

ANTIMICROBIAL RESISTANCE PREVENTION STRATEGIES IN BHUTAN

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1. Abstract

Similar to the tri-partite approach by World Health Organization (WHO), Organisation for Animal Health (OIE) and the Food and Agriculture Organization (FAO) at the global level, the prevention and control activities of Antimicrobial Resistance (AMR) in Bhutan is also being carried out by Ministry of Health (MoH) and Ministry of Agriculture & Forests (MoAF) through one health approach. Report indicates findings of ESBL, MRSA, MDR *Acinetobacter*, *Pseudomonas*, *Salmonella* and MDR TB in human. MDR *Salmonella* is isolated in both imported and home-produced chicken; ESBL producing *Escherichia coli* in pig farms. Country has National Action plan (NAP) 2018-19 developed jointly by MoH and MoAF for the AMR prevention and control. Public awareness is created by observing world antibiotic awareness week and through mass media and workshops. The antibiotic uses in both human and animal is being regulated by the Drug Regulatory Authority (DRA). Use of antibiotics as growth promoters/additives in animal feeds are also restricted in the country.

2. Introduction

At the global level, the prevention and control activities of Antimicrobial Resistance (AMR) is intensified by tri-partite approach; World Health Organization (WHO), Organisation for Animal Health (OIE) and the Food and Agriculture Organization (FAO). In line with the global strategy, Ministry of Health (MoH) and Ministry of Agriculture & Forests (MoAF) has initiated prevention and containment activities for AMR in Bhutan.

4. Results & Discussion

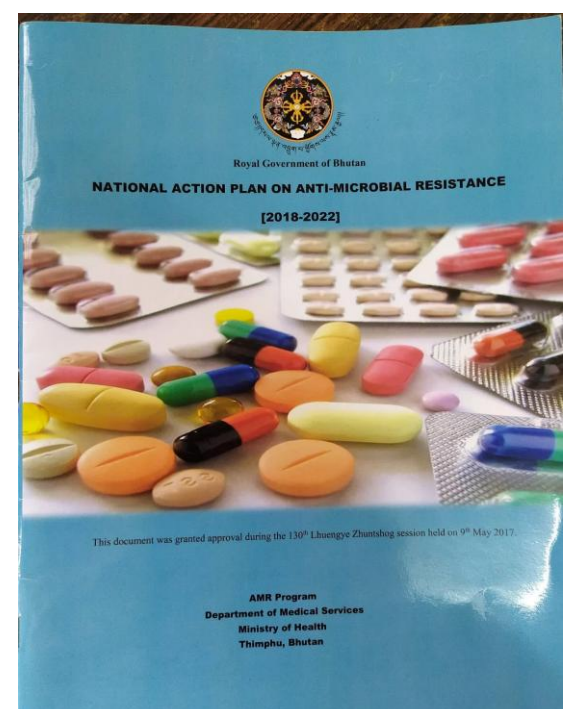
In humans, the findings include ESBL, MRSA, MDR *Acinetobacter*, *Pseudomonas*, *Salmonella* and MDR TB. Similarly, MDR *Salmonella* is commonly isolated from both imported and home-produced chicken; ESBL genes identified in *Escherichia coli*, isolated from the pig feces in farms.

MoH and MoAF has jointly developed the National Action Plan (NAP) 2018-22. Other policy documents include Medicine Act of Kingdom of Bhutan 2003 and Bhutan Medicine Rules & Regulation 2012.

Public awareness is created by observing World Antibiotic Awareness Week and through mass media jointly by both the Ministries. Antibiotic uses in both human and animal is being regulated by the Drug Regulatory Authority (DRA). Use of antibiotics as growth promoters/additives in animal feeds are also restricted in the country.

3. Methods

Literature review on published articles related to AMR in the country were conducted. In addition, policy documents were also referred.



5. Conclusion

Department of Medical Services under MoH is the lead agency and Department of Livestock the focal agency under MoAF for implementation of NAP on AMR in the country. Strong collaboration exist among MoH and MoAF in tackling AMR in Bhutan.

6. Acknowledgment

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