

1. Editorial

The current COVID-19 pandemic caused over 22 million cases and more than 700,000 deaths globally by the end of August 2020. The numbers are expected to increase until an effective vaccine has been developed and made widely available. Preventative measures such as social distancing, use of facemasks and hand sanitization have shown to be effective. However, many countries have struggled with the containment of the virus, and the worldwide socio-economic costs are enormous.

While antimicrobial resistance (AMR) cannot be defined as a pandemic (yet), the increasing levels of AMR nevertheless represent a public health crisis of almost similar magnitude to the COVID-19 crisis, although playing out in slow motion. An increasing number of common infectious agents are now resistant to antimicrobial treatment including the new, broad-spectrum antimicrobials. It is estimated that 700,000 people die annually, as a direct result of infections that no longer respond to antibiotics.

Communicable diseases walk hand in hand. The World Health Organisation (WHO) has voiced concerns that high levels of antibiotic use in COVID-19 patients will exacerbate AMR in common pathogens and included recommendations for prudent antibiotic use in its recently published guidance for the clinical management of COVID-19 patients.

This is in line with former recommendations on proper antibiotic use and national action plans on the containment of AMR issued in recent years. However, even more than COVID-19, AMR is multi-sectorial and the use of antibiotics has knock-on effects on humans and animals with the environment and food production as possible links between these. The EU Commission set targets to reduce the use of antimicrobials in farmed animals and aquaculture by 50 percent by 2030 in its new Farm to Fork strategy.

Simultaneously, the environmental sector has begun working on issues related to development and spread of AMR through water, highlighting the importance of monitoring water as an important source. Both antimicrobials and resistant bacteria may be spread through wastewater and reach drinking water.

In consequence, while overuse of antimicrobials continues to be among the most important factors associated with the rise of AMR and while usage levels must be addressed, other factors are equally important. These factors include improvement of basic sanitation and food hygiene by providing access to clean water as well as ensuring food free from microbiological contaminants.

Interestingly, some of the lessons learnt from the COVID-19 crisis may also help to prevent AMR - preliminary data indicate that the implementation of measures adopted by the population, mainly social distancing and increased focus on hand hygiene, led to a decline of a number of common infectious diseases. Consequently, the use of antimicrobials in the human sector appears to have decreased during the pandemic. These trends will be analysed in more detail and presented in next year's DANMAP report.

It is evident around the world that effective handling of the ongoing COVID-19 outbreak has required bold leadership. A similar bold leadership, not only by national governments but also by all health professionals across all sectors and all countries, will be necessary to effectively combat the spread of AMR and avoid the worst case scenario published in a recent UN report of 10 million deaths due to AMR annually by 2050.

DANMAP Steering Committee

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