



Delivering Confidence in
Laboratory Results

UK NEQAS
International Quality Expertise

Half an Elective in EQA

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My elective

- **Where:** Birmingham Quality, based on Birmingham Research Park, Vincent Drive (not far away!)
- **When:** July 2017, after my 2nd year exams
- **How long for:** a fortnight



Why did I choose it?

- EQA is an essential part of laboratory medicine – a requirement of accreditation by ISO 15189
- My line manager suggested it quite early on in my training when I was undecided about what to do
 - On the old training scheme, West Midlands trainees would have spent time at Birmingham Quality
- I thought it would be very useful to me to have a more in depth knowledge of how EQA providers work
- Gain an appreciation for clinical scientists working in roles outside of the laboratory
- Local so didn't cost me anything

Organising my elective

Birmingham Quality



QEHB

- Birmingham Quality are actually part of University Hospitals Birmingham NHS Foundation Trust
- Close working relationships with my department
- I'd already met the relevant people multiple times!
- Simple matter of emails to Finlay MacKenzie, Jane French and Rachel Marrington

Learning Objectives

- To observe clinical scientists working outside of the hospital laboratory and their contribution to providing a high quality healthcare service
- Explore in depth the organisation of EQA schemes, including preparation of specimens, designing of schedules, and generation of reports.
- Understand the quality standards against which proficiency testing centres are accredited and how these differ from ISO 15189 (against which medical laboratories are accredited).
- Observe how EQA scheme organisers work with hospital laboratories and use their feedback to influence the direction of their work in the future.
- Develop effective communication skills when working with staff who may not have the same professional background as myself.

EQA from start to finish

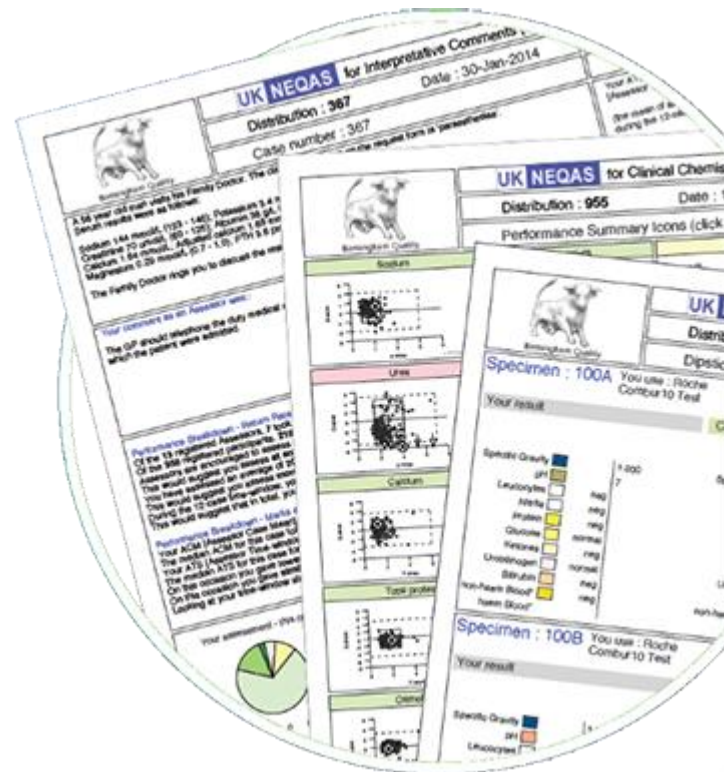
- Design of schedules
 - Usually plan for 12 months
 - Cover whole measuring range of available methods
 - Designing of pools
- Preparing the paperwork
 - Labels. Lots of labels!
- Checking of participants
 - Enrolment of new participants
 - Any changes in method group?

EQA from start to finish

- Preparation of specimens
 - Aliquotting...manually
- Packaging of specimens
 - Don't forget the cotton wool
- Post room

EQA from start to finish

- Downloading of results and checking of comms for queries
 - Late submissions
 - Amendments to results
- Processing of reports
 - Exclusions
 - Adding messages
- Checking of reports
 - Formatting
 - Amendments to previous distributions



Preparation of specimens

- Many different matrices used
 - Discarded serum from NBS
 - Donated urine
 - Donated faeces
 - Artificial faecal matrix (“jobbies”)
 - Washed red cells mixed with discarded plasma from NBS to simulate whole blood
 - Donated whole blood (HbA1c)
- Spiking
 - Addition of analytes to give required concentration
- Commutability
 - EQA samples should be as similar as possible to patient samples
- Stability

GENSAG

- **General Chemistry Specialist Advisory Group** meeting
- Held twice a year
- Panel of clinical scientists and chemical pathologists representing participants
- Discussed each scheme in turn
- Emphasis on importance of clinical input
- New schemes – PREPQ
 - Assesses the pre-analytical phase

Giving something back

- I did a talk to the staff at Birmingham Quality on life in a routine biochemistry laboratory
- Many of the staff had never worked in one before
- Received positive feedback

Accreditation

- Birmingham Quality were preparing for their UKAS inspection
- Different quality standard – ISO 17043
- Differences from ISO 15189
 - Focusses less on competency assessments, measurement traceability and record keeping
 - Focusses more on data analysis, specimen preparation methods, and general scheme operation

What did I gain?

- Most of it I have already talked about, but...
 - A new appreciation for EQA providers and why they make the decisions they make
 - Seeing a different role for the clinical scientist, and one which will need more scientists in the future
 - Met all of my learning objectives



Thank you for listening!

- Any questions?