Introduction

The Association of Clinical Chemistry of Nigeria (ACCN) has been an active member of the IFCC community for some time. Their National Representative, Dr Mabel Charles-Davies expressed a wish at the IFCC General Conference in Madrid that DQCML with its extended role in sub-Saharan Africa might wish to consider delivering a workshop at their 7th Biennial Scientific Conference on Quality issues and especially those relating to the implementation of Quality systems.

Dr Charles-Davies was invited to submit a formal application to IFCC and this was duly received and approved with the expressed objective of the visit being to understand how to sustain quality practice and process in developing countries and a focus on the implementation of External Quality Assurance.

Programme for Visit

A whole day programme was developed by DQCML that focussed especially on the initial components of the DQCML Quality Ladder particularly on IQC and EQA and the impact on patient safety.

The Local Organising Committee of the Conference under the chairmanship of Professor Oluwole Adedeji (NG) approved the programme and this was incorporated as a whole day symposium to be delivered on Thursday, 13th October, integrated into a three-day programme with the overarching theme of “Towards Sustainable Clinical Chemistry Practice for the Nation” from 12th to 14th October 2016.
The conference programme additionally included keynote lectures by national and international experts, sessions delivered by young scientists, which focussed particularly on their research achievements, sessions on non-communicable disease, traceability and Point of Care Testing, and a two-day optional molecular biology workshop. The full programme is referenced for review at: http://accnnigeria.org/conference/day%201.html

The DQCML symposium was supported by well-known IFCC speakers from both the UK and Germany together with ACCN national speakers who were able to offer a local and, at times, frank and challenging perspective of the situation in Nigeria.

The symposium was split into two formal lecture sessions with two interactive workshops interleaved and the output from the first workshop informing the second.

**Session 1: Assuring Quality in the Clinical Chemistry**
The opening session challenged delegates to consider where they found themselves on the Quality Ladder and was delivered by IFCC Past President, Graham Beastall (UK) who also chaired the whole symposium. Michael Thomas (UK), Chair of DQCML offered an overview of the building blocks of Quality Control and their impact on patient safety. The opening session ended with Cathie Sturgeon (UK) who gave a provider’s perspective on the challenges of EQA schemes.

**Workshop 1: Strategies to achieve compliance with QMS and QC-requirements**
Following an impulse lecture from Egon Amann (DE), Chair of C-AQ, delegates were split into a number of groups and asked to identify the most significant issues challenging quality systems delivery in the country. This information was collated and summarised for use later in the symposium by the DQCML team.

**Session 2: Quality challenges going forward: understanding the needs of Nigeria**
The second formal session saw Cathie Sturgeon speak on the delivery of effective EQA which was followed by Graham Beastall (GB) who reviewed the further steps on the road to full laboratory accreditation and possible initiatives in Africa through SLIPTA. In a robust final lecture Emmanuel Agbedana (NG) identified the hurdles to be overcome and quality improvements needs of the country.

**Workshop 2: Practical steps for improving quality in Nigeria**
The second workshop led by Cathie Sturgeon (GB) and Graham Beastall (GB) encouraged delegates to consider the practical steps in implementing quality improvements. This began with a feedback session from Michael Thomas (GB) that brought together the perceived challenges delegates had previously identified in Workshop 1 (see Appendix Two).
Finally Graham Beastall (GB) and Cathie Sturgeon (GB) were joined by Mabel Charles-Davies (NG) to discuss and agree with delegates the outcome from the Symposium and what would be required to develop a national road map for the future and possible further interactions with the IFCC.

Concluding remarks:
Professor Maurizio Ferrari (IT), IFCC President, kindly brought the day to a close. Speakers were impressed by the enthusiasm, knowledge and full engagement of delegates in the symposium throughout the day.

The full programme format is given in Appendix One and can also be seen via the link: http://accnnigeria.org/conference/day%201.html
It is anticipated that the speaker abstracts will be published on the ACCN website in the near future.

Future Implications of the Symposium

A report from the National Member on the usefulness of the Symposium has not as yet been received. However it is anticipated that the outcome from the Symposium will see a request for further DQCML support as the National Member moves forward with its plans to improve the quality of laboratory services in Nigeria.

Acknowledgements

As Chair of DQCML I would wish to express my sincere and grateful thanks to all those who helped in the development and presentation of this DQCML Symposium: Graham Beastall, Egon Amann, Cathie Sturgeon and Maurizio Ferrari.

From the Left: Dr Graham Beastall, Professor Egon Amann and Dr Michael Thomas
We are grateful to our hosts, the Association of Clinical Chemists of Nigeria, and acknowledge the support of their President, Professor Adekunle Okesina and the Local Organising Committee led by Professor Oluwole Adedeji and his enthusiastic team in realising this very successful event.

In particular we would also acknowledge and are especially grateful to Dr Mabel Charles-Davies for her passion and enthusiasm in securing the DQCML visit to Nigeria and her care and attention during our stay in Lagos, Nigeria.

Michael Thomas
11th December 2016
Appendix One:

Thursday, 13th October
Sustaining Quality Practice and Process in Developing Countries
A Symposium delivered on behalf of the DQCML initiative of IFCC

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:30am</td>
<td>Developing a Quality System: Finding your place on the Quality Ladder</td>
<td>Graham Beastall (Chair)</td>
</tr>
<tr>
<td>10:30-11:00am</td>
<td>IQC: Building Blocks of Quality Local Systems of Quality Control (Good laboratory practice and patient safety)</td>
<td>Michael Thomas</td>
</tr>
<tr>
<td>11:00-11:30am</td>
<td>EQA: A Provider’s Perspective</td>
<td>Cathie Sturgeon</td>
</tr>
<tr>
<td>11:30-12:00 noon</td>
<td>COFFEE BREAK</td>
<td></td>
</tr>
<tr>
<td>12:00-12:10pm</td>
<td>Impulse lecture “Compliance with Quality Systems”. Present the agenda, aims and instructions for activity</td>
<td></td>
</tr>
<tr>
<td>12:10-12:20pm</td>
<td>Group forming with 5 - 8 participants per group (Number of the groups depends on the availability of participants). Then, a questionnaire is handed out to the groups.</td>
<td>Moderator: Egon Amann</td>
</tr>
<tr>
<td>12:20-12:40pm</td>
<td>Group discussion: Finding most burning top three issues and listing those issues on flip charts.</td>
<td></td>
</tr>
<tr>
<td>12:40-1:00pm</td>
<td>Concluding activity: Evaluating, deciding, and listing actions. Output of this workshop is input for the interactive workshop below.</td>
<td></td>
</tr>
<tr>
<td>1:00-2:00pm</td>
<td>LUNCH</td>
<td></td>
</tr>
</tbody>
</table>

**SESSION 2: Quality challenges going forward: understanding the needs of Nigeria**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00-2.30pm</td>
<td>Delivering effective EQA</td>
<td>Cathie Sturgeon</td>
</tr>
<tr>
<td>2.30-3.00pm</td>
<td>Moving along the road to accreditation</td>
<td>Graham Beastall</td>
</tr>
<tr>
<td>3.00-3.30pm</td>
<td>Identified quality improvement needs. What are major hurdles?</td>
<td>Emmanuel O. Agbedana</td>
</tr>
</tbody>
</table>

**Interactive Workshop:**

"Identify practical steps for improving quality in Clinical Laboratories in Nigeria"
Moderators: Cathie Sturgeon, Graham Beastall
Total workshop time: 60 mins

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.30-4.30pm</td>
<td>Workshop summary: Developing the road map</td>
<td>Graham Beastall, Cathie Sturgeon and Mabel A. Charles-Davies</td>
</tr>
<tr>
<td>4:30-4:45pm</td>
<td>Concluding remarks</td>
<td>Maurizio Ferrari</td>
</tr>
</tbody>
</table>
Appendix Two:

What is the best strategy to achieve compliance with QMS- and QC requirements in the clinical laboratory

Challenges within the laboratory

- Availability of appropriate technology
  - newly maintained
  - Integrity of reagents from source to laboratory
  - Expiry date
- Availability and integrity of QC materials
  - Little or no control
- Strategies for training and education of staff
  - Quality management manpower
  - Lack of a quality culture
  - Motivation and reward
- Improved quality culture
  - Establish a Quality Assurance Committee
  - Undertake active QC review and corrective actions

Challenges within the hospital

- Central procurement
  - Without knowledge of true needs
- Management commitment for Quality
  - Lab directors and above
  - No oversight of compliance
- Financial support for Quality
  - Materials, processes, manpower

Challenges within Nigeria

- Lack of national EQA programme
- Lack of national organisation to have oversight of Quality
- No Regulatory Body

Challenges for ACCN

- Establish an action plan to:
  - Seek engagement of government
  - Establish a national Training plan to educate the workforce to an appropriate level
  - Establish an independent Regulatory Body