

COVID-19: resetting ED care

Adrian A Boyle ,¹ Katherine Henderson ^{2,3}

The first confirmed cases of COVID-19 in the UK were recorded on the 29 January 2020; 3 days later, the UK government declared a level 4 incident, allowing for an extraordinary increase in powers and control. Similar severe measures happened all around the world. The first UK death happened 6 days after the first recorded cases and many tens of thousands of deaths rapidly followed. EDs around the world underwent rapid reconfiguration as national strategies moved from containment to mitigation. The *Emergency Medicine Journal* has led the way in quickly and usefully reporting these changes with the 'Reports from the Front' series.¹ The overarching aim of these reconfigurations was to increase capacity for an expected surge in seriously ill patients and to provide a safe working environment for patients and staff. Staff rotas were rewritten, allocating staff to acute areas and increasing senior presence. It proved impossible to predict how many staff would be off sick or need to self-isolate, and many of us were blindsided by the apparent vindictiveness of the virus to older men, diabetics and those from a non-white background. Processes and protocols had to be all modified to answer the question 'what if this patient has suspected COVID-19?'. Simple working arrangements suddenly became more complex and routine clinical tasks became much more effortful.

Many hospitals gave welcome extra space to the emergency medicine service. Quick rebuilding jobs were carried out to increase the amount of space where potentially infectious cases could be seen. Many changes have been implemented very quickly, and the normal safeguards to ensure they work as intended may be missing. In these cases, it is important to evaluate the changes carefully and adapt where necessary. Some changes may have been harmful, and it is important we are alert to how these might affect our patients.

¹Emergency Department, Addenbrooke's Hospital Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK

²Emergency Department, Guys & St Thomas' NHS Foundation Trust, London, UK

³Royal College of Emergency Medicine, London, UK

Correspondence to Dr Adrian A Boyle, Emergency Department, Addenbrooke's Hospital Cambridge University Hospitals NHS Foundation Trust, Cambridge CB2 2QQ, UK; adrian.boyle@addenbrookes.nhs.uk

Inpatient capacity improved dramatically, so that many hospitals regularly had extraordinarily better bed states. This was due to a combination of fewer 'medically fit' patients remaining in hospital, acceptance of different admission and discharge thresholds, improvements in pathways within hospitals and reductions in elective surgery. This illustrates that delayed transfers of care and the resulting exit block is not an insoluble problem and can be fixed where there is a political, financial, managerial and clinical will. Patient flow improved, and many EDs are less crowded as result of all these changes.

Our community and inpatient colleagues underwent a paradigm shift in providing care by video conference. Our departments were confronted by the full spectrum of disease severity that the COVID-19 can cause. Initially large proportions of other patients stayed away from our EDs in March and April. Some of this will have been serious cases, but a lot more will have been the lower acuity presentations that previously congested our departments. There are multiple, complicated reasons why this happened, some of this will have been from the obvious result of lockdown. Understanding this will keep health service researchers and policy makers busy for a while, but this has been the most extraordinary behavioural intervention of our generation, and it would be a wasted opportunity not to analyse this properly.² As we move from a pandemic to an endemic state, delivery of care must also change to ensure this—and similar diseases—can be managed safely, alongside regular emergency care, within our departments and wider healthcare systems. Past reorganisations and reform of healthcare delivery have put increased pressure on EDs as they are perceived to be 'safe places' by the public and other parts of the system and become the default option for all healthcare needs. This has contributed to unsustainable overcrowding and corridor care in EDs.³ We must learn from this response and make changes to our future operations. As we progress beyond the peak of this outbreak, we must act now to ensure patient safety is never jeopardised again through poor infection control, design, physical crowding, inadequate staff protection and corridor care.

It is also important that the public, who pay for and use these services, are

meaningfully consulted as to how EDs need to change. However, EDs should return to their original core purpose: the rapid assessment and emergency stabilisation of seriously ill and injured patients. They can no longer be used to pick up the pieces where community, 'out of hours' or specialist care has struggled, or chosen not, to cope. Our colleagues in primary care must be able to safely offer face-to-face consultations and physical examination.

As some form of order (and our patients) return, there is a need to consider how things must change in the future. The COVID-19 is likely to circulate for the immediate future, and this will influence how EDs operate. The Royal College of Emergency Medicine, along with a number of other emergency medicine professional bodies around the world, has published a position statement, 'COVID-19: Resetting Emergency Department Care'.⁴⁻⁶ The position statement makes a series of radical recommendations about how ED care needs to change, and these have gained support from regulators (see [box 1](#)).

Improved infection control means that our departments need to be cleaner and bigger, staff need to be provided with appropriate levels of Personal Protective Equipment and staff need to be trained how to minimise nosocomial infections. The need for social distancing means that we need to establish maximum occupancy thresholds for each area of our department, and this may mean the end of the traditional waiting room as we know it. The link between high inpatient bed capacity and poor infection control is well accepted, and our inpatient areas need to not exceed capacity.

There is a moral imperative to ensure our EDs never become crowded again. If we are crowded, we cannot protect patients and staff. Crowding has long been associated with avoidable mortality, and COVID-19 reinforces and multiplies this risk. It is important to consolidate alternative routes of access for lower acuity

Box 1 Royal College of Emergency Medicine recommendations for resetting emergency care

1. Improved infection control,
2. Reducing crowding and improving safety.
3. Patients under the care of specialist teams.
4. Physical ED redesign.
5. Using COVID-19 testing for best care.
6. Metrics to support reduced crowding.

patients while maintaining access for those who need the services of EDs and hospitals. Some crowding can be reduced by better integration of community, ambulance and hospital information systems. Experience from Denmark and the Netherlands has shown that primary care and advice lines can have an effective role in providing alternative services and that this can reduce ED attendances.^{7,8} Lower acuity patients should be offered responsive alternatives to ED care. In England, there is a programme to develop 'same day emergency care' that aims to offer definitive care without hospital admission. This would both ensure the best possible outcomes and lower nosocomial infection risk for patients and staff. The response of the public in complying with the social isolation imposed by lockdown has been impressive and effective. The pandemic has driven use of NHS 111 and other advice lines in a way that had previously not been realised. Ambulance services have focused heavily on prioritisation and need for conveyance. Primary care and other services have undergone a paradigm shift in how consultations are conducted, and community work is undertaken. There has been a welcome transformation in the way that many specialties have delivered care to their most vulnerable patients to minimise their risk of nosocomial infection by increasing the use of telemedicine and remote consultations. Major changes have been made to the way patients are cared for throughout the system to effectively respond to the pandemic. Some of these changes are welcome such as increased use of virtual fracture clinics and remote clinics, telemedicine and careful consideration around the value of hospital admissions for very elderly patients and improved end-of-life care. Our role as emergency physicians will have to change as we focus on shortening the length of stay for our patients and reducing overall occupancy. This might involve restricting some areas of practice.

Patients with complicated healthcare problems under the care of specialist teams pose particular challenges for emergency care in the pandemic. There need to be realistic and accessible alternative pathways of care so that an immunocompromised patient is not exposed to an avoidable risk of nosocomial infection by waiting in a crowded ED.

Many departments are simply not built in a way that promotes good infection prevention control and patient flow. Some EDs need to be rebuilt with more siderooms.

Testing for COVID-19 should not impede patient flow, particularly while turnaround times are long and testing capacity is

limited. Until turnaround times improve, hospitals will need to provide cohort areas where patients can wait for test results after their evaluation in the ED.

Metrics and performance measures should support reduced crowding. A number of countries have used time based targets for several years, notably the 4-hour access standard in the UK and the National Emergency Access Target in Australia.^{9–12} Now is the time to introduce metrics that reduce crowding. The Royal College of Emergency Medicine has proposed that this includes a maximum occupancy and a marker for infection control.

Many of these actions require action from senior leaders, both inside and outside hospitals. Our political leaders need to have honest conversations with the public about the limitations of what can be offered in an ED.

The College welcomes signs of recovery from the first wave of the pandemic but cautions that we are at the beginning of a long period of necessary transformation. Failing to appreciate this minimises the significant prepandemic problems in urgent and emergency care. There is also a concerning risk that subsequent waves may coincide with a seasonal influenza epidemic, creating more pressure. There will be a 'nosocomial dividend' from implementing these recommendations, with reduced infections to staff and patients and improved safety and quality of care, not just from COVID-19 but measles, norovirus and influenza.

It is imperative that these recommendations are implemented right through the urgent and emergency care pathway. The end result would be that our patients are cared for in a safer, less crowded EDs. We cannot treat ill and injured people in an environment that does not allow adequate social distancing.

Twitter Adrian A Boyle @dradrianboyle

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ORCID iDs

Adrian A Boyle <http://orcid.org/0000-0002-9009-5423>
Katherine Henderson <http://orcid.org/0000-0002-7469-9796>

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