**Antimicrobial stewardship in the post COVID-19 pandemic era: Points to ponder in the realms of rational antibiotic policy**

The COVID-19 pandemic has created new needs, such as real-time data and access to personnel important to both programs, such as information technologists and infectious diseases specialists. It has also increased concerns about rising rates of antimicrobial resistance and healthcare-associated infections, both of which overlap significantly and are key focus areas for both antimicrobial stewardship programs (ASPs) and infection prevention programs (IPPs)

Antimicrobial stewardship programs (ASPs) and infection prevention programs (IPPs) are separate health system-based programs which share a goal of improving patient outcomes. Whereas ASPs focus on optimizing antimicrobial use with a key goal of decreasing the emergence of resistance, IPPs are focused on reducing healthcare-associated infections (HAIs).

ASPs can also play a critical role in the management of potential drug shortages, developing local treatment guidelines, optimizing the use of antibiotics, and in the diagnostic stewardship of COVID-19 testing, among other roles. Importantly, it is often difficult to ascertain whether critically ill patients who are hospitalized with COVID-19 have concurrent or secondary bacterial infections—ASPs are ideally situated to help optimize antimicrobial use for these patients via a variety of mechanisms.

However, during the COVID-19 pandemic period, wider attention to antimicrobial stewardship (AMS), and its impact on general antimicrobial resistance (AMR) has reduced. . The pandemic has had a disruptive effect on traditional health system operations and has pulled multiple disciplines into COVID-19 management efforts in an unprecedented fashion

As we emerge from this pandemic, the WHO World Anti- microbial Awareness Week (WAAW), offers an opportunity to reflect on the lessons learnt from the events of the last two years, in order to re-energise and re-focus attention on the global burden of antimicrobial resistance.

The early phases of the COVID-19 pandemic produced new challenges in diagnostics and use of antimicrobials due to significant numbers of patients being admitted with respiratory disease. In the absence of objective evidence, physicians often used antibiotics based on experience with bacterial superinfection in Influenza. Fungal infections have also played a significant role in patients withCOVID-19, due to the usage of immunosuppressing therapies. In this context, the use of antifungals has increased at a time when there is increasing recognition of the emerging threat of antifungal resistance

Raising both public and healthcare provider awareness and knowledge remains an important component for reducing AMR within the WHO Global action plan. Prior to the COVID-19 pandemic, there was considerable focus on AMS as a route to reducing AMR. The COVID-19 pandemic has proven that Infection Prevention and control (IPC) within hospitals, primary care settings and the wider community remains an ongoing challenge, through aspects such as building ventilation, patient pathways, isolation facilities and diagnostic strategies.

As we move into the post-pandemic era, it is time to establish a new paradigm for the control and reduction of AMR, where IPC and AMS are considered “two sides of the same coin”. It is only through collaboration between specialists in IPC and leaders in antimicrobial stewardship that we will be able to tackle the far greater challenge of global antimicrobial resistance.

The importance and role of AMS and global coordination of efforts against AMR cannot be overemphasized with respect to implementation of new stewardship programs and strengthening of existing ones; improving access to diagnostics and laboratory equipment; the need for development and dissemination of evidence-based guidelines for appropriate antimicrobial use; continued education of all stakeholders and strengthening of the One Health Approach. Coordinated strategies as part of AMS go hand-in-hand with infection prevention and control (IPC) and microbial surveillance

The pandemic has created major opportunities for collaboration in communication and infrastructure enhancement. The major switch from traditional in-person communication to technology-dependent remote communication will likely remain embedded in day-to-day professional work across health systems in the post-pandemic era and will enhance the ability of ASPs and IPPs to collaborate with each other and other stakeholders.