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Essential care of critical illness must not be forgotten in the COVID-19 pandemic

The coronavirus disease 2019 (COVID-19) pandemic will have a large impact in low-resource settings (LRS). 20% of COVID-19 patients become critically ill with hypoxia or respiratory failure (figure).¹ Critical illness, describing any acute life-threatening condition, is receiving increased attention in global health because of its large disease burden and population impact.² Before the COVID-19 pandemic, growing evidence suggested that the care of critical illness was overlooked in LRS—hospitals cannot, or do not, prioritise emergency and critical care.³ Most critically ill patients are cared for in emergency units and general wards and do not have access to advanced care in intensive care units (ICUs). Data from hospital wards in Malawi showed that 89% of hypoxic patients (oxygen saturation <90%) were not receiving oxygen, and 53% of unconscious patients (Glasgow Coma Scale <9) were being nursed supine without a protected airway (unpublished data).

The COVID-19 pandemic will lead to a surge in the number of critically ill patients.⁴ Hospitals throughout the world will become overwhelmed, and care will be provided at a lower resource level than usual. Along with preventive measures and infection control, the clinical care of these patients will be a fundamental determinant of the pandemic's overall impact.

Unfortunately, the headline figures of ICU requirements for COVID-19 patients in resource-rich settings are masking the need for essential care. Attention is directed towards expensive, high-tech equipment that demands highly trained providers while neglecting low-cost essential care.

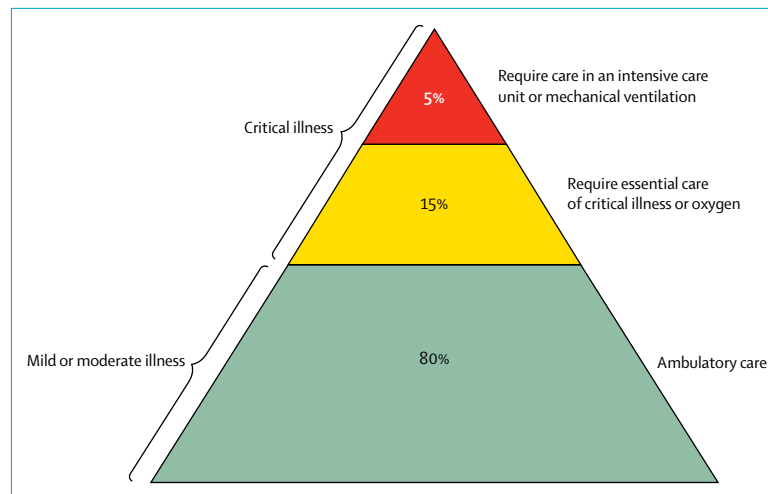


Figure: Severity profile of coronavirus disease 2019
Data source: Wu et al (2020).¹

To avoid this neglect, we recommend a primary policy focus on basic, effective actions with potential population impact. A conceptual framework has recently been proposed that illustrates the need for hospital readiness and good quality clinical practice for the dual aspects of identification and care of critically ill patients (appendix).⁵ Hospitals should establish effective systems for triage and essential care in emergency units and wards, including patient separation and staff safety. User-friendly, concise protocols should be developed, disseminated, and implemented for good quality and feasible clinical care, with WHO's leadership and through national authorities. Simple physiological signs have been shown to identify critical illness, and single-parameter systems might be easier to use than compound scores. The central role of oxygen therapy should be emphasised, oxygen supplies and delivery systems secured, and guidelines for sustainable and appropriate use issued. Other essential care includes a head-up patient position, suction, and simple chest physiotherapy. When human resources are limited, such care can be implemented by less trained health workers or vital-signs assistants through a protocolised approach and task sharing.

Quality essential care of critical illness could have a large positive effect on mortality even without ICUs. It would ameliorate the fatalism and passivity that arises from an absence of high-resource treatment options. Moreover, provision of essential care could prevent progression to multi-organ failure, reducing the burden on limited ICU capacity. The ability of health services in LRS and throughout the world to provide good quality essential care of critical illness must be greatly and urgently increased.

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Medical student involvement in the COVID-19 response

Coronavirus disease 2019 (COVID-19) has been formally declared a pandemic by WHO,¹ reflecting an inability to contain its spread internationally. The associated harm of the COVID-19 pandemic to populations and health systems cannot be understated. In

this unprecedented situation, perhaps one of the more under-recognised and enduring repercussions will be on medical student training worldwide.

The paradoxical dual role of medical students is that, as the future health-care workforce, we potentially form part of a health-care system's response to public health emergencies but, conversely, are considered non-essential in clinical delivery and might be restricted from clinical learning. Medical schools have had various responses to date.^{2,3} Some medical schools have cancelled teaching³ and medical electives entirely, whereas others continue to encourage clinical placements. Although these measures felt appropriate to protect both patients and the health-care workforce, they nevertheless represent the loss of essential learning opportunities. A clear and unified response at national levels is needed to ensure that all students receive timely and consistent advice and that the impact on their future practice is minimised.

Several governments have alluded that medical students could be used in health systems affected by COVID-19.^{2,4} Although there is no question about their willingness, given no recent precedent, the lack of guidance for any students drafted is concerning. In particular, we find an absence of official and unambiguous statements on indemnity, governing body regulation, contractual agreements, expected roles and responsibilities, and the clinical supervision expected. Several health-care systems, such as in Italy and Iran, are in crisis,⁵ and others expect substantial challenges in the coming weeks and months. In this context, students could be placed in challenging and compromising situations if asked to support health-care staff in providing care. The case of the British trainee paediatrician, Bawa-Garba,⁶ who was convicted of manslaughter and temporarily lost her

medical licence despite recognition of systemic failings and extreme pressure that she was under, has eroded trust from health-care professionals that they will be adequately supported in the event of potential mistakes under mitigating factors. These points must be explicitly addressed and conveyed on national levels before any student is used within clinical practice.

Governments, regulatory bodies, and medical schools have a responsibility to both current and future patients to ensure that our future doctors are sufficiently trained and supported to deliver essential patient care, even in crises. Medical students, alongside all health-care staff, are prepared to contribute to patient care in the COVID-19 pandemic, yet in these uncertain times, forethought and transparency are essential.

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