

Patient Perspectives on Delivery of Drug Therapy Information and Renal Pharmacist Quality Indicator – Drug Therapy Problems (QI-DTPs)

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Background

- Chronic kidney disease (CKD) patients have complex medication regimes = high risk of DTPs
- Consensus of renal pharmacist 17 QI-DTPs developed in 2015/16 to improve renal pharmacy practice & patient care
- Barriers and facilitators for renal pharmacist uptake of QI-DTPs in practice identified in 2016/17
- Patient and family centered care identified as a priority by the Ministry of Health and Interior Health Authority

Objectives

- To determine the type of information renal patients require to make **decisions** about drug therapy
- To determine the type of medication-related information renal patients would like to **enable them to adhere** to their medication regimen
- To obtain **patient input** on a previously developed list of renal pharmacist **QI-DTPs**
- To help inform the development of an intervention to increase the uptake of renal pharmacist QI-DTPs

Methods

Design

- Prospective, single center, qualitative study

Setting and sampling

- Kelowna General Hospital Renal Clinic
- Purposeful sample

Inclusion

- CKD patients: Stage 3, 4 and 5
- ≥1 of Diabetes, Hypertension or Cardiovascular Disease

Data collection

- Semi-structured, 1-on-1 in-person or telephone interviews using interview guide developed by study investigators
- Interviews transcribed by one study investigator

Data analysis

- Transcript-based thematic analysis
- Consensus of coding and themes for each interview

Results

Table 1. Demographics

Characteristic	n = 10
Age (years)	70
Female	5 (50%)
Diabetes	6 (60%)
Hypertension	9 (90%)
Cardiovascular Disease	5 (50%)
CKD Etiology	
Hypertension	1 (10%)
Diabetes	2 (20%)
Multi-factorial	6 (60%)
CKD Stage	
3	5 (50%)
4	3 (30%)
5	2 (20%)

Table 2. Decision-Making Information & Sources

Helpful	Utterances (Participants)
Adverse Drug Reactions	16 (9)
Expected benefit(s)	14 (7)
Administration of medication	9 (8)
Medication indication	8 (7)
Unhelpful	
Confusing terms	8 (4)
High volume	4 (2)
Sources - Verbal	
Physician	52 (9)
Pharmacist	46 (10)
Sources - Written	
Pharmacy Handout	17 (9)
Internet-Based	10 (6)

Table 3. Information to Support Adherence

Barriers to Medication Adherence	
Code	Utterances (Participants)
Evening dosing	3 (3)
Enablers to Medication Adherence	
Code	Utterances (Participants)
Knowing benefits	1 (1)
Additional information or discussion of benefits would not be helpful n=9 #utt. 21	
<i>"I don't miss medications because I don't have the information about how it works or anything, it's just that I have forgotten to take them completely"</i>	

Table 4a. Input on QI-DTPs

Expectation of medications	
Code	Utterances (Participants)
Slow progression of CKD	8 (8)
Better health / Improve health	5 (5)
General priorities or concerns	
Code	Utterances (Participants)
Decrease # of medications	8 (8)
Optimize medication therapy	3 (3)

Results

Table 4b. Input on QI-DTPs

Example - Diabetes QI-DTP		
<i>In patients with above normal A1c, add medications to decrease A1c to prevent further damage to the kidneys</i>		
High Priority	Code	Utterances (Participants)
Diabetes n=4 (6)	Diabetes can damage my kidneys	2 (2)
	Important to optimize blood glucose	1 (1)
Hypertension n=8 (9)	Slow progression of kidney disease	4 (4)
	Takes an ACE-inhibitor	2 (2)
Prevention of CVD n=5 (5)	Previous adverse event	2(3)
	Prevent CV event	1(1)

Limitations

- 1 in-person interview, 9 over the telephone
- Could not code portions of one interview
- Study timeline and recruitment limited number of participants

Conclusions

CKD Patients:

- Want to be involved in medication decisions

Information:

- Patients are interested in indication, mechanism of action, expected benefits/risks and how to use their medication
- Medical terminology can be confusing
- Find high volume of written information unhelpful
- Additional information or discussion about benefits would not help with adherence

QI-DTPs:

- High priority to patients based on their current medications
- Expect their medications to slow the progression of CKD and improve health

