Strategic planning and response to COVID-19 in a London emergency department

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ABSTRACT

For many of us in emergency medicine, rising to the challenge of the COVID-19 crisis will be the single most exciting and challenging episode of our careers. Lessons have been learnt on how to make quick and effective changes without being hindered by the normal restraints of bureaucracy. Changes that would normally have taken months to years to implement have been successfully introduced over a period of several weeks. Although we have managed these changes largely by command and control, compassionate leadership has identified leaders within our team and paved the way for the future. This article covers the preparation and changes made in response to COVID-19 in a London teaching hospital.

PHASES AND GEOGRAPHICAL CHANGES

COVID-19 introduced a new dimension to our departments and the speed of change required was phenomenal (figure 1).

The containment phase saw the creation of a swabbing service with a 'pod team' of senior doctors coordinating. A WhatsApp group was vital in sharing relevant information in a closed forum, allowing dissemination of information in an ordered way. Over the course of 7–10 days, an intense period of activity ensued where more acutely unwell patients presented and the focus became managing them and establishing an ambulatory service providing saturation probes for those who could safely be discharged. Eventually, histopathology consultants took over the swabbing service, and the pod changed function to become a rest hub. Triage was established in the ambulance handover area (major incident style with a senior doctor), and patients were directed into one of two sides: 'suspected COVID-19' and 'unlikely COVID-19'.

Several vital geographical changes were made over the first few weeks including constructing COVID-19 and non-COVID-19 resus areas, and much of the departmental layout was reorganised (figure 2). In order to manage the frequent change necessary, a routine was established (figure 3) that incorporated shared decision making and enabled dissemination of information efficiently to the team. Single clerking (any one of a pool of junior doctors see patients directly from triage) was established and 'post-taking' was done by a 24-hour on call medical consultant. Smaller changes including putting patient observations on a wipe clean board outside each bay and use of 'walkie talkies' to communicate. Medical students were galvanised to become part of the porter/cleaning teams while existing staff worked flexibly depending on need.

LEADERSHIP

The hospital developed a COVID-19 task force with devolved responsibility among seniors operational and clinical staff. On a departmental level, natural leaders emerged at all grades, and trainees independently formulated systems such as emergency stocking, creating intubation kits and collecting data. Junior staff took on vital roles such as creating new rotas, research and dissemination of education. Key senior staff played to their strengths and simultaneously delivered new processes, introduced new rostering systems, restructured the department and introduced relevant guidelines all within a week. Barriers to change were brought down as managers recognised the urgent need for instant decisions as the situation escalated hour by hour. The decision to move the non-COVID-19 'majors' type patients into the clinical decision unit (CDU) as the department rapidly became full with patients with COVID-19 happened overnight, a decision that would have previously taken months.

WORKFORCE CHANGES

Last year, our department was seeing up to 420 patients daily. Staffed with 14 consultants, 17 middle grades and 16 juniors, it was recognised early that our workforce needed to expand. A response was coordinated with medical workforce and doctors were drafted from all over the hospital as elective services wound

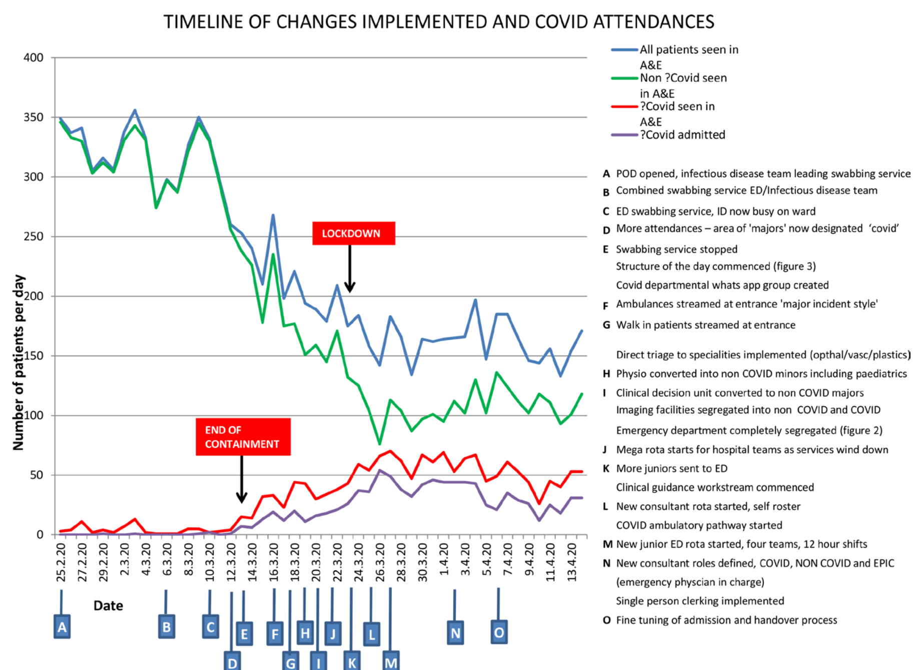

Figure 1 Timeline to show the speed at which change was required in response to COVID-19. ED, emergency department. A&E, accident and emergency; POD, outdoor hut; ID infectious diseases.

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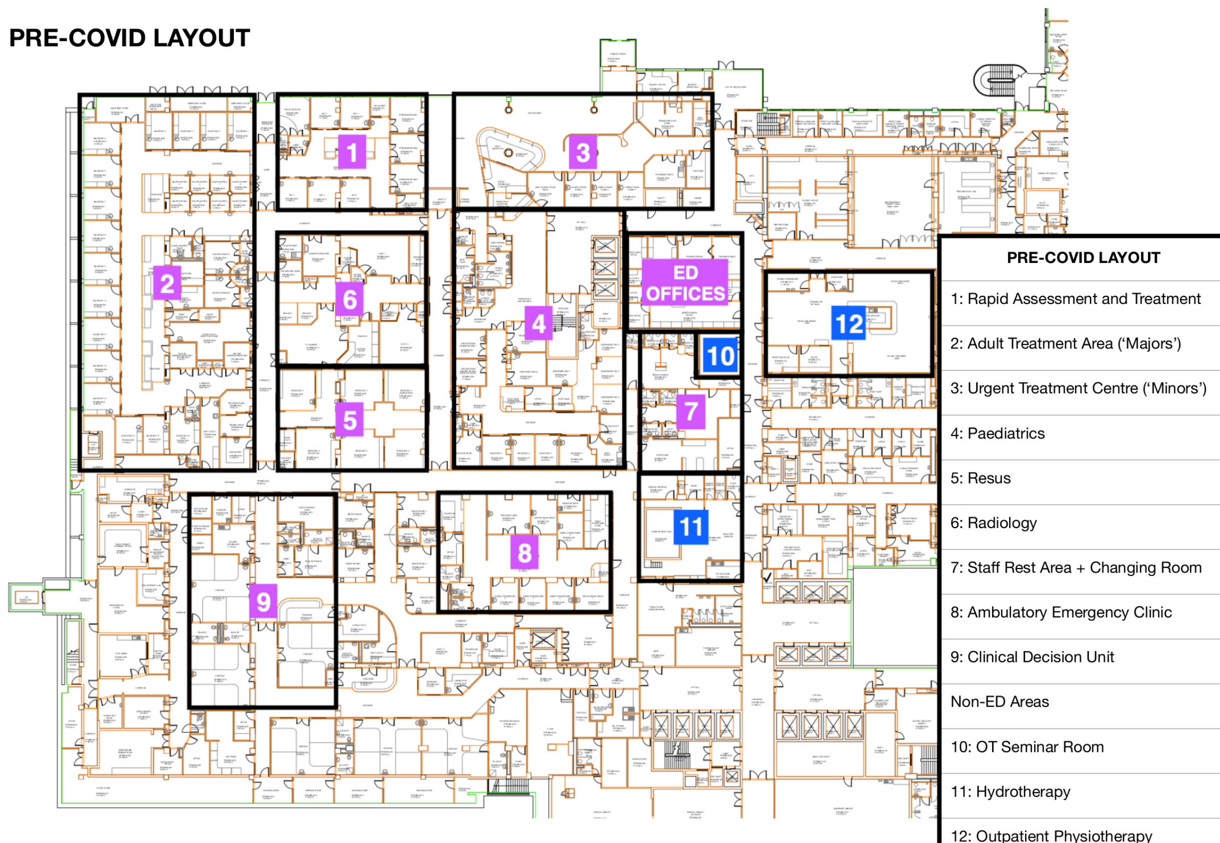

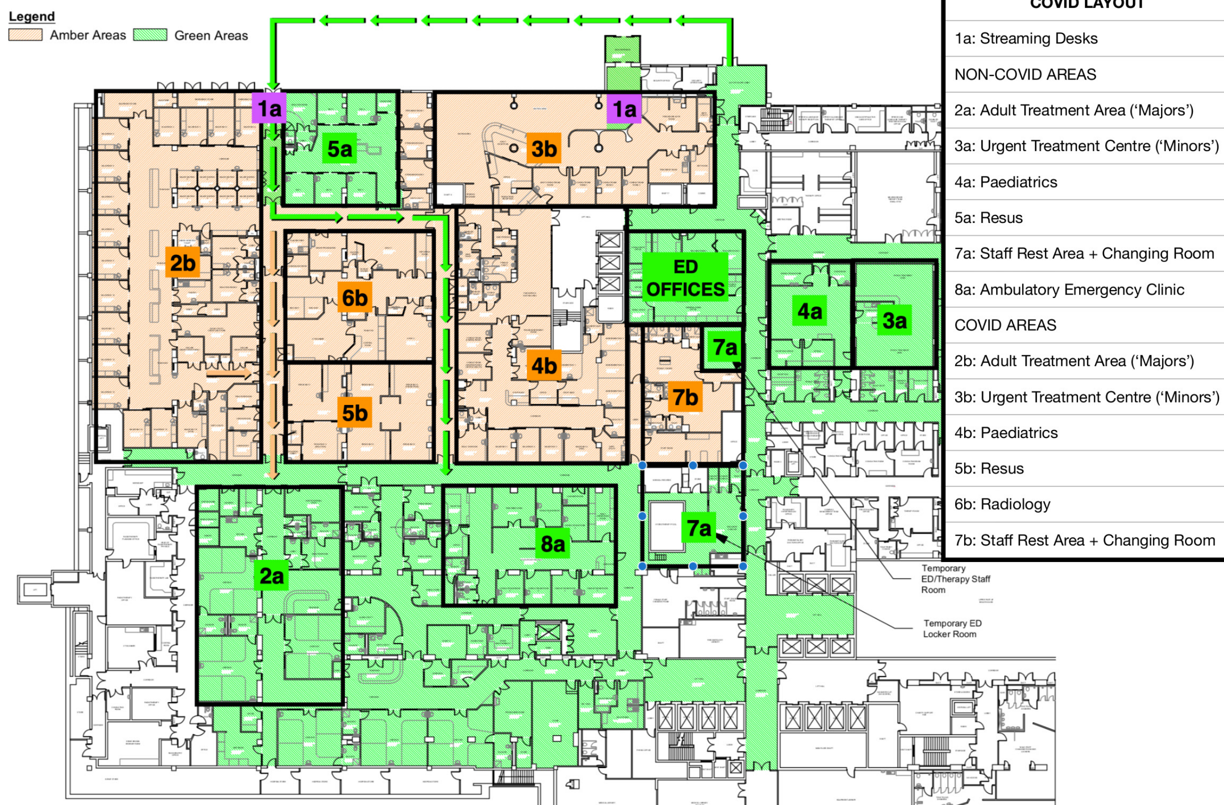

Figure 2 Map of the emergency department (ED) to show pre-COVID-19 and post-COVID-19 layout.

down. Four teams were created and adapted to a pattern of 3×12 hour days, 3 off, 3 nights, 3 off. Each team had a senior leader who identified staff sickness, checked on welfare and allocated roles. The establishment of the team structure promoted camaraderie, and the larger workforce meant resilience to absorb inevitable staff sickness (figure 4).

Structure Of The Day		
07.30	Safety brief (nursing staff)	large gym
08.00	Allocation of ED doctors	seminar room
09.00	COVID trust update (CD)	teleconference
09.00	Staff training (PPE/ventilation/palliative/sim)	seminar room/Microsoft teams
10.00	Department update (senior team)	seminar room/teleconference
	Discussion of changes, actions and implementation	
12.00	Drop in session psychiatric team (M/W/F)	support hub
13.00	Staff training (PPE/ventilation/palliative/sim)	seminar room/Microsoft teams
16.30	Update on call ED consultants	offices
19.00	Update e-mail sent to all staff	
19.30	EPIC consultant to update night nursing team	large gym
20.00	EPIC consultant to update night doctors team	seminar room

Figure 3 Structure of the day. ED, emergency department. OT, occupational therapy; CD, clinical director; PPE, personal protective equipment.

Introducing self-rostering for the consultants allowed them to work in a more flexible way improving the out-of-hours cover, useful for the department but also enabling them to make practical household decisions at a time when schools, for example, were closed. Consultants remained on an on-call by phone overnight and with a plan to increase to on-site cover although that did not become necessary.

EDUCATION

Nurse educators set up daily PPE training for all trust staff and disseminated it via video. SIM sessions were videoed, targeting areas such as intubation, ventilation, COVID-19 Advanced Life Support (ALS) and palliation. A dedicated simulation (SIM) was invaluable after the first emergency intubation in order to work through efficient donning and clear communication between the whole team while in full PPE.

Use of technology (Microsoft Teams/Zoom/WhatsApp) was vital in disseminating information, and education sessions were shared by all across the Trust.

CLINICAL GUIDANCE

A consultant was identified to provide clinical updates after ratification from external groups (Trust wide and nationally), essential to avoid information overload given the evolving data coming forward internationally. Stickers were developed for treatment escalation plans, proning and post-take check lists to enable clinicians to manage patients in a structured way and to highlight important clinical information (figure 5).

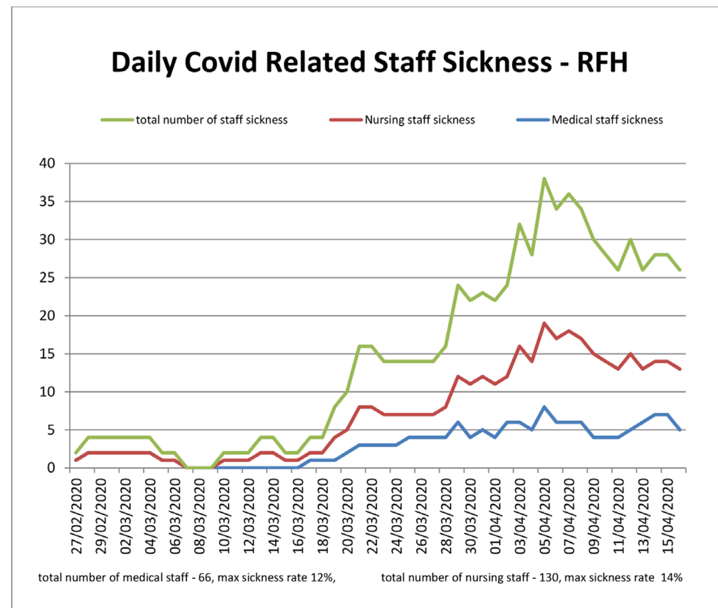

Figure 4 Graph to show staff sickness over time. RFH, Royal Free Hospital

Medical Post Take Checklist

Age ☐ Rockwood ☐ Day of illness ☐ Temp ☐

Major comorbidities:

1)

2)

3)

CXR findings ☐

Lymphocytes ☐ CRP ☐

DDimer ☐ Sats ☐ FiO_2 ☐

Blue ward ☐ Green ward ☐

Treatment Escalation plan:

☐ Discuss with ITU in event of deterioration ☐ Ward Based care only

Outcome of PTWR:

☐ Admit DTA ☐ ☐ Discharge

☐ Awaiting further information prior to DTA ☐ Review after 1-2 hrs post active treatment

Figure 5 An example of one of the checklist stickers.CXR, chest x-ray; CRP, C reactive protein; Sats, saturation level; Fi02, fraction of inspired oxygen; ITU, intensive therapy unit; DTA, decision to admit.

WELL-BEING

A well-being lead was allocated, and psychological support was set up early. Staff made interesting revelations about vivid dreams, their stress at looking after dying patients and their own healthcare concerns during dedicated sessions. The trust supplied free food to all staff, and dietitians replaced domestic staff to serve food in staff rest areas reducing movement of staff around the hospital. Extra space was found to enable social distancing during breaks and segregation of staff working in different areas.

THE FUTURE

Much of the change such as self-rostering, single person clerking, the new routine and department layout will be used long term

and adapted as our circumstances change. The department and staff will remain segregated as much as possible once the staffing returns to normal. Lessons have been learnt on how to effectively introduce rapid changes using various platforms and extensive forms of communication and how empowerment of staff can lead to flexible but efficient working patterns. Microsoft Teams and Zoom will transform education going forward with a much greater emphasis on filming and remote sharing making teaching sessions more accessible for all.

As a trust, we have embraced multidisciplinary teamwork and broken down barriers. As a department, each and every member of the team has risen to this challenge bringing us closer together, and we have managed to harness the very best qualities of those working in emergency medicine. As the walls of bureaucracy start to rise again, we need to remain agile in case of a second peak. The challenge that lies ahead is the transition to a form of normality with COVID-19 risk managed pathways embedded in our system while retaining the enthusiasm and 'can do' attitude that was ever apparent during the crisis.

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