Traceability, education and promotion: getting the message out

Graham H Beastall

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On behalf of the JCTLM WG for traceability, education & promotion (WG-TEP)
Outline of talk

• Background to formation of JCTLM WG-TEP
• WG-TEP structure and organisation
• TEP achievements to date
• TEP into the future
• How can you help?
Traceability in laboratory medicine & JCTLM?
‘Evidence’ of ‘best kept secret’: 2013-15

• The 2013 JCTLM Members & Stakeholders meeting recognised ‘the issue’
• Traceability is not part of specialist training in laboratory medicine
• Few ‘ordinary’ laboratory medicine specialists appreciate that traceability can affect the clinical utility of laboratory results
• Traceability statements in IVD products tend to be ‘minimalist’ in nature
• Disappointing number of citations for JCTLM in Google Scholar
• A detailed Q&A session on harmonization of tests results only mentioned JCTLM once (Clin Chem 2014 60: 923-7)
• Within IFCC knowledge of JCTLM was limited to the Scientific Division
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Executive Committee
(Meets once per year)
Attended By:
Representatives of Executive Comm.
Member Organizations and WG and Task
Force Chairs

JCTLM Database WG
(Chair attends Executive Committee meeting)

Secretariat
(Provided by an Executive Committee Member Organization)

Organizes Members Meeting
(Every 2 years)

~3 Review Teams
(RTLs report to AG1 Chair)

~3 Review Teams
(RTLs report to AG2 Chair)

~3 Review Teams
(RTLs report to AG3 Chair)

JCTLM Traceability: Education & Promotion WG
(Chair attends Executive Committee Meeting)

Analyte Group 1
(Chair attends Executive Committee meeting)

Analyte Group 2
(Chair attends Executive Committee meeting)

Analyte Group 3
(Chair attends Executive Committee meeting)

National and Regional Members

Stakeholder Members

Executive Committee Member Organizations
BIPM, IFCC, ILAC

~3 Review Teams
(RTLs report to AG1 Chair)

~3 Review Teams
(RTLs report to AG2 Chair)

~3 Review Teams
(RTLs report to AG3 Chair)
WG-TEP Terms of Reference

Aim:
• To produce and promote educational materials to demonstrate the value of traceability in laboratory medicine as a means to reduce between method variability in the interests of improved clinical outcomes and patient safety.

Specific Roles:
• Organisation of the two-yearly JCTLM Members & Stakeholders Meeting
• Organisation of JCTLM scientific and educational meetings, symposia and conferences
• Assessment of applications for meetings to be held with JCTLM auspices
• Production of educational materials to promote the value of traceability in laboratory medicine
• In conjunction with the JCTLM Secretariat production of the annual JCTLM e-newsletter
• Production and maintenance of a ‘traceability’ website
<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>Graham Beastall</td>
<td>IFCC</td>
<td>UK</td>
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<tr>
<td>Robert Wielgosz</td>
<td>BIPM</td>
<td>FR</td>
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<tr>
<td>Graham Jones</td>
<td>ILAC</td>
<td>AU</td>
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<tr>
<td>Jeanita Pritchett</td>
<td>NIST</td>
<td>US</td>
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<td>David Armbruster</td>
<td>Abbott</td>
<td>US</td>
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<td>Tony Badrick</td>
<td>RCPAQAP</td>
<td>AU</td>
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<tr>
<td>Elvar Theodorsson</td>
<td>Eurachem</td>
<td>SE</td>
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<td>Vincent Delatour</td>
<td>LNE</td>
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<td>David Ducroq</td>
<td>WEQAS</td>
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<tr>
<td>Anja Kessler</td>
<td>RfB</td>
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<td>Nanette Brouwer</td>
<td>SKML</td>
<td>NL</td>
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<tr>
<td>Chen Baorong</td>
<td>Beijing Aerospace General Hospital Reference Laboratory</td>
<td>CN</td>
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<tr>
<td>Silvia Quiroga / Marta Torres</td>
<td>ProgBA</td>
<td>AR</td>
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<td>Ex Officio</td>
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<tr>
<td>Gary Myers</td>
<td>JCTLM Chair</td>
<td>US</td>
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<tr>
<td>Stephanie Maniguet</td>
<td>BIPM &amp; WG-TEP Secretary*</td>
<td>FR</td>
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# WG-TEP work streams

<table>
<thead>
<tr>
<th>Work stream</th>
<th>Activity</th>
<th>Lead</th>
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<tbody>
<tr>
<td>1</td>
<td>Publish definitions of terms used in traceability</td>
<td>Robert Wielgosz</td>
</tr>
<tr>
<td>2*</td>
<td>Publish a series of presentations on scientific concepts</td>
<td>Elvar Theodorsson</td>
</tr>
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<td>3</td>
<td>Importance of traceability to IVD manufacturers</td>
<td>Dave Armbruster</td>
</tr>
<tr>
<td>4*</td>
<td>Importance of traceability to patients and the public</td>
<td>Graham Jones</td>
</tr>
<tr>
<td>5</td>
<td>Global significance of traceability</td>
<td>Graham Beastall</td>
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<tr>
<td>6</td>
<td>Tools for promoting traceability</td>
<td>Graham Beastall</td>
</tr>
<tr>
<td>7</td>
<td>Including sessions on traceability in scientific conferences</td>
<td>Graham Beastall / Tony Badrick</td>
</tr>
<tr>
<td>8</td>
<td>Publish and maintain a TEP website</td>
<td>Graham Beastall/ IFCC Office</td>
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* Subject of presentations in this symposium
Outline of talk

• Background to formation of JCTLM WG-TEP
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• How can you help?
1. Definitions used in traceability

- A glossary of terms and definitions is published on [www.jctlm.org](http://www.jctlm.org)
- There are definitions for 11 terms: metrology; measurand; reference material; reference measurement procedure; reference laboratory; traceability; trueness; measurement uncertainty; limit of detection; commutability
- Each term has an every day definition and a formal definition

Example

<table>
<thead>
<tr>
<th>Term</th>
<th>Every day definition</th>
<th>Formal definition</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metrology</td>
<td>The branch of science that deals with measurement</td>
<td>Science of <strong>measurement</strong> and its application</td>
<td>VIM3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE Metrology includes all theoretical and practical aspects of measurement, whatever the <strong>measurement uncertainty</strong> and field of application.</td>
<td></td>
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</tbody>
</table>
3. Importance of traceability to IVD manufacturers
5. Global significance of traceability

DE GRUYTER

Opinion Paper

Graham H. Beastall*, Nannette Brouwer, Silvia Quiroga and Gary L. Myers, prepared on behalf of the Joint Committee for Traceability in Laboratory Medicine

Traceability in laboratory medicine: a global driver for accurate results for patient care

DOi: 10.1515/ccim-2017-0060
Received January 20, 2017; accepted March 15, 2017

Keywords: action plan; commutability; standardization; traceability.

Clin Chem Lab Med 2017, x(p): xxx-xxx

Review article accepted for publication in Clin Chem Lab Med – August 2017 issue

Permission obtained for translation into other languages and re-publication in local journals
6. Tools to promote traceability

- New logo adopted

- Webinar produced to assist trainees in laboratory medicine. Freely available from IFCC e-Academy and [www.jctlm.org](http://www.jctlm.org)

- Generic poster and symposium structure for use at conferences

- JCTLM auspices scheme

- New website (see later)
Those responsible for training in laboratory medicine will require support and resources.
7. Sessions on traceability at conferences
Traceability /method standardisation: this congress

CIRME

Traceability in laboratory medicine: A matter of patient safety
Federica Braga, Ilenia Infusino, Sara Pasqualetti, Andrea Mosca

Standardization in endocrinology
Philippe Gillery, Eef Lentjes, Catharine Sturgeon, Linda Thienpont

Implementing and maintaining standardization in laboratory medicine
Cas W. Weykamp, Vincent Delatour, Hubert W. Vesper, Christa M. Cobbaert

Traceability in laboratory medicine: What is it and why is it important?
Gary Myers, Elvar Theodorsson, Graham Jones, Graham Beastall
JCTLM members & stakeholders meeting 2017

• When? 4 & 5 December 2017
• Where? BIPM, Sèvres, Paris
• Cost? Just €65 to cover catering
• Posters? Yes, on any traceability related topic
• Programme? www.jctlm.org – Meetings section
• Registration? https://jotformpro.com/71362379177969
JCTLM meeting: 4&5 December 2017

Programme:

- Traceability into the future
- Global developments in traceability
- Neurodegenerative disease biomarkers
- Traceability and the IVD industry
- JCTLM update
- Traceability and patients
- Traceability in EQA

www.jctlm.org ‘Meetings’
8. New TEP website: [www.jctlm.org](http://www.jctlm.org)
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Traceability in Laboratory Medicine: Important for Patients

The results from laboratory medicine tests influence a high percentage of all clinical decisions. There are currently about 4000 different analytes (tests) in the global repertoire for laboratory medicine.

Doctors, other users of laboratory medicine services, and patients expect that the laboratory will provide high quality accurate results that will be the same irrespective of which method is used.

This is not always the case. Laboratory medicine methods are often complex in design measuring extremely low concentrations of clinically important biomarkers. These methods are produced by many diagnostics companies around the world. Between-method variability is common and may influence clinical interpretation and clinical outcome.

The Joint Committee for Traceability in Laboratory Medicine (JCTLM) is working with many global partners to reduce between-method variability. The production and adoption of reference materials, reference methods and the establishment of reference laboratories are drivers for accurate patient results.

This website provides resources to illustrate the importance of traceability in laboratory medicine.

[Read More](http://www.jctlm.org)
8. New TEP website: www.jctlm.org

• Extensive and growing list of resources:
  • Publications, both general and analyte specific
  • Webinars
  • Scientific presentations
  • Scientific meetings
• All resources are freely available for use
• Regular news updates
• Forms to apply for JCTLM membership and JCTLM auspices
• Direct access to JCTLM database
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The future of traceability
‘Traceability in laboratory medicine’: Google Scholar

Citations in 13 different languages

Data from Graham Jones

5 months
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How can you help to promote traceability?

• Check the traceability status of the assays your lab uses
• Visit www.jctlm.org and use whatever resources you wish
• Make suggestions of new resources you would like to see
• Incorporate a session on traceability in laboratory medicine into the training of laboratory medicine specialists in your country
• Consider having a symposium on traceability in your national conference, and requesting JCTLM auspices
• Suggest that your national society / company becomes a JCTLM member – no fee involved!
The challenge

The key to reducing between method variability in laboratory medicine

2014

Traceability

2020