The Roadmap on phasing out antibiotic use in food animals

Pan-African Meeting on Effective Implementation of AMR NAPs
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Background

• Meeting on 22-23 August 2019, the players in the veterinary sector met in Lusaka with other stakeholders in the fight against antimicrobial resistance to formulate a roadmap on the phasing out of antibiotics in food animals.

• The meeting was organised by CSE, Government Ministries (Health, Fisheries and Livestock, Environment) and ZNPHI.
Background

- Therapeutic vs non-therapeutic use of antibiotics
- Growth promotion and prophylactic use
- Self treatment by farmers
- Late involvement of the veterinary professionals
- Ease of access to antibiotics
- Difficulty of quantification of level of inappropriate use of antibiotics
- Difficulties in implementation of existing legislation
Poultry sector

• Backyard poultry enterprises to commercial
• Hatcheries also are important enterprises
• Emphasis on chickens – broilers and layers
• But – other forms present and consumed – quails, turkeys, village chickens, ducks, etc
• Growth promoters and prophylactic use especially
• Non-observance of withdrawal period
Cattle Sector

• Traditional cattle keepers to large scale commercial farms (beef ranches, feedlots, dairy)

• Inappropriate use – under-dosing, self prescription, non-observance of withdrawal periods

• List of antibiotics used and where resistance has been found – refer to report.
Rationale behind roadmap development

• Consideration for Public Health
• Consideration for Critically important antibiotics
• Consideration for the local farming environment
• Consideration for local antibiotic options available for use in food animals
• Consideration of existing legislation
The Approach

• Meeting of experts from all sectors concerned
• 5 year roadmap starting this year (2020)
• Guide to the phase out of non-therapeutic antibiotic use and CIAs in the poultry and cattle sectors
• Poultry and cattle selected based on the trends on antibiotic use and consumption levels in Zambia
The Approach

• Broad themes for discussion
  – Antibiotic use for growth promotion through feed
  – Routine use for disease prevention (prophylactic use)
  – Use of CIA in food animals
The approach

• Two phased approach
  – 1 year
  – 2-5 years

• Discussion on
  – Relevant govt policies and programmes that should be initiated
  – Chemical/non-chemical alternatives
  – Biosecurity measures and good animal husbandry practice
  – Proposed to develop plans for pig and fish sectors as well
The Roadmap – Poultry Sector

• Considered antibiotic by the three categories of use
  – Growth promotion – Year 1
    • 3\textsuperscript{rd} and 4\textsuperscript{th} generation cephalosporins
    • Quinolones (eg. enrofloxacin, ciprofloxacin)
    • Polymixins (eg. Colistin)
    • Tetracyclines (eg. oxytetracycline, doxycycline)
    • Phenicols (eg. chloramphenicol)
  – Year 2
    • Virginiamycin, zinc bacitracin, flavocycin, etc
The Roadmap - Poultry

• Prophylaxis
  – Year 1 - All CIAs
  – Year 2 - all prophylactic antibiotics packaged together with vitamins/minerals

• Therapeutic Use
  – Colistin
  – Enrofloxacin for broiler and layers (restricted use*)
  – Tylosin for layers (restricted use)
The Roadmap – Cattle Sector

• Therapeutic Use
  – Colistin (phase out)
  – Restrict Use of all HPCIA

• Note
  – In cattle prophylactic use usually only in mastitis
  – Growth promotion not noted in Zambia

• Sensitivity testing should be made more widely available

• More research needed across all sectors to guide policy formulation and changes.
Programmes to support phase-out

• Sensitize and engage relevant stakeholders: veterinary professionals and para veterinary professionals, extension officers, farmers, agrovet dealers to create awareness on responsible antibiotic use in animals and better farming practices

• Incentivize farmers for better farming practices and farm biosecurity

• Encourage research and availability of chemical/non-chemical alternatives such as prebiotics, probiotics, etc.
Programmes to support phase-out

• Monitor AMR and antibiotic residues in food-animal sector
• Develop biosecurity and sanitation guidelines for poultry farms
• Develop national therapeutic guidelines to outline treatment use of antimicrobials in animals
• Ensure early disease reporting
• Ensure up-to-date vaccination of farm animals
• ensure development of dipping programmes for control of tick borne diseases
Factors to be considered during phase-out

• Therapeutic use of CIAs should be allowed only under veterinary supervision and prescription

• Antibiotics that can replace the banned or restricted CIAs should be determined based on culture and sensitivity tests.

• The government should, in parallel, develop necessary policies for monitoring of agrovet shops in Zambia from which these drugs are generally procured.
Factors to be considered during phase-out

• Alternatives to antibiotics should be made available, and handled only by professionals
• Research to discover more alternatives should be encouraged and continued
• Feed and feed additives should be tested for banned antibiotics
• Over time, the quantities of antibiotics used and imported should decrease
• Removal of antibiotics should produce no economic impact
The end.