

## Covid 19: An Opportunity for Opportunistic Infections and Antimicrobial Resistance?

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Covid-19 is a viral infectious disease characterized by shortness of breath among other things. For the elderly and patients with comorbidities, Covid-19 progresses to severe from including acute respiratory distress syndrome. Such patients have been treated with antibiotics in approximately 75% of the cases without bacterial infections being confirmed [1,2]. Covid 19 having already destroyed the world economy and bringing it to its knees. Now Covid 19 is staring at another front for its likely post covid 19 scenario where antimicrobial resistance (AMR) has been touted as the most significant threat to the global health and economy. AMR could disarm the antibiotics further which were already on the losing ground in pre-covid 19 era in treating secondary infections or co infections. Health care professionals and leaders alike working to find solutions with mixed bag of fortunes as second most devastating yet unseen pandemic looking at our doors [3]. For decades antibiotics have been at the forefront in saving human lives from the hazardous infections and pandemics throughout our known history. Though its use brought forth the complex, emerging and yet unsolved problem of AMR. The AMR is attributed to the alleged misuse and irrational application of antibiotics towards treatment of microbial infections in routine clinical set ups. AMR apart from its influence in the medical sphere has its own problem in the poor and low-income countries for which world health authorities and policy makers could not find solutions yet. However, a new challenge, the emergence of opportunistic infections due to the likely opportunity provided by the covid 19 can affect both the rich and poor countries alike.

It is now well-known that covid-19 is a viral illness unaffected by antibiotics-are being however treated with antibiotics to protect against secondary infections during respiratory illnesses or hospitalization. That's being accompanied by huge reports of panicked people self-consuming antibiotics further compounding the problems in efforts to contain AMR.

As AMR occurs due to inadequate and unnecessary use of antibiotics by the prescribers, an appropriate and optimized use of antibiotics instead together with equally matching diagnostic and therapeutic strategies can help minimize this menace. Reducing and preventing infections and reinfections is fast gaining momentum to drain the world resources in this pandemic [4,5].

The Covid 19 forcing prescribers and pandemic managers to use and try antibiotics at their disposal excessively for the sake of saving human lives. Thereby creating an opportunity for opportunistic infections driving chances of AMR further. The potential threats for new emergence of AMR during the current COVID-19 pandemic might be, 1) The use of antibiotics where only few patients demonstrated the presence of co-infections, 2) increased hospital admissions increasing the risk of transmission of infections leading to increased antimicrobial use 3) Disruptions of health and vaccination services causing interruptions to non covid 19 treatments 4) Wide spread use of antimicrobial agents for environmental and personal disinfection. During the last decade we witnessed a decline in approval of new antibiotics by the drug regulatory authorities. Lack of new effective antibiotic armor and declining efficacy of existing antibiotics coupled with steep rise in resistant microbes, we are staring at a bleak future [5,6].

It is time for the health policy makers and practitioners to strengthen antibiotic stewardship and monitoring of antibiotics use in treating infections including covid 19. It is pertinent for agencies involved in the research and development of new antibiotics to endorse this

emergency and work in parallel to rein in the re-emergence of AMR due to covid 19. It is also more relevant in the current circumstances to uplift the rural healthcare infrastructure to rein in the indiscriminate use of antibiotics. An intense public awareness programs must also be strengthened at global levels now and beyond COVID-19 about the possible outbreak of AMR. It is necessary for clinicians before initiating antibiotics for Covid 19 patients make sure the microbiological confirmation whenever possible. An understanding of the impacts of AMR on the management of Covid 19 could help in devising better strategies. Many lessons are being learned by the humans thanks to the Covid 19 pandemic and hope we will be better prepared for future pandemics and challenges including the anticipated antimicrobial resistance. Meanwhile, let's not forget to keep advocating washing our hands with soap, social distancing and meanwhile hoping for an effective and safe vaccine for Covid 19 [6-8].

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