# Implementation of pharmaceutical care service: renal perspectives.

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# Implementation of Pharmaceutical Care Service: Renal Perspectives

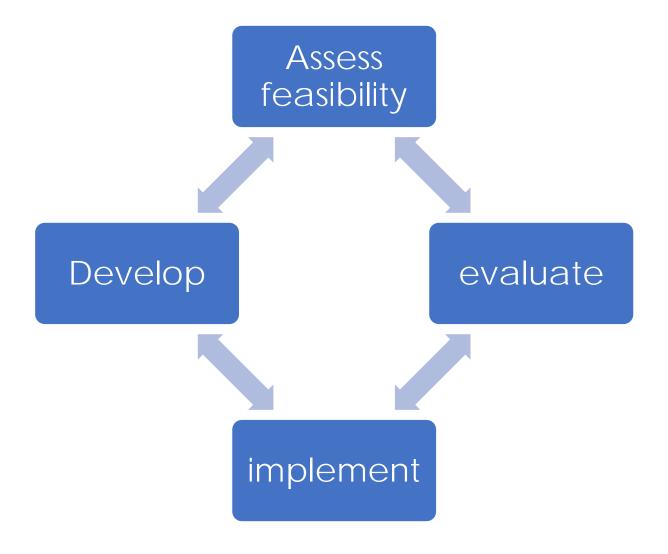
Fatma Al Raisi Robert Gordon University 06/02/2019



"Absence of evidence is not the same as evidence of absence."

### RESEARCH





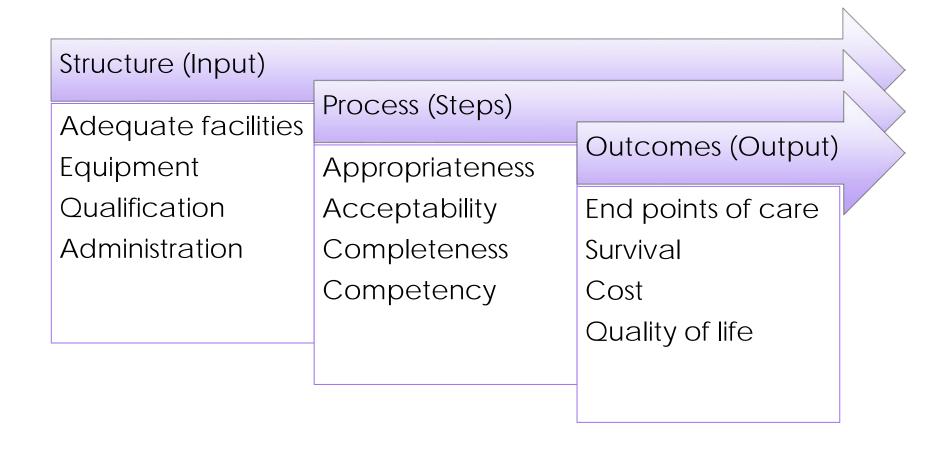
### Some data from Oman



- ➤ Prevalence of CKD in Oman: 0.9% of Oman population has CKD stage IV and V, 9% has CKD stage III and more than 29% has CKD stage II
- > ~ 2000 + patients on HD
- > ~ 180 + patients on PD
- ➤ 22 satellite dialysis units
- > ~ 1500 + patients had at least 1 kidney transplantation







### The 3 phase of the doctoral research



Phase 1: Systematic review

To critically appraise, synthesize and present the available evidence

#### Phase 2: Survey

To determine the behaviours and experiences of UK pharmacists providing care to patients with CKD in relation to the structures, processes and related outcomes

#### Phase 3: Interviews

To explore the development, implementation and evaluation of pharmacist prescribing for patients with Chronic Kidney Disease (CKD) in the UK

### Systematic review







PROSPERO International prospective register of systematic reviews

The structures, processes and related outcomes of clinical pharmacy practice as part of the multidisciplinary care of patients with CKD: a systematic review update

Fatma Al Raiisi, Scott Cunnigham, Derek Stewart, Teresa Salgado, Fernando Fernandez-Llimos, Mustafa Fahmy

Citation

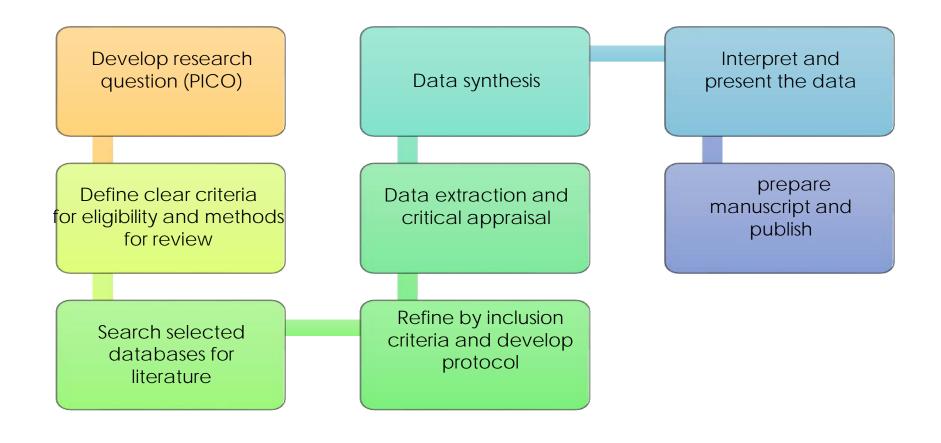
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#### Questions:

- What clinical pharmacy practice related resources are in place and how are these matched to healthcare needs and demands to enable provide care to CKD patients?
- What activities are performed to care for patients with CKD, how and when are they performed?
- ➤ What are the outcomes of the structure and the processes on the effectiveness and efficiency of care provided?

### Steps for conducting the systematic review





Wright et al. 2007



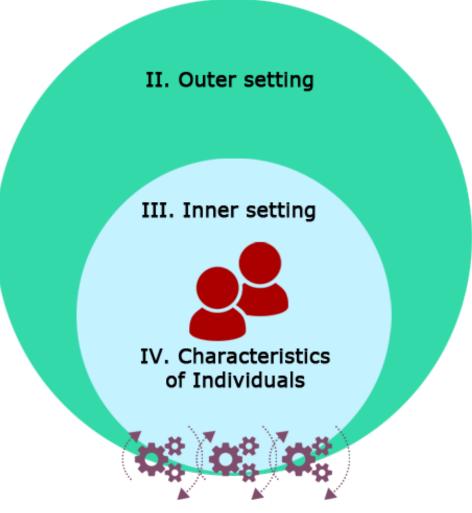
Phase 2: A theoretically based cross-sectional survey on the behaviours and experiences of clinical pharmacists on provision of multidisciplinary care of patients with chronic kidney disease in the United Kingdom.

- ➤ Why based on theory?
- ➤ Which theory?
- ➤ What is CFIR and why used?









V. Process



# I. INTERVENTION CHARACTERISTICS

- Intervention Source
- Evidence Strength& Quality
- Relative Advantage
- Adaptability
- Trialability
- Complexity
- Design Quality & Packaging
- Design Quality & Packaging
- Cost

#### II. OUTER SETTING

- Patient Needs & Resources
- Cosmopolitanism
- Peer Pressure
- External Policy & Incentives

#### **III. INNER SETTING**

- Structural
   Characteristics
- Networks & Communications
- Culture
- Implementation Climate
- Readiness for Implementation

## IV. CHARACTERISTICS OF INDIVIDUALS

- Knowledge & Beliefs about the Intervention
- Self-efficacy
- Individual Stage of Change
- Individual Identification with Organization
- Other Personal Attributes

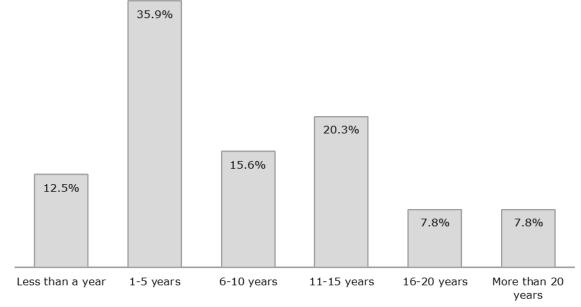
#### V. PROCESS

- Planning
- Engaging
- Executing
- Reflecting & Evaluating

### Results



- √ 71 responses (50% response rate)
- ✓ 78% female
- ✓ More than 50 % were within age group of 31 40 years
- ✓ 82.8% were NMP



How long have you provided clinical care for patients with CKD?

# Characteristics of clinical pharmacy services you provide for IN-PATIENTS with CKD



Area of care	Providing care n (%)
General pharmaceutical care	56 (87.5)
PC for patients receiving dialysis	54 (84.4)
PC for patients at transplantation	46 (71.9)
Poly-pharmacy review	50 (78.1)
Targeted CKD renal medication review	50 (78.1)
Targeted renal medication review: transplantation	47 (73.4)
Targeted renal medication review: anaemia	42 (65.6)
Targeted renal medication review: vasculitis	44 (68.8)
Targeted renal medication review: hypertension	42 (65.6)
Consulting out-patients with renal complication	46 (71.9)
Consulting out-patients on haemodialysis or peritoneal dialysis	45 (70.3)
Consulting out-patients with mineral bone disease	49 (76.6)
AKI	49 (76.6)



### Other roles pharmacists were engaged with:

- ✓ Audits/service evaluations/quality improvements 72%
- ✓ Care home support 9%
- ✓ Academic research 8%
- ✓ Providing education/training for other pharmacy staff 91%, other healthcare professionals 85%, patients 48%
- ✓ Involved in production of in-house guidelines, strategy or policy 88%

# Development and implementation of your CLINICAL PHARMACY practice



Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Missing	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	
I feel there is a need for more evidence for the benefits of my role	14 (21.9)	25 (39.1)	14(21.9)	6 (9.4)	3 (4.7)	2 (3.1)	Intervention characteristics: evidence strength and qual
							X
I feel that colleagues in other organisations are ahead in implementing the role	18 (28.1)	20 (31.3)	16 (25)	6 (9.4)	2 (3.1)	2 (3.1)	Outer setting: peer pressure
							$\times$
I feel I have sufficient time to practise in my role	1 (1.6)	10 (15.6)	5 (7.8)	39 (60.9)	8 (12.5)	1 (1.6)	Inner setting: available resources
							$\rightarrow$
I feel that I am burdened with having to provide other services that take me away from providing care for patient with CKD	16 (25)	26 (40.6)	8 (12.5)	9 (14.1)	4 (6.3)	1 (1.6)	Inner setting: available resources
							$\rightarrow$
The actions and views of other members of the multi-disciplinary team influence my practice	17 (26.6)	43 (67.2)	2 (3.1)	1 (1.6)	0 (0)	1 (1.6)	Process: opinion leaders (social influences):
I feel my role as a clinical pharmacist for patients with CKD is not fully supported by my organisation	3 (4.7)	14(21.9)	13 (20.3)	26 (40.6)	7 (10.9)	1 (1.6)	Process: opinion leaders (social influences):
							$\rightarrow$
I am confident in my ability as a member of the multidisciplinary team	15 (23.4)	40 (62.5)	5 (7.8)	2 (3.1)	0 (0)	2 (3.1)	Characteristics of individual self efficacy

# What is the most rewarding aspect of your role in providing clinical pharmacy services to patient with CKD?



"Making a difference to the patients and providing support for them" "Patient related work.
Solving pharmaceutical problems for patients.
Looking into clinical problems"

"Working as part of the MDT to ensure the best outcomes for patients and doing patient education talks to our CKD patient"

"Providing holistic medication review for patients rather than segregated specialities review"

"Patients thank me for providing them with education and being appreciated by other members of the renal team"

"The ability to make a change to improve the care of our patients"



# What do you find most challenging about your role in providing clinical pharmacy services to patient with CKD?



"No support from management to do more in outpatient setting"

"Complexity and uniqueness of each patient cases"

"Lack of training"

"Prioritisation of workloadinpatients, out patients, HD, PD, ongoing enquiries, audits, education and training, staff management" "Having renal pharmacy recognized as a specialist pharmacy service which requires adequate funding and support"

"Lack of time for service development. Significant time spent on reactive patient flow activities inc. work that could be done. It is a challenge not to get frustrated"



# Do you have any additional comments about your role in the care of patients with CKD?



"We need a team of pharmacy staff to provide the service"

I believe it is a valuable role that could be expanded to better serve our existing population

Need to use technology and other innovations better

Pharmacy works best when it is professionally integrated into the frontline and NOT as a support service





We have gained insight into an existing service:

- 1. Help determine the value and the impact of the service
- 2. Reflect on the pro's and con's of the service implementation
- 3. Support in identifying any need for future changes

We need to be vigilant not to be trapped in false, unwanted results!!





- 1. Clinical pharmacy services are not straightforward
- 2. It is always a part of a MDT service (involve others)
- 3. May change over time depending on situations
- 4. Will require change in behaviours
- 5. Outcomes to be measured are not easy



## Take home messages

- 1. Renal service is of importance to our patients
- 2. To be able to successfully implement the service we need to evaluate the implementation by research
- 3. CFIR could be a roadmap for implementation of a service
- 4. In order to provide high quality evidence, the research must be transparent and rigorous to justify the need of a service
- 5. If we plan well we can execute any service in a systematic fashion



