COVID-19, a UK perspective

Joanna Avery and Benjamin Bloom

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Royal London Hospital, Barts Health NHS Trust, London, UK

On 31 December 2019, the WHO was informed of new cases of pneumonia of unknown etiology. On 7 January 2020, a novel coronavirus was identified as the cause of the pneumonia. The organism has subsequently been named SARS-CoV-2 and the disease it causes COVID-19 [1]. By 22 January, Public Health England (PHE) published its first news report on the novel virus. On the 23 January 2020, the Emergency Department (ED) at Royal London Hospital swabbed its first potential COVID-19 patient. As of 9 March, in the UK, 24641 people have tested negative, 319 tested positive and three people have died and were positive for SARS-CoV-2.

COVID-19 is reported to be a relatively mild disease for younger patients with mortality rates of less than 0.5%, but approaching 15% in older patients with comorbidities [2]. The approach to manage patients with suspected COVID-19 has focused on a two-step screening procedure. To screen positive, patients have to have visited a country or region in which COVID-19 is considered epidemic, and have one or more of a cough, breathlessness or fever. If both criteria are fulfilled, then the patient is swabbed and discharged, unless requiring treatment. If patients have visited a listed country but are asymptomatic, they are advised to self-isolate for 14 days.

In the early phases of the outbreak, patients were self-presenting to the ED for assessment. As the outbreak has progressed, guidance has changed so that well patients are advised not to attend the ED for assessment without prior warning. These patients are advised to call 111, the UK's nonemergency national health line. 111 performs the screen described earlier. If the patient is considered to be unwell, then 111 will organze an ambulance, and if the patient requires swabbing, will organize an appointment. Currently, our ED provides a booked swab service for 111 patients. To support this service, the government has provided Assessment Pods to all EDs. Pods are free-standing closed structures with a telephone from which patients that do self-present can both call 111 and be assessed by medical staff in personal protective equipment (PPE). Patients that are booked for swabs are seen and swabbed in the EDs decontamination room, but the pod can be used as an 'overflow' space. A third option to test well patients with suspected SARS-CoV-2 is drive-through swabbing. Patients that have been screened by 111 have the option to drive to the hospital and be assessed and

Correspondence to Benjamin Bloom, MD, Royal London Hospital, Whitechapel Road Whitechanel London F1 1FR LIK

Tel/fax: +44 203 594 0045; e-mail: ben.bloom@nhs.net

swabbed through the car window and drive home again. This removes the need to bring patients into the pod, decontamination room or cubicles, and removes the need for ambulance transfers home. As of 8 March 2020, the Royal London Hospital has screened 233 patients and swabbed 190, with 14 being the maximum swabbed in one day. To manage the three ways well patients are accessing care through the ED, an additional nurse and physician shift specifically for potential SARS-CoV-2 have been created. However, because these patients are well, there is a good argument that none of the screening or swabbing should be the work of an ED. Regions and boroughs have approached this differently, but very often the demand for community testing far outweighs the capacity to deliver that care.

The greatest challenge EDs face is accommodating patients with suspected SARS-CoV-2 without disrupting usual care and processes. Cubicles in the ED remain occupied by patients that are unable to make their own way home by walking or cycling and require an emergency ambulance for transport. Time is taken up donning and doffing PPE. Cubicles are then further blocked by time taken to decontaminate after they are vacated.

The impact on the ambulance service has also been substantial because it has been used to transport well patients with suspected SARS-CoV-2 colonization or preclinical infection. The ambulances that would usually be used for unwell patients are therefore both being used for well patients, and are also off the road for the period that it takes to decontaminate them when back at the ambulance station. This represents a type of major incident that has long been expected but not seen, that is, the 'slow burn' major incident. Rather than a sudden increase in volume and acuity seen in a terrorist attack or natural disaster, we are seeing a slow but steady increase in volume and expect to see an increase in acuity.

The UK has had an Influenza Preparedness Strategy since 2011, and its response to the SARS-CoV-2 outbreak has been informed by this and differences between pandemic influenza and COVID-19 [3]. The response to SARS-CoV-2 is in three phases, and we are currently in the initial Contain phase. This also includes actions that help the second, Delay phase, which is designed to delay the onset of an epidemic. The final Mitigate phase would be entered

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in the event of the outbreak worsening, or a severe prolonged pandemic. Since its first bulletin in January, PHE has released 55 news bulletins, six updates on geographical regions affected, 44 updates on epidemiology, virology and clinical features, 22 updates on investigation and initial clinical management, four updates on self-isolation, and many more on infection prevention and control, primary care, ambulances and others. There is significant anxiety, verging on panic, both in the general population and in hospital staff. Supermarkets have reportedly been emptied of hygiene products. Hospital staff that are not frontline, for instance, in out-patient clinics or nonacute wards, have also expressed significant concern. Remaining current with the bewildering quantity of guidance will help protect our patients and population. Arguably more important is clear communication to clinical and clerical

staff in order to reduce anxiety, maintain professionalism and manage the approaching epidemic.

Acknowledgements Conflicts of interest

There are no conflicts of interest.

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