Editorials
Multimorbidity:
what next?

THE NICE GUIDELINE

The Clinical Intelligence article[1] provides a useful overview of the recent National Institute for Health and Care Excellence (NICE) guideline on multimorbidity.[2] The guideline itself is important because it confirms the prevalence of multimorbidity, emphasises the need to take a person-centred, holistic approach to patient care, and provides guidance about key principles to consider when managing people with multimorbidity. However, there remain many gaps in the advice contained within the guideline, which reflect the deficiencies in our current understanding of multimorbidity.

We know that multimorbidity is common, and is particularly problematic in those from deprived areas, but we still have no effective means of risk stratification. The current guideline highlights the issue of frailty as an important risk indicator; however, it also highlights that studies which examine frailty in younger populations are lacking. Our knowledge is currently insufficient about the problem of multimorbidity in young or middle-aged people or vulnerable populations, such as those with learning disabilities, serious mental health problems, addiction issues, or migrants. Although there is growing evidence of the adverse effects of multimorbidity on mortality,[3] healthcare utilisation,[4] and quality of life,[5] we still do not fully understand which combinations of chronic disease are associated with the worst outcomes or greatest economic costs, and where best to target limited resources for greatest effect.

POLYPHARMACY

There remain major gaps in our understanding of polypharmacy (the prescription of multiple medications) and any effects on health-related outcomes. We need to gain a greater understanding of the implications of polypharmacy in multimorbidity[6] and how best to deal with individuals with multimorbidity who require complex polypharmacy that will include drugs with the potential to increase the likelihood of adverse outcomes.[6] We know about medication adverse effects and that many medications have potentially dangerous interactions, but we do not know the cumulative risk of drug toxicity for different medication combinations. For example, knowledge of which combinations should be classified as 'never events' (serious incidents that are wholly preventable), and in which populations, is important to inform guideline development but is lacking from our evidence base. There is lack of evidence to inform decision making by GPs dealing with patients with complex healthcare needs. Further work needs to address the risks and benefits of stopping medications in those with multimorbidity, especially those treatments where the benefits of long-term therapy remain unclear, for example statins and antihypertensives.[2]

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TREATMENT BURDEN

The NICE guideline[2] rightly alerts professionals to the importance of consideration of the 'treatment burden' endured by those with multimorbidity. Treatment burden refers to the self-management and other healthcare workload undertaken by patients and their wider support networks to manage their health conditions.[7] Research has been undertaken to identify key components of treatment burden in order to help identify points for intervention.[8] Equally, new theoretical models have been proposed to help us better understand and conceptualise the phenomenon of treatment burden and how the capacity of individuals and their wider support network can influence an individual's ability to cope.[9,10] The cumulative complexity model[9] and the new burden of treatment theory[10] are two such models and theories that will help researchers and health professionals to develop and target interventions suitable for those with multimorbidity. Although treatment burden is now acknowledged as an important issue, we do not yet know which aspects of treatment burden will be particularly challenging for any given individual or whether certain aspects of treatment burden are more problematic than others. Nor do we fully understand the concept of patient capacity, its key components, or how to accurately assess an individual's capacity to cope with a given burden of treatment associated with any level of multimorbidity.[9,10] Further work needs to be undertaken with patients and caregivers to inform development of measures and interventions in this area. Healthcare practitioners can then be armed with better evidence to assist them in optimising the management of those with multimorbidity in their practice.

INTERNATIONAL BENCHMARKING

Cancer researchers have embraced the concept of international benchmarking and it would be useful to adopt similar approaches to monitor the prevalence and management of multimorbidity and accompanying problems such as treatment burden. International comparisons would help increase our understanding about these problems and provide useful intelligence that would enhance our knowledge and understanding of how changes in the configuration and delivery of healthcare

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services impact these issues. International benchmarking studies of multimorbidity and treatment burden could provide valuable insights into such issues and could inform service developments and clinical guidelines in the future.

CLINICAL TRIALS

As disease-centred guidelines persist and remain important, it will be essential going forward for these to take greater account of comorbidity. It is clear that this remains a neglected and under-researched area. As the recent NICE clinical guideline[2] points out, much clinical trial work has focused on single diseases and does not address the problem of comorbidity. In fact, people with comorbidity or other capacity issues are often actively excluded from trials. As a result, clinicians are unable to use the 'best evidence' to inform their decision making for the vast majority of their patients who do not fit in with 'pure' single-disease models of treatment and management. Much more research — qualitative, epidemiological, and interventional — is needed in this area if we are to be able to ensure that disease-specific guidelines are appropriate for use in people with comorbidity and multimorbidity. In particular, we need to develop a better understanding of the prevalence of comorbidity in a range of common chronic index conditions, and how this affects patient and carer experiences. We also need to determine which combinations of chronic illness are associated with poorer outcomes and then develop a better understanding of why this is the case.

Furthermore, we do not know which prevention activities will be most important and of greatest benefit in individuals with multimorbidity. Nor do we have much evidence about the prevention of functional decline in those with multimorbidity. Equally, we do not fully understand what influence, if any, multimorbidity will have on the ability of individuals to engage effectively with prevention activities.

CONCLUSION

We need to enhance our understanding of multimorbidity using a broad range of different approaches. Clinicians need more information to understand who to target and with what interventions. This will require not only investment in research, but also collaboration with patients, caregivers and professionals as partners to determine what outcomes matter most in the context of multimorbidity.

To date, there has been insufficient attention paid to understanding what those with multimorbidity would see as the optimal goals of their treatment or what they would judge to be the key measures that should be used to define high-quality multimorbidity management. Patient and caregiver perspectives on the management of multimorbidity — what works best when and for whom — are largely missing from the multimorbidity literature. It is essential that we address such evidence gaps. In addition, there needs to be an increased emphasis on research that helps us understand mechanisms underpinning multimorbidity, risk stratification, and interventions that are likely to improve a range of outcomes. In an era when healthcare research and development is strongly focusing on new spheres, such as precision medicine and personalised medicine, we need to consider what this means in an environment where multimorbidity is the norm. The new multimorbidity guideline is overdue and extremely welcome, but it is only the beginning of a longer journey. We need to focus on tackling questions that will positively influence care provision for this patient population and help GPs and other healthcare practitioners respond more effectively to the complex care challenges posed by those with multimorbidity.

Frances S Mair,
Professor of Primary Research, Head of General Practice and Primary Care, University of Glasgow, Glasgow.

Katie I Gallacher,
Clinical lecturer, General Practice and Primary Care, University of Glasgow, Glasgow.

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ADDRESS FOR CORRESPONDENCE

Frances S Mair
University of Glasgow, General Practice and Primary Care, 1 Horselethill Road, Glasgow G12 9LX, UK.
Email: frances.mair@glasgow.ac.uk

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