Appendix 1

Pharmacist's attitude, self-reported knowledge and practice of dosage adjustment questionnaire (RDQ-13)

Demographics

Gender

□Female

□Male

Age (years)

□20–29

□30–39

□40–49

□50–59

□More than 60

Work experience (years)

□<5

□5-10 years

□11-15 years

□More than 16 years

Education qualifications

□BSc Pharmacy/BPharm

□PharmD

□Higher studies

□Other professional certificates/BCPS

Setting of working

□Hospital Pharmacy

□Clinical Pharmacy

□Community Pharmacy

□Retail Pharmacy

Designation of Pharmacist

□Trainee Pharmacist

□Resident Pharmacist

□Staff Pharmacist

□Assistant Manager Pharmacy

□Manager/Senior Manager Pharmacy

□Chief Pharmacist

□Director Pharmacist

Drug references available
□British National Formulary

□Martindale

□British Pharmacopeia/US Pharmacopeia

□Lexicomp Drug Information Handbook

□Micromedex

□Other (Medscape, Renal Dosing Handbook, mobile applications,etc.)

Knowledge:
1. Related to renal dose adjustment?

a. Are you knowledgeable about renal dose adjustment?
□Yes

□No

b. Have you ever heard about the National Kidney Foundation KDOQI guidelines?
□Yes

□No

c. Are the medications excreted from the body through the kidneys?
□Yes

□No

d. Are you monitoring a patient's renal function during medication administration?
□Yes

□No

2. Factors to be considered when determining the appropriate dose for a patient with renal impairment

a. Age of the patient
□Yes

□No

b. Weight of the patient
□Yes

□No

c. The severity of the patient's renal impairment
□Yes

□No

d. The medication's pharmacokinetics and pharmacodynamics
□Yes
□No

3. Medications commonly require renal dose adjustment

a. Antibiotics
□Yes
□No

b. Antihypertensives
□Yes
□No

c. Analgesics
□Yes
□No

d. other medications
□Yes
□No

4. Calculating the appropriate dose for a patient with renal impairment

a. Use a formula based on the patient's creatinine clearance or estimated glomerular filtration rate (eGFR)
□Yes
□No

b. Follow dosing guidelines provided by the medication manufacturer
□Yes
□No

c. Consult with a specialist, such nephrologist
□Yes
□No

d. Consult with a specialist, such as a pharmacist
□Yes
□No

5. Consequences of not adjusting the dose of medications for patients with renal impairment

a. Increased risk of adverse drug reactions
□Yes

□No

b. Decreased medication efficacy
□Yes

□No

c. Reduced quality of life for the patient
□Yes

□No

d. Exaggerate symptoms of disease
□Yes

□No

6. Resources to determine the appropriate dose for a patient with renal impairment

a. Medication dosing guidelines
□Yes

□No

b. Clinical practice guidelines
□Yes

□No

c. Pharmacokinetic information
□Yes

□No

d. Pharmacodynamics information
□Yes

□No

Attitude:

7. How important is dose adjustment of medications for patients
a. Not important
b. Somewhat important
c. Moderately important
d. Very important
8. How confident are you in calculating the appropriate dose for a patient
a. Not at all confident
b. Somewhat confident

c. Moderately confident
d. Very confident
9. Are you willing to consult the specialist regarding medication dose adjustment
a. Not willing
b. Somewhat willing
c. Moderately willing
d. Very willing
10. How receptive are you to feedback regarding your prescribing practices for patients
a. Not receptive at all
b. Somewhat receptive
c. Moderately receptive
d. Very receptive

Perception:

11. Encounter patients with renal impairment in your practice
a. Rarely
b. Occasionally
c. Frequently
d. Very frequently
12. Frequently adjust medication doses for patients with renal impairment
a. Rarely
b. Occasionally
c. Frequently
d. Very frequently
13. Believe that patients with renal impairment receive adequate medication management
a. I'm not sure
b. Yes, medication management is adequate
c. Somewhat, but there is room for improvement
d. No, medication management could be improved

Most significant barriers to providing appropriate medication management for patients with renal impairment **(click whichever is appropriate, can select more than one option)**

1.Patient doesn't have time to discuss
2.Afraid of dealing with prescriber(s)
3.Insufficient time due to pressure from other work
4.Insufficient time due to high patient load
5.Lack of relevant drug information
6.Lack of knowledge and confidence
7.Insufficient patient medical history
8.Lack of information about patient's renal function

Would you like to attend courses/CME sessions on topics regarding renal dose adjustment?

□Yes

□No

If yes in which mode

□Online

□Face-to-face lecture

□Workshop

□Other if any

Appendix 2

OFFICE OF THE DEAN
FACULTY OF CHEMICAL AND LIFE SCIENCES
ABDUL WALI KHAN UNIVERSITY, MARDAN-PAKISTAN
Sultanayaz@awkum.edu.pk cell; 0937-843375

Ref. No/Dean/AWKUM/2021/ Date: 20/11/2021

TO WHOM IT MAY CONCERN

This is to certify that **Ms. Roheena Zafar D/O Zafar Ali** is PhD scholar of Pharmacy Department **Abdul Wali Khan University, Mardan**. She is conducting her research work on "Development and validation of the Renal Dosing Questionnaire (RDQ-13) Scale for Pharmacists" under the supervision of **Dr. Inayat Ur Rehman** and co-supervisor **Dr. Yasir Shah**. The ethical committee is pleased to grant ethical approval to **Ms. Roheena Zafar** to conduct her research work in any hospital care setting.

Ethical Approval #: EC/AWKUM/2021/27

Convener,
University Ethical Committee &
Dean, Faculty of Chemical and Life Sciences
Abdul Wali Khan University, Mardan