INBRIEF | Summarizing the Evidence

Conservative Management of Chronic Kidney Disease in Adult Patients: A Review

Key Messages

- Evidence suggests that patients with late- or end-stage chronic kidney disease who are on conservative management have comparable outcomes to those on dialysis.
- Evidence suggests that there were no differences in quality of life for elderly patients with end-stage renal disease on conservative management compared to those on dialysis.
- In some instances, dialysis care was associated with increased survival and decreased mortality compared to conservative management in patients with end-stage renal disease; however, there were no differences found in patients with severe comorbidities.
- No evidence was identified for outcomes such as repatriation, frailty, kidney function, and safety when comparing conservative management to dialysis care in patients with late- or end-stage chronic kidney disease.
- The economic studies conducted to date (June 2020) are limited in both quantity and quality and were not conducted in Canada; as a result, their generalizability to the Canadian context is unclear.

Context

Chronic kidney disease (CKD) is defined as the presence of impaired kidney function and protein in the urine for at least three months. Common causes of CKD include diabetes, hypertension, and kidney inflammation. There are five stages of CKD that are classified by estimated glomerular filtration rate (eGFR), a measurement used to describe how well the kidneys are functioning based on the level of creatine (a waste product) in a person's blood. Each stage represents a different level of kidney function. Patients with stages 1 to 3 CKD have few to no symptoms and impairment can often be reversed with medical management once diagnosed. A diagnosis of stage 4 CKD (i.e., eGFR 15 mL/min/1.73m^2 to 29 mL/min/1.73m^2) indicates severe loss of kidney function, and stage 5 CKD (i.e., eGFR < 15 mL/min/1.73m^2) indicates kidney failure, also known as end-stage renal disease. According to the Canadian Institute of Health Information, the treatment of late- and end-stage CKD places a significant economic burden on the health care system, with patients on dialysis accounting for 1.1% of annual health spending in Canada.

Technology

At the late and end stages of CKD, treatment is often focused on either kidney replacement therapy or conservative management. Kidney replacement therapy includes kidney transplant or dialysis, a treatment used to help filter waste from a person's blood when their kidneys no longer work. Conservative management, also known as conservative care, is a comprehensive approach to late- and end-stage CKD treatment without dialysis or kidney transplant, where the focus of care is symptom management and quality of life (QoL). Through a shared decision-making process, conservative care is individualized to each patient and can include pharmaceutical management of symptoms; patient education; nutrition; psychological, social, and spiritual support; and in some cases, palliative care.

Issue

Dialysis treatment may lengthen a person's life and improve QoL; however, in some cases, the demanding and time-consuming nature of the treatment may negatively impact QoL. Patients with late- or end-stage CKD and their families may consult with their medical providers to pursue conservative management when the burden of dialysis could outweigh any potential life expectancy gained. A review of the clinical effectiveness and cost-effectiveness of conservative management compared to dialysis will help to guide treatment decisions for patients with late- or end-stage CKD.

Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (i.e., population, intervention, comparator, outcomes, and study designs).

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Results

The literature search identified 492 articles, 62 of which were deemed potentially relevant. Of these articles, 11 met the inclusion criteria for review — three systematic reviews (one with meta-analysis), 11 non-randomized studies, and one economic evaluation.

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