My Experience using the dRAST

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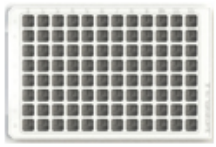
UHCW

- The consumables that are provided within the kits for the dRAST.
- The only additional equipment required are tubes in which to add the blood and a collection device to add the blood to the tube.



QMAC-dRAST Panel

96-well plate with panel of dried-down antibiotics at various concentrations

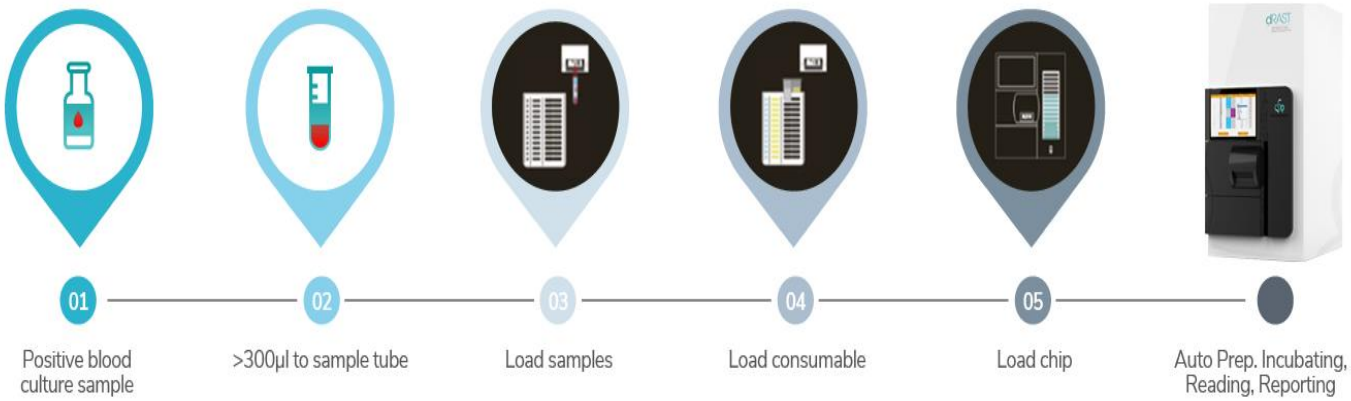
QMAC-dRAST Agarose

Gel used for bacterial immobilization

QMAC-dRAST Broth

Pipette tips and broth dispensed to enable bacterial growth

The Workflow



- During the trial we were able to integrate this into our current workflow; as we created the plates, Gram slides and the Sepsityper and dRAST tubes all at the same time.

System

- The system was very user friendly and allowed for movement between screens easily.
- Simple initial screen with few options.
- Software steps through all the steps linked with loading the samples

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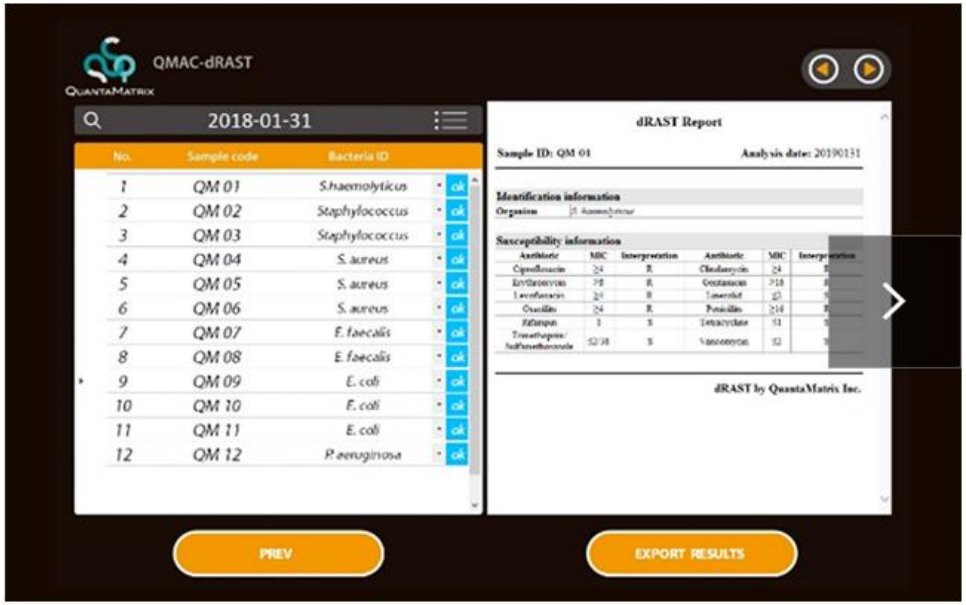
Results

- Results screen – allows for bacterial ID to be entered manually or via LIS. Connection to the LIS is bi-directional.
- Easy to enter bacterial ID



Experience from the trial

- Ease of use – We changed the collection device to allow for quicker collection of blood from the bottle.
- A wider range of antibiotics available than what is currently utilised within our laboratory.
- We did not have the Sepsityper implemented at this time and this delayed some results due to slow growing organisms.

Experience from the trial

- Comparing dRAST to disk diffusion showed a number of discrepancies.
- When compared with MIC values the number of discrepancies reduced dramatically.
- A number of organisms weren't in the database when the trial was performed (2020).
- Ability to look at the photos taken by the dRAST.
- Only small window where samples couldn't be loaded onto dRAST.

Experience from the trial

- Picked up potential flaws with our current direct disk diffusion method – we have changed since.
- Benefits – Patient to be treated quicker with the correct antibiotics. Antibiotic results same day depending upon method used. We used a direct disk diffusion method.
- If waiting for growth before carrying out sensitivity testing potential to be up to 48 hours quicker.

Experience from the trial

- Benefits – Both EUCAST and CLSI are supported using the same panel.
- Drawback – only one is that when the trial was performed there was no opportunity to customise the panel set up.
- Further work required – The potential for further organisms to be added and more fastidious organisms e.g. *S. pneumoniae* and *H. influenzae*.

Experience from the trial

- Mucoid Coliforms as with any sensitivity testing do not provide the most consistent results.

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