The Association for Clinical Biochemistry & Laboratory Medicine

Better Science, Better Testing, Better Care

The Royal College of Pathologists

Pathology: the science behind the cure

Audit Template

Audit Title: National survey on specimen contamination	
Lead Auditor: James Logie	**Audit date(s): Jan-Mar 2017**
Please indicate if **Local / Regional / National Audit** Please indicate which hospital & location or region	**Report Author:** Name: James Logie Email: james.logie@nhslothian.scot.nhs.uk

Aims of the Audit:

1) To establish the nature and scale of the problem of specimen contamination.
2) To suggest possible solutions to improve patient safety and experience.

Audit Method and Outcome(s):

- SurveyMonkey® questionnaire
- Distributed 23rd January 2017
- Closed 13th March 2017
- Link sent to 353 ACB members (Head of department or most senior staff, by job title)
- 52 responses, a large proportion 'partial'
- Data analysed in Microsoft® Excel® 2007 & Analyse-it®

Audit Recommendations / Standards:

Key findings	Possible solutions
1) Recording and extracting contamination data from LIMS is a challenge for a large proportion of UK laboratories	• Work with LIMS providers, labs IT teams • Encourage use from senior management • UKAS, engage with local laboratory Quality/compliance teams
2) There is potentially a lack of awareness of correct 'order of draw' for venous blood collection among laboratory and clinical professionals	• Education and communication with phlebotomists/nurses/Drs • 'Best practice' guidance from professional bodies (ACB/RCPath/IBMS)
3) A significant proportion of laboratories continue to accept gel-loaded tubes for trace element analysis; little consensus on which other tests to avoid use of these	• Engage with trace elements laboratories and tube manufacturers • 'Best practice' guidance from professional bodies (ACB/RCPath/IBMS)
4) Contamination appears to be a particular problem for inpatients (EDTA>drip arm>citrate); a location where several staff groups contribute to blood collection	• Explore further the factors underlying higher rates among inpatients • Review practice
5) EDTA/citrate assay use is not widespread	• Recommend uptake? • Review published evidence/more studies
6) The majority of contamination is indentified by pattern of test results - ?a suboptimal method for detecting more subtle cases	• Local/National protocols including thresholds for spotting these
7) Certain tube manufacturers might be more prone to EDTA contamination than others (Sarstedt>BD)	• Investigate why • Work with manufacturers
8) There is no National consensus on if/how best to report contaminated samples	• 'Best practice' guidance from professional bodies (ACB/RCPath/IBMS)
9) There is no National consensus on if/how these should be recorded in patient risk management systems and where the responsibility lies (laboratory vs. ward)	• 'Best practice' guidance from professional bodies (ACB/RCPath/IBMS) • Better engagement with service users
10) There is a perception among a significant	• Challenge the perception!

proportion of senior laboratory professionals that sample contamination has low or minor impact on patient safety	

Please indicate to whom and when audit presented &/or circulated &/or published:

1) Presented at ACB National Audit Meeting, 8th September 2017, Austin Court, Birmingham.
2) Manuscript in preparation.

Audit recommendations / standards ratified by … and when: Not yet ratified.

Date of audit report: October 2017

Audit documents for upload to http://www.acb.org.uk/whatwedo/science/audit.aspx

Please include as attachments with this Audit Summary form if authors and the organising committee would like information to be publicly accessible on the ACB website Audit section.

Presentation
Standards/Recommendations
Blank Survey Questionnaire