

Management of multimorbidity

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Introduction

Multimorbidity is a global challenge with substantial impact on individuals, health-care systems, and society.¹ More than 3 out of 4 consultations in primary care involve multimorbidity and the relationship between the number of chronic conditions and their associated cost is almost exponential.¹ Managing multimorbidity is complex, given the need to address management of individual conditions while incorporating patient preferences. A range of management strategies have been evaluated and the current evidence base includes more than 40 trials.^{2–5} Nevertheless, there is still limited high-quality evidence to guide clinical practice (Table 1). This Editorial highlights management approaches that have potential to improve outcomes for patients with multimorbidity.

Medicines management interventions

People with multimorbidity are typically affected by polypharmacy, traditionally defined as five or more medications daily, but more often involving more complex polypharmacy, i.e., 10 or more medicines.¹ Given the potential risks of adverse events associated with polypharmacy, guidelines recommend that clinicians routinely assess whether people with significant polypharmacy are benefiting from all the medicines they are prescribed, and where possible to consider deprescribing.^{1,6} However, the success of medicines management interventions in multimorbidity is limited, with many previous trials not targeting on higher numbers of medicines.^{1,2} Targeting those with more significant polypharmacy may be more effective.⁷ While these interventions address the challenges that clinicians report in managing multimorbidity,¹ and often

improve prescribing quality and safety, their wider impact on other clinical outcomes is less clear.

Interventions Targeting Health Behaviors

A 2020 systematic review explored the potential safety and benefits of exercise in people with multimorbidity.³ The risk of serious adverse health outcomes (e.g., hospitalization) may be reduced for people with multimorbidity participating in an exercise intervention and younger people with multimorbidity exercising may have greater improvements in health-related quality of life.³ Additionally, to improve adherence to exercise and other lifestyle behaviors (e.g., diet), another 2022 systematic review,⁴ found that greater improvements in physical activity and weight loss were noted when specific Behavior Change Techniques were used such as Action Planning (e.g., prompt planning going for a walk at a particular time on certain days of the week)

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Table 1. Management strategies for managing multimorbidity from systematic review and clinical guidelines.

Intervention type	Example of intervention	Evidence Overview	Role in clinical practice
Medicines Management	Educational module and decision support for generalist clinicians to assess opportunities for deprescribing. ⁷	Can result in successful deprescribing but less clear effect on appropriateness of prescribing and on clinical outcomes. ^{1,7}	Consider for people with complex polypharmacy. ^{1,6,7}
Interventions targeting health behaviors	Exercise therapy (aerobic, strengthening or a combination of those performed twice weekly for 12 weeks supervised by a physical therapist). ³	Appears safe and beneficial for the physical and psychosocial health of patients. ³ The Behavior Change Techniques Action Planning and Social Support (Practical) appears to improve health behaviors. ⁴	Consider with all patients with multimorbidity and may also prevent future deterioration. ^{1,6}
Depression screening and management	Screening of patients with multimorbidity for comorbid depression, using validated screening questionnaires. ⁵	Treating depression in those who have multimorbidity that involves comorbid depression improves outcomes. ⁵	Routinely screen patients with multimorbidity for depression and consider appropriate treatment. ⁶
Care Coordination	Changes to care delivery such as case management or the implementation of multidisciplinary team working. ²	May improve patients experience of care but no clear evidence for effectiveness. ²	Unclear role in clinical practice and if being implemented should be done so with robust evaluation. ^{1,2}
Self-management Support	Education that supports people with multimorbidity to manage their own behaviors and well-being. ²	Has mixed effects on outcomes and may be associated with minimal effects on patient health behaviors and may improve patients experience of care. ²	Unclear role in clinical practice and if being implemented should be done so with robust evaluation. ^{1,2}

and Social Support (Practical) (e.g., ask the patient to take a partner or friend with them to their walking session).⁴

Identifying and Treating Depression

There is high quality evidence that treating depression in those who have multimorbidity that involves comorbid depression improves outcomes.³⁻⁵ This highlights the value of screening for depression in patients with multimorbidity and considering depression treatment with psychological and pharmacological therapies. This approach, which prioritizes patient's symptom management, is also recommended in expert clinical guidelines for multimorbidity.⁶

Interventions Lacking a Significant Evidence Base

There have been multiple high-quality trials of a range of other types of interventions designed to improve multimorbidity management including case management and self-management support and these have reported mixed effects on outcomes.² While there is no clear evidence to support their routine implementation in clinical practice, there is a suggestion from a small number of studies that they improve the patient experience of care, which is important in the context of multimorbidity management.²

Clinical Guidelines

Developing clinical guidelines for multimorbidity has been a challenge given the lack of clear evidence. A recent overview of existing guidelines, many of which are based on expert consensus, highlighted key consideration for clinicians. Most importantly is the need to recognize when a single condition focus is becoming unhelpful, impractical or even harmful and consider a multimorbidity approach to management.^{1,6} Other key management recommendations are to specifically address patient priorities and preferences and create individualized care plans with planned follow-up reviews.^{1,6}

Conclusions

Managing multimorbidity is complex with a limited evidence-base to guide clinical practice. The certainty of the evidence is high only for treating comorbid depression and future trials may change the current evidence base. While high proportions of patients have multimorbidity, most trials of interventions for common chronic conditions exclude patients taking multiple drugs or having several chronic conditions and this needs to be addressed if we are to build an evidence base to support multimorbidity management.¹ In summary, expert guidelines and available evidence suggest that clinicians managing multimorbidity should consider the appropriateness of medicines and

deprescribing; referral to exercise therapy and screening and treatment for comorbid depression.

Author contributions

All the authors contributed to the design and writing of the manuscript. A.B. wrote the first draft and S.M.S and S.T.S. revised the manuscript and approved the final version.

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