Sepsis incidence and mortality

We welcome the Article by Kristina Rudd and colleagues,[1] highlighting the global burden of sepsis that is high in low-income and middle-income countries (LMICs). The burden of sepsis might be reduced with novel digital solutions.

Wearable sensors measuring multiple vital signs are one such solution. A patient's vital signs are crucial to ensure an earlier detection of sepsis.[1,2] Small, lightweight wearable sensors already exist and can be linked to mobile phone devices. Such sensors provide continuous monitoring and an objective measure of physiological status. In remote areas, where the number of health-care providers are fewer than in urban areas, low-skilled care workers might use sensor data as a triaging tool.

Wearable sensors have already been used in a treatment centre for Ebola virus disease in Sierra Leone, west Africa.[3] In this study, a wireless sensor measured several vital signs and had data analytics applied, allowing personalised alerting to assess changes in a patient's physiological status.[3] In places where health-care workforce is scarce and digital infrastructure is underdeveloped, such technologies might help to monitor patients continuously and to support health-care staff locally. In the future, it is probable that the cost of wearable sensors will reduce, which will improve their accessibility in LMICs. Historically, LMICs have actually been faster to adopt mobile technologies into their digital activities than have high-income countries.[4] The mobile phone network in Africa rapidly overtook the landline network within a few years, whereas this took decades in high-income countries.[4]

Although wearable sensors are often developed in high-income countries, the greatest benefit of

these devices in sepsis might be in LMICs.

We declare no competing interests.

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