

SARS CoV 2 Testing

Cillian De Gascun

NPHET

250220

Sample Preparation

- Rate limiting step
- Manual
- Viral inactivation
- Requires class 2 cabinet
- 10 samples per person per hour
- Begins in AM and continues through the course of the day
- 30 samples in AM / 30 samples in PM

Extraction

- Automated platform
- 96 well plate format
- 30 samples accommodated (controls; targets)
- Requires 1 hour

Liquid Handling

- Automated platform
- 96 (384) well plate
- Takes 2 hours per 96 well plate
- 30 samples accommodated

PCR

- Automated platform
- 96 well format
- Takes 2 hours for 90 results (incorporating controls): equates to 30 samples
- Result analysis & interpretation

Capacity

Current Assay (LDT)

- One cabinet (2 WTE)
 - 30 samples in AM (results around 1700)
 - 30 samples in PM (results next morning)
- Two cabinets (3 WTE)
 - 60 samples in AM (results around 1700)
 - 60 samples in PM (results next morning)

Commercial Assay

- Controls included
- 90 samples per PCR plate
 - Sample preparation still the rate limiting step
 - 90 samples in AM (results around 1700)
 - 90 samples in PM (results next morning)