**AMR-resources semi-systematic survey methodology**

**Identification of online AMR-related courses**

Searches were carried out using Google Advanced search between 5/12/18 and 10/12/2018. Searches were restricted to articles and websites available in English. The following search terms were used:

AMR, AMR training, AMR education, AMR learning, Antibiotic resistance, Antibiotic resistance learning, Antibiotic resistance education, Antibiotic resistance training, Antimicrobial resistance learning, Antimicrobial resistance education, Antimicrobial resistance

These searches identified a total of 1560 unique results.

Google site descriptions were checked and results were excluded if they met one or more of

the following criteria:

Description indicates that ‘AMR’ is used an abbreviation for something else

Description indicates that Amr is a person’s name

Description indicates that the result is a social media site

Description indicates that result is a recruitment site advertising jobs or PhD programmes related to AMR

Description indicates that result relates to conferences and/or grants

Description indicates that result is not in English

Description indicates that result is an essay mill site

Description indicates that result is a Wikipedia entries

Homepages for the remaining 1081 results were checked and excluded if any of the following criteria were met:

Any of the above criteria

Not free to access (noting that some remaining sites may still require registration)

Broken links

Result links to meeting agendas, product sites, research group websites unless containing information that could clearly be used as a learning resource

Site makes very little reference to AMR/antibiotic resistance

Books without AMR/antibiotic resistance in the title

The remaining 485 results were categorised as online courses[[1]](#footnote-1) or other resources. 37 courses were identified, 31 free courses, 6 with registration fee.

A further 31 online courses were identified through non-systematic searches, links given in the homepages of systematic search results and by cross referencing Table 1 of Rogers Van Katwyk, Jones and Hoffmann (2018)[[2]](#footnote-2) using the above semi-systematic search criteria.

Figure 1 Summary of semi-systematic survey methodology

**Analysis of online AMR-related courses**

Webpages for each of the 68 courses were analysed to extract the following basic information:

* Cost
* Licencing restrictions
* Duration
* Format
* Status
* Author
* Accreditation/certification
* Publication date

Where course materials were freely available the course content was reviewed to identify the AMR-related subject areas covered (Table 1) and the suitability of materials for the different AMR-related audiences/roles (Table 2). Where course materials were not freely …

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| **Table 1 AMR-related subject areas** | |  | **Table 2 AMR-related audiences/roles** | |
| DS | Diagnostics Stewardship |  | 1. | laboratory professionals |
| GLP | Good Laboratory Practice |  | 2. | Senior laboratory professionals |
| FM | Foundations in Microbiology |  | 3. | Clinical services professionals |
| MAM | Molecular Advanced Microbiology |  | 4. | Veterinary services professionals |
| DUCV | Data Use & Interpretation for diagnosis in Clinical and Veterinary Services |  | 5. | Senior management staff at clinical services |
| DUPH | Data Use & interpretation for Public Health Policy |  | 6. | Senior management in veterinary services |
| CCA | Communication, Collaboration & Advocacy |  | 7. | Policy maker |
| SSPI | Surveillance System Planning & Implementation |  | 8. | AMR community/experts |
| OH | One Health Multisectoral |  | 9. | Clinical and veterinary service clients |
|  |  |  | 10. | General public |

1. Courses were defined as a curated collection of learning materials including text, videos and images. They may also include informal or formal assessment. Courses involving face to face delivery were excluded. [↑](#footnote-ref-1)
2. Rogers Van Katwyk, Jones and Hoffmann (2018) *Mapping educational opportunities for healthcare workers on antimicrobial resistance and stewardship around the world* Human Resources for Health vol. 16 article 9 Available at: <https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-018-0270-3> (Accessed 19/12/18) [↑](#footnote-ref-2)