Roles and Responsibilities of support workers in Hospital Blood Transfusion

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Why does this matter?

- Oh the times they are a' changing

1. Technology – e.g. Testing automation, fridges, scanners, wireless, networks

2. IT Electronic Issue (EI)
   Remote electronic issue (REI)
   Issue fridge control
   Bedside systems

3. Pathology modernisation e.g. centralisation, skill mix, savings targets

National pressure for skill mix

Skills for Health working paper 2:

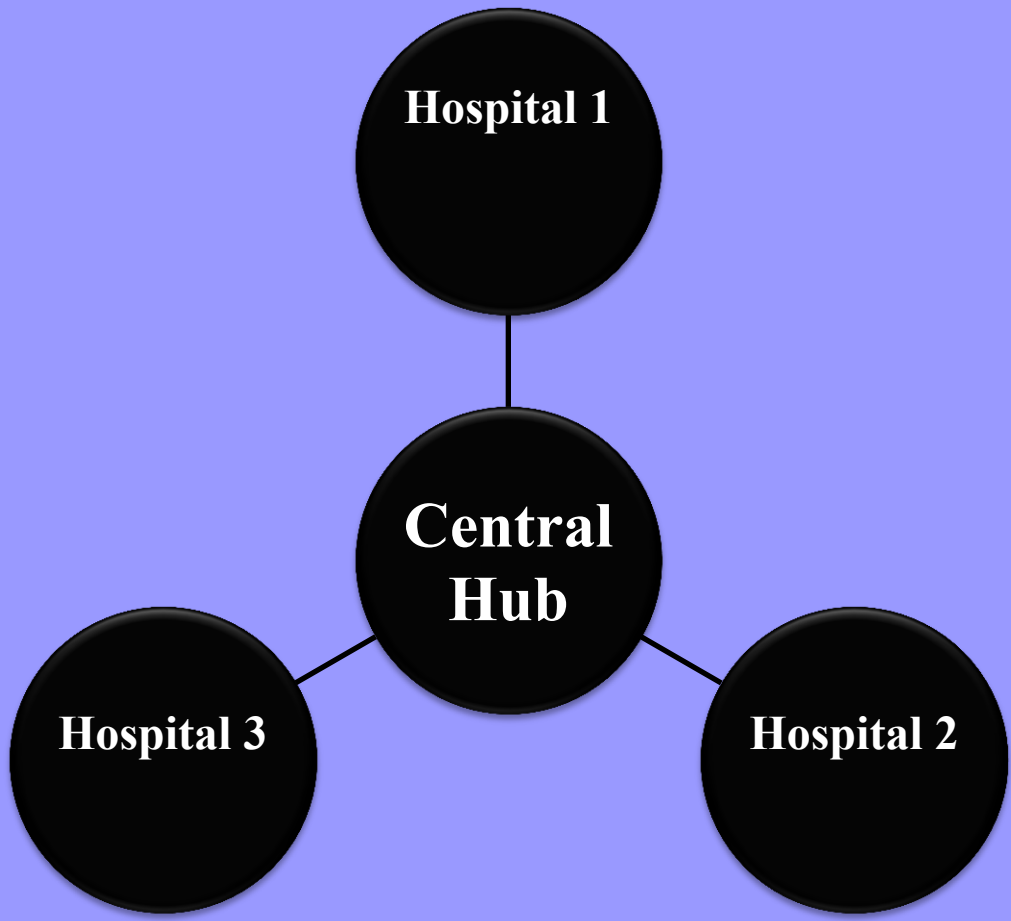
How we can act now to create a high quality support workforce in the UK's health sector

October 2015

http://www.skillsforhealth.org.uk/news/latest-news/item/327-employers-need-to-commit-to-the-development-of-higher-quality-roles-for-support-staff

Networked systems

- Technology networked through a single interface
- Visibility of all sites through network
- Unification of processes across sites
- Central quality control possible
- Central specialist interpretation possible
- Can move work around sites easily, can centralise work



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Who works in Hospital BT

- Support workers (non HCPC registered)

- Scientists (HCPC registered)
- Nurses
- Medics

Legal requirements – BSQR 2005

- **9. Hospital blood bank requirements**

  (1) The person responsible for the management of a hospital blood bank shall -

  (a) ensure that personnel directly involved in the testing, storage and distribution of human blood and blood components for the hospital blood bank are qualified to perform those tasks and are provided with timely, relevant and regularly updated training;

BCSH Guidelines for pre-transfusion compatibility procedures in blood transfusion laboratories 2012.

- 2.2 Staff Training and Competency
- 2.2.1 There must be a documented programme for training laboratory staff, including on-call staff not routinely working in the laboratory, which covers all tasks and testing performed appropriate to the grade of staff and which fulfils the documented requirements of the laboratory

- 2.2.3 Laboratory tasks must only be undertaken by appropriately trained staff.

- 2.2.4 There must be a documented programme for assessing staff competency in all laboratory tasks.

- 2.2.5 Where decisions are required about interpretation of results, component selection and/or specialist requirements, the staff involved must have the required knowledge (supported by relevant qualification) to do this safely.

- 2.2.6 Specialist clinical and technical advice should be available at all times from staff who have demonstrated sufficient knowledge, training and competency to do so. This could be from within a network or Blood Service reference laboratory if not available from within a single centre.

Standards – UK Transfusion Laboratory Collaborative 2014

1. Staffing

- 1.1 It is expected that appropriate laboratory staffing levels will be in place to ensure the safe and effective delivery of all transfusion service activities and that they will be subject to annual review, risk assessment and agreement through local governance structures (NHSE, 2014).

- 1.2 It is expected that laboratories as part of their capacity planning process (BSQR SI50/2005) will have operational protocols to make certain that sufficient staff with an appropriate skill-mix are available to match the workload and its complexity at all times.

Standards – UK Transfusion Laboratory Collaborative 2014

3. Training and Competence

- 3.12 It is expected that all non-registered members of staff or support staff working in a transfusion laboratory will always be supervised by a member of staff registered with the HCPC who also holds a qualification, appropriate to their career framework stage, from those listed in appendices A and B. Support staff must also have a locally defined scope of practice using a professional framework that sets the appropriate limits on their activities (IBMS, 2013c).

IBMS - Managing Staffing and Workload in UK Clinical Laboratories 2010

- It is recognised that there are certain tasks and tests within the generally accepted biomedical scientist repertoire that could be undertaken by laboratory support staff under biomedical scientist supervision. However, there must be biomedical scientists in sufficient number and seniority to provide result interpretation, give scientific advice, direction and leadership within the laboratory.

- Irrespective of the systems operated, laboratory support staff (associate practitioners and assistants) are not autonomous practitioners and as such must only work to agreed departmental protocols with supervision by qualified and authorised healthcare staff. It is not appropriate for non-registered staff to deputise for, or supervise, registered staff in biomedical scientist grades

- Supervision is the direction and inspection of the performance of workers or work. Non-registered individuals may not work unsupervised in an NHS laboratory or a laboratory providing a service to the NHS. Supervision can be divided into categories: direct, indirect and remote

IBMS - Supervision of Biomedical Support Staff (Assistant and Associate Practitioners) 2014

- This policy does not attempt to be fully prescriptive about which tests, roles or functions can be undertaken only by a specific staff group with or without supervision.

- There are certain tasks and tests within the generally accepted biomedical scientist repertoire that could be undertaken by laboratory support staff under biomedical scientist supervision. However, there must be biomedical scientists in sufficient number and seniority to provide result interpretation, give scientific advice, direction and leadership within the laboratory.

- Competent support staff working to agreed protocols may not require supervision by an HCPC registrant in the same physical locality. While the latter would be expected to be aware of and responsible for the individual and the tasks they are performing they may not be on the same site so they can only give advice verbally or electronically. In this context, remote supervision is where laboratory work is performed at a remote site, with advice and/or scrutiny and validation by staff at another site, for example **remote electronic issue of blood** or point of care testing.

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IBMS - Supervision of Biomedical Support Staff (Assistant and Associate Practitioners) 2014

What types of procedures are suitable for remote supervision?

- Loading and running analysers remotely according to the department policies and procedure; this may include validation of batch results, such as serum vitamin B12 for example, where the internal quality control (IQC) was within defined parameters and the use of IT technology could auto validate 'normal' results with any 'abnormals' directed to a validation queue for attention of an HCPC registered biomedical scientist. Management would have to risk assess this strategy and have a plan for business continuity in case of analyser failure or the member of staff taking ill if they were a lone worker.

- It would not be appropriate for clinical authorisation of tests, such as a full blood count for example, which would require specialist knowledge to determine whether the results were clinically valid for release directly to clinicians.

IBMS - Supervision of Biomedical Support Staff (Assistant and Associate Practitioners) 2014

What types of procedures are suitable for remote supervision?

- It would not be expected for a support worker to clinically validate or authorise a result that could be used to treat a patient.

- It would not be expected for an unsupervised support worker running an analyser in a remote location that is not electronically linked to the main laboratory to be able to release results that could be automatically authorised. An HCPC registered biomedical (or clinical scientist) would be required to have the visual assurance of interrogating the quality control (QC) and the maintenance records that results could be auto authorised.

Summary of requirements and guidance

- All need to be trained and competent
- Requirements for HCPC registered scientific staff somewhat elucidated
- Some guidance as to what is restricted scope of practice for non HCPC staff beyond which is limited to HCPC registered staff
- Some guidance on supervision of support workers

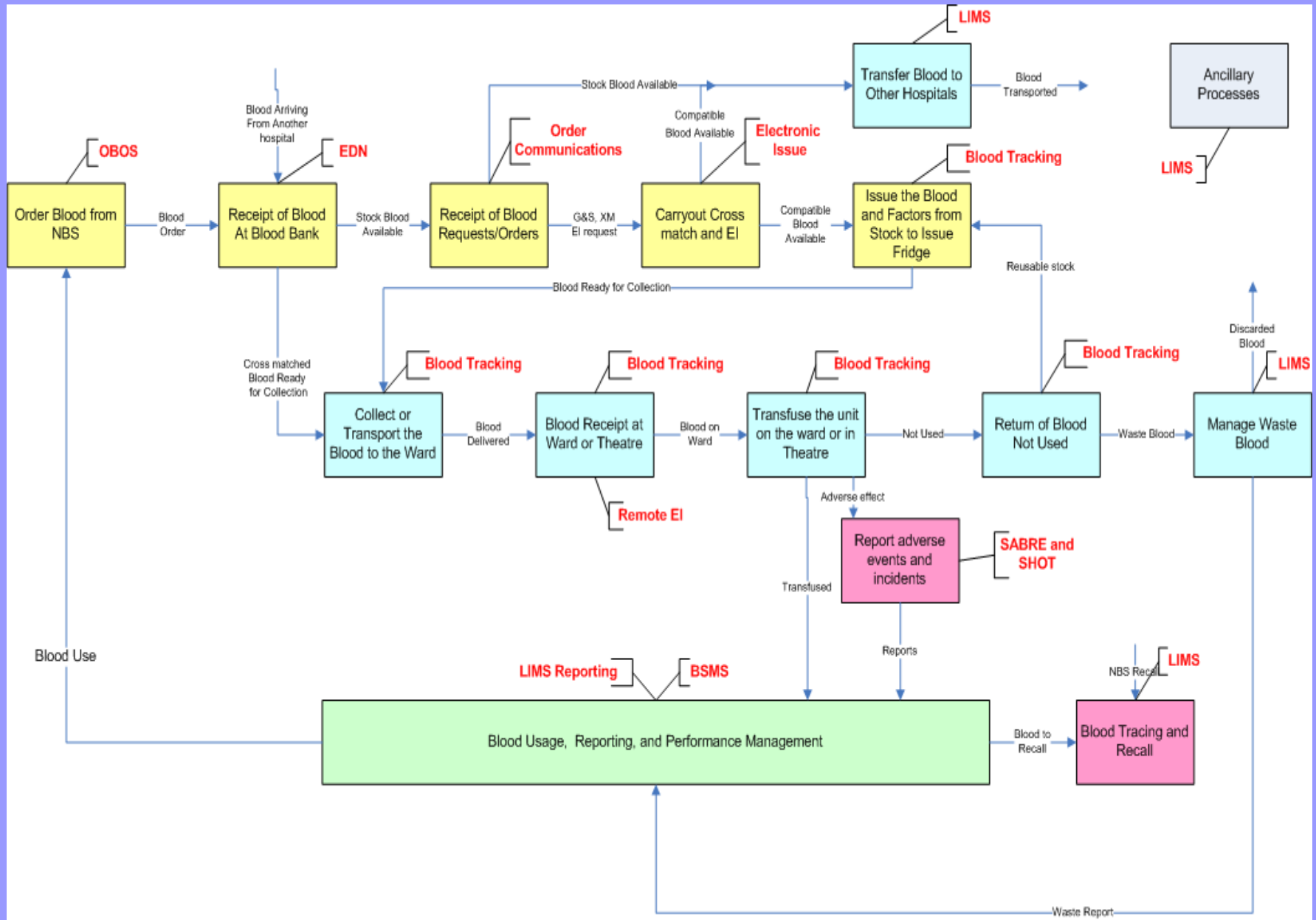
Deciding who does what?

- Who needs to know and do what, where and when – understanding your processes
- Underlying knowledge and skills required
- Job plans

How do we fit roles into processes

- Process maps
- Critical process points
- Identify adjacencies

Process Maps



Knowledge, Competencies and tasks

National Occupational Standards – there are 22 individual NOS specific to Blood transfusion and transplantation

HCS_BT1: Determine major blood groups

Performance Criteria

a) Select the correct techniques and reagents and controls.
b) Prepare the blood grouping system for use
c) Avoid cross contamination through application of correct procedures.
d) Determine ABO & Rh and other major blood groups by use of selected techniques
e) Accurately document and record results
f) Recognise instrument or system errors in data.
g) Interpret results with reference to controls
h) Identify anomalous results and investigate
i) Identify samples requiring further or additional testing
j) Validate current grouping results with reference to previous test results
k) Place sample and associated records in the location and storage conditions appropriate for next stage of processing
l) Minimise clinical impact of process delays by analysing with suitable degree of urgency for clinical need

Knowledge and understanding

1. The effects of anticoagulants and other substances present in blood samples
2. The range of tests, equipment, techniques and procedures used for blood grouping including:
a. Routine ABO grouping
b. Routine Rh grouping
c. Other routine phenotyping
3. Significance of controls and procedures to adopt in the event of test/control failure
4. Antigens of major blood group systems
5. Special testing of blood samples i.e. neonatal use
6. The clinical need for ABO and Rh D typing in patients and donors
7. Antigen: antibody reactions in vitro, and factors affecting agglutination
8. Principles of automated, semi-automated and manual techniques used for blood grouping in tubes, microplates and micro-columns
9. Principles and purpose of routine antenatal sample testing
10. Sample handling procedures and management of high risk samples
11. Relevant current Guidelines

Knowledge, Competencies and tasks

HCS_BT9: Issue blood and tissue products and components to meet clinical need

Performance Criteria

a) Receive and document request for blood products or components
b) Ensure request is complete, appropriate, achievable and from an authorised requester.
c) Select product which meets clinical request criteria
d) Confirm quality, product type and suitability of blood products and components for issue
e) Issue product, properly packed, with appropriate documentation
f) Ensure product is transported appropriately to agreed destination in a timely manner.
g) Ensure products requiring irradiation are selected and have been processed and correctly labelled
h) Discard of time-expired and non conforming products

Knowledge and understanding

1. The range of tests performed on donated blood before release and issue
2. Criteria for storage and release of blood and blood components
3. How to handle blood and products which are no longer valid for issue e.g. time expired or out of temperature
4. The range of blood products and components available and their uses
5. Risks associated with the issue of blood products and components
6. Procedures for dealing with routine, non-routine and major incident requests
7. How to manage the issue of autologous donations
8. The purpose, process and requirements for irradiated blood products and components
9. Relevant current Guidelines
10. Factors influencing choice of product for use

Job plan

General Description	Responsibility Threshold	Qualifications
Support worker	No subjective interpretation of results	General standard of education – **NVQ2/3**

Specific Tasks

- Specimen reception – receive/ sort/ label samples/ follow-up any missing PID
- Scan forms/ Despatch Hard copy reports
- Issue Stores/ cleaning of equipment
- Deal with telephone enquiries/ phoning of results
- Order transport
- Request entry on LIMS/ result entry
- Load Analysers/ update charts
- Pre-analytical work on specimens (ie centrifugation)
- Stock handling
- Equipment maintenance
- Albumin/ anti- D Issue
- Thaw plasma components
- Consummable Orders
- ?electronic issue

My opinion – for what it is worth!

- Support workers (non HCPC registered)
  - any task that is algorithm controlled
  - limited decision making and interpretation
- Scientists (HCPC registered)
  -any task that requires interpretation of results or clinical information
  - makes significant clinical and scientific decisions based on situation
- The line between depends on technology available and how scientific knowledge can be extended to support non HCPC workers at all times.

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Influence of local technology and IT

- No one solution for all labs
- Some IT better or more adaptable than others
- Some technology connects better
- Consider different clinical demands and ability of systems to deliver

The end of Biomedical scientists?

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