

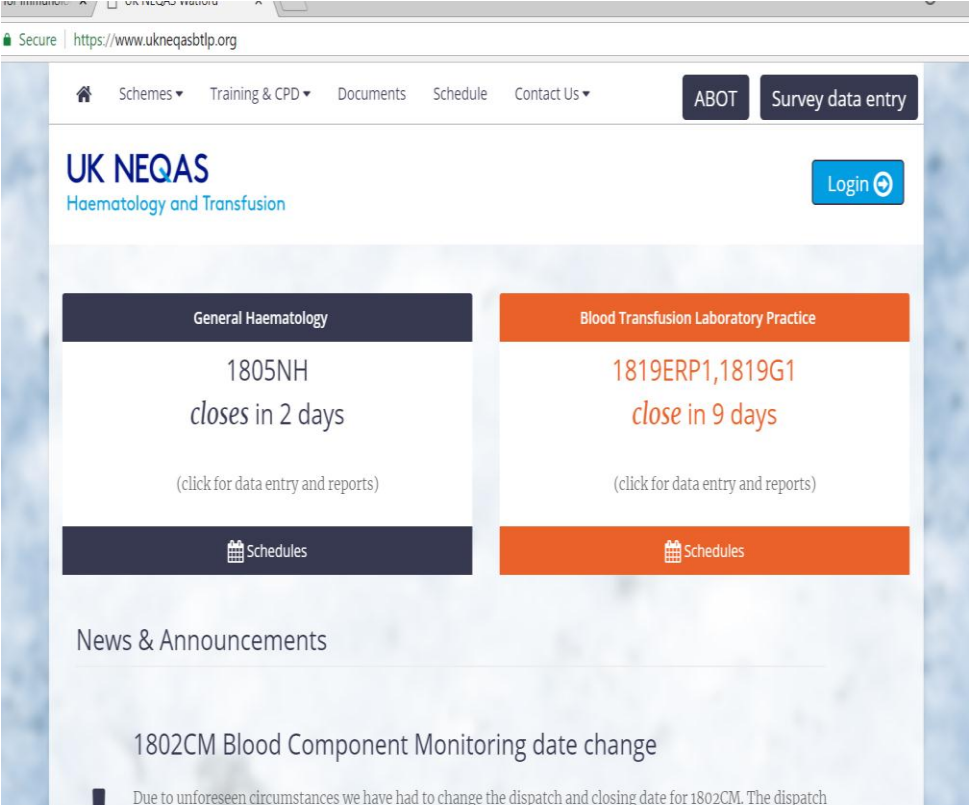
# Developing an EQA scheme for cell-free fetal DNA D typing

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# UK NEQAS BTLP

## EQA schemes and pilot schemes

- Pre -transfusion testing
  - ABO/D grouping
  - Antibody screening and identification
  - Crossmatching
  - Phenotyping
- Other full schemes
  - FMH
  - ABO titration
- Pilots Schemes
  - **Red cell genotyping**
  - DAT
  - Extended phenotyping
  - Antenatal titration
- Annual practice surveys



The screenshot shows the UK NEQAS BTLP website interface. At the top, there is a navigation menu with links for Schemes, Training & CPD, Documents, Schedule, and Contact Us. On the right side of the header, there are buttons for ABOT and Survey data entry, and a Login button. The main content area features two large boxes: a dark blue box for 'General Haematology' with the code 1805NH and a closing date of 2 days, and an orange box for 'Blood Transfusion Laboratory Practice' with codes 1819ERP1, 1819G1 and a closing date of 9 days. Both boxes include a link for data entry and reports. Below these boxes is a 'Schedules' section with a calendar icon. At the bottom, there is a 'News & Announcements' section with a headline about a date change for 1802CM and a brief explanatory text.

# How would we operate a scheme?

- System based on our current software used for the Pilot Red Cell Genotyping Scheme

The screenshot shows a web browser window with the URL <https://www.ukneqasbtp.org/distribution/1920G1/result/4336/edit>. The page is titled "UK NEQAS Haematology and Transfusion" and shows a form for editing a result for "Patient 1".

The form includes the following sections:

- Sample quality:** A dropdown menu set to "Satisfactory".
- Results:** A table with columns for various antigens: D, Cc'Ee, MN, Ss, Kk, Fya Fyb and Fy, Jka Jkb, and Doa Dob. The "D" column is highlighted in green.
- D: Genotype:** A list of radio button options:
  - RHD\*01 (zygosity not determined)
  - RHD\*01N.01/01N.01
  - RHD\*01/01
  - RHD\*01/01N.01
  - Not tested
  - Other
- D: Predicted phenotype:** A list of radio button options:
  - D positive
  - D negative
  - Not tested
  - Other (please specify)
- How would you report the D genotype / predicted phenotype for Patient 1 in clinical practice:** A list of radio button options:
  - Same as in the options selected above
  - Other terminology (please specify)

Buttons for "Save Patient 1" and "Submit your results" are visible at the bottom of the form.

# Material

- We are working with NHSBT and IBGRL to source material.
- Would likely be pooled samples taken as part of routine ante-natal screening processes.

# What could we offer?

- Experience of operating a genotyping scheme since 2016
- Registration and invoicing of participating laboratories
- Web based data entry and report access
- Individual laboratory reports comparing own result vs. consensus result
- Reports also include overall data, educational content and any learning points
- Development of a scoring system

# What could we offer?

- Oversight by a Scientific Advisory Group
  - Current Red Cell Genotyping Scientific Advisory Group

Assoc. Prof. Jill Storry	Lund University (Sweden)	Chair
Jenny White	UK NEQAS (BTLP)	Secretary
Dr Cinzia Paccapelo	Ospedale Maggiore Policlinico (Italy)	Member
Dr Sylvia Armstrong-Fisher	SNBTS Aberdeen	Member
Katy Veale	UK NEQAS (BTLP)	Member
Martin Maley	NHSBT Newcastle	Member
Richard Haggas	UK NEQAS (BTLP)	Member
Shane Grimsley	International Blood Group Reference Laboratory (Bristol)	Member and Scheme advisor