Covid-19 care before, during, and beyond the hospital
It’s time to shift the research focus to studies on living with this disease

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By the third week of May 2020, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease 2019 (covid-19), had infected about 4.7 million people worldwide and over 300 000 had died. Without a vaccine or disappearance of the virus, we could be living with SARS-CoV-2 and covid-19 for the foreseeable future, possibly years.

In the initial phase of the pandemic, descriptive studies of patients in hospital have been invaluable in understanding the epidemiology, populations at risk, and outcomes for patients with severe covid-19. Peer reviewed studies and preprints have described patients admitted to hospital in China, the United States, and Korea, ranging in size from 69 to 5700 patients. Independent predictors of mortality included older age, male sex, obesity, and several chronic conditions. The authors reason that this cohort was due to older age, health system differences (for example, proportion of intensive care unit beds), and practices for advanced care planning. Indeed, guidance from the National Institute for Health and Care Excellence regarding use of critical care services emphasized early advanced care planning in addition to consideration of patient frailty, judicious use of potentially limited resources of the UK’s health service, and protection of NHS staff.

Observational studies of hospital admissions cover only part of the healthcare response to the pandemic: we need better information and studies of care before, during, and beyond the hospital. Before admission, physicians need guidance about prevention, transmission, monitoring, home care, integration with primary care, risk factors for clinical worsening, and criteria for escalating patients to emergency or hospital care.

Beyond the hospital, long term outcomes of covid-19 are unknown. Anecdotal reports have included symptoms that last for weeks or months. Sequelae of covid-19 infection might

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include worsening of chronic conditions and profound needs for rehabilitation. And we still have much to learn about transmission, immunity and its durability, and, as with other coronaviruses, the potential for reinfection.\textsuperscript{13-15}

At the outset of the covid-19 pandemic, it was natural to focus first on the people with severe disease who might need potentially scarce resources in hospital and intensive care. Cohort studies of such patients important, and the work described by Docherty and colleagues is a testament to good planning and preparation before, and implementation of data collection during a pandemic. If we are going to be managing covid-19 for the next several years, however, we need to understand and optimize care before, during, and beyond the hospital.

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