Multimorbidity in primary care

Part 1

Multimorbidity (the co-occurrence of two or more chronic conditions) is of growing importance to the field of practice nursing. This paper aims to give the reader an overview of what is currently known about the prevalence, effects and management of multimorbidity. It also explores the potential for practice nurses to lead the way in establishing innovative approaches to caring for patients with multimorbidity.

Background

The World Health Organization (WHO) refers to chronic disease as an “invisible” global epidemic that must be controlled. Patients with chronic diseases account for:

- 80% of GP consultations
- 78% of all healthcare spend
- 60% of all deaths worldwide, but 84% of all deaths in Ireland
- 77% of Europe’s disease burden

Many people have more than one chronic condition, known as multimorbidity. Individuals with multimorbidity are more likely to:

- Die prematurely
- Suffer from depression
- Receive multiple medications
- Have problems adhering to treatments
- Be major drivers of general practice workload because of clinical complexity and polypharmacy
- Have longer hospital stays
- Frequent emergency hospital admissions
- Repeated investigations at high cost for both the individuals and the healthcare system
- Poorer quality of life
- Loss of physical functioning
- Higher use of specialists even for conditions normally managed in primary care

MS JANE CAMPION, RGN MHSC (PRIMARY CARE)
DR MARY BYRNE, PHD
International prevalence studies confirm that multimorbidity is particularly common in people aged over 65. This has implications for countries with an increasing age profile, like Ireland where the population >65 years is expected to rise from 11% in 2006 to 25% by 2026.

‘Community matron’ model
Some countries have developed models of care to manage patients with multimorbidity who are at a high risk of hospitalisation, such as the ‘community matron’ model in the UK. These models incorporate a case management approach. There is no such model in Ireland for this cohort of patients. Clinical Practice Guidelines have been developed to improve the quality of healthcare for many chronic conditions. However, most aren’t applicable to patients with multimorbidity because they are based on evidence for single diseases. Furthermore, they don’t refer to short and long-term goals, burden, or facilitate patient preferences into treatment plans, all of which may enhance care for patients with multimorbidity. Furthermore, there is emerging concern that methods used to measure the quality of care unfairly penalise providers caring for patients with multimorbidity. Healthcare professionals may suffer if pay-for-performance programmes create incentives that are misaligned with the needs of these patients.

In Ireland, the Department of Health and Children’s policy document ‘Tackling Chronic Disease’ and the National Health Strategy ‘Quality and Fairness’ recognise that with an aging population will come a significant increase in chronic diseases, and emphasise the need for its prevention and management, for which primary care has a central role. The Health Service Executive’s ‘Transformation Programme’ acknowledges and emphasises the need for its prevention and management, and prioritises the need to address the inadequate and fragmented services for chronic diseases. It recognises the need to implement a model for the prevention and management of chronic diseases and multimorbidity, to achieve high quality care through comprehensive and integrated programmes in the community. Furthermore, Primary, Community and Continuing Care (PCCC) services are identified as the path to optimal care and cost effectiveness. Therefore, primary care is ideally placed to meet the challenges of caring for patients with multimorbidity.

Multimorbidity presents many challenges for the individual, their families, carers, healthcare system and service providers. Each chronic condition impacts on the management of other conditions, making caring for these individuals challenging. The scientific basis for managing this complex topic appears weak. There is an obvious need to address these challenges and find solutions.

Research into multimorbidity
Chronic disease management is usually based on evidence from trials of single conditions. Literature shows little evidence of research specifically addressing multimorbidity in the primary care setting, as most individuals with multimorbidity are excluded from studies to minimise bias, even though these patients are the most frequent attenders in primary care. In other cases, co-morbidities are frequently not reported in research participants.

Most studies in the area are epidemiological in design (thus demonstrating that multimorbidity is a growing concern) rather than healthcare outcome-based. Whilst this may help identify prevalence, many do not take into account the disease burden or examine interventions for improving outcomes. A Cochrane review to determine the effectiveness of interventions is ongoing.

The first difficulty researching multimorbidity is a lack of a consistent definition. In addition, the WHO’s definition of chronic diseases covers a huge number of conditions. Selection of disease combinations differ, as do the number of diseases they count as multimorbidity (some as two or more diseases, whereas others require three plus). Furthermore, researchers and healthcare professionals differ in their view as to what constitutes a chronic disease. For example, some see lipid lowering medication as risk factor management rather than chronic disease management. All this makes comparison and generalisation difficult.

Patients with multimorbidity report the poorest level of health-related quality of life (HRQOL). Simple disease-count has a weak correlation with HRQOL. Additional variables such as perceived social support, age, education, perceived economic status and residual Cumulative Illness Rating Scale (CIRS) need to be taken into account. These factors further complicate researching multimorbidity.

In summary, the complexity of multimorbidity in its definition, identification, severity, burden, confounding variables, and the difficulty in examining outcomes simultaneously and on a multiple basis, in any one individual, combine to make researching multimorbidity a challenge. However, Fortin et al. are representative in their thinking that “it is essential to increase primary care research into multimorbidity, in order to develop a better understanding of this important topic”. An international virtual research community has been established to help address this.

Research has demonstrated that family members play an integral (sometimes predominant) role in the management of multimorbidity, so patient care should not just be patient-centred but also family-centred. Furthermore, Fortin et al. (2005) argue that the wide extent of multimorbidity strongly supports the development of innovative interventions focused on collaborative practices to better share the burden.

Case management of multimorbidity
Patients with chronic diseases can be categorised into three broad groups (people may move between levels as their conditions improve or disimprove): 7

---

1 CIRS is used to measure the burden of medical multimorbidity.
Case management is increasingly important because of the developing fragmentation of healthcare services, a trend towards primary care, rising costs and an aging population. A Cochrane protocol describes case management simply as the “explicit allocation of co-ordination tasks to an appointed individual.” The term case management, a relatively new concept in primary care despite its existence since the 1980s in social work, is used interchangeably with Chronic Care Models, Guided Care, Care Management and Coordinated Care. Starfield sees the “only common thread being the idea of a mechanism to find and coordinate diverse services where care must be received from a myriad of sources.”

Case management is not viewed as a profession in itself, but an area of practice within one’s profession. Specialist training is recommended. There is a common consensus across disciplines that it involves six core functions:

1. Patient centred assessment
2. Care planning
3. Linking of services
4. Ongoing monitoring of the patient and family
5. Encouraging advocacy
6. Providing outreach services.

Case management works on the premise that everyone benefits when an individual reaches their optimum level of wellness and functional capability, from a micro (individual and family) level up to a macro (population) level. Case management is used for complex patients, for individual diseases and for multimorbidity (Level 3).

It is difficult to compare models of case management between countries, because each healthcare system is quite different. Each country develops their own models to suit local needs, coming in a diverse range of titles and formats that are dependent upon the level, discipline, organisation, situation, and basic client care needs. For example, in the UK the Community Matron model is used. It is estimated that 2% of patients with chronic diseases account for 30% of unplanned hospital admissions. To tackle this, the NHS introduced the Community Matron in 2004, based on the US Evercare model of case management. The Community Matron is a highly skilled nurse specialist in community care and inter-agency working. She identifies those at risk, assesses, plans and coordinates care with other healthcare professionals, and is responsible for integrating care to meet all the individual’s health and social needs. The role extends beyond coordination by incorporating clinical interventions, making referrals, prescribing medicines and requesting investigations. Each Community Matron has a caseload of 30-50 patients.

However, an evaluation of the Community Matron model by Gravelle et al. showed no significant effect on rates of emergency admissions, bed days or mortality, although it was highly valued by both patients and carers, as the Community Matron educated and empowered patients. Furthermore, psychosocial support was seen as of equal importance to patients as clinical care. Gravelle et al. recommended a radical system redesign to reduce the rate of hospital admissions.

In the USA, the Evercare model of case management serves patients >65 years with a history of two or more emergency hospital admissions using Advanced Nurse Practitioners (ANPs) acting as case managers. It showed a 50% reduction in unplanned admissions, significant reduction in medications, 97% family and carer satisfaction rates and high physician satisfaction. Similarly, the Veterans model (serving low income, homeless, disabled, at-risk veterans with the patient and social worker acting collaboratively) showed an increase in clinic visits, tests and consultations, a 35% reduction in emergency visits and 50% reduction in bed days.

So the evidence for the effectiveness of case management is inconclusive. The implementation of case management programmes is fraught with difficulty as there are so many stakeholders involved. An appreciation of individual cultural, socioeconomic, ethnic and other differences must be facilitated. A Cochrane review entitled “Case management: effects on professional practice and healthcare outcomes” is ongoing.

The role of primary care
There is a need for structured and organised care for multimorbidity. Policy documents all acknowledge the need and the key role for primary care to manage chronic diseases. Furthermore, PCGG services are identified as the path to optimal care and cost-effectiveness. General practice can provide good quality care for patients with chronic diseases with support from specialist services using a systematic approach. In fact, countries with primary care orientated healthcare systems tend to have better health outcomes and lower health costs.
Primary care is optimally suited to the care of patients with multimorbidity as it provides longitudinal care with sustained relationships. Starfield sees that continuity of care is more likely when care is provided by generalists rather than specialists, and that primary care practitioners are more effective in dealing with multimorbidity than specialist providers. Good communication with patients and between healthcare professionals is key to continuity of care. Starfield states that “Primary care is the only level of service in a position to understand and deal with multimorbidity” and the setting is well poised to take the lead.

The Role of the Practice Nurse

PNs provide much of the care for patients with chronic diseases. A key finding of one unpublished Irish study showed they have vital role to play in chronic disease management in general practice, and that practices with a PN are more likely to have improvements in chronic disease management and practice targets at an advanced or optimum level.

Furthermore, PNs tend to remain in one practice thus lending themselves to continuity of care. In the view of Von Korff et al, healthcare provision that is sustained over time improves patient outcomes. In the UK, The Netherlands and Sweden, the role of PNs is well developed and has been shown to be effective at providing high-quality guideline-directed care.

Advanced nursing practice is a controversial issue. There are those who argue that it involves taking on medical tasks and working outside traditional nursing roles. Others view it as expert nurses expanding the boundaries and it’s the unique experience as a nurse which enhances the role of advanced practice. Nurses are willing to show that they are capable to lead in healthcare development, without losing their unique nursing skills. The UK has 3,000-5,000 ANPs, including those who work at a junior doctor level. ANPs can support GPs, not only in chronic disease management but also in the care of patients with complex needs. Indeed, a systematic review in this area showed high levels of patient satisfaction and high quality care.

Nursing is viewed as holistic, aiming to work with patients to identify and meet their individual needs. PNs are ideally placed to identify problems and care needs for the cohort of patients with multimorbidity. Their experience and insight into the care of these patients may be invaluable in informing and developing future initiatives. With such an international and national focus on chronic disease management comes the opportunity for advancing nursing practice, and indeed for nursing as a profession to lead the way in establishing a primary care based health service for patients with multimorbidity.

PNs are ideally placed to identify problems and care needs for the cohort of patients with multimorbidity.