

Update on UK NEQAS Virology, Molecular & Serology schemes

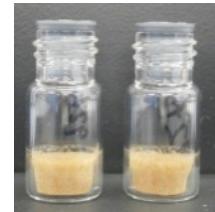
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5th December 2015

Schemes (introduction year) → YEAR / changes to schemes

- Virus identification (1972)
- Syphilis serology (1978) ➔ 2014 / new marker / Tp IgM and blot
- Hepatitis B serology (1978) ➔ 2012 / new marker / HBcIgM
➔ 2013 / pilot clinical scenario
- Rubella IgG serology (1979)
- HIV serology (1986)
- Hepatitis C serology (1994) ➔ 2013 / new marker / HCV Ag
2011 / Ab profiles presented
- Anti-HBs detection (1996)
- Immunity screen (1996)
- HIV-1 RNA quantification (2000)
- Hepatitis C RNA detection (2001) ➔ 2013 / 3 distributions per year
2009 / Quantification
- Diagnostic serology: exanthem screen (2001)
- Diagnostic serology: hepatitis screen (2001)
- HBV DNA quantification (2003)
- Molecular detection of viruses in CSF (2003)
 - Blood borne viruses (2004)
 - C. trachomatis* DNA (2005) ➔ 2013 / new marker / *N gonorrhoeae* DNA
- CMV DNA quantification (2007)
- Measles IgG serology (2010) ➔ 2012 / new marker / Mumps IgG
- Molecular detection of HPV (2009)
- EBV DNA quantification (2011)
- HIV Point of Care (2011)
- Rapid Respiratory-RSV (2013)
- Gastrointestinal viruses (2015) ➔ 2014 / Rotavirus, Adenovirus, Norovirus
- Blood donor screen (2015) ➔ 2013 / markers: HBsAg, HCV Ag/Ab, HIV Ag/Ab, HTLV I/II ab, Tp Ab
- Parvovirus B19 and Rubella serology (2016)
 - In development / Molecular detection of respiratory viruses
 - HEV serology
 - CMV IgG avidity

Amendments to existing service (1)

Gastrointestinal viruses scheme – first distribution 23/11/2015



- ▶ 2015, current number of participants: 121
- ▶ 2 distributions per year, 4 samples in each distribution, 1mL liquid stools F/D

Parvovirus B19 and Rubella serology – Going live in 2016/2017

- ▶ 2 distribution per year, 4 samples in each distribution
- ▶ Markers: Parvovirus B19 IgM/IgG, Rubella IgM/IgG
- ▶ Scoring: Positive or negative for the relevant marker
- ▶ Sample volume: 1mL

Diagnostic serology: exanthem

- ▶ Discontinue from 2016

Amendments to existing service (2)

► Amendments to the web-site

Amended markers in the '**Blood borne viruses**' and in the '**Blood donor screen**' schemes: HIV and HCV according to the UK guidelines

HIV screening: from *anti-HIV* to ***HIV Ag/Ab***

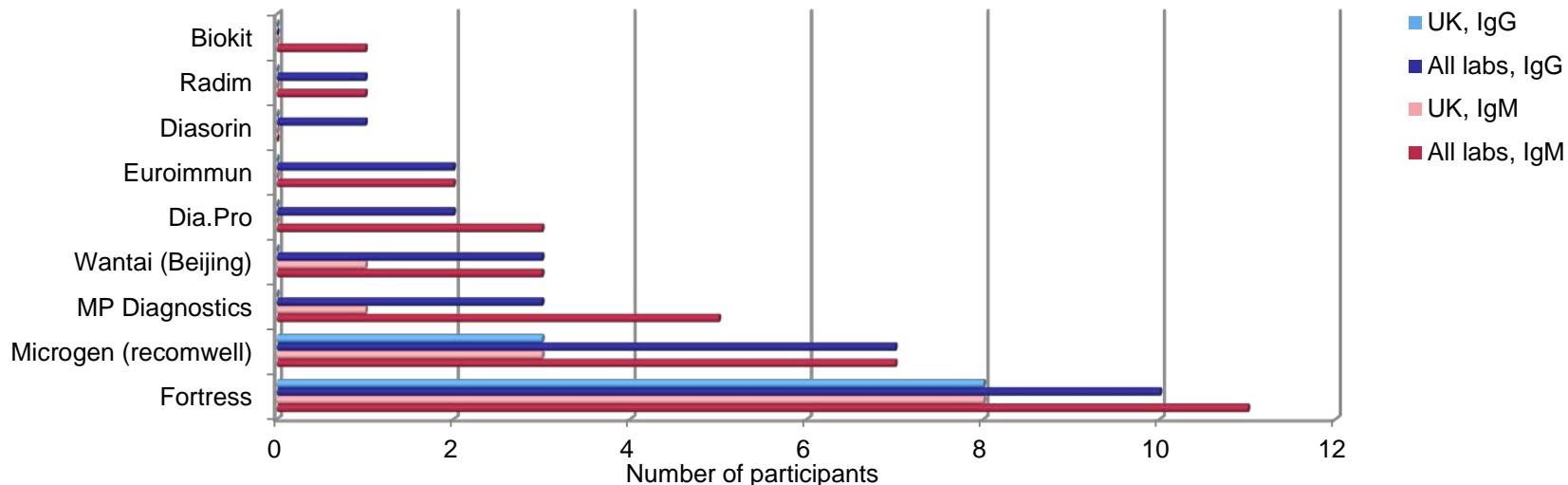
(combo assay is recommended for use within UK)

HCV screening: from *anti-HCV* to ***HCV Ag/Ab***

(screening with 3rd or 4th generation ELISA)

HEV serology – in development

- 2015 – Questionnaire, 149 replies
- 35 (13 UK) test for HEV IgM/IgG
- 17% use a confirmatory assays
- 67% use Microgen RecomLine Blot



- the majority of laboratories test less than 100 samples / month (median: 45, mainly from patients with acute hepatitis)

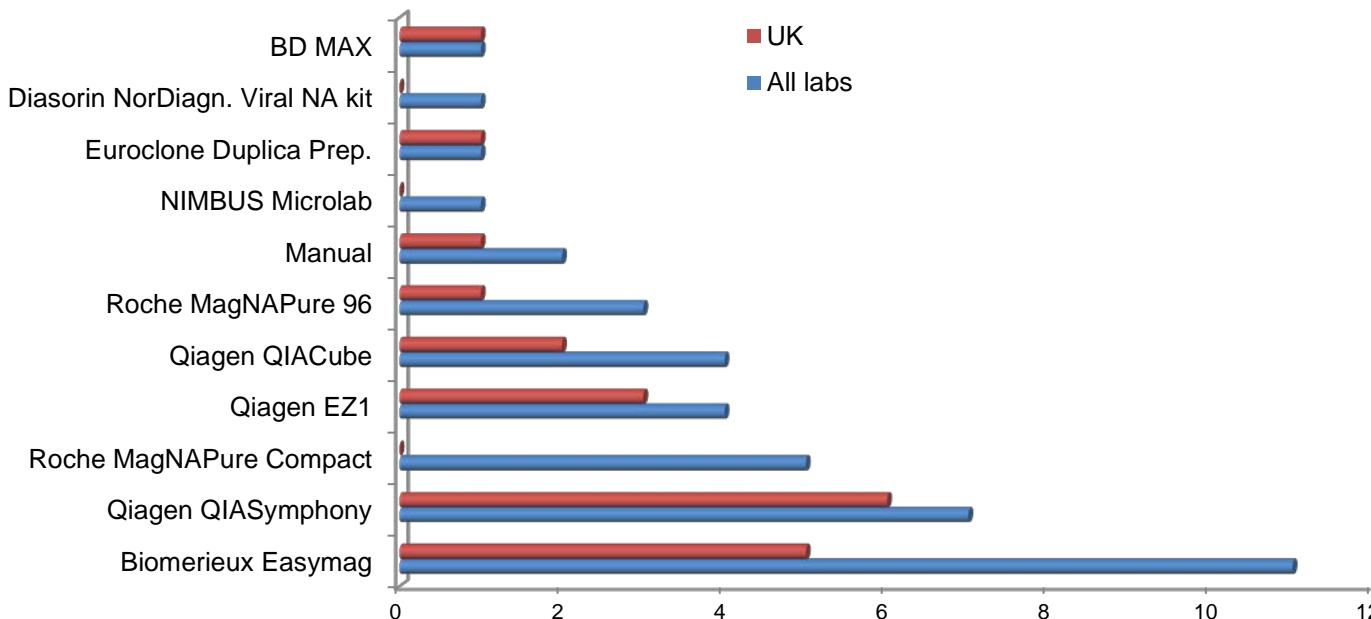
Category	Tests per month		Blood and tissue donors		Transplant recipients		Patients with acute hepatitis		Pregnant women		
			IgM	IgG	IgM	IgG	IgM	IgG	IgM	IgG	
<25	7	22%	mostly	2%	3%	9%	15%	69%	51%	5%	3%
25-100	17	55%	frequently	2%	5%	11%	11%	7%	13%	11%	13%
101-1000	6	19%	rarely	39%	37%	42%	36%	4%	13%	48%	45%
>1000	1	4%	never	57%	55%	38%	38%	20%	23%	36%	39%
Total	31	100									

- 28% of laboratories test for HEV RNA

59% of participants are interested in participating in pilot scheme (2016)

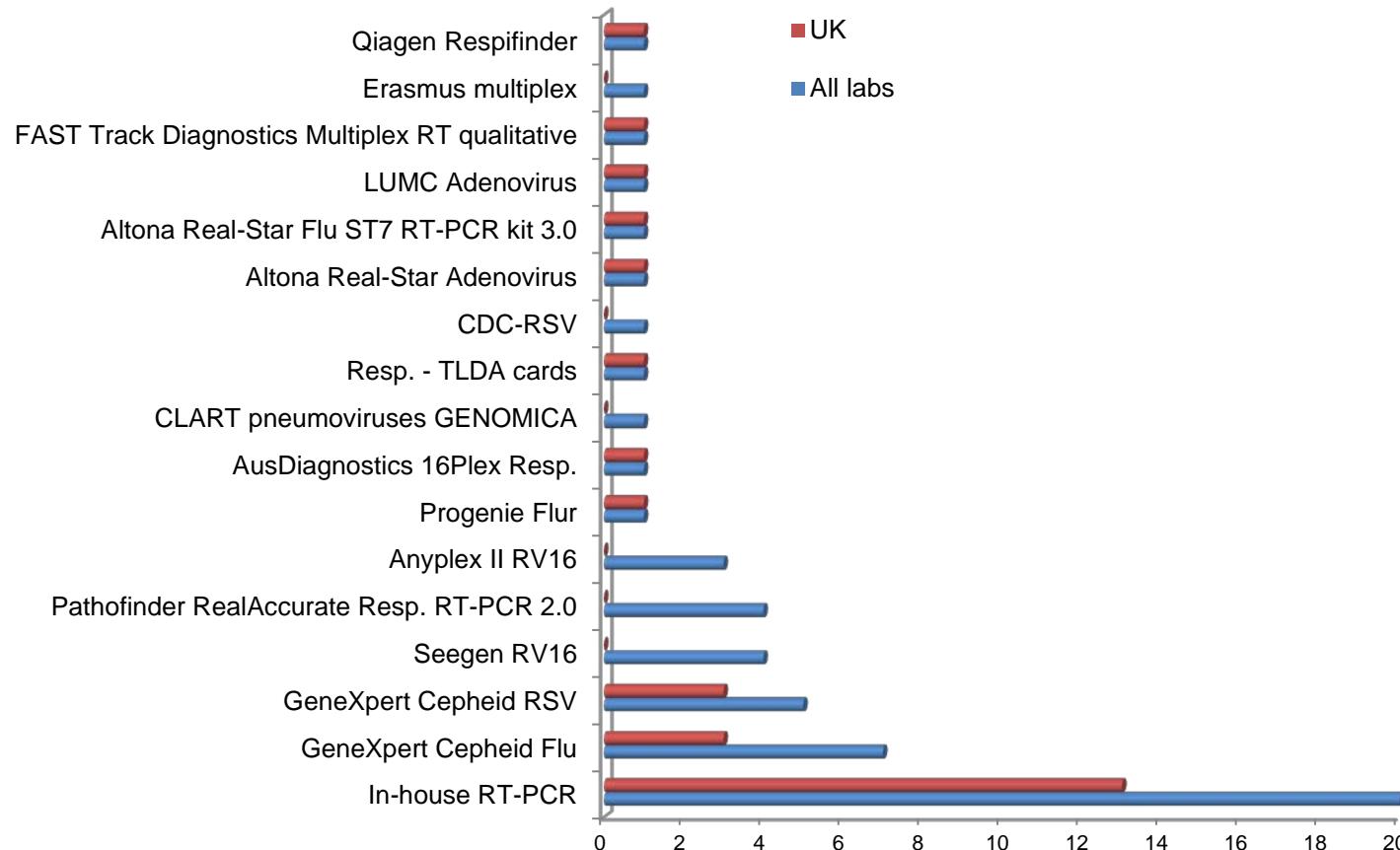
Molecular detection of respiratory viruses in development (1)

- ➡ 2015 Questionnaire: 55 replies
- 52 (27 UK) laboratories test for respiratory viruses
- Extraction kits used by participants:



Molecular detection of respiratory viruses in development (2)

- Amplification kits used by participants:



Molecular detection of respiratory viruses in development (3)

- Type of respiratory specimen accepted for testing:

	Throat	Nasopharyngeal	Broncho-alveolar lavage	Sputum
mainly	69%	36%	11%	8%
frequently	18%	42%	55%	25%
rarely	5%	15%	29%	42%
never	8%	7%	5%	25%

- Median of sample volume submitted to extraction: 235µL (100-2000µL)
- **78% of participants are interested in participating in pilot EQA scheme (2016)**

Thank you!

PARTICIPANTS:

for returning questionnaires and testing pilot specimens

UK NEQAS:

Production team

Office team

Quality team

for all the invaluable support

UK NEQAS:

Virology & Molecular team (Petra, Elli, Habib, Firat, Yan, Purvi)

for implementing the changes and for their support