REFERENCES


Policy Brief:

ANTIMICROBIAL RESISTANCE

Introduction

Antimicrobial resistance (AMR) is resistance of a microorganism to an antimicrobial medicine that was originally effective for treatment of infections caused by it. [1] The threat of antibiotic resistance (AMR) is ever increasing with serious implication on survival of humans on earth.

In May 2015, The World Health Assembly agreed in a resolution to tackle antimicrobial resistance and endorsed a global action plan on this.

Antimicrobial resistance is occurring everywhere in the world, compromising our ability to treat infectious diseases, as well as undermining many other advances in health and medicine.

The plan sets out 5 objectives:

- improve awareness and understanding of antimicrobial resistance;
- strengthen surveillance and research;
- reduce the incidence of infection;
- optimize the use of antimicrobial medicines;
- ensure sustainable investment in countering antimicrobial resistance. [2] [3]

The resolution urges Member States to put the plan into action, adapting it to their national priorities and specific contexts and mobilizing additional resources for its implementation.

Ghana is in the process of establishing policies that will contribute to reducing the surge in antimicrobial resistance. A study therefore was undertaken, aimed to assess the knowledge, attitude, perception, and practices of health care providers on antibiotic use and resistance in order to identify gaps for necessary interventions to curb antimicrobial resistance through judicious use of antimicrobials.

Summary of results [4]

- The knowledge, attitude, perceptions and practices (KAPP) study was conducted among three hundred and seventy nine (379) health professionals (prescribers) in both urban and rural areas in Brong Ahafo region.
- Fifty nine percent (222/379) were females. Nurses formed the highest number of the prescribers interviewed 50% (186/379).
- Thirteen percent (51/379) were medical doctors and 18% (71/379) were Community Health Officers.
- Knowledge of antibiotics resistance was high among all the prescribers.
- Approximately 80% of all prescribers agreed that the antibiotics we currently use could lose their abilities to treat infections in the future.
- Nineteen percent (72/379) agreed that antibiotics can be added to malaria prescriptions to make patients recover faster and this response was highest among CHOs.

Sources of information about antibiotic resistance:

- The sources of information on antibiotics and resistance among health professionals were varied and included emails alerts, lectures at general meetings of professional associations, books, and GHS/FDA bulletin or circulars.
- There was a preference for particular source of information of antibiotic resistance instead of multiple sources which are sometimes dependent on specific programs such as TB treatment workshops etc.

Perceptions on antibiotic resistance:

- The respondents held a strong perception that antibiotic resistance is imminent and likened it to a time bomb that could lead to significant mortality.
- They perceive that antibiotic resistance is as a result of poor prescription practices.

Antibiotic prescription practices:

- The prescribing practices varied among health professionals and were mostly inappropriate among the lower cadre of health professionals such as Community Health Officers. This was probably due to an approach of syndromic treatment.

Essential medicine availability:

- Fifty percent of the 27 health facilities involved in the study had stock-outs of at least one essential antibiotic.

Conclusion:

- Marked differences exist in the perceptions and prescription practices among the various cadres of prescribers on the use of antibiotics in health care.
- There is an urgent need to develop and sustain a formal platform from which rational prescribing, responsible use and antibiotic resistance information can be disseminated for improved services delivery, regarding the management of microbial infections.
- This may be in the form of yearly bulletins, or webpage of the Ministry of Health and Ghana Health Service website.
- Point of care diagnostic tools to diagnose non malaria infection may be helpful preventing irrational use of antibiotics.
- A strict antibiotic accountability system may also be useful in tracking the prescription and use of antibiotics per health professional groups for the appropriate intervention to minimize the risk of emergence and spread of antibiotic resistance in Ghana.

Policy Recommendations

Antibiotic resistance and use issues need to be tackled from the perspective of patients, prescribers and policy makers.

Patients should be educated

- on using antibiotics only when prescribed by a recognized prescriber.
- to complete the full prescription, even if they feel their condition has improved.
- not to share antibiotics with others or use leftover medicines.

Prescribers should

- enhance infection prevention and control at their facilities
- prescribe and dispense antibiotics only when they are needed
- prescribe and dispense the right antibiotic(s) to treat the illness

Policymakers should

- strengthen resistance tracking and laboratory capacity;
- regulate and promote appropriate use of medicines.
- foster innovation and research and development of new tools towards antibiotic resistance and use promote cooperation and timely sharing of information among all stakeholders.