The role of diagnostics in the antimicrobial resistance response

Resource web link: https://www.futurelearn.com/courses/role-of-diagnostics-in-the-amr-response/1/TODO/59411 (Full classification scheme available at: http://bsac.org.uk/wp-content/uploads/2019/03/Educational-resource-review-classification-scheme.pdf)

WHO region and country (World Bank): European Region, UK (HIC)

Peer review commentary

This 2019 massive open online course (MOOC), produced by the London School of Hygiene & Tropical Medicine in partnership with Becton Dickinson and experts, is available on the FutureLearn platform and follows in the footsteps of the highly successful BSAC Antimicrobial Stewardship in Hospitals MOOC from 2015. With its focus on the use of diagnostics in the prevention and control of antimicrobial resistance (AMR), it complements learning in AMR, as diagnostics have not been the focus of many of the existing online learning resources. Indeed, there is a recognition of low availability of teaching material on the use of diagnostics in AMR. This resource goes some way in filling this gap.

The course includes an introduction to the role of diagnostics in common clinical syndromes (respiratory tract infections, urinary tract infections and sepsis), sessions on healthcare-acquired infections (MRSA, carbapenemase-producing organisms, Clostridioides difficile, VRE), enteric infections with a particular focus on the One Health approach in tackling AMR, the important challenges in diagnostics and treatment presented by high-burden infections (Mycobacterium tuberculosis and gonorrhoea) with emphasis on MDR and finally an excellent session highlighting the importance of surveillance using the WHO Global Antimicrobial Resistance Surveillance System (GLASS)
The course is well structured with significant use of video, either as a means of narrating presentations or discussions with key experts/leaders, as well as compelling and instructive case histories including the landmark Rory Staunton patient sepsis story. The course has a global focus and uses experience from LMICs, which is a particularly a strong and welcome feature. The summary and key messages are well done and helpful to learners.

‘Diagnostic stewardship’ is defined in the GLASS Manual (https://apps.who.int/iris/bitstream/handle/10665/251553/WHO-DGO-AMR-2016.3-eng.pdf;jsessionid=9819FA4BDE369D485D1ED954B9A7FDB5?sequence=1) as ‘coordinated guidance and interventions to improve appropriate use of microbiological diagnostics to guide therapeutic decisions. It should promote appropriate, timely diagnostic testing, including specimen collection, and pathogen identification and accurate, timely reporting of results to guide patient treatment.’

The course perhaps could have considered using this definition as a means of structuring the different important areas and given participants a more pragmatic understanding of the current and future role of rapid diagnostics in clinical practice. In conclusion, although this high-quality and engaging course only partially supports these overall objectives, it is a welcome and important learning resource in this area and hopefully will encourage other such resources. Well done to Professor Peeling and the The London School of Hygiene & Tropical Medicine. I would highly recommend this resource.