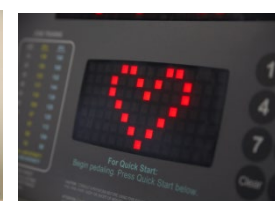
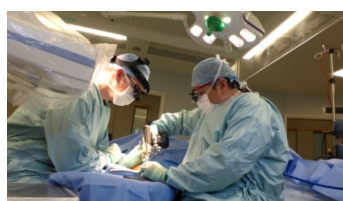




# HOSPITAL ONSET COVID-19 INFECTIONS: Learning from Outbreaks and Deaths in Care September 2021

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# Background



- ❑ The COVID-19 pandemic continues to challenge health and care services, organisations and all of us as individuals. During the early phases of the COVID-19 pandemic there was a growing concern about hospital onset COVID-19 infections in NHS hospitals.
- ❑ Understanding how and why this disease spreads has been key focus at BTHFT in order to rapidly and effectively respond to and contain the coronavirus. Two serious incident investigations have been undertaken to explore themes related to COVID-19 outbreaks and to examine the quality of care of patients that have died in our care with a hospital onset COVID-19 infection.
- ❖ NHS England definition of a hospital onset COVID-19 infection:
  - Probable hospital onset COVID-19 infections – First positive swab 8-14 days after admission
  - Definite hospital onset COVID-19 infections – First positive swab 15 days or more after admission
- ❖ NHS England outbreak definition:
  - When two or more persons have the same and/or similar symptoms and are linked by time place and/or person association)



## What have we learnt:

Investigating the quality of care for patients that died with a definite hospital onset COVID-19 infection:

### August 2020 to August 2021:

- Total number of patients admitted with or diagnosed with COVID-19 is **3269**
- Total number of patient deaths related to COVID-19 is **743**
- Percentage of deaths were owing to a nosocomial COVID-19 infection is **7.25%** (n=54)
- Nationally available information suggests that the percentage of deaths owing to a nosocomial COVID-19 infection ranges from 20% to 26%<sup>1,2</sup>

### Key learning points:

- 16 patients included within the serious incident investigation.
- A high standard of care was delivered throughout the patient's journey despite unprecedented challenges to healthcare delivery.
- Many of the patients that contracted a definite hospital onset COVID-19 infection had one or more co-morbidities and were often frail and very unwell on admission
- Areas for improvement include, reviewing GP discharge summaries and understanding delays to medicine prescribing.
- Using Structured Judgement Reviews to inform learning and improvement has been a useful way to review the quality of care for a cohort of patients over time.

#### References:

1 Gray, W. K., Navaratnam, A. V., Day, J., Babu, P., Mackinnon, S., Adelaja, I., ... & Briggs, T. W. (2021). Variability in COVID-19 in-hospital mortality rates between National Health Service trusts and regions in England: A national observational study for the Getting It Right First Time Programme. *EClinicalMedicine*, 35, 100859.

2 Health Service Journal (HSJ) (6 September 2021). Hospital-acquired infection caused one-in-five covid deaths at several trusts. Available online.

<https://www.hsj.co.uk/patient-safety/hospital-acquired-infection-caused-one-in-five-covid-deaths-at-several-trusts/7030819.article?adredir=1>

*Together, putting patients first*



## **What have we learnt:**

### Investigating COVID-19 Outbreaks at BTHFT

#### **Key learning points:**

- June 2020 to May 2021 - 20 outbreaks declared
- Atypical presentation of COVID-19 i.e. patients presenting with no symptoms, has contributed to wider environment contamination
- Social interactions between high risk groups outside the hospital environment may have contributed to the transmission of COVID-19 infection
- The Hospital Estate – difficulty accommodating isolation requirements with a lack of side rooms and space on wards, a paucity of toilet/bathroom facilities and inadequate ventilation.



# What have we learnt:

## Investigating COVID-19 Outbreaks at BTHFT

### Actions taken to mitigate risks related to COVID-19 transmission:

- ✓ Launching a system of alerts within the electronic patient record to remind staff when patients are due their next COVID screening swab.
- ✓ Risk assessments associated with PPE adherence
- ✓ PPE hub established to assist the appropriate use of PPE
- ✓ 'Donning' and 'doffing' training delivered to frontline staff groups
- ✓ Posters specific to clinical areas fixed to entrance doors displaying appropriate PPE
- ✓ Implementation of a local PPE audit tool
- ✓ Face fit testing clinics implemented
- ✓ Videos developed to aid training in PPE, social distancing and COVID-19 secure workspaces
- ✓ Speciality specific social distancing risk assessments were undertaken e.g. social distancing of patients whilst receiving renal dialysis due to spatial constraints of the unit.
- ✓ COVID secure workplace risk assessments were undertaken and further accommodation identified where possible to enable social distancing.
- ✓ Protocols for cleaning and disinfection of wards and departments implemented to ensure any areas changing status from "red" (COVID) to "green" (non-COVID) received high level decontamination.
- ✓ Risk assessment for ward bed spacing and removal of some beds to improve patient social distancing
- ✓ Improvement to ventilation in areas undertaking aerosol generating procedures
- ✓ Separate pathway in AED to ensure segregation and cohorting of individuals attending with Covid symptoms
- ✓ Separate admission pathways and cohorting procedures for Covid (Red) admissions and non-Covid (green)
- ✓ Full clean and disinfection using hydrogen peroxide vapour (HPV) of any wards where outbreaks have been identified
- ✓ Clear signage on ward entrances for red and green pathways with PPE information posters so all staff and visitors are aware as they enter a ward area
- ✓ Utilising wards 31 and 29 as the main Covid cohort wards to support staff and patient safety and wellbeing due to their wide corridors, compartmentation with doors, bed spacing, ensuite facilities and cooling ventilation.
- ✓ PPE guardians to support staff with donning and doffing PPE on the Covid wards
- ✓ Additional cleaning of high usage areas such as public toilets and 3 hourly cleaning of high touchpoint surfaces



## Recommendation

- ☐ This report has summarised the organisational learning with regard to hospital onset COVID-19 infections.
- ☐ Actions will continue to be reported monthly via the Infection Prevention and Control (IPC) Board Assurance Framework. This is an iterative process and reflects the organisations commitment to continual learning and improvement.
- ☐ Based upon national guidance there is a robust process in place to review all probable and definite hospital onset COVID-19 infection deaths in care. This is monitored and managed by the Learning from Deaths team (within the Quality Team) and in liaison with the IPC team.
- ☐ Ensure learning and any related improvement work is shared between our partner organisations and relevant stakeholder groups.