Challenges to the effective implementation of National Action Plans for Antimicrobial Resistance

Marc Mendelson @southafricanasp
Groote Schuur Hospital, University of Cape Town
Chair, Ministerial Advisory Committee on AMR
No conflicts of interest to declare
The scale of antibiotic abuse in hospitals started to become evident

Decades of poor medical and veterinary antibiotic prescribing and a lack of regard for the practice of infection prevention and control (IPC) in our hospitals have left South Africa, like the rest of the international community, on the brink of a return to an era of untreatable bacterial infection. The recent emergence in South Africa of bacteria carrying the highly mobile New Delhi metallo-

beta-lactamase-1 (NDM-1) gene, which has been associated with rapid spread of carbapenem-resistant Enterobacteriaceae (CRE), and, for the first time in Africa, Kcrofidelin penumetur carbapenemase KPC-C3 will have a profound effect on the lives of our patients and on the health service. The acquisition of drug-resistant hospital-

acquired infections (HAI) increases morbidity, mortality and the cost of patient management, as already identified in hospitals system by increasing the duration of hospital stay, often in expensive intensive care units (ICUs), and antibiotic prescribing costs. Of the human pathogens, the situation is fiendish in those terms of ICU. The changes that need to be put in place are simple. They do not require complex systems or costly financial interventions. There are few solutions in the field, and research and clinical findings from other countries are equally relevant in our setting. Each healthcare institution in the county must have administrative and environmental policies in place to enable them to correctly identify and isolate patients with MDX bacterial infections and must provide ongoing nurse, soap and hand disinfectant as well as the personal protective equipment required to ensure standard precautions against spread. The adoption of evidence-based, simple bundles of care designed by the Best Care ... Abeyta campaign simplifies the practice of NOS in the ICU and ward setting, and their adoption really could be another milestone for change.

Unlike NOS, the drivers for change in antibiotic prescribing are few simple. Rational antibiotic prescribing requires a basic knowledge of the mechanism of action of antibiotics, the leading causes of a particular infection, and the resistance pattern of...
The One Health stewardship of colistin as an antibiotic of last resort for human health in South Africa

Marc Mendelson, Adrian Brink, Jojo Gouws, Nontombi Mbeli, Vinny Naidoo, Troy Pople, Natalie Schalk, Monz van Vuuren, Helen Rees, on behalf of the South African One Health Stewardship Sub-Committee of the Ministerial Advisory Committee on Antimicrobial Resistance

Increasing reliance on antibiotics of last resort to treat the rising numbers of multidrug-resistant bacterial infections in people has focused attention on how shared-use antibiotics are managed and regulated across human and animal health. Discussions at international and national levels have intensified since the identification of new plasmid-mediated genes for colistin resistance in 2016, first in China and subsequently in many other countries, removing the last line of defense against multidrug-resistant Gram-negative bacterial infections with carbapenem resistance. South Africa has reacted to this threat by doing a situational analysis and review of the existing legislation concerning colistin use in animals and people, to inform which course of action to take. The experiences shared in this Personal View outline the process, institution of governance with widespread stakeholder engagement, surveillance, and interventions that South Africa has taken towards optimising the shared use of colistin. The instigation of stewardship guided by the principles of the One Health concept for shared-use antibiotics at the country level is a crucial component of any action plan to combat antibiotic resistance, and is as relevant to other existing antibiotics and new chemical entities that will be forthcoming from an invigorated antibiotic pipeline as it is to colistin.
Successful implementation requires intersectoral buy-in.
How can AMR be mainstreamed in the national healthcare agenda? Lessons from the COVID-19 pandemic
The Face of AMR
10 million deaths per year from AMR infections by 2050

https://amr-review.org
2.5 million deaths from COVID-19 in the first 15 months
Compliance with IPC in healthcare workers during COVID-19 was driven largely by fear for the ‘self’.
Towards an effective NAP for AMR

• The silent pandemic will remain silent [and largely ignored] without a face
• NAPs are purely pieces of paper without $$$
• LMICs need to prioritize interventions which will bring most bang for buck
• We can take many lessons from the COVID-19 pandemic and need to reflect on how it has shone a light on AMR and the actions we need to take