

## GUEST EDITORIAL - Kaylene Fiddes

Kaylene Fiddes is Project Manager, Victorian Centre for Ambulatory Care Innovation and the Disease Management Unit, The Alfred Hospital, Melbourne, Australia.

### DISEASE MANAGEMENT: COMING TO A HOSPITAL NEAR YOU

**B**ed shortages, nurse shortages, chronic disease readmission rates and shorter lengths of stay are some of the issues impacting on our acute health care system today. Such issues have contributed to the implementation and evaluation of innovative service delivery models.

The principles of 'disease management' and disease management program models have attracted much interest internationally and a range of trials and projects are also underway in Australia.

Some of these trials build on programs implemented overseas which have had a positive impact on patient outcomes as well as improving the health care system. Disease management, whilst a multidisciplinary approach, also provides a unique role for nurses with a strong component of patient education, holistic assessments and case management.

Common conditions targeted for such approaches have included heart failure, asthma, chronic obstructive pulmonary disease and diabetes. Factors influencing the implementation of disease management for specific conditions can be seen in the example of heart failure.

Rates of readmission for patients with congestive heart failure (CHF) have been reported at 29% - 47% within three to six months (Rich et al 1995). One study reported an unplanned readmission rate of 20% within 28 days for this patient population (Lowe et al 1998). Factors such as poor understanding or poor compliance with diet, lifestyle recommendations and medication regimens are often reported as reasons contributing to readmission.

Trials in the US that have utilised interventions that address these issues have demonstrated significant improvements in readmission rates. These interventions have included a multidisciplinary proactive approach that provided structured follow-up and monitoring. This included nurse home visits, telephone follow-up, an intensive education program promoting patient self-management skills development and a support service. Further to this, these studies have demonstrated reduced emergency department presentations, improved quality of life, reduced costs, improved compliance with lifestyle recommendations and medication behaviour and improved functional capacity for patients with CHF (Rich et al 1995; West et al 1997; Stewart et al 1998; Shah et al 1998).

The focus of disease management sees a shift from the emphasis on managing the acute episode to managing the entire course of a disease, highlighting prevention and maintenance of well-being for patients with a chronic disease. Typically, programs seek to proactively address the needs of patients with specific long term conditions in the ambulatory care setting through ongoing follow-up, assessment and education, thereby preventing exacerbations and admission to hospital.

Common objectives include:

- improvement of patient well-being and quality of life;
- promotion of patient self-management skills;
- reduction of acute episodes, acute health care utilisation and readmission rates;
- provision of support services and ongoing follow-up; and,
- utilisation of evidence based practice.

Key components of many disease management programs include:

- extensive patient education (often ongoing);
- a multidisciplinary coordinated approach;
- ongoing monitoring and support often mediated by a nurse via home visit(s) or via the telephone;
- structured follow-up (for example, monthly telephone calls to determine issues, new needs, early warning signs of exacerbation and revise education);
- the use of evidence-based practice and guideline recommendations;
- the promotion of optimal lifestyle behaviour and self-management skills; and,
- clinical outcomes management.

Disease management programs may follow patients for up to six months while structured follow-up contacts have ranged from weekly to monthly. Patient follow-up may be in the outpatient clinic, the patient's home or via telephone contact. Sometimes it has simply involved mailing a reminder or information fact sheet. For example, a diabetic may be sent a reminder that their yearly foot examination is due.

Disease management programs are developed with the knowledge and understanding of the nature of the specific disease, and when and which interventions are likely to have an impact in terms of maintaining an optimal health status for the patient.

Developing the processes for managing the disease include the development and utilisation of disease specific interventions. Patient education uses a variety of interventions from written material to video instruction.

Critical pathways, telephone assessment forms, telephone clinical decision support algorithms, disease mapping, and treatment protocols are other tools used in disease management programs. Effective information systems are essential for data collection and outcomes analysis.

Some programs also provide a 24-hour telephone contact service for patients. A program for CHF patients may see a patient call in complaining of pedal oedema or increasing shortness of breath. Following consultation with the medical staff, a home care nurse may then visit the patient in their home and administer IV frusemide.

Not only has the patient been taught to notify health care professionals at a point where treatment can be given before it becomes a much more dire situation, but the treatment has been provided in the comfort of the patient's home and out of the more expensive acute care environment.

Research that demonstrates the effectiveness of treatments and care plays an important part in the development of a program. Review of clinical guidelines, clinical trials and literature, which is widely accepted by specialists, is essential for program development and optimal outcomes. Knowledge gained from these reviews, along with local expert consensus, is incorporated into the design. A simple illustration of this is described in the following:

*Training patients with asthma in the use of a peak flow meter has been shown to be clinically effective and have a costs saving potential. This practice then, would be advisable as a key element in asthma disease management programs.*

Measuring the outcomes of these programs have generally included health care utilisation and costs, patient quality of life and patient satisfaction. Medication intake may be measured during the service, along with functional status data and symptomatic data. Preventative health care utilisation may also be monitored. A population of diabetics may be monitored for improvement in the percentage of patients who have yearly foot and eye examinations or the percentage of CHF patients who are

on ACE inhibitor therapy may be evaluated.

Whilst disease management is a multidisciplinary approach with overall management the responsibility of medical staff, the nurse is central to the success of disease management programs.

Some of the key aspects of the nurse's role include:

- delivery of clinical care in the home or via the phone;
- assessment for early warning signs of exacerbation;
- patient education and facilitation of patient self-management skills;
- remaining familiar with current evidence based practice and guidelines for specific patient population, for example, heart failure;
- understanding of outcomes established and appropriate interventions if variances occur;
- coordination and access of support and services in the community for patients as needed; and,
- liaison with all health care professionals involved in patient management across all health care sectors.

Disease management programs have been clearly identified by both Australian State and Federal governments as one of a number of intervention models to be used to deal with our changing disease and demographic patterns. The increasing evidence regarding the effectiveness of disease management in the care of individuals with chronic illness presents nurses with a unique opportunity to take a leading role in coordinating these emerging models of care. It is now up to the nursing profession to grasp the opportunity to become involved in the research, development and implementation of disease management programs in Australia.

## REFERENCES

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