

# Key Area 2

## Optimise use of antimicrobials in humans and animals

### Objective 4

Strengthen regulation on over-the-counter purchase of prescription-only antimicrobials

### Objective 5

Implement and enhance training in prescribing antimicrobials through Antibiotic Stewardship Programme in human health sector

### Objective 6

Monitor compliance with antimicrobial prescription guidelines of human health practitioners

### Objective 7

Ensure proper use of antimicrobials in animals



36. Ensuring judicious use of antimicrobials is important for minimising the occurrence of antimicrobial-resistant infections and reducing disease burden. It should be promoted in every step along the antimicrobial supply chain, from the wholesale supply, prescription to dispensing, using the “One Health” approach.



**Objective 4 - Strengthen regulation on over-the-counter purchase of prescription-only antimicrobials**

37. Currently, the possession and supply of antimicrobials are regulated under the Pharmacy and Poisons Ordinance (Cap. 138) and Antibiotics Ordinance (Cap. 137). Sales of prescription-only antimicrobials without a prescription from a registered medical practitioner, a registered dentist or a registered veterinary surgeon is an offence.
38. Only traders with appropriate license are allowed to possess and deal in antimicrobial products. Licensed wholesale dealers are legally obliged to record the acquisition and disposal of all pharmaceutical products, including antimicrobials, by means of wholesale dealing, including the quantity acquired and supplied, names of suppliers and to whom the drugs are supplied in Hong Kong.
39. The Drug Office of DH, as the drug regulatory agency, perform regular and surprise inspections on drug traders to ensure compliance of relevant requirements of the legislation and the codes of practice. On top of test purchases being conducted regularly against drug retailers, the Drug Office also carry out inspections under the authorities conferred by the Antibiotics Ordinance (Cap. 137) and the Pharmacy and Poisons Ordinance (Cap. 138) at authorised sellers of poisons and prosecutions would be initiated if the authorised sellers of poisons are found not comply with the legal requirements on the sale and/or record-keeping of antibiotics.
40. However, the Ordinances do not require the authorised sellers of poisons to record the stock balance after each transaction and it is impossible for the inspections to detect any discrepancy between the physical stock and recorded transaction. There is room for strengthening relevant requirements of proper record-keeping for surveillance purpose, applicable to those authorised to possess and supply antimicrobials and to deter potential illegal supply of prescription-only antimicrobials.

## Strategic Interventions

### 4.1 Enhance inspection against authorised sellers of poisons

- DH will initiate special inspections against authorised sellers using a risk assessment approach based on, e.g., the volume of antimicrobials purchased, past irregularities and intelligence. Prosecutions will be initiated as necessary

### 4.2 Continue to enhance test purchase of antimicrobials against authorised sellers of poisons

- DH will enhance test purchases. Prosecutions will be initiated as necessary

### 4.3 Continue engagement with licensed drug retailers

- Please refer to **Strategic Intervention 14.1** on ways to strengthen health information provision on antimicrobial use

### 4.4 Review and consider amending relevant ordinances

- DH will review and consider amending relevant Ordinance(s) to mandate recording of antimicrobial prescription and dispensing data systematically through electronic means and ensure proper record keeping of antimicrobials along the supply chain, from wholesale to supply to end users, so as to combat the sales of antimicrobials without prescription

**Objective 5 - Implement and enhance training in prescribing antimicrobials through Antibiotic Stewardship Programme in human health sector**

41. Antibiotic stewardship programme (ASP) has been identified as a key measure for reducing unnecessary prescriptions, suppressing AMR emergence, and at the same time controlling medical expense.
42. Currently, ASP is aimed to be implemented in all clusters of HA hospitals and all 12 private hospitals, although to different extent in the latter. In view of manpower constraints, HA has not been able to deploy much human resources to address all aspects of ASP. With EC's direction on ASP, HA is working towards a more automated approach through enhancement of IT system for guiding and monitoring antibiotic prescriptions, as well as evaluating prescription behaviours.
43. In 1999, the Interhospital Multi-disciplinary Programme on Antimicrobial ChemoTherapy (IMPACT) Editorial Board, comprising experts from CHP, HA and local universities, taking into account the local context and AMR epidemiology, developed and published the IMPACT guideline as a reference on antimicrobial use for medical practitioners in Hong Kong. IMPACT is currently at its fifth edition and is available in booklet and as a mobile application. Promotion of adherence to IMPACT is an integral component of ASP.
44. In the primary care setting, under the Antibiotic Stewardship Programme in Primary Care<sup>23</sup>, new guidance notes and patient information sheets on seven common infections (acute pharyngitis, acute uncomplicated cystitis in women, simple (uncomplicated) skin and soft tissue infections, acute otitis media, acute rhinosinusitis, community acquired pneumonia and acute exacerbations of chronic obstructive pulmonary disease) have been developed and promulgated for use by primary care doctors since 2017.

## Strategic Interventions

### 5.1 Ensure adequate resources for implementation and evaluation of ASP in healthcare settings

- The Government has committed resources for sustaining ASP in different healthcare settings to ensure adequate financial and manpower resources and expertise

### 5.2 Promote antibiotic prescription according to evidence-based guidelines for doctors

- To review and update the IMPACT guideline, as a deliverable of this Action Plan, based on the local context and AMR epidemiology, and promulgated among medical practitioners for evidence-based antimicrobial use in the corresponding health care settings
- To continue and strengthen ASP in public hospitals, based on objective assessment criteria, including the enhancement of IT systems
- To continue and strengthen ASP in private hospitals based on evaluation against objective assessment criteria
- The evidence-based guidelines on antimicrobials use in primary care setting will be reviewed, to ensure consistency with IMPACT, updated and promulgated as a deliverable of this Action Plan

## **Objective 6 - Monitor compliance with antimicrobial prescription guidelines of human health practitioners**

45. Apart from development and promulgation of antimicrobial prescription guidelines, regular monitoring and evaluation with audit and feedback to prescribers are as important for identifying facilitating factors and barriers for quality improvement.
46. A survey of medical practitioners was conducted in 2019 to assess their knowledge, attitude and practice (KAP) on AMR<sup>24</sup>. One of the key findings was that 17% of respondents would prescribe antimicrobials for cold, flu or upper respiratory tract infection whenever the patient requested for it, due to different reasons including patients' or carers' expectation and fear of litigation. Target measures are required to address unnecessary antimicrobial prescription. Subsequent KAP surveys would provide more information regarding their antimicrobial prescribing behaviours and would serve as objective evidence of effectiveness of the targeted measures.
47. In HA, the appropriateness of antibiotic use is being monitored in medical, surgical and orthopaedic specialty of acute hospitals, by taking Piperacillin/tazobactam and Meropenem, the two mostly consumed Group 1 "Big-gun antibiotics", as the surrogate markers. In 2021, 94.5% of antibiotic use were assessed to be appropriate on day 4 of prescription while 94.0% of the concurrent feedback has been accepted by the clinicians. To avoid the undesirable consequence of the "squeezing the balloon" effect (i.e. increase in using some antibiotics due to restriction of the others), comprehensive surveillance of AMU for all antibiotics are required to provide a complete picture of appropriateness of antibiotic use.

### **Strategic Interventions**

#### **6.1 Monitor compliance with antimicrobial prescription guidelines of human health practitioners**

- To evaluate and audit ASP and establish feedback loop to reflect performance
- To implement target measures to address any identified inappropriate use of antibiotics
- To conduct regular surveys to monitor knowledge, understanding and prescription behaviours of human health practitioners on AMR to determine effectiveness of interventions
- To ensure monitoring of antibiotic use is comprehensive to provide a complete unbiased picture, to reveal areas requiring attention

## Objective 7 - Ensure proper use of antimicrobials in animals

48. To prepare for the implementation of the “veterinary prescription-only medication supply” measure (the Measure), AFCD has facilitated and supported development of projects for the provision of veterinary services to food animal production farms by non-government veterinary sector. With the veterinary services provided to farmers continue to mature, it is tentatively planned to stop issuing the permit to farmers and to fully implement the Measure in 2024.

### Strategic Interventions

#### 7.1 Strengthen support to food animal production and veterinary sectors

- To continue to facilitate and support development of projects for the provision of veterinary services to food animal production farms by non-government veterinary sector, including formulation of tailor-made farm-specific disease management plans
- To facilitate and support farmers in sourcing vaccines and veterinary medications for disease prevention and management by both government and non-government veterinary sectors
- To continue to support non-government veterinarians to build up their capacity for providing veterinary services to local food animal production farms

#### 7.2 Promote proper antimicrobial use according to evidence and local epidemiology

- To review and update guidelines and code of practice on the proper use of antimicrobials and use of critically important antimicrobials in animal disease management in accordance with prevailing international guidelines
- To organise education and publicity programmes for food animal farmers and veterinarians on the proper use of antimicrobials

#### 7.3 Enhance regulation of antimicrobial use in food animals

- To implement “veterinary prescription-only medication supply” policy and tightly regulate the use of critically important antimicrobials in animal husbandry
- To review relevant legislation on exemption of using antimicrobials in animal feeds