What we need to learn about multimorbidity

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Multimorbidity, the existence of seemingly independent chronic illnesses at the same time, is an important feature of modern medical practice. Yet, still, in our practitioner minds, when we are thinking about diagnosis, we usually consider one disease possibility at a time. When we are planning management — investigation or intervention — we do the same. This is essential for clarity of thought, but it does not account for the fact that one disease may influence the course of another coexisting one. Although this influence may be aggravating or mitigating, we can't readily predict which, if any, effect will occur.

In this issue of *CMAJ*, Kastner and colleagues have taken a broad look at the state of our knowledge about the effects of interventions in the context of multimorbidity.[1] They looked for disease sets in which successful management of one disease had a beneficial effect on the management of another. In their data-gathering, they had the courage to include complex interventions, going so far as to try to dissect out which among them was having the desired effect. Clinicians may be familiar with the few disease sets for which the authors found evidence of benefit from effective comanagement, including diabetes and depression, diabetes and cardiovascular disease, and chronic obstructive pulmonary disease and congestive heart failure. Although it is early days in our understanding of multimorbidity and its management, practitioners have enough information about these particular disease sets now to choose more appropriate care for individual patients affected by them.

These disease sets warrant design of more specific cointervention studies. Clinicians likely know of other disease sets for which treatment selection must take account of their combined effect on the illness course. And we all know clinicians who seem particularly adept at managing patients with complex problems, albeit intuitively. Research of a new type should be supported to identify more disease sets for which joint and complex care plans are appropriate. Academic internal medicine wards and clinic settings are a natural home for research of this nature. Cross-specialty collaboration is likely to be particularly effective here: for securing support from a wider range of funders and for accessing broader expertise. Patients with multimorbidity know a lot about their predicament and should be helpful collaborators.

Multimorbidity is prevalent in primary care practice, too. Although primary care patients typically have less advanced disease, severely ill patients with multimorbidity are often sent back to a primary care practitioner for follow-up after a hospital stay. Primary care may be the optimal setting to study because intervention at times of disease stability will be more beneficial than at the acute-disease stage. Additionally, management problems as complex as those posed by multimorbidity will likely yield best to the power of large primary care data sets rather than to the precise, but narrow and expensive, approach of the randomized trial in other settings.

Research into multimorbidity should extend into medical education. We see complex patients in our training programs, but we may not acknowledge the complexity of their predicament in discussions with our trainees. We don't necessarily teach our students and residents well how to engage in diagnosis or management in the face of multimorbidity. We need to learn how to do this better, to prepare them for the realities of their future practice.

Of great concern is that our practice guidelines tend to be siloed in their focus on managing a single disease. Guidelines typically make recommendations on one intervention at a time. Thus, in the context of multimorbidity, the best we can expect from most guidelines is a mere starting point. In the future, we will need guidelines that take advantage of new information about the way disease sets interact and how several aspects of management can work together. In the meantime, we need all clinicians to be skilled at designing thoughtful care for each patient wherever they are in the course of complex illness.

As Osler so eloquently put it: "… no two cases are alike in all respects, and unfortunately it is not only the disease itself which is so varied, but the subjects themselves have peculiarities which modify its actions."[2] Only now the disease is in the plural.

References

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