

## EDITORIAL

### INITIATION AND MONITORING OF ANTI STEWARDSHIP PROGRAM IN 200 BEDDED HOSPITAL OF GIGIT BALTISTAN

A cautious and accountable administration of something assigned to one's care is acknowledged as stewardship<sup>1</sup>. Antimicrobial stewardship (AMS) term is basically functional in hospital setting as a tool for optimizing antimicrobial use<sup>2</sup>. Stewardship had since been applied in the context of governance of the health sector as a whole, taking responsibility for the health and well-being of the population and guiding health systems at the national and global level. "Antibiotic stewardship programs can afford consistent updates on antibiotic prescribing, antibiotic resistance, and infectious disease management that address both national and local issues"<sup>3</sup>. Sharing facility-specific information on antibiotic use is a tool to motivate improved prescribing, particularly if wide variations in the patterns of use exist among similar patient care locations<sup>4</sup>. There were many possibilities for providing instruction on antibiotic consumption such as educational awareness that can be implemented in official and informal situations, messaging over and done with art works and brochures and news sheets or electronic communication to operate groups. Studying de-identified cases with providers where changes in antibiotic therapy could have been made is another useful approach. A practical implementation has been observed in 200 bedded hospitals of Gigit-Baltistan.

1. Anti-stewardship program was started in hospitals. This program was divided into three stages;
  - a. Implementation stage; anti stewardship program SOP and JD of stakeholders were formulated.
  - b. Creating Awareness and monitoring on monthly basis by organizing clinical meeting and lectures to doctors, nurses and paramedics. Quarterly training courses for educating and creating awareness in sanitary, housekeeping and nursing staff for ASP and its linked with infection control, hand hygiene, collection and disposal of waste and use of PPE
  - c. Execution stage started and C/S samples were advised by specialists in outdoor (OPDs) and indoor (Wards/ITC) after completing antibiotics checklist proforma followed by analysis in laboratory. Infectious control sampling for prevention were done (OT, ITC, COVID-Ward)
2. Total 579 C/S specimens received from outdoor and indoor. Positivity rate of outdoor specimen was 30.45%, indoor 25.18%, blood C/S 3.79%, urine

36.88%, pus 47.61%, respiratory/nasal swab 18% and others (HVS, stool, corneal swabs, infectious control sampling from various wards instruments and personnel and water for coliform analysis was 30.94%. CSF and fluid specimens did not show any organism growth.

3. 7 MRSA were isolated and their MRSA monitoring protocol was followed. Percentage resistance showed nearly 100% resistance of gram positive organisms toward penicillin and aminoglycosides antibiotics group while gram negative organisms showed >50% resistance to CRO-Ceftriaxone and CAZ-Ceftazadime.
4. Quarterly basis List of antibiotics available at med store showed that calomox, vibramycin, Piperacillin + Tazobactam and meronum antibiotics were frequently prescribed by med/ surgical specialists >50% and nil antibiotics resistance documented at medical stores.
5. "Antibiotics Time-Out Checklist" showed;
  - a. Resistance (No Response) observed within 48 hours of intake for following antibiotics: Inj Rocephin (Ceftriaxone)-56%, Inj Cefim- (Cefixime)-8%, Injmeroneum (Meropenum)-17%, Inj doxycycline-17%, Tab azomax (Azithromycin)-12%, Injtanzo (Piperacillin + Tazobactam)-8%, Inj Augmentin (Amoxicillin ± Clavulanic acid) 24% and Tab Erythromycin 8%.
  - b. C/S tests were advised after 48 hours in 78% cases who have bacterial infection.
  - c. New Empirical therapy started with following antibiotics after 48 hours of no response of antibiotics on the clinical judgement basis as previously no antibiogram was available; Inj Avelox (moxifloxacin)-4%, Injazomax (Azithromycin)-8%, Inj Meronem (meropenum)-16%, Inj vancomycin-32%, Injtanzo (Piperacillin + Tazobactam) -32%, Inj Ciproxin (ciprofloxacin)-32%, Inj Rocephin (Ceftriaxone)-8%, Injflagyl (Metronidazole)-8%, Inj Nezkil (Linzolid)-8% and Inj Amikin (Amikacin)-4%.
6. Audit checklist was proper filled by surveillance and audit team which fulfilled all core elements of CDC's criteria for ASP signed by commanding officer.

### LIMITATION OF STUDY

Anti-stewardship program at 200 bedded hospitals is a challenging task due to insufficient resources at hospital, delayed availability of antibiotics susceptibility discs due to wide distances from center of excellence and lack of expertise in microbes' identification, susceptibility analysis and awareness among specialists of various field and leadership.

### RECOMMENDATIONS

Anti-stewardship program at 200 bedded hospitals cannot be established without dedicated leadership, motivated and trained laboratory staffs, creating awareness among doctors, nurses and paramedics. So, a strong collaboration with Microbiology department of tertiary hospitals will help in this regards.

### REFERENCES

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**Dr Safia Fatima**

Classified Pathologist  
Head of Department of Pathology  
CMH Sakardu, Gilgit Baltistan, Pakistan

**Dr Ahmed Saeed Khan**

Commanding Officer  
CMH Sakardu, Gilgit Baltistan, Pakistan

**Dr Fozia Fatima**

Assistant Professor  
Department of Health Professions Education  
National University of Medical Sciences  
PWD Campus, Islamabad Pakistan