Antimicrobial Resistance - No Action Today, No Cure Tomorrow

Dr. Haseef T.A and Dr. Sarah Firdose R
Clinical Pharmacology and Quality Department

ABSTRACT

A primary cause of antimicrobial resistance (AMR) is overuse in medical settings, but it's not the only one. Longer hospital admissions, drug-resistant strains of pneumonia, TB, and staph, untreatable gonorrhea, and infections causing amputations are already a reality, according to researchers who study AMR.
The scenario could get quite bad in the next 20 to 30 years. Because the chance of surgery causing a significant infection would be too high without reliable antibiotics, women would be at high risk for fatal infections when giving birth through c-section.

The effectiveness of the medications can be preserved by reducing antibiotic use to a level that is sustainable, according to Rogers Van Katwyk. So that we don't run out of what is ultimately a very valuable resource and continue to use antibiotics today and in the future for our children.

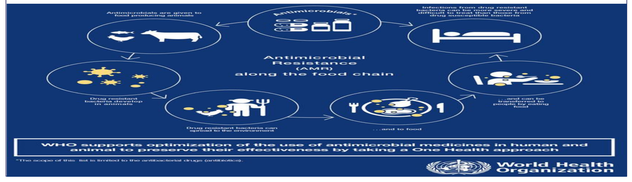
CONTACT

Dr. Haseef T.A and Dr. Sarah Firdose R
Manipal Hospital Varthur Road
quality.mhvr@manipalhospitals.com
+91 8061656666
www.manipalhospitals.com

INTRODUCTION

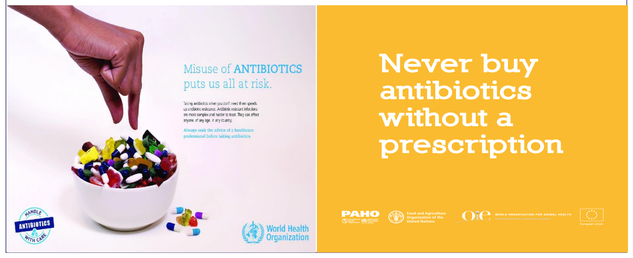
Aim of this project was to monitor rational use of antimicrobials, thereby reducing its resistance and to increase awareness among patients regarding the safe usage of antimicrobials.

- Restricted antimicrobial forms are made available in the wards, its filled by the doctors and submitted to clinical pharmacist.
- Clinical pharmacist monitors and analyses the forms.
- Based on the choice of restricted antimicrobials and duration of the antimicrobial regimen, the forms are marked as Rational or Irrational.
- The rational forms are further categorized into - Escalation, De-escalation, and Stop
- Few of the forms were irrational, i.e restricted antibiotics were chosen based on patient-specific evidence, such as for patients who already tolerated a specific antibiotic from a previous hospitalization or patients who showed clinical signs of improvement, such forms were excluded from the analysis.



METHODS AND MATERIALS

- Duration of project – 3 months
- Sample size – 87 restricted antimicrobial forms
- Source of data collection – All in-patients
- Study tool – questioners and assessments



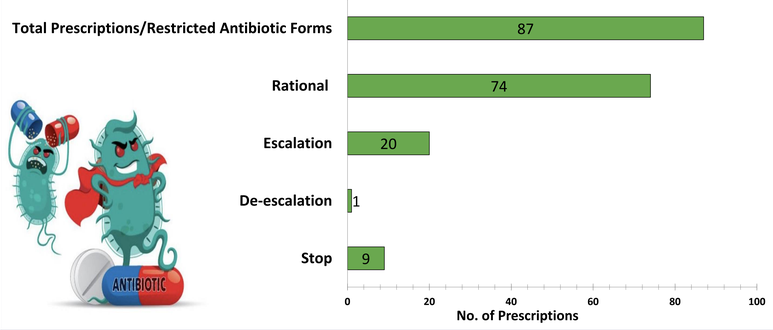
RESULTS

- Out of 87 forms, 74 were found to be rational, and 13 were excluded from the analysis.
- Out of the 74 rational prescriptions
  - 20 prescriptions were escalated to a higher-end antimicrobial.
  - 1 prescription was de-escalated to a lower-end antimicrobial.
  - 9 prescriptions were stopped in view of updates of patient

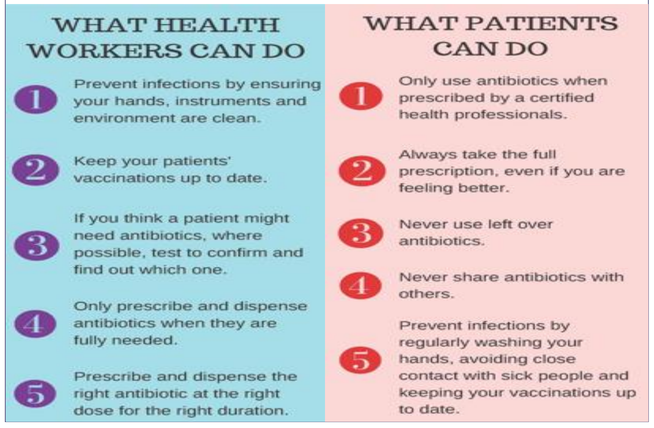




GRAPHS AND TABLES



DISCUSSION



CONCLUSIONS

Monitored 3-months antimicrobial usage data, as part of the antibiotic stewardship program of hospital, it helped us understand better how tailoring antibiotic regimens are based on lab tests and cautious prescribing of prophylactic antibiotics, and these two main factors decides whether the antimicrobial use is rational or not.





REFERENCES

- York University tackles urgent global health threat of antimicrobial resistance, November 22, 2022
- www.emro.who.int/world-antibiotic-awareness-week/2019
- Antimicrobial-Resistance-in-the-Food-Chain-infographic-from-WHO
- www.paho.org/en/campaigns/world-antimicrobial-awareness-week-2021
- Posters competition – Antibiotic Awareness Week 2019