

A survey on Knowledge, Attitudes and Practice about antibiotic prescribing and resistance among medical practitioners in Kenyan local hospitals

**You are kindly requested to answer the questionnaire honestly and completely independent of cross-consultations and/or verifications.*

Survey quality control

Date of interview: Start time..... End time.....

Interviewed by:Approved.....

Name of the Hospital..... Respondent's code.....

QUESTIONS	ANSWERS
PART 1: GENERAL QUESTIONS	
1. <i>For how many years, since you graduated from medical school /medical training College, have you been working in a hospital (indicate cumulative years if worked in different hospitals)</i>	1. <i>I am on attachment</i> 2. <i>I am a trainee in medicine (internship)</i> 3. <i>less than one year</i> 4. <i>1-3 years</i> 5. <i>4 – 6 years</i> 6. <i>7 years and more</i>
2. <i>In which department do you work?</i>	1. <i>Medicine /Emergency</i> 2. <i>Surgery</i> 3. <i>Pediatrics</i> 4. <i>Obstetrics and Gynecology</i> 5. <i>Outpatient/A/E</i> 6. <i>Pharmacy</i> 7. <i>Other:</i>
3. <i>Designation (e.g. Consultant, Pharmacist, Nurse, etc.)</i>
PART 2: PRESCRIPTION PATTERN (PRACTICE)	
4. <i>On average for every 10 patients how many do you prescribe antibiotic to?</i>	1. <i>All 10 patients</i> 2. <i>6-9 patients</i> 3. <i>5 patients</i>

	4. <i>1-4 patients</i> 5. <i>None</i>
5. <i>To whom do you prescribe?</i>	1. <i>Patients at outpatient department</i> 2. <i>Hospitalized patients</i> 3. <i>Patients in out-patient department and hospitalized patients</i>
6. <i>Do you follow any antibiotic prescription guidelines?</i>	1. <i>Yes</i> 2. <i>No</i>
PART 3: AWARENESS AND ATTITUDE ON THE CURRENT SCOPE OF ANTIBIOTIC RESISTANCE	
7. <i>Antibiotic resistance is a world-wide problem</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
8. <i>Antibiotic resistance is a problem in my country</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
9. <i>Antibiotic resistance is a problem in my hospital</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
10. <i>Antibiotics are overused in my hospital and in other hospitals of my country Kenya</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
11. <i>Patients' demands for antibiotics contribute to the overuse of antibiotics in the hospital</i>	1. <i>I strongly agree</i> 2. <i>I agree</i>

	3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
12. <i>I think over-the-counter (OTC) medicines contribute to antibiotic misuse and subsequent antibiotic resistance</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
13. <i>My awareness on local antibiotic resistance pattern is?</i>	1. <i>Excellent</i> 2. <i>Good</i> 3. <i>Average</i> 4. <i>Very little</i> 5. <i>None</i>
PART 4: CHOICE OF ANTIBIOTIC	
14. <i>How confident are you about your knowledge of antibiotics?</i>	1. <i>Very confident</i> 2. <i>Confident</i> 3. <i>A bit confident</i> 4. <i>Neutral/ I have no idea</i> 5. <i>Not confident at all</i>
15. <i>What is your confidence level in prescribing antibiotics</i>	1. <i>Very confident</i> 2. <i>Confident</i> 3. <i>A bit confident</i> 4. <i>Neutral/ I have no idea</i> 5. <i>Not confident at all</i>
16. <i>How often do you check your decisions on antibiotic prescribing with a colleague?</i>	1. <i>Never</i> 2. <i>Sometimes</i> 3. <i>Half of the times</i> 4. <i>Mostly</i> 5. <i>Always</i>
17. <i>If you do consult a senior colleague, how frequent does he/she recommend prescription of a different antibiotic?</i>	1. <i>Never</i> 2. <i>Sometimes</i>

	3. <i>Half of the times</i> 4. <i>Mostly</i> 5. <i>Always</i>
18. <i>How often do you depend on antibiotic sensitivity data from the laboratory to vary your prescription</i>	1. <i>Never</i> 2. <i>Sometimes</i> 3. <i>Half of the times</i> 4. <i>Mostly</i> 5. <i>Always</i>
PART 5: SOURCE OF INFORMATION ON ANTIBIOTICS PRESCRIBING AND RESISTANCE	
19. <i>During the past year, how many courses or trainings did you receive relating to antibiotics?</i>	1. <i>0</i> 2. <i>1-3</i> 3. <i>4-6</i> 4. <i>6-10</i> 5. <i>>10</i>
20. <i>Among the sources of information about antibiotics listed below, which one did you consult in the last month?</i>	
▪ <i>Information supplied by pharmaceutical companies</i>	1. <i>Yes</i> 2. <i>No</i>
▪ <i>Knowledge from training institutions</i>	1. <i>Yes</i> 2. <i>No</i>
▪ <i>Internet</i>	1. <i>Yes</i> 2. <i>No</i>
▪ <i>National guideline for empiric antimicrobial therapy</i>	1. <i>Yes</i> 2. <i>No</i>
▪ <i>The World Health Organization's (WHO) guidelines for treatment of bacterial diseases</i>	1. <i>Yes</i> 2. <i>No</i>
21. <i>How do you appreciate the sources of information about antibiotics listed below?</i>	
▪ <i>Information supplied by pharmaceutical companies</i>	1. <i>Very useful</i> 2. <i>Useful</i> 3. <i>Not at all useful</i> 4. <i>I do not know</i>

▪ <i>Information from training institution</i>	1. <i>Very useful</i> 2. <i>Useful</i> 3. <i>Not at all useful</i> 4. <i>I do not know</i>
▪ <i>Internet</i>	1. <i>Very useful</i> 2. <i>Useful</i> 3. <i>Not at all useful</i> 4. <i>I do not know</i>
▪ <i>National guideline for empiric antimicrobial therapy</i>	1. <i>Very useful</i> 2. <i>Useful</i> 3. <i>Not at all useful</i> 4. <i>I do not know</i>
▪ <i>The World Health Organization's (WHO) guidelines for treatment of bacterial diseases</i>	1. <i>Very useful</i> 2. <i>Useful</i> 3. <i>Not at all useful</i> 4. <i>I do not know</i>
▪ <i>Does your facility have a frequently released antibiogram?</i>	1. <i>Yes</i> 2. <i>No</i>
▪ <i>If yes, how useful is the antibiogram to you</i>	1. <i>Very useful</i> 2. <i>Useful</i> 3. <i>Not at all useful</i> 4. <i>I do not know</i>
PART 6: DECISION ABOUT ANTIBIOTIC PRESCRIBING	
22. <i>When one prescribes an antibiotic, it is important to know the resistance pattern of the bacteria in the local setting</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
23. <i>My choice of prescribing antibiotic is more influenced by the availability of antibiotics than by the cause of the infection</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i>

	4. <i>I disagree</i> 5. <i>I strongly disagree</i>
24. <i>My choice of prescribing antibiotic is more influenced by the cost of the drug to the patient</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
25. <i>I'm always concerned about effectiveness and quality of an antibiotic when making my prescribing decisions</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
26. <i>In regard to antibiotic guidelines, local guidelines are more useful than international guidelines</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
27. <i>Antibiotic guidelines and antibiotic committees are rather obstacles than a help</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
28. <i>I welcome the implementation of a training program about antibiotics</i>	1. <i>I strongly agree</i> 2. <i>I agree</i> 3. <i>Neutral</i> 4. <i>I disagree</i> 5. <i>I strongly disagree</i>
PART 7: KNOWLEDGE ON USE OF ANTIBIOTICS	
29. <i>A 4-year-old child had diarrhoea in the last 4 days (3 stools daily). She had no fever during the past days nor at consultation. What is your treatment choice?</i>	1. <i>Amoxicillin orally</i> 2. <i>Trimethoprim/sulphamethoxazole orally</i> 3. <i>Amoxicillin/clavulanic acid orally</i>

	4. Oral rehydration salts with no antibiotic
30. A 6-year-old child has fever (38°C), nasal discharge and a painful throat for two days. At visual inspection, the throat is reddish. What is your treatment choice?	1. Trimethoprim/sulphamethoxazole orally 2. Amoxicillin orally 3. Amoxicillin/clavulanic acid orally 4. No antibiotic
31. During ward round, you have seen two patients with impaired renal function. - Patient A is a 68-year-old male with cellulitis in the lower limb. He is administered clindamycin. - Patient B is a 64-year-old woman with diabetes who received treatment for sepsis with ceftriaxone empirically. In which case will you need to adjust the antibiotic dose?	1. Patient A 2. Patient B 3. Patient A & B 4. Neither patient A nor patient B
32. Which one of the following antibiotics may be safely given during the first trimester of pregnancy?	1. Amoxicillin 2. Ciprofloxacin 3. Gentamicin
33. Which of the following antibiotics has the best activity against anaerobes?	1. Ciprofloxacin 2. Metronidazole 3. Trimethoprim/sulphamethoxazole
34. Methicillin resistant - <i>Staphylococcus aureus</i> is susceptible to:	1. Amoxicillin clavulanic acid 2. Cefotaxime 3. Ceftriaxone 4. None of these antibiotics
35. Which of the following antibiotics most effectively crosses the blood-brain barrier?	1. Clindamycin 2. Ceftriaxone 3. Vancomycin
36. Aminoglycoside antibiotics such as gentamicin are most active when they are administered as follows:	1. Orally, three times daily 2. Parentally, once daily 3. Parentally, three times daily

Thank you very much for your kind and honest participation