information management and technology to ensure that business and technical aspects of the service are completed.

6. Human Resources & Corporate Services

The Human Resources & Corporate Services Department is currently structured into two sections: Facilities and Human Resources. Human Resources are responsible for providing non-transactional knowledge led HR support across the organisation. Corporate services cover a range of activities including support for regulatory compliance on facilities and estate issues, health and safety and a range of other controls assurance objectives spanning the organisation's functions.

1.3   Our Commitment and its rationale

Under Section 75, public authorities are required to undertake equality screening (and if necessary equality impact assessments). Likewise, organisations have committed to ongoing monitoring to identify opportunities to better promote equality and good relations.

Our Equality Scheme (para. 4.29) requires us to carry out:

> *"An audit of existing information systems within one year of approval of this equality scheme, to identify the extent of current monitoring and take action to address any gaps in order to have the necessary information on which to base decisions."*

The Equality Commission thus clearly defines the audit as not an end in itself but a key stepping stone for organisations to ensure their decision-making is equality evidence-based.

While monitoring is twofold, involving not just the data collection of quantitative and qualitative information but also its analysis to assess inequalities and emerging issues, in our audit we concentrated on the extent of data collection in a first step and within this strand on data systems (thus excluding, for example, data held in personnel files).

1.4   Our Approach to the audit

In the absence of further guidance by the Equality Commission, we adopted the following approach to the conduct of the audit.

As a starting point, we drew on our Information Assets Register, a register which includes all information assets that we hold as an organisation including those in the form of databases, reports and papers. Each organisation is required to hold such as register, under governance requirements.

For the purposes of this audit, we focused on those databases that capture information on people, relating to both services and

employment. This meant that many other types of information databases that we maintain for administrative purposes, for example to record the number of boxes we store off-site, were filtered out.

We undertook the audit in four steps.

STEP 1 We identified people-based information systems.

We reviewed all databases in our organisation to identify those which relate to people.

STEP 2 We scrutinised these systems as to the coverage and use of Section 75 and postcode data.

We looked at which of the nine equality categories and postcode the system currently captures.

If the system does not capture a particular group we determined whether this is because:
(1) the data field exists but the data field is not populated (use)
(2) the system is not capable of recording the data – no data field exists (coverage).

STEP 3 We undertook a high level assessment of what is required to plug the gaps (costs & benefits – feasibility)

STEP 4 We decided on our priorities for addressing gaps by undertaking two steps: firstly at the level of individual service areas, then at the corporate level.

2. The outcome of our audit

Table 1 below shows the results of our audit. The table lists each of the people-based information systems that we identified. Against each system, it records what Section 75 and postcode data is currently being collected. It then documents our high-level assessment of what is required to plug the identified gaps, summarising the costs and benefits as well as the feasibility of filling the gaps.

Database	Section 75 Data Collected										High Level Assessment	
	Age	Gender	Disability	Religion	Political Opinion	Sexual Orientation	Racial Group	Marital Status	Dependants	Postcode	a) Costs and Benefits	b) Feasibility
Q-Pulse, NIBTS Staff Training Records Database	N	N	N	N	N	N	N	N	N	N	Gaps will be addressed through alignment with new HR system	n/a
Pulse, NIBTS Blood Collection Database. It is a complete software system that powers the whole donation lifecycle for a blood transfusion service. It is currently in use by NHS Blood and Transplant, Jersey BTS, Northern Ireland BTS and the Isle of Man BTS. Its role begins with donor management and donor session planning, continues on through laboratory testing, stock management and ends with safe dispatch to hospitals.	Y	Y	N	N	N	N	N	N	N	Y	Clinically it is not believed that the collection of this additional data would contribute to the improvement of the Health & Social wellbeing of individuals (blood donors and/or expectant mothers), nor would it contribute to the better promotion of equality amongst these groups. There is no reason to use this additional data, as it would not inform any decision making process within NIBTS. The NHS Blood and Transplant (NHSBT) may collect information on ethnicity of their donors as this is relevant when providing phenotype blood for Haemoglobinopathy. NIBTS is not required in general to provide blood for Haemoglobinopathy patients.	n/a

Database	Section 75 Data Collected										High Level Assessment	
	Age	Gender	Disability	Religion	Political Opinion	Sexual Orientation	Racial Group	Marital Status	Dependants	Postcode	a) Costs and Benefits	b) Feasibility
Diagnostic Service System (DSS), NIBTS AnteNatal Database. DSS is primarily a laboratory testing system for antenatal serology. It is used to manage patient details, schedules workloads for lab test tools, and process results back from these test tools resolving and maintaining patient serology history. Patient results are then available in printed format, and remotely via customer PC's. It has a secondary function of resolving donor testing acting as a complimentary system to PULSE.	Y	Y	N	N	N	N	N	N	N	Y	Clinically it is not believed that the collection of this additional data would contribute to the improvement of the Health & Social wellbeing of individuals (blood donors and/or expectant mothers), nor would it contribute to the better promotion of equality amongst these groups. There is no reason to use this additional data, as it would not inform any decision making process within NIBTS.	n/a
Human Resource Management System (HRMS)	Y	Y	Y	Y	Y*	Y*	Y	Y	Y	Y		n/a

* The Employment Monitoring Form which captures the Section 75 data, offers an "opt out" option on both these criteria.

3. Our priorities

In order to decide what priorities we will focus on, we applied the following criteria:

a) Assessment of Costs and Benefits

Resources (time, people and money)

- incurred in creating capacity of system (coverage) to record the missing data
- incurred in improving meaningful completion (use) of the data fields

Technology

- timescales involved
- technology upgrade (e.g. system is being replaced so updating current system is not cost effective)

Impact and Outcomes

- potential to contribute to improvement of health and social wellbeing of individuals
- potential to contribute to promoting equality for HSC staff
- longer term savings or opportunity costs

Unique or most efficient point of data collection within the HSC (within constraints of data protection provisions)

Practicalities of Data Collection (including ethical issues)

As a result, we have identified the following actions as our priorities to address any gaps in order to have the necessary information on which to base decisions (see Table 2 below):

Database	Action to be taken By whom	By Whom	By when
Q-Pulse, NIBTS Staff Training Records Database	HR, NIBTS to liaise with HR colleagues in Belfast HSC Trust.	Head of HR & Corporate Services	In line with BSTP timelines. Current date of implementation is November 2012.
Pulse, NIBTS Blood Collection Database. It is a complete software system that powers the whole donation lifecycle for a blood transfusion service. It is currently in use by NHS Blood and Transplant, Jersey BTS, Northern Ireland BTS and the Isle of Man BTS. Its role begins with donor management and donor session planning, continues on through laboratory testing, stock management and ends with safe dispatch to hospitals.	n/a		
Diagnostic Service System (DSS), NIBTS AnteNatal Database. DSS is primarily a laboratory testing system for antenatal serology. It is used to manage patient details, schedules workloads for lab test tools, and process results back from these test tools resolving and maintaining patient serology history. Patient results are then available in printed format, and remotely via customer PC's. It has a secondary function of resolving donor testing acting as a complimentary system to PULSE.	n/a		
Human Resource Management System (HRMS)	HR, NIBTS will continue to liaise with HR colleagues in the Belfast Trust to monitor and review.	Head of HR & Corporate Services	In line with BSTP timelines. Current date of implementation is November 2012

Conclusion

This report has outlined how we went about conducting the audit of information systems, reported the outcome of our audit and described what we will do as a result of the audit (our priorities).

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In our Annual Review of Progress of Section 75 implementation in our organisation, which we publish on our website, we will report on progress against the actions we have outlined in Section 3 of this document.

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