

Implementing Antimicrobial Stewardship in a Private Hospital

Program strategies, challenges and opportunities

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Gertrude's Children's Hospital

- Established in 1947
- 103-bed hospital providing care to children from birth to 21 years
 - 10-bed PCCU
 - 4-bed HDU
 - 16-bed surgical ward
 - 1 theatre
 - 6 medical wards
- 11 Satelites: Buruburu, Donholm, Embakasi, Kitengela, Komarock, Lavington, Mombasa, Nairobi West, Rongai, Pangani, Thika
- Attends to over 300,000 children as outpatients and admits 6,000 patients on average per year

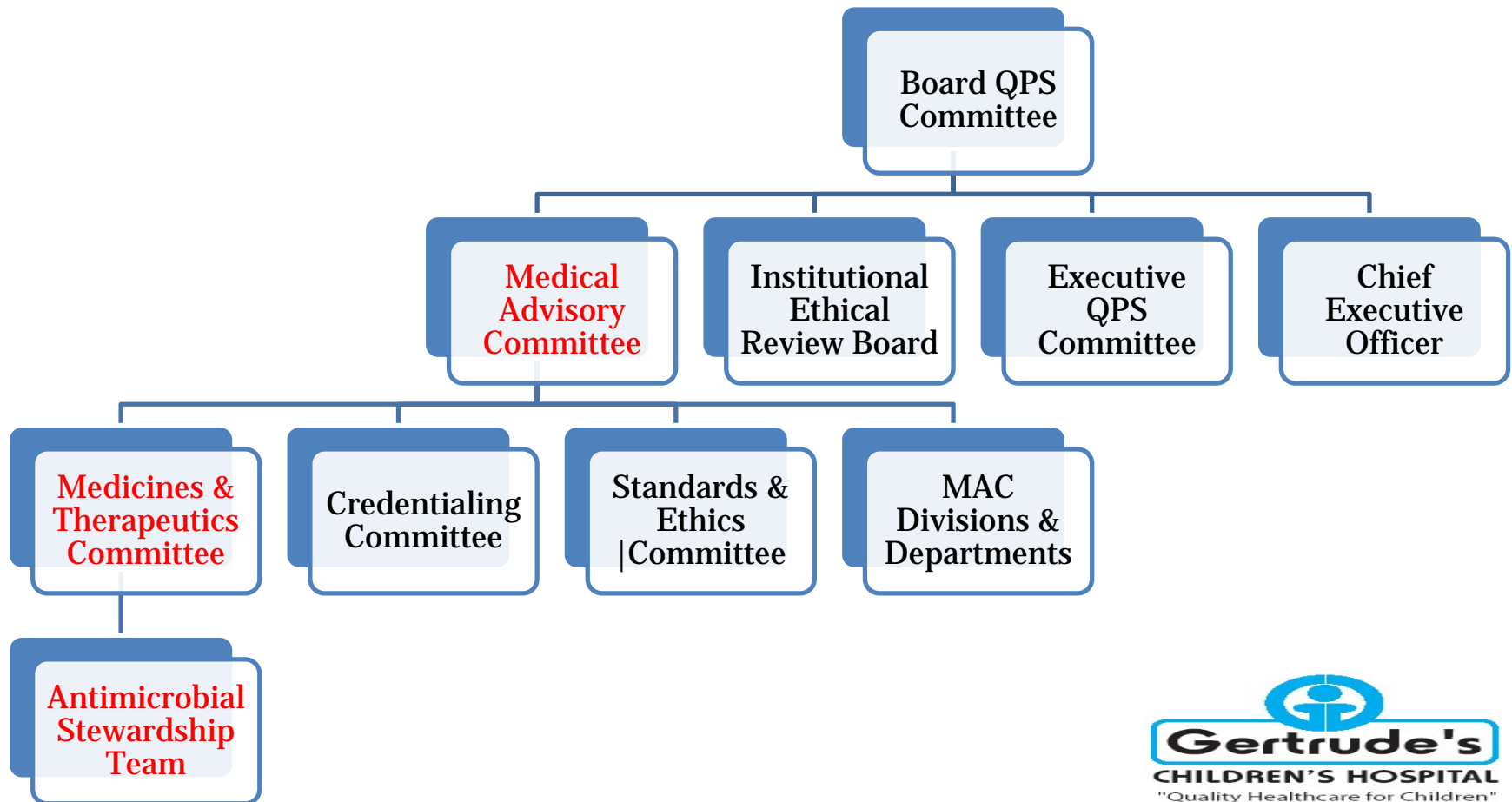


Basis of Antimicrobial Stewardship

- ~ 1/3 of all hospitalised inpatients at any given time receive antibiotics
- ~ up to 1/3 to 1/2 are inappropriate
- ~ up to 30% of all surgical prophylaxis is inappropriate
- Antimicrobials account for upwards of 30% of hospital pharmacy budgets. Stewardship programmes can save up to 10% of pharmacy budgets.
- Inappropriate and excessive use leads to resistance, *C.difficile* & other ecological consequences, increased morbidity, mortality, increased cost, increased litigation and reduce quality of life

Antimicrobial Stewardship Program (ASP)

- Implemented from **September 2014**



Antimicrobial Stewardship Team

- **Consultant Pediatrician, Infectious Diseases expert (Chairperson)**
- **Chief Pharmacist**
- **Consultant Microbiologist/Pathologist**
- **Nurse, IPC Coordinator**
- **Clinical Pharmacist (Secretary)**

Developing ASP Strategies

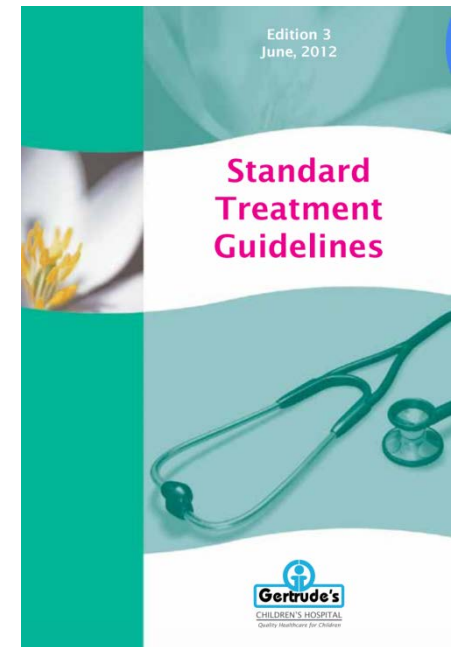
- **Understand local culture and attitudes**
- **Assess resources available**
- **Start with ‘low hanging fruit’**

ASP Strategies

1. Antibiotic Use Guidelines
2. Prospective Audit and Feedback for Reserve Antibiotics
3. Staff Education
4. Collaboration

1. Antibiotic Use Guidelines

- **Rationale:** the use of antibiotics should be informed by evidence based best practice guidelines
- **Implementation:**
 - Have developed various documents
 - Gertrude's Children's Hospital Standard Treatment Guidelines
 - Proposed *Gertrude's Children's Hospital Antibiotic Policy*
 - Proposed *Surgical Prophylaxis guidelines*
 - Proposed *Aminoglycosides Policy and Procedures*
 - Proposed *Vancomycin Policy and Procedures*
 - Pharmacy staff check adherence to STGs with regard to choice and dosage of antimicrobials
- **Challenges:**
 - Only the STGs have been adopted officially



2. Prospective Audit and Feedback for Reserve Antibiotics

- **Rationale:** there is currently no restriction or pre-authorization requirement
- **Implementation:** Monitoring use of
 - Ceftazidime
 - Cefepime
 - Linezolid
 - Meropenem
 - Piperacillin/Tazobactam
 - Vancomycin
- **Challenges:**
 - Lacks impact at prescription initiation;
 - Laborious; not automated

3. Staff Education

- **Rationale:**
 - To obtain cooperation for ASP initiatives
 - Allows better acceptance of recommendations e.g. de-escalation, IV to PO switch
- **Implementation:**
 - Continuous Professional Development
 - Pharmacy Staff (gate-keepers) - September 8th 2015
 - Hospital-wide multidisciplinary session - November 12th 2015, as a prelude to WAAW
- **Challenge:** *Labour intensive; inadequate coverage*

4. Collaboration

- **Rationale:** Partnering with organizations involved in prevention of Antimicrobial Resistance to promote sharing of **knowledge, experience** and **resources**
- **Implementation:**
 - Attend relevant symposia e.g. ID Symposium held in MP Shah on August 8th, 2015
 - Attend workshops e.g. the AMR Workshop to be held on 21st and 22nd Naivasha 2015.
 - To join GARP
 - Have applied to EPN for funding to implement interventions aimed at promoting adherence to Standard Treatment Guidelines for infectious diseases.
- **Challenge:** Cost, down time

General Challenges

- Perceived **physician resistance** to control of prescribing evinced by inability to adopt and/or enforce policy, guidelines and restrictions
 - *Fear of antagonizing prescribers*
- Difficulty in holding **regular ASC meetings**
 - *Added responsibility to ASC members; not their 'core business'*
- Healthcare workers lack of appreciation of the threat of resistance development
- Difficulty in establishing a self-sustaining/sustainable antibiotic governance structure

Opportunities

- **Improve microbiology collaboration!!!**
- Adoption of proposed antibiotic policy and guidelines
- Improve prospective audit and feedback
- Aim to provide regular updates on antibiotic prescribing, antibiotic resistance, and infectious disease management
- Promote dose optimization
- Research and surveillance of antimicrobial use in high usage area (i.e. PCCU)

Conclusion

- In spite of the obstacles (real or imagined), there remains a critical need to establish antibiotics preservation mechanisms
- Choose to make the difference you can, applying the philosophy so aptly put by the late *Professor Wangari Maathai*

"I will be a hummingbird; I will do the best I can..."



THANK
YOU