

Trust-wide technology-enhanced training in the use of COVID-19 Personal Protective Equipment at Oxford University Hospitals

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Introduction

- From mid-March, staff **anxiety** at Oxford University Hospitals (OUH) was widespread regarding the use of Personal Protective Equipment (PPE) in treating patients with suspected or confirmed COVID-19.
- Rapidly updated national and Trust guidance led to **uncertainty** over best practice and concerns regarding safety.
- Quick, regularly revised training needed to be delivered in line with local and national guidance
- Training needed to be **accessible** even to those with busy clinical workloads or in self-isolation.

Plan

- Develop a multimodal training approach to provide latest PPE guidance
- Address concerns over COVID-related best practice whilst maintaining social distancing and delivering high quality training which did not waste PPE resources



Education and training:
To update staff on PPE guidance

Do

1) Identify key stakeholders

- Front-line staff
- Infection Prevention and Control Team
- Trust Management and Communications

2) Webinar design and delivery

Webinars were delivered on 26th and 27th March, open to all staff.

Areas of focus:

- Latest PPE guidelines and where to access resources
- How to escalate concerns
- Videos demonstrating donning and doffing of PPE
- Live Q&A session

3) Data collection

- Immediate feedback through pre- and post-webinar questions was gathered
- Staff scored their anxiety or confidence on an ascending scale of 1 to 10.



Challenges & Limitations

Challenges of webinar use

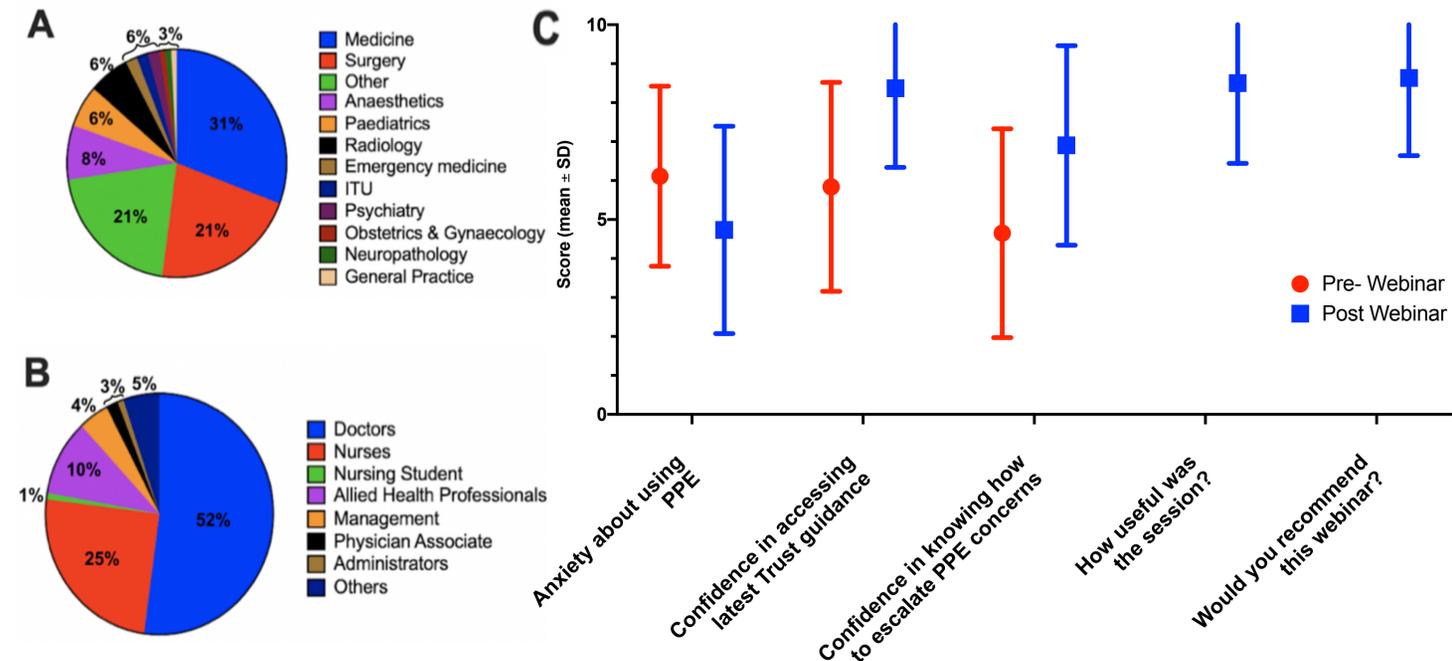
- Require user interaction online and must be easy to set up and access
- Content must be meticulously checked and updated
- Monitoring learner engagement and progress

Challenges in the TEL field

- Questions regarding the most effective methods and combinations of TEL [1]
- Lack of standardised tools for the evaluation of TEL in healthcare [2]

Study

Data from one of two Trust-wide PPE webinars was analysed. 118 people attended from all 4 hospitals. Distribution by specialty (A) and profession (B) shown below:



61 webinar attendees completed the pre-webinar poll, and 30 attendees completed the post-webinar poll. We saw a mean decrease of 23% in staff anxiety and increase of 43% in confidence in accessing information (C). Staff confidence in escalating concerns increased by 48%. Staff found the webinar very useful (8.5±2.06) and highly recommended it as a format for future updates (8.63±1.99).

Act

- The webinars improved staff morale, **increased confidence** in safe use of PPE, and **decreased the anxiety** of attendees, providing support for their continued use.
- Webinars could be recorded and posted for future reference providing a valuable resource for staff who are unable to attend.
- The use of technology enhanced education has enabled safe, remote learning during this pandemic and should continue to do so in the future.

Sustainability

- A quick reference manual has been produced to allow faculty to use the same platform in the future.
- The lessons learnt to develop webinars for PPE have been shared and used for e.g. ICU induction, anaesthetic and undergraduate training and remote simulation training for foundation doctors.
- We are undertaking research into effective methods of delivery and evaluation of TEL.

References

- Cook DA, Hatala R, Brydges R, et al. Technology-Enhanced Simulation for Health Professions Education: A Systematic Review and Meta-analysis. *JAMA* 2011;306(9):978–988. doi:10.1001/jama.2011.1234.
- Nicoll P, MacRury S, van Woerden HC, et al. Evaluation of Technology-Enhanced Learning Programs for Health Care Professionals: Systematic Review. *J Med Internet Res* 2018;20(4):e131.