

Guidance on multi-morbidity: the challenge facing NICE

Clinicians would value authoritative guidance on managing people with multi-morbidity but there is a lack of reliable and relevant evidence. While some sensible extrapolations and modelling can be done, most guidance is likely to be based on consensus.

Introduction

During the last 40 years, there has been a large reduction (>60%) in mortality from cardiovascular disease, despite increases in some risk factors such as obesity and diabetes. This has been the result of a combination of primary prevention, especially smoking reduction, and medical treatment, particularly the management of hypertension and raised lipid levels (Bunker, 2001; Smolina et al, 2012). The principal result is that more people are living longer and are surviving with multiple, age-related, long-term conditions, some – but not all – of them life limiting (Salomon et al, 2012).

These changes are widespread but not evenly distributed (Barnett et al, 2012). The most disadvantaged in society have experienced a lower improvement in longevity and retain the highest level of risk factors (including smoking) and premature death. However, the combination of risk factors in the disadvantaged minority is also associated with the development of multiple, linked conditions. The key difference between sections of the community is therefore the age at which multi-morbidity and the risk of death arises.

A number of existing National Institute for Health and Care Excellence (NICE) guidelines set out to specifically help health and care professionals to address the needs of people with multiple conditions. This is hampered, however, by the paucity of direct evidence. The clinical management issues are complex and challenging, and current care, dominated by single disease system guidance, does not always serve patients well (Hughes et al, 2013).

Background

The relationship between the number of conditions a person has and his/her likelihood of being admitted to hospital is logarithmic (Payne et al, 2013). People with multiple conditions are also disproportionately likely to consult their GP or to require social care.

Depending on how multi-morbidity is defined, people with multiple long-term conditions comprise 30–80% of GP consultations (Salisbury et al, 2011) and more than half of acute medical admissions. Multi-morbidity is most common in older people but at least one fifth of people with multi-morbidity is aged under 50 years.

People with multiple conditions are likely to be receiving long-term medical treatment for most or all of them. This creates the syndrome known as polypharmacy in which effective treatments have a reduced effect because of comorbidities but patients are exposed to all the adverse effects, often with added interactions (Guthrie et al, 2011). The net benefit of any given treatment is reduced and the added value of new ones is minimized.

Some of the common conditions are, themselves, risk factors for others. For example, diabetes causes cardiovascular disease, chronic kidney disease and peripheral vascular disease. Risk factors also cluster in certain groups and individuals. For example, economic and educational deprivation co-locates with smoking, alcohol misuse, obesity, substance misuse and other risk-taking behaviour. The effect of multiple risk factors on disease occurrence is multiplicative and the consequence is that both the risk factors and multiple conditions cluster together.

In time, however, with increasing longevity, all people are exposed to the risk of multi-morbidity. The challenges of managing people with complex needs are widespread, increasingly well understood, but no nearer a resolution.

The problem for guidance developers

Most clinical guidance is based on single system disease. The evidence which is applied to the construction of guidance is typically based on randomized clinical trials which exclude people with confounding risks or conditions in order to clarify the effects of the intervention. Most of the people with a condition, and who can benefit from approved treatments for that condition, would not have been eligible for entry to the key trials which determine the optimum treatment. However, some direct evidence of the benefits of treatment for people with multiple conditions is now emerging.

Treatments which are effective in single system disease are likely to be effective in people with multi-morbidity including that condition. However, the realizable benefits may be reduced (compared with the trial outcomes) because of limited life expectancy and reduced quality of life as a result of intercurrent comorbidities. Cost-effectiveness of treatments in these circumstances is also likely to be reduced.

There are similar challenges emerging with regard to situational guidance, especially with regard to social care. Many of the new social care topics on which NICE guidance is sought are setting-specific. However, as is increasingly the case with health care, people are being more actively managed across conventional boundaries and in a range of settings. The integration of care models could be a major factor in improving the organization of care for people with complex needs.

The conclusion from the above is that there is unlikely to be a reliable evidence base to inform guidance on the management of people with multi-morbidity, although this is starting to improve (Guthrie et al, 2012), and that a combination of sources and processes will have to be applied. These may include single system studies, specific multi-system studies, including sub-set analysis, complex modelling and consensus methods.

Potential guidance

A number of specific topics for guidelines have already been referred to the clinical, public health and social care programmes at NICE. There are also several examples of existing guidance addressing specific comorbidities. These include Clinical Guidelines on Depression in People with a Physical Illness (NICE, 2009), Psychosis and Substance Misuse (NICE, 2011) and a number of sections in other guidelines covering hypertension and diabetes, chronic kidney disease, vascular dementia and others.

Current practice requires all clinical guidelines on physical conditions to consider any specific mental health relationships during scoping and to seek appropriate representation or advice to the guideline committee as appropriate. Consideration is also given during scoping to any special features applicable to people with learning difficulties and the appointment of special expert advisers as required.

The following four topics, currently being developed by NICE, are especially relevant to improving the management of people with complex needs:

1. Organizational and system integration between primary and secondary health care and social care (public health). This will address the needs of populations with complex health problems, and is intending to look at the organizational, business development and health-care management evidence about organizational structure, movement and management.
2. Mid-life prevention of disability, dementia and frailty in later life (public health). This will cover preventive interventions in people under the age of 65 years.
3. Assessment, prioritization and management of care for people with commonly occurring multi-morbidities (clinical). This will look at assessment, prioritization and principles of decision-making on health-related interventions for people with multi-morbidity.
4. Medicines optimization (clinical). This is a broad topic but includes medicines review and other aspects of the management of polypharmacy.

There are also proposals to consider specific comorbidities through the updating of existing guidelines by targeted extension of the scope. Suggested examples include:

- Medical comorbidities in people with dementia
- Managing physical illness in people with learning difficulties
- Medical comorbidities and autism spectrum disorder.

NICE also offers further support with the development of patient decision aids and/or implementation tools that help clinicians to support patients in making informed decisions about treatments that are most important to them as individuals.

Conclusions

The sensible management of people with multi-morbidity constitutes the greatest challenge to the conventional approach to guideline development. Getting the right balance between optimizing the treatment of specific life-limiting conditions and avoiding polypharmacy with minimal return is the holy grail of modern medicine. **BJHM**

Mark Baker/Martin Allaby

Director/Consultant Clinical Advisor

Centre for Clinical Practice

National Institute for Health and Care
Excellence

London SW1A 2BU

(martin.allaby@nice.org.uk)

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KEY POINTS

- People with multiple long-term conditions comprise more than half of acute medical admissions.
- The sensible management of people with multi-morbidity constitutes the greatest challenge to the conventional approach to guideline development.
- The National Institute for Health and Care Excellence (NICE) is currently developing several guidelines relevant to people with multi-morbidity.
- While some sensible extrapolations and modelling can be done, most guidance is likely to be based on consensus.
- Getting the right balance between optimizing the treatment of specific life-limiting conditions and avoiding polypharmacy with minimal return is the holy grail of modern medicine.