

Role of Pharmacists in Keeping Kidneys - a General Practitioner with Special Interest chronic disease clinic

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Background

People with Chronic Kidney Disease (CKD) experience significant medication burden, compounded by multiple prescribers reflecting a high co-morbidity in the group. Good medication management including communication among healthcare providers, is a critical component of managing chronic and progressive diseases like CKD.

Description

The Keeping Kidneys (KK) clinic is a General Practitioner with Special Interest (GPwSI) model of care in which nephrologists provide clinical detailing. The Keeping Kidneys clinic commenced in June 2018 to serve a vulnerable group of people who previously had to travel a substantial distance to access specialist renal care.¹ This patient cohort is the most disadvantaged group in the local geographical region.

The Moreton North region (Caboolture catchment) is experiencing :

- **the highest** projected % change in population: 58.8% from 2016-2036
- **the highest** health risks: Obesity (28.7%), Smoking (21.9%) and Alcohol consumption (5.4%)
- **the shortest** life expectancy (81.4 years compared to 84.7 years)
- **the highest** number of people living with a disability (5.6 % compared to the regional rate of 4.1%)^{2,3}

Action

A pharmacist reviews all new patients to the service and patients identified as being at increased risk of medication misadventure. The pharmacist is a single provider of medication management, irrespective of prescriber.

Actions taken by the pharmacist during their review are summarised in Table 1 below.

Table 1

Actions taken by pharmacist	Examples
Comprehensive pharmaceutical review	Drug interactions Dose adjustments for level of renal function
Focused patient education	Purpose of medications Common drug interactions with over the counter medications Opportunities to avoid nephrotoxins Potential risks of kidney injury
Medication adherence assessment	Adherence strategies Co-ordination of new dose administration aid, if required
Medication management plans	Development of personalised medication management plans Provide patient with written documentation
Screening for lifestyle factors	Smoking cessation strategies
Dissemination of information to all of the patient's healthcare providers	Communication with community providers - community pharmacies, general practitioner, residential care facilities Updated medication records available to all Queensland Health facilities

Evaluation

From February to September 2019, pharmacists have reviewed 132 patients and performed 78 major interventions, 157 minor interventions and 31 community liaison activities. A monthly break down of these results can be found in Figure 1.

Examples of **major** interventions include:

- Dose adjustments of anticoagulants
- Cessation of medications inappropriate for patient's renal function

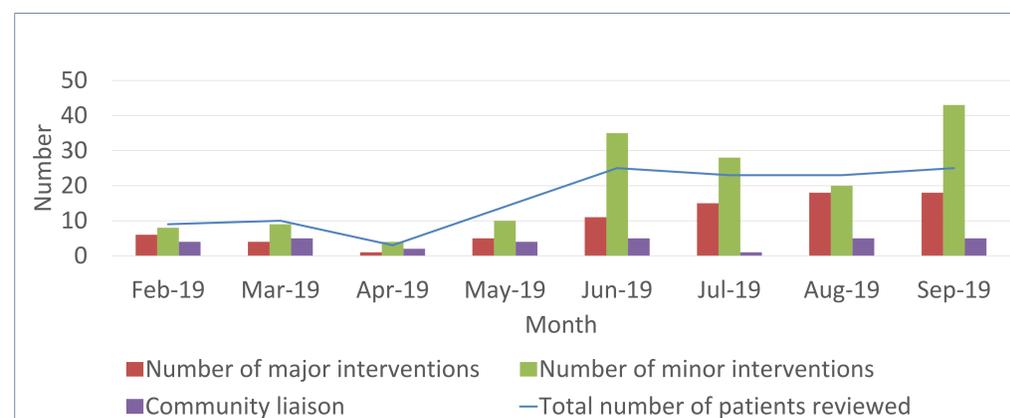
Examples of **minor** interventions include:

- Discussion of strategies to improve adherence
- Education regarding avoidance of nephrotoxins e.g., non steroidal anti-inflammatory drugs
- Lifestyle education e.g., improving hydration levels, encouraging administration of influenza vaccination

Examples of **community liaison** activities include:

- Coordination of new dose administration aids
- Communication of dose/drug changes to residential aged care facilities.

Figure 1



Implications

The pharmacy skillset is emerging as an important component, alongside general and specialist medicine, of personalised management of CKD. Longitudinal assessment of patient outcomes will be key in evaluating and refining the pharmacist's role.

References

1. Metro North Hospital and Health Service Kidney Health Services Plan 2018-2023 www.health.gov.au/metronorth
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3. Population health snapshot-Brisbane North www.brisbanenorthphn.org.au/content/Document/Planning/DRA-Population_health_snapshot-Brisbane-North-FINAL.pdf