Supplementary Material - Questionnaire

Section S1   Demographic details:

(Please select one option from the options given in front of each question)

- ✓ **Age (in years):**   _____
- ✓ **Name of health facility:**   _____
- ✓ **Gender:**   A) Female   B) Male
- ✓ **Marital Status:**   A) Non-Married   B) Married
- ✓ **Residence:**   A) Rural   B) Urban
- ✓ **Designation:**   A) Junior pharmacy technician
                               B) Senior pharmacy technician
- ✓ **Training/refresher course about medicines/antibiotics:**   A) Yes   B) No
- ✓ **Working Department:**   A) Emergency pharmacy
                               B) Indoor pharmacy
                               C) Out door pharmacy
- ✓ **Years of Experiences:**   A) 1-5 years   B) 6-10 years   C) 11-15 years
                               D) 16-20 years   E) More than 20 years
- ✓ **Number of prescriptions filled per day**
                               A)1-30   B) 31-60   C) 61-100   D) 101-
                               150   E) More than 151

Section S2: Understanding about antibiotic use

(Please select one option according to your understanding about antibiotic use).

Sr. No.	Variables	Yes	No	Don't know
1	Antibiotics are the most commonly prescribed anti-infective agents by public health-care sector facilities			
2	Common cold if treated with antibiotics will make the patients recover more quickly			
3	Antibiotics should be prescribed as preventive measures to fight against future microbial attacks			
4	Antibiotics cannot treat influenza			
5	Antibiotics are indicated to relieve pain			
6	Antibiotics might develop allergy in susceptible individuals			
7	Diphenhydramine is an antibiotic used in treating upper respiratory infections			
8	Cefotaxime belongs to the third-generation cephalosporins			
9	Patients can stop taking antibiotics when the symptoms are improving			

10	Keeping the left-over antibiotic course for the next time treatment of the same type of infection is a good practice			
11	Antibiotics treatment can eliminate most of the sensitive bacterial cells from patients			
12	Antibiotics can be obtained without a prescription in Pakistan			
13	Antibiotics are the first line of treatment in sore throat			

Section S3 : Understanding about antibiotic resistance
(Please select one option according to your understanding about antibiotic resistance)

Sr. No.	Variables	Yes	No	Don't know
1	A resistant bacterium cannot spread in healthcare institutions			
2	Health care workers serve as vectors carrying resistant strains from infected patients to normal patients			
3	Exposure to antibiotics appears to be the principal risk factor for the emergence of antibiotic resistant bacteria			
4	Inadequate duration of therapy contributes to antibiotic resistance leading to poor patient compliance			
5	Inadequate doses contribute to antibiotic resistance due to poorly designed dosing regimen			
6	Antimicrobial resistance can be minimized through changing empiric therapy to a selected narrow-spectrum therapy in response to the availability of culture and sensitivity results			
7	Cross-resistance is the condition in which resistance occurs to a particular antibiotic that often results in resistance to other antibiotics, usually from a similar class			
8	Lack of enforcement regulation sometimes permits antibiotics to be purchased without a prescription from pharmacies			

Section S4 **Awareness about the terminologies related to antibiotic resistance**

(Please select one option according to your awareness about terminologies related to antibiotic resistance)

Sr. No.	Variables	Yes	No
1	Did you hear about the term: 'Antimicrobial resistance'?		
2	Did you hear about the term: 'Antibiotic Resistance'?		
3	Did you hear about the term: 'Superbugs'?		
4	Did you hear about the term: 'Drug Resistance'?		
5	Did you hear about the term: 'Multidrug Resistance?		
6	Did you hear about the term: 'Extensively drug Resistance?		
7	Did you hear about the: use of antibiotics with caution?		
8	Did you hear about the: Antibiotic resistance spreading very fast?		
9	Did you hear about the: national action plan for antimicrobial resistance in Pakistan?		

Section S5 **Awareness about the antimicrobial stewardship program (ASP)**

(Please select one option according to your understanding about antimicrobial stewardship program (ASP))

Sr. No.	Variables	Yes	No	Don't know
1	Did you hear about the term Antimicrobial Stewardship Programs (ASPs)?			
2	Did you know the core components of Antimicrobial Stewardship Programs (ASPs)?			
3	Did you know antimicrobial stewardship programs promote reasonable prescription of antimicrobials			
4	Antimicrobial stewardship programs help control antimicrobial resistance			
5	Antimicrobial stewardship programs reduce the overuse of antimicrobials			
6	Antimicrobial stewardship programs reduce the cost of treatment.			
7	Antimicrobial stewardship programs Improves medical quality.			

> What is the most common source of information about antibiotic use, antibiotic resistance, terminologies related to antibiotic resistance and antimicrobial stewardship program?
>
> **A.** Books & journals
> **B.** Print & electronic media
> **C.** Social media like Facebook, WhatsApp etc.
> **D.** Health care professionals
> **E.** Leaflets/ broachers
> **F.** Online applications related to medicines
> **G.** Others.