Knowledge, Attitude and Practice Regarding Antibiotic Use and Antimicrobial Resistance Among Medical Practitioners at Dongola Specialized Hospital, 2026

Introduction

Dear Doctor,

You are invited to participate in this study assessing knowledge, attitudes, and practices regarding antibiotic use and antimicrobial resistance (AMR). Your responses are confidential and will be used strictly for research purposes.

Section A: Socio-demographic Characteristics

1. Age:

σ <25 σ 25–29 σ 30–34 σ ≥35

2. Gender:

σ Male σ Female

3. Professional Level:

σ House Officer (Rotating)

σ Medical Officer (Permanent)

σ Resident (SMSB)

σ Registrar

σ Senior Registrar

4. Department:

σ Internal Medicine σ Surgery σ Pediatrics σ OBGYN

σ Emergency σ ICU σ Orthopedics σ ENT σ Ophthalmology

σ Other: __

5. Years of Clinical Experience:

σ <1 σ 1–3 σ 4–6 σ >6

6. Training in Antimicrobial Stewardship:

σ Yes σ No

Section B: Knowledge (Advanced Clinical Assessment)

(Choose ONE best answer)

1. Time-dependent antibiotics (e.g., beta-lactams) are most effective when:

σ Peak concentration is maximized

σ Drug level remains above MIC for longer duration

σ Given as single high dose

σ Don’t know

2. Concentration-dependent antibiotics (e.g., aminoglycosides) require:

σ Frequent low dosing

σ High peak concentration

σ Continuous infusion

σ Don’t know

3. Asymptomatic bacteriuria should be treated in:

σ All patients

σ Pregnant women only

σ Elderly patients

σ Diabetic patients

4. A patient with suspected sepsis and no immediate culture availability should:

σ Wait for lab confirmation

σ Start empiric broad-spectrum antibiotics immediately

σ Use no antibiotics

σ Don’t know

5. ESBL-producing organisms are resistant to:

σ Penicillins and cephalosporins

σ Aminoglycosides

σ Fluoroquinolones

σ All antibiotics

6. MRSA infections are commonly treated with:

σ Amoxicillin

σ Vancomycin

σ Ceftriaxone

σ Metronidazole

7. Colonization differs from infection in that:

σ It always requires antibiotics

σ It has no clinical symptoms

σ It causes fever

σ It leads to sepsis

8. Surgical prophylaxis is best described as:

σ Long-term antibiotic therapy

σ Single dose before incision

σ Given after infection develops

σ Not necessary

9. The most appropriate action after receiving culture results is:

σ Continue same antibiotic

σ Stop antibiotics

σ De-escalate or modify therapy

σ Ignore results

10. Poor infection control leads to:

σ Reduced resistance

σ Increased resistance spread

σ No effect

σ Don’t know

Section C: Attitude (Behavior-Oriented)

(Strongly Agree – Agree – Neutral – Disagree – Strongly Disagree)

1. Antibiotic resistance is a serious problem in my hospital.

2. I feel pressure from patients or families to prescribe antibiotics unnecessarily.

3. Starting broad-spectrum antibiotics immediately is safer than waiting for lab results.

4. Lack of laboratory support affects my prescribing decisions.

5. Clinical guidelines are practical in my setting.

6. Antibiotic restriction policies improve patient outcomes.

7. I feel confident in interpreting microbiology reports.

8. Multidisciplinary collaboration improves antibiotic use.

9. Fear of complications influences my prescribing behavior.

10. Stewardship programs are feasible in resource-limited settings.

Section D: Practice (Context-Adjusted)

(Always – Often – Sometimes – Rarely – Never)

1. I follow available clinical guidelines when prescribing antibiotics.

2. When cultures are unavailable, I rely on syndromic guidelines or senior advice.

3. I review antibiotic therapy within 48–72 hours (“antibiotic timeout”).

4. I de-escalate therapy when clinical improvement occurs.