

A MULTIDISCIPLINARY APPROACH TO THE MANAGEMENT OF CARDIORENAL SYNDROME

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Cardiorenal syndrome is a complex condition which carries a poorer prognosis than heart failure or renal failure alone. One third to half of patients with heart failure develop renal insufficiency (defined as a glomerular filtration rate (GFR) of less than 60ml/min/1.73m²). The mainstay of heart failure treatment is ACE inhibitors and diuretics, both of which have the potential to cause deterioration in renal function. Diuretic resistance, difficulty in maintaining fluid balance without compromising heart failure or kidney failure and under usage of medications like ACE inhibitors are some of the major challenges involved in managing this group of patients.

The use of multidisciplinary teams (MDT) to manage heart failure has been shown to improve quality of life, reduce hospitalisation and length of stay, and increase the effective use of medication. The service provided at our Trust provides a community based and secondary care multidisciplinary service for patients with a left ventricular ejection fraction of less than 45%. A specialised service is offered for patients with heart failure and an estimated eGFR of less than 30ml/min/1.73m². Care is provided in a variety of forms - telephone advice, home visits, heart failure clinics, in patient reviews, advice on fluid restriction and medication modification and specialist palliative care services.

Our model consists of a monthly MDT meeting attended by the cardiologist, nephrologist and heart failure nurses to discuss complex management issues. From September 2007 to January 2008, the service provided at our centre reviewed 213 patients referred from GPs, the cardiology team or other hospital teams. Of these, 32.5% had an eGFR of 30-60ml/min and 7.5% had an eGFR less than 30ml/min. The heart failure nurses provided 136 home visits, 381 phone calls and 741 face to face consultations. These consultations provide opportunities to modify drugs including dosages, monitor renal function, provide general advice on diet & fluid management and support to patients and their families. An estimated 41 hospital admissions were averted by managing problems in the community.

Particular benefits of the service include:

- The use of evidence based guidelines to ensure optimal treatment
- Patients can contact the nurses in between their consultant appointments
- Prompt access to the secondary care team on a when required based. Nurses can review the patient then contact the consultant for further advice.
- Consultations in various forms suitable for the patient
- Early involvement of the renal team for specialist advice
- Specialist palliative care nurse to manage end of life issues including drug treatment, psychological support and referral to hospice

This multidisciplinary approach aims to meet the needs for those with cardio renal syndrome. It uses an evidence based approach to optimise management and improve quality of life. The service has successfully reduced hospital admissions by managing problems early in the community. The involvement of the renal team allows for specialist input regarding drug treatment and potential for delivering haemodialysis or ultrafiltration for suitable patients at the right time.