KIDNEY SUPPORTIVE CARE: HEALTH SERVICE UTILISATION OUTCOMES FROM A PROGRAM IMPLEMENTATION IN BRISBANE, AUSTRALIA

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Aims
- To characterize the types, frequencies and costs of services accessed by patients enrolled in Queensland’s first kidney supportive care (KSC) program.
- To understand the heterogeneity of patients enrolled in KSC with respect to health service utilisation, in particular with respect to their dialysis status.

Background
- KSC is a novel, person-centred, interdisciplinary model of care designed to align with the needs, preferences and priorities of people with advanced CKD or ESKD and their families.1

Methods
- Prospectively collected information on KSC patients’ demographics and healthcare services accessed in the Brisbane area of Metro North during 52 weeks of program implementation in February 2016.
- Healthcare records included KSC program appointments, ED presentations, ambulance services, outpatient visits, inpatient episodes, and dialysis treatments. Expenditures were estimated using Queensland Health funding principles and guidelines.
- Analyses included descriptive statistics and multivariate regression models explaining variation in weekly contacts with health care and expenditures (other than dialysis).

Results
- 102 patients were included in the analysis set with a median length of program participation of 22.1 weeks (IQR 15-36). Median enrollee age was 74.5 years (IQR 63.6-83.8). 51% of patients were female and 5% were Indigenous Australians. 46% of patients had a record of dialysis during program participation; 54% received no dialysis. Haemodialysis accounted for 95% of all dialysis treatments.
- The median weekly healthcare expenditure recorded among KSC participants was A$1180, with an interquartile range of A$162 to A$1897 (Figure 1).
- Patients who received dialysis during the study duration recorded higher outpatient expenditures, A$180 per patient per week compared to A$47 in those who did not have a record of dialysis. Considering other types of health care, differences between these two groups were not statistically significant (Table 1).
- The dollar value of health care recorded during the study duration was nearly A$3 million. Dialysis accounted for 49%, inpatient services for 32%, outpatient expenditures, A$180 per patient per week compared to A$47 in those who did not have a record of dialysis. Considering other types of health care, differences between these two groups were not statistically significant (Table 1).
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Conclusions
- The program attracted patients representing various characteristics, pathways, needs and outcomes. Exploring these patterns will enable better understanding of the patient population and improved service planning, in KSC and similar programs that aim to comprehensively address needs of patients with advanced CKD and ESKD.

Reference

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Figure 1: Distribution of the weekly healthcare expenditure per patient

Figure 2: Healthcare expenditure recorded during the KSC program

Table 1: Weekly healthcare expenditures by care type

<table>
<thead>
<tr>
<th>MEAN AS (SD), PER PATIENT PER WEEK</th>
</tr>
</thead>
<tbody>
<tr>
<td>All patients</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>N=102</td>
</tr>
<tr>
<td>KSC</td>
</tr>
<tr>
<td>Dialysis</td>
</tr>
<tr>
<td>ED</td>
</tr>
<tr>
<td>QAS</td>
</tr>
<tr>
<td>Outpatient</td>
</tr>
<tr>
<td>Inpatient excl. dialysis</td>
</tr>
<tr>
<td>All</td>
</tr>
<tr>
<td>All excl. dialysis</td>
</tr>
</tbody>
</table>

Table 2: Results of multivariate regression analyses

<table>
<thead>
<tr>
<th>Test stat*</th>
<th>p-value</th>
<th>R-squared*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wald chi2</td>
<td>76.37</td>
<td>0.000</td>
</tr>
<tr>
<td>102</td>
<td>7.02</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

* In the case of model (1) reported is pseudo-R2

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QLD Government

The University of Queensland

Queensland Government

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In the case of model (1) reported is pseudo-R2

Outliers defined as Q3+1.5xIQR.