Appendix 1

Nightingale Hospital - Note of a meeting held on 15 September 2021

Present:

Cllrs Vanda Greenwood (Bradford), Jim Clark (North Yorkshire), Liz Smaje (Kirklees), Betty Rhodes (Wakefield)

NHS: Steve Russell, James Goodyear, Matthew Graham and Jonathon Gamble.

Support Officers: Mike Lodge, Farzana Hussain

Notes

- In January 2020- NHS England declared a Level 4 incident.
- NHS England had the power to direct the NHS and direct how the resources would be used
- From January, hospitals like Leeds, Harrogate, Bradford, Airedale were asked to get ready to respond to the pandemic. (freeing up capacity, training, additional demands)
- In March 2020 – NHS England directed the service to free up as much capacity as possible. So, all routine work, screening, nursing, and health visiting had to be stopped – staff had to be re-deployed and trained ready to respond to the pandemic.
- NHS hospitals were told to expand critical care capacity – the treatment that appeared to be successful was mechanical ventilation (as was seen through Italy)
- First lockdown was 26th March 2020
- 28th March 2020, NHS England asked/told Leeds Teaching Hospitals Trust that they wanted Leeds to be the "host" to run the Nightingale hospital. (Note - NHS England is not legally allowed to run any services)
- NHS England national team instructed the North East & Yorkshire region to establish a a Nightingale hospital at the Harrogate Convention Centre.
- NHS England national team supported by the army had been reviewing potential sites for Nightingale.
- The key criteria came down to the number of beds that could be provided. The goal was to maximise the number of critical care beds. West Yorkshire ICS was aware at this stage, but the decision was made by NHS England's national team.
- Once Nightingale was established – a lot of reviews were undertaken to ensure what had been done was safe and effective – Care Quality Commission and NHS England. A final "pass" was given in late April.

- NHS England retained all the responsibilities around EPRR (Emergency Preparedness Resilience and Response) through command-and-control structures that were in place – to direct the service through the crisis. They were also responsible for licensing the property.
- NHS England were also responsible for the sufficient supply of staff to Leeds Teaching Hospital NHAS Trust, for the facility to run if it were needed. They were also responsible for supplying equipment such as ventilators, beds, medical oxygen. The oxygen supply was being prioritised by NHS England.
- Leeds Teaching Hospital NHS Trust were responsible for appointing an Executive Team to operationalise the Nightingale. They appointed a number of colleagues (from across Yorkshire & Humber). Our responsibilities included -
    - To design and build the Nightingale for it to meet all requirements for critical care capacity.
    - Developing the clinical model – types of patients Nightingale would treat
    - The criteria, how they would be transferred and how they would be looked after, the workforce ratio
    - Induction & training of staff
- The predicted numbers of covid patients for Y&H far outweighed the number of hospital beds that could be provided for all levels of care; V (Ventilated) beds, O+ (non-invasive ventilation, high flow oxygen pushed through a mask) and O (nasal oxygen) beds.
- Hospitals across Y&H had been asked to identify the number of ICU beds they could provide and were in the preparatory stages of standing down elective activity and non-urgent surgery.
- Further modelling became available with predicted numbers of patients in the event of lockdown, with varying levels of citizen compliance. Even with the best-case scenario there were still insufficient numbers of all types of beds.
- Yorkshire Ambulance Service was involved from day one. They worked with NHS England and us on the transfer model, how patients would be identified and transported to the Nightingale.
- Staff were re-deployed from the air ambulance and other ambulance services to provide a fleet of 12 ambulances which would be dedicated to transfers of patients into the Nightingale hospital. Capacity of transferring 50 patients in every 24-hour period. (Convoy model – which was tested).
- What sorts of patients would be treated at the Nightingale?
    - At that time, ventilation was seen as the dominant treatment which would help patients survive Covid
    - The building was designed that all 500 beds could support critical care patients (oxygen and monitoring patients)

    - The pipes in hospitals are old and narrow – which meant insufficient oxygen would be available if hospitals had to treat large number of patients, either mechanical ventilation or non-invasive ventilation.

- Clinical criteria patients would be taken to Nightingale, this criterion was developed by doctors, nurses, pharmacists etc. If hospitals were to get pressured, NHS England would have decided which hospital to de-compress and decide which patients would need to be transferred to Nightingale.
- The criteria were restricted. Although 500 beds were built, initially 60 beds would be open.
- Yorkshire and Humber Nightingale was planned to have an initial operating capability of up to 60 patients. However patient numbers would be increased gradually on a pod-by-pod basis and informed by the constraints model. This will enable the appropriate management of risk and initial learning to be applied before any decision to scale up.
- After Nightingale was developed, NHS England put it into stand by. There wasn't such a a steep rise in critical care and hospitals were able to cope. It was difficult, staff were under a lot of pressure, but hospitals were able to manage.
- The impact of the first lockdown meant that Nightingale was able to stay in stand-by. Intended to keep available in the event if it was needed.
- In September, we had learnt more about the disease, patients were less likely to need mechanical ventilation and more likely to need non-invasive ventilation. Mechanical ventilated patients are asleep whereas patients who are on non-invasive ventilation are awake and mobile. The facilities in Nightingale were designed for patients that were asleep.
- Non-invasive ventilation uses a lot of oxygen. The hospital pipes could not get enough oxygen through them. We had built Nightingale with very big pipes and would be able to support a lot of patients who needed non-invasive ventilation.
- Workforce – NHS England was required to supply staff to the Nightingale. The staffing model was based around mirroring likely donor site staffing ratios when trusts are at their full surge capacity. The operational capacity of the hospital was governed by a constraints model to ensure appropriate staffing levels before any new capacity would be opened. This also avoided depleting resource unnecessarily at regional hospitals.
- Nightingale had comprehensive induction, training, and staff welfare arrangements in place
- Organisational structure – plans were made for ancillary services, Airedale provided cleaning support, Harrogate provided pathology, IT Support, and food support for patients. Other organisations provided the maintenance of medical equipment etc. This was all arranged by the Executive team.

- During the ‘stand by’ period Nightingale was used as an outpatient diagnostic hub to provide CT imaging for patients on waiting lists from across the region. In total 5151 patients received scans over this period.
- The Nightingale was funded centrally by Government with costs recovered on a ‘pass through’ basis by Leeds Teaching Hospitals
- The cost of establishing, equipping, operating, and decommissioning the Nightingale hospital was a total cost of £31.6m. No normal NHS funding was used for this. They provided additional funding.

  Cost breakdown

Build and Decommissioning	£17.051m
Running costs	£10.400m
Equipment	£4.177m
Total	£31.628m

- There wasn’t a cost for occupying the Convention Centre. Harrogate Borough Council charged for staffing, utilities, business rates which amounted to £4.2m
- £1.1m was spent on security
- £1m maintaining the facility that was built. It was required to be maintained for readiness.
- Half a million was spent on soft FM, food, cleaning etc
- While Nightingale was not in use, the maintenance/cleaning was done regularly.

Questions & Answers

Were other sites considered for North and North East?

Yes, but the other places considered couldn’t provide the bed capacity, in comparison to the Harrogate Convention Centre which could hold 500 beds.

Did you have enough ventilators for the 60 or downscaled beds that were in place? – Yes, we did.

When was the critical decision made for the facility to become a hospital that could do other things, or was this decision ever made? This decision was never made as it was always intended to be a critical care hospital. Some Nightingale hospitals did make this decision, i.e., Manchester. The site was split into two at the end, which would be the acute oxygen beds and critical care beds.

The facility was designed for the ventilated beds, not acute beds. It was not intended for patients who just needed oxygen.

What were these Nightingale hospitals for in the pandemic? The learning from this, so this can be applied to any future pandemics or public health

emergencies. In China, they constructed 16 hospitals and the purpose of these were different to what it was for Nightingale. They aimed their version of the Nightingales to deal with patients with mild to moderate Covid-19. So, they could be isolated from their families/friends, they were able to be triaged, and provided basic medical care, frequent monitoring of these patients and rapid referral to a hospital if needed. They were much cheaper to set up. Why was this not considered here? The modelling of the impact of the pandemic was done by scientists and government, it was their decision that ventilated beds were needed. (Italy, more than China). Less was known about Covid, but we acted on the national modelling.

Will Leeds General Infirmary have larger capacity oxygen networks, from this learning experience? The oxygen structure in parent hospitals sites across West Yorkshire are being upgraded. In Leeds it was re-piped, and upgrades are being made in Harrogate and other hospitals.

Were the ventilators distributed to other hospitals to replace any old ventilators in hospitals? The equipment was not suitable for use across the NHS sites, so they were returned to the national pandemic stock. All the ventilators were sent back. It has gone back to NHS England.

How and when did you know that the Nightingale was not needed? At the beginning each trust was requested to advise on how much extra capacity they could cope with. Nightingale would only have been enacted if the capacity at each trust was exhausted. The lockdowns had a significant impact on this.

How close were we to needing the Nightingale? **Did we get to a point where we were extremely close? Also, how prepared are you if we get a second wave? Is there an emergency plan?**

This is a personal view. We didn't want to do things in a panic, thankfully we never got to a stage where we needed it. At Harrogate, we weren't under too much pressure in November time, but rest of Yorkshire was. We cancelled lots of day surgery but opened more critical care capacity, patients that couldn't be easily accommodated at other trusts, they came to Harrogate. Pressures were managed collectively throughout the trusts and organisations. It wasn't easy and did impact colleagues, which was stressful. All the Nightingales have been de-commissioned, and we've been asked how we can live with Covid? A lot of the patients in hospital aren't needing ventilation. The winter will be difficult and challenging.

How were your posts backfilled, and what strain did this put on your organisations? Some of our work was stopped because we only concentrated on covid. Every hospital was doing less than it would usually do with day-to-day work but had more time to support the Nightingale Hospital.

What work did KPMG do for you and what was their involvement? KPMG have been supporting the London nightingale and helped establish the Nightingale Hospital in the Excel Centre. KPMG provided additional bodies and expertise to undertake the work around establishing the Nightingales. They provided specific skillset colleagues, with rostering and workforce modelling. They worked at our direction. They charged £860,000 – nationally agreed pandemic cost.

Any lessons learnt?

- People can do the most extraordinary things when they come together.
- Doing many things at one time is hard.
- Stopping stuff is easier than restarting stuff. When services were paused at the beginning of the pandemic, technically was easier to execute. Restarting services has been difficult, across all organisations. We were lucky to have the support of the military.
- The military taught us ‘rock drills’ (rehearsal of concepts) – very structured approaches of practising how things would work. I personally saw people show the potential that they themselves thought they never had.

  A lot of people think Nightingales were a waste of money, what do you say to that? My personal view is, if they had been needed and they hadn’t been built, we would have been asked far more difficult questions than why did you spend £30 million and secondly, I cannot describe to you, the feeling of sitting in the convention centre looking at the chart that in four days we will run out of ventilation beds until you get this hospital mobilised. It was the most frightening experience of my life. I have never felt so terrified. If my mum had needed that, I would have wanted that to be built.