

Ruth Strickland

Resilience Planning in an Emergency

Life Saving Equipment



Equipment Asset Management, Procurement and Consultancy



Equipping the London Nightingale

25th March 2020 :
MTS requested to assist
Royal Free NHS Trust to equip
and commission the London
Nightingale.

30th March:
IHP asked MTS to equip and
commission the Nightingale
North- West (Manchester)

30th March:
Archus asked MTS to assist in
the set up of the Cardiff Dragon
Heart



Equipping the London Nightingale

NHS
Royal Free London
NHS Foundation Trust

NHS
Barts Health
NHS Trust



**Barts Health to operate this as their
6th Hospital in their group**

First Monitors arrive:

All off loaded in 9 minutes
168 on this Truck

**URNS OUT THEY WERE ALL
STANDS!!**

Bair Huggers were arriving – yet
not enough Power at the bed side
to accommodate them



Equipping the London Nightingale



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Penlon Anaesthetic Machines arrive – 75 are unpacked ready for use; logged into e-QUIP.

McLaren Trolleys



MTS Governance



Equipping the London Nightingale



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Operating the London Nightingale



Barts Health
NHS Trust





Barts Health NHS Trust:

Malcom Birch

Director of Clinical Physics

Andrzej Jastrzebski

Head of Clinical Engineering

Nirmal Raj

Deputy Head of Clinical Engineering

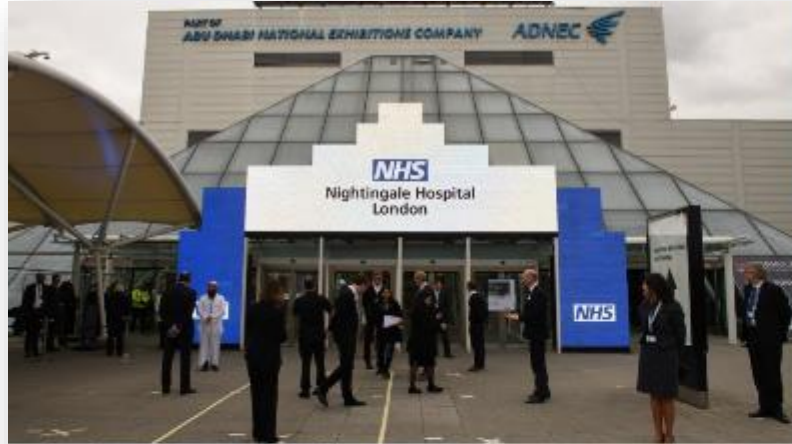
Allan Wilkins

Clinical Engineering Governance and Quality Lead & MDSO

Mary Caddies

Lead Medical Device Trainer

Operating the London Nightingale



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Operating the London Nightingale

- **Induction Training at the Excel/O2 for 2500 staff**
- **700 Staff employed on shifts**
- **Critical care Registered Nurses for 56 Beds (ration 1:4)**
- **Registered Nurses 1:2 Beds**
- **Nightingale Handbook**
- **Education and Simulation Team**
- **Bedside Learning Experts**
- **Barts Health Medical Devices Training Resources**



Operating the London Nightingale

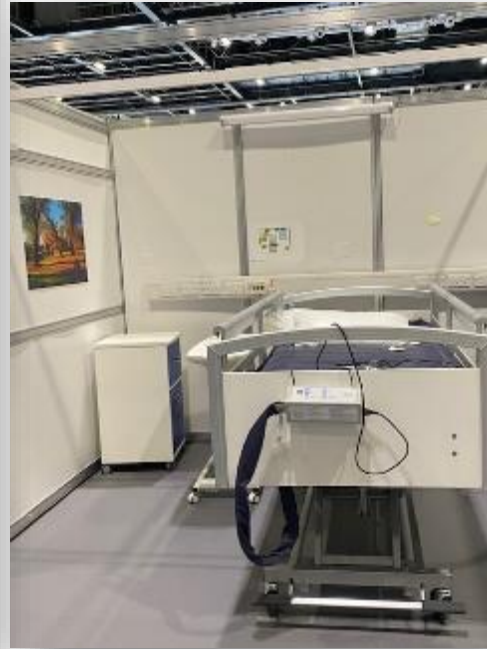




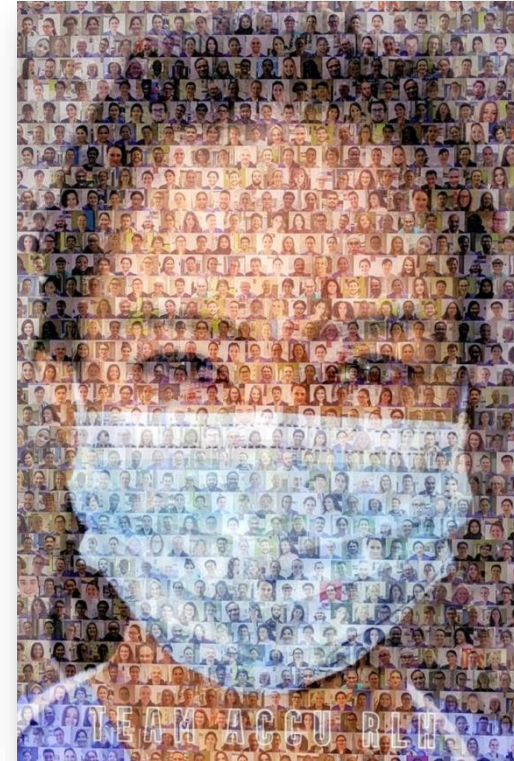
Procurement – Medical Devices

| | Planned Qty per bed | Equipment Requirement for stated bed numbers | | | | Equipment Received | Equipment Shortfall for stated bed numbers <i>Based on what is currently usable</i> | | | | Comments |
|-------------------------------------|---------------------|--|-----|-----|------|-----------------------|--|------|------|------|---|
| | | 54 | 84 | 126 | 250 | @ 4 th May | 54 | 84 | 126 | 250 | |
| Beds Available: 44 | | | | | | | | | | | Limitation to 84 beds: 196 pumps , 27 ITU grade vents, 51 humidifiers <i>Contingency included in below figures for some device types.</i> |
| Total beds | | 54 | 84 | 126 | 250 | | 54 | 84 | 126 | 250 | |
| Patient Monitor | 1 | 54 | 84 | 126 | 250 | 387 | | | | | |
| Bed | 1 | 54 | 84 | 126 | 250 | 1038 | | | | | 558 beds available to use including 480 Linet beds now commissioned and ready for use in Buffer Zone. Additional 480 beds received but are not being commissioned. |
| Air Mattress with Air Pump | 1 | 54 | 84 | 126 | 250 | 388 | | | | | 735 Mattress available |
| Ventilator (Anaesthetic Machine) | 0.5 | 27 | 42 | 63 | 125 | 51 | | | -14 | -76 | 49 available. S/W on 2 machines. Ventilator requirements represent ideal. Likely allocation understood to be 50/70 split Anaes to ICU. 10 available out of 62 received. 1 Draeger failed awaiting parts. 15x Penlon ESO2 ventilators – Commissioned, not in use *ESO2 limited use as ITU Capable Vent*. Shortage at 42 beds mitigated by Anaes Vent surplus. 10 Braun BellaVista ITU vents received – waiting on consumables & training. (Est 4/4/20) 18 GE R860 been commissioned but waiting on Consumables and Training 18 Sirius Ventilators received. Waiting commissioning, confirmation of ongoing support criteria and supply of critical consumables – Exp. Block. <i>(**Vents being used instead of Penlon's, reducing bed No. capacity*. 36 GE and Sirius Vents intended by NHSE to use to swap out Penlon's and ESO2's.)</i> |
| ICU Ventilator | 0.7 | 38 | 59 | 88 | 175 | 62 | -18 | -41 | -73 | -169 | |
| Non invasive ventilators | 0.2 | 11 | 17 | 25 | 50 | 17 | | 0 | -8 | -33 | Possible use for step own beds |
| Humidifiers | 0.7 | 38 | 59 | 88 | 175 | 8 | -30 | -51 | -80 | -167 | 10x F&P pending for BellaVista's. Order Pending for 50x F&P. |
| Transfer ventilator | 0.02 | 1 | 2 | 3 | 5 | 3 | | 0 | -1 | -3 | 1 qty ParaPAC plus 310 Ventilator commissioned. Draeger VE300 (Limited use and may belong to LAS). Oxylog 3000. |
| Infusion Pump Volumetric | 1 | 54 | 84 | 126 | 250 | 46 | -8 | -38 | -80 | -204 | 150 Plums received (1 is faulty) none to be released due to inappropriate drug library, no giving sets and no training. Not shown in figures. |
| Syringe Pumps | 4 | 216 | 336 | 504 | 1000 | 288 | -38 | -158 | -326 | -822 | 178 available for use 42 BD Medcaptains commissioned. Awaiting clinical acceptance. 11 failed. 68 Beyond waiting clinical acceptance and commissioning. Unsafe to use. |
| Feeding Pump | 0.5 | 27 | 42 | 63 | 125 | 1042 | | | | | Clinical model reduced requirement from one per bed to 0.5 per bed 20/4. |
| Suction Pump (Electrical, Portable) | 1 | 54 | 84 | 126 | 250 | 177 | | | | | -73 |
| Drip Stand | 2 | 108 | 168 | 252 | 500 | 2000+ | | | | | Stands have stability issues. (4 legs instead of 5 and 2 hooks not 4) |
| Thermometer (tympenic) | 1 | 54 | 84 | 126 | 250 | 383 | | | | | Approx. 258 Covidien Genius3 withdrawn from service (125 Braun's in use) |
| Ultrasounds | | 0 | 0 | 0 | 0 | 8 | | | | | |
| Oxygen Concentrators | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Bronchoscopes | | 0 | 0 | 0 | 0 | 30 | | | | | |
| Video Laryngoscopes (reusable) | | 0 | 0 | 0 | 0 | 4 | | | | | |
| Video Laryngoscopes (single use) | | 0 | 0 | 0 | 0 | 400 | | | | | |
| Haemofiltration Machines | 0 | | | | | 0 | | | | | 2 x 'Dialysis' Machines with RO. Further 2 being sought. |

Equipping the London Nightingale #2 30th December 2020



Operating the London Nightingale





Operating the London Nightingale



Thank You Barts Health





Resilience Planning – Another Wave

Resilience Planning – Major Accident / Event

What capacity is required going forward;

What equipment is likely to be needed in specific events?

Should Integrated Care Systems (ICS's) share equipment libraries ?

Is there a regional and national store or stock of specific equipment

Resilience Planning – Life Saving Equipment

The Department of Health and Social Care is standing up a **new medical technologies' directorate**, after COVID exposed vulnerabilities in government distribution

Steve Oldfield – Commercial Director: *“has shone a light on the criticality of the Med Tech sector to the effective functioning of the health sector”*

Six Main areas:

- **Resilient supply chains**
- **Value for money**
- **Regulation of safe high-quality products**
- **Sustainability**
- **Innovation to improve patient outcomes**
- **Promoting UK interests in global markets**

Resilience Planning - Life Saving Equipment





Equipping the London Nightingale



VIDEO

<https://youtu.be/HVPbMtT89WU>



Thank you