Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letters to the Editor

COVID-19 and emergence of antimicrobial resistance: A most neglected aspect of health emergency in Pakistan

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Dear Editor,

The coronavirus disease 2019 (COVID-19) pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has almost reshaped the healthcare sector worldwide. This pandemic is now becoming worsening each day, with total reported cases exceeding 174 million as of June 7, 2021 and a death toll crossing of 3.7 million so far [1,2]. In Pakistan, an alarming re-emergence of COVID19 was observed in last two months, with an existing figure reaching one million and over twenty thousand deaths [2]. Recent studies have already outlined the devastating impact of COVID-19 on Pakistan's overstressed health services [3–6]. Simultaneously, Antimicrobial resistance (AMR), a similarly cross-sectoral issue that has acquired more global attention since 2015, has already been listed as a global public health challenge for the year 2020 [7,8]. Even though the COVID-19 is a challenging issue worldwide, at the same time, it is essential to focus on the drastic impact AMR outbreak, which complicates the current public health emergency [9,10].

In low and middle-income countries (LMIC), AMR is higher due to various reasons, including dependency on empirical therapy due to a paucity of well-developed microbiological laboratories, non-compliance in infection control and preventive measures, and systemic stress making it difficult to introduce new practices [11]. With the rising statistics of AMR, Pakistan a developing South Asian country, posing a significant regional and global threat. In this pandemic, overburdened clinicians in Pakistan are spending limited time on each patient, which significantly increases the concept of self-medication among peoples [12,13]. A study from Pakistan reported that XDR Salmonella showed 100% resistance against fluoroquinolones [14]. Similarly, 93.7% resistance against third-generation cephalosporin was seen from blood culture [15]. High occurrence of Metallo-β-lactamase (MBL) of about 71% followed by Extended-Spectrum β-Lactamase (ESBL) up to 40%, carbapenem-resistant bacteria showed resistance against colistin which is the last drug of choice [15,16].

While the global community is now focusing on the global COVID-19 pandemic, AMR has not gone anywhere. Pakistan required rapid, organized, and ambitious precautions to minimize the potential catastrophic AMR challenge during this SARS-CoV-2 pandemic. Therefore, one of the most important pieces of advice to tackle this issue is only administering antibiotics at the right dose, right time for the right patients. Besides, studies should be carried out on a large scale to assess the emergence of AMR development of COVID-19 antimicrobial resistance, particularly in Pakistan's rural areas where limited awareness and medical facilities are available.

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Declaration of competing interest

None to declare.

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