

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

Thank you very much for accepting to participate in this study.

***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>	<ul style="list-style-type: none"> ❖ <i>I am on attachment</i> ❖ <i>I am a trainee in medicine (internship)</i> ❖ <i>Less than one year</i> ❖ <i>1-3 years</i> ❖ <i>4 – 6 years</i> ❖ <i>7 years and more</i>
2. <i>In which department do you work?</i>	<ul style="list-style-type: none"> <input type="radio"/> <i>Medicine /Emergency</i> <input type="radio"/> <i>Surgery</i> <input type="radio"/> <i>Paediatrics</i> <input type="radio"/> <i>Obstetrics and Gynaecology</i> <input type="radio"/> <i>Outpatient/A/E</i> <input type="radio"/> <i>Pharmacy</i> <input type="radio"/> <i>Other:</i>
3. <i>Designation (e.g. Consultant, Pharmacist, Nurse, etc.)</i>
PART 2: PRESCRIPTION PATTERN (PRACTICE)	
4. <i>How frequently do you prescribe antibiotics?</i>	<ul style="list-style-type: none"> ❖ <i>More than once daily</i> ❖ <i>Once daily</i> ❖ <i>3 – 5 times a week</i> ❖ <i>1 – 2 times a week</i>

	❖ <i>less than once a week)</i>
5. <i>To whom do you prescribe?</i>	<ul style="list-style-type: none"> ❖ <i>Patients at outpatient department</i> ❖ <i>Hospitalized patients</i> ❖ <i>Patients in out-patient department and hospitalised patients</i>
6. <i>Do you follow any antibiotic prescription guidelines?</i>	<ul style="list-style-type: none"> ❖ <i>Yes</i> ❖ <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>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
8. <i>Antibiotic resistance is a problem in my country</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
9. <i>Antibiotic resistance is a problem in my hospital</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
10. <i>Antibiotics are overused in my hospital and in other hospitals of my country Kenya</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
11. <i>Patients' demands for antibiotics contribute to the overuse of antibiotics in the hospital</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i>

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

	<ul style="list-style-type: none"> ❖ <i>Mostly</i> ❖ <i>Always</i>
18. <i>How often do you depend on antibiotic sensitivity data from the laboratory to vary your prescription</i>	<ul style="list-style-type: none"> ❖ <i>Never</i> ❖ <i>Sometimes</i> ❖ <i>Half of the times</i> ❖ <i>Mostly</i> ❖ <i>Always</i>
PART 5: SOURCE OF INFORMATION ON ANTIBIOTICS PRESCRIBING AND RESISTANCE	
19. <i>During the past years, how many courses or trainings did you receive relating to antibiotics?</i>	<ul style="list-style-type: none"> ❖ <i>0</i> ❖ <i>1-3</i> ❖ <i>4-6</i> ❖ <i>6-10</i> ❖ <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>	<ul style="list-style-type: none"> ❖ <i>Yes</i> ❖ <i>No</i>
▪ <i>Knowledge from training institutions</i>	<ul style="list-style-type: none"> ❖ <i>Yes</i> ❖ <i>No</i>
▪ <i>Internet</i>	<ul style="list-style-type: none"> ❖ <i>Yes</i> ❖ <i>No</i>
▪ <i>National guideline for empiric antimicrobial therapy</i>	<ul style="list-style-type: none"> ❖ <i>Yes</i> ❖ <i>No</i>
▪ <i>The World Health Organization's (WHO) guidelines for treatment of bacterial diseases</i>	<ul style="list-style-type: none"> ❖ <i>Yes</i> ❖ <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>	<ul style="list-style-type: none"> ❖ <i>Very useful</i> ❖ <i>Useful</i> ❖ <i>Not at all useful</i> ❖ <i>I do not know</i>

▪ <i>Information from University courses</i>	❖ <i>Very useful</i> ❖ <i>Useful</i> ❖ <i>Not at all useful</i> ❖ <i>I do not know</i>
▪ <i>Internet</i>	❖ <i>Very useful</i> ❖ <i>Useful</i> ❖ <i>Not at all useful</i> ❖ <i>I do not know</i>
▪ <i>National guideline for empiric antimicrobial therapy</i>	❖ <i>Very useful</i> ❖ <i>Useful</i> ❖ <i>Not at all useful</i> ❖ <i>I do not know</i>
▪ <i>The World Health Organization's (WHO) guidelines for treatment of bacterial diseases</i>	❖ <i>Very useful</i> ❖ <i>Useful</i> ❖ <i>Not at all useful</i> ❖ <i>I do not know</i>
▪ <i>Does your facility have a frequently released antibiogram?</i>	❖ <i>Yes</i> ❖ <i>No</i>
▪ <i>If yes, how useful is the antibiogram to you</i>	❖ <i>Very useful</i> ❖ <i>Useful</i> ❖ <i>Not at all useful</i> ❖ <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>	❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <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>	❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i>

	<ul style="list-style-type: none"> ❖ <i>I disagree</i> ❖ <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>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
25. <i>I'm always concerned about effectiveness and quality of an antibiotic when making my prescribing decisions</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
26. <i>In regard to antibiotic guidelines, local guidelines are more useful than international guidelines</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
27. <i>Antibiotic guidelines and antibiotic committees are rather obstacles than a help</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <i>I strongly disagree</i>
28. <i>I welcome the implementation of a training program about antibiotics</i>	<ul style="list-style-type: none"> ❖ <i>I strongly agree</i> ❖ <i>I agree</i> ❖ <i>Neutral</i> ❖ <i>I disagree</i> ❖ <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>	<ul style="list-style-type: none"> ❖ <i>Amoxicillin orally</i> ❖ <i>Trimethoprim/sulphamethoxazole orally</i> ❖ <i>Amoxicillin/clavulanic acid orally</i>

	❖ 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?	<ul style="list-style-type: none"> ❖ Trimethoprim/sulphamethoxazole orally ❖ Amoxicillin orally ❖ Amoxicillin/clavulanic acid orally ❖ 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?	<ul style="list-style-type: none"> ❖ Patient A ❖ Patient B ❖ Patient A & B ❖ Neither patient A nor patient B
32. Which one of the following antibiotics may be safely given during the first trimester of pregnancy?	<ul style="list-style-type: none"> ❖ Amoxicillin ❖ Ciprofloxacin ❖ Gentamicin
33. Which of the following antibiotics has the best activity against anaerobes?	<ul style="list-style-type: none"> ❖ Ciprofloxacin ❖ Metronidazole ❖ Trimethoprim/sulphamethoxazole
34. Methicillin resistant - <i>Staphylococcus aureus</i> is susceptible to:	<ul style="list-style-type: none"> ❖ Amoxicillin clavulanic acid ❖ Cefotaxime ❖ Ceftriaxone ❖ None of these antibiotics
35. Which of the following antibiotics most effectively crosses the blood-brain barrier?	<ul style="list-style-type: none"> ❖ Clindamycin ❖ Ceftriaxone ❖ Vancomycin
36. Aminoglycoside antibiotics such as gentamicin are most active when they are administered as follows:	<ul style="list-style-type: none"> ❖ Orally, three times daily ❖ Parenterally, once daily ❖ Parenterally, three times daily

Thank you very much for your kind and honest participation