

NAP

The Newsletter of the National Association of Phlebotomists

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Phlebotomy Based Sampling Errors

Part 1 – by Roger Hoke

Proud to be a Phlebotomist?

All too often, phlebotomy is considered by those who lack any real understanding of the role, to be a simple process. This fact is amply demonstrated when it comes to the Agenda for Change banding. Yet anyone who has spent even a few hours working in a busy out-patients clinic will realise that it requires good practical and communication skills, the ability to cope under pressure, deal with patients who faint or are needle phobic and have a memory any Mastermind contestant would be proud of to memorise the enormous range of tests and tube requirements. Last, but by no means least, the ability to do all this correctly, consistently, time after time and at a pace that ensures the clinic is clear by closing time. In the present economic climate there is now an even greater pressure for staff to do more than ever before.

To the casual observer watching an experienced phlebotomist perform this task with apparent ease, it is little wonder that their perception is misguided. Phlebotomy is undoubtedly, one of the most underestimated procedures in healthcare. The skill of the phlebotomist is to obtain samples which are from the right patient, in the right tube, correctly labelled, matched to the patient's ID Band or the Request Form, and is representative of the patient's pathological condition. The risks of underestimating the importance of this role places timely diagnosis, treatment and management in jeopardy with the potential to cause serious harm or even death to patients from some forms of treatment such as blood transfusion.

Errors in Phlebotomy

As patients, when our doctor tells us our blood test results confirm or eliminate a particular

disorder we assume that he or she is absolutely correct. Would we doubt the validity of the results? Probably not. Yet, the National Patient Safety Agency (NPSA) have stated that between February 2006 and January 2007, they received over 24,000 reports of patients being wrongly identified and mismatched with their care or treatment. This resulted in some patients incurring serious, lasting harm such as chronic pain, undiagnosed cancers and even death. Whilst this number is small in comparison to the total number of patients treated in our hospitals each year, it is still an enormous number of patients for whom the system has failed. The Serious Hazards of Transfusion (SHOT) Report 2008 highlighted 5 phlebotomy errors resulting in blood transfusions based on incorrect identification and labelling. This type of incident is classed as 'wrong blood in the tube' and unfortunately, caused 3 episodes of ABO-incompatible blood transfusion. Additionally, 76 cases of inappropriate and unnecessary transfusion were also reported and the largest category of 38 cases, involved patients being transfused on the basis of erroneous haemoglobin, platelets and coagulation results attributed to poor sampling technique, transcription errors, use of another patient's results and other miscommunications.

A survey in 2009 carried out by More4 News, used the Freedom of Information Act to request Hospital Trusts provide details on the number of mislabelled samples. Approximately one-third replied (120 Trusts) who collectively reported 365,608 known sample mislabelling errors. A further 11,712 samples were incorrectly labelled in laboratories. The survey also revealed that in 2008 there were 46 recorded cases where mislabelling was found to be related either to a patient's death or significant delay in treatment.

To counteract these errors, the NPSA implemented a number of initiatives to improve patient safety including –

- *Right patient – right care (December 2004)*
- *Wristbands for hospital in-patients improves patient safety (November 2005)*
- *Right patient – right blood (November 2006)*
- *Standardising wristbands improves patient safety (July 2007)*
- *National Occupational Standard – Competency – Obtaining a venous blood sample with 100% compliance by November 2010*

If phlebotomy is as simple as some suppose, why do so many errors occur and why the need for so many initiatives and legislation? Importantly, why do mistakes still occur when the MHRA, SHOT and the NPSA have put in so much work into reducing the opportunity for errors?

These issues are important to professional phlebotomists who pride themselves in the quality and accuracy of their work. In the next newsletter, Part 2 will look at how errors occur in the pre-analytical phase and Part 3 will examine some of the human causes of these errors. Hopefully, these may help shape some more NAP 'Best Practice' guidelines for the future. Meanwhile, if anyone has any interesting case errors they would like to share, (no identifying names) I would be interested to hear – especially if they are based around bar-code technology.



NHS Guidance on Implementing the EU Directive on Preventing 'Sharps' Injuries

The UK 'National Health Service - Employers' organisation, has recently published on their website the major elements of the Implementation Guidance for the EU Directive on preventing sharps injuries in the hospital and healthcare sector.

Listed below are key extracts from the guidelines with specific relevance to protecting healthcare workers involved in the collection of blood samples:

"The Agreement and the Directive recognise that the everyday work of healthcare staff puts them at risk of serious infections, with more than 30 potentially dangerous pathogens, including hepatitis B, hepatitis C and HIV, as a result of needlestick injuries."

"The highest risk procedures include blood collection, IV cannulation and percutaneously placed syringes. Small amounts of blood can result in potentially life threatening infection. Hollow-bore needles contain more blood and therefore carry more risk than solid needles."

"Where the results of the risk assessment reveal a risk of exposure, this should be controlled, by:"

- Elimination - eliminating the unnecessary use of sharps by implementing changes in practice and on the basis of the results of the risk assessment.
- Safe procedures - specifying and implementing safe procedures for using and disposing of sharp medical instruments and contaminated waste.
- The practice of recapping shall be banned with immediate effect. These procedures shall be regularly reassessed and shall form an integral part of the measures for their information and training of workers.
- Engineering controls - providing medical devices incorporating safety engineered protection mechanisms.
- Personal Protective Equipment (PPE) - the use of PPE such as gloves, masks, gowns and so on.

Appropriate measures to minimise the risks would include the provision by employers of safer needle devices and sharps containers. As

the Directive stipulates managers should consult with workers' representatives on the choice and uses of such equipment, identifying how best to carry out training and awareness raising. When considering these devices the following selection criteria should be applied:

- the device must not compromise patient care
- the device must perform reliably
- the safety mechanism must be an integral part of the safety device, not a separate accessory
- the device must be easy to use and require little change of technique on the part of the health professional
- the activation of the safety mechanism must be convenient and allow the care giver to maintain appropriate control over the procedure
- the device must not create other safety hazards or sources of blood exposure
- a single-handed or automatic activation is preferable
- the activation of the safety mechanism must manifest itself by means of an audible, tactile or visual sign to the health professional
- the safety mechanisms should not be easily reversible once activated

Comprehensive user training is pivotal to the introduction of safety-engineered medical devices. Experience has shown that when this is done well, in combination with safer working procedures, the implementation of the safety measures is much more effective.

"The Agreement and the Directive provide the framework to put in place and implement adequate and practical preventative measures in anticipation of the publication of the requested national legislation. National implementation negotiations should begin immediately so that serious occupational risks are reduced as soon as possible."

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A.G.M. 2012

It has been decided that we will not have a conference in 2012. However the Executive Committee would like to invite members to the Annual General Meeting which will take place at 11am to 11.30am on April 25th 2012 at Institute of Biomedical Science, 12 Coldbath Square, London, EC1R 5HL. The Executive Committee look forward to seeing anyone that wishes to attend.

Please email jacquelinehough@aol.com to accept the invitation.

A.G.M. 2013

We plan a social evening and conference around our 2013 A.G.M. so keep in touch!

Forthcoming Training

Full Aims and Objectives are available on the website or on request at jacquelinehough@aol.com

Paediatric Venepuncture

(for experienced Phlebotomists only)

10.00 to 16.00 hours

£100 members £175 non members

18th February 2012 Birmingham

24th June 2012 Birmingham

13th October 2012 Birmingham

Train the Trainer

(for those involved in Training)

2 Day course

£500 member's £650 non members

26th & 27th May 2012 Telford

29th & 30th September Telford

Venepuncture

(for beginners)

2 day course - £350

Theory and simulated practice

14th & 15th June 2012 Telford

1st & 2nd October 2012 London



Training can be organized for individual work places, please contact jacquelinehough@aol.com for any enquiries or download a booking form from www.phlebotomy.org



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