

Creating an agile, simultaneously accessible patient list on critical care to ensure safety and continuity for a COVID future



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## Context – why are we innovating?

The COVID-19 pandemic has introduced unprecedented demand on NHS services and has required significant internal adaptation to ensure patient safety and operational efficiency. Our team on critical care identified the current patient list could not be accessed by multiple computers simultaneously and was therefore problematic in the COVID footprint.

# Problem – What is the matter?

## Where: Critical Care Department

#### What: Critical care patient handover list

- "Live" List
- Updated by clinicians when new patients admitted, after ward round and before handovers
- Ensures continuity and safe patient handovers

#### Why: COVID has changed the ICU footprint and accessibility

- ICU footprint is now split
- No access from red back to amber or from amber to green
- Multiple concurrent ward rounds
- Change in team allocations
- More specific assignation to particular areas of the unit
- Changes in required "COVID-specific" information
  - Prone status, haemofiltration status, Day of ICU stay
  - Changes in accessibility and increased difficulty in recording contemporaneous information

# Problem: Original patient list not suitable for COVID times

- No simultaneous editing from multiple computers
- No COVID specific information areas
- Rapidly changing footprint
- More varied and more complex blood test requesting sets

## Aims – what are we trying to achieve?

Our primary aim was to create a dynamic patient list with single user benefit providing sufficient daily information for discussions with relatives, specialty teams or colleagues taking handover whilst also having the agility to adapt to multiple situations including critical care footprint expansion, area-specific PPE/risk allocation, and rapid patient turnover without significant maintenance thus maintaining sustainability and improving patient safety.

## Drivers - who has buy-in?

Our primary drivers were junior doctors, senior nurses and consultants with usage requirements including handover clarity, simultaneous accessibility from multiple areas, specific COVID information requirements (ie. ICU stay duration, prone/ haemofiltration status, antibiotic regimes), ease of use for blood test requesting and information access.

## Methods - how did we do it?

We used a password-protected, networked *Microsoft Excel* spreadsheet undergoing multiple PDSA cycles using informal discussion with primary users to guide each cycle including agile layouts to accommodate transitions in patient population and conditional formatting with macro auto-sorting for blood test requesting.

# Measurement – How will we know our change has shown an improvement?

#### What did you learn?

- Significantly improved simultaneous editing of patient list
- More efficient information handover
- What information is key information for COVID and non-COVID

#### What have you done since?

- Adapted the list to reflect "Red" information versus green/amber critical care admissions
- Increased flexibility to respond to rapid transitions in patient populations (ie waves of COVID-19)

#### What do you plan to do next?

Referral database going through initial PDSA cycles



#### Take home message

The COVID-19 pandemic stimulated a dynamic, agile, clinician-led innovation process with repeated, rapid informal feedback across a unified team of junior doctors, consultants and senior nursing. The requirement for rapid innovation necessitated the relaxation of the standard PDSA structure of QI. However, though constant discussion with stakeholders we believe our innovation improved patient safety, clinician efficiency and handover quality to accommodate the operational change towards separate teams in full PPE across the critical care footprint with restrictions on movement of personnel, notes and equipment between areas.

Strengths	Weaknesses
<ol> <li>Single user benefit</li> <li>Sustainable change</li> <li>Improved continuity</li> <li>More contemporary information recorded</li> </ol>	<ol> <li>Basic Excel technological knowledge required for creation and maintenance</li> </ol>
Ongoing work	Threats
<ol> <li>Referrals database</li> <li>Further refinements to blood test requesting</li> </ol>	<ol> <li>Rotating SHOs</li> <li>Lead authors moving trusts</li> </ol>