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Is this input submitted as an organisational or individual response?

Individual

Are you happy for your response to be published by the Academy?

Yes

1. There is no standard definition of 'multimorbidity' – various different definitions are used. Which definitions (or aspects of definitions) do you think are most helpful to efforts to describe and understand multimorbidity?

Number of conditions and the degree to which they cause functional impairment; recognising that functional impairment is both physical, emotional and social.

Gunn, J.M., Ayton, D.R., Densley, K. et al. Soc Psychiatry Psychiatr Epidemiol (2012) 47: 175. doi:10.1007/s00127-010-0330-z

Our work cited above was one of the first studies to show a dose response relationship between number of physical conditions and mental health. It also found that it was not the type of condition that explained this link. Our work found that having multiple conditions like dermatitis and chronic sinusitis were associated with increased likelihood of depressive symptoms, so we need to think broadly about this problem and not confine it only to conditions like diabetes and heart disease.

Another area of interest is physical mental multimorbidity. The idea that if physical health conditions are complicated by mental health conditions then different management approaches are required.

See BMJ 2012;345:e5559

2. What are the key data, and what data sources exist, on the prevalence, burden (including costs and impact on health systems) and determinants of multimorbidity? Are there significant gaps in such data and, if so, what are they?

National health surveys offer a good starting point, but they may not have included all conditions.

primary care data sets such as CPRD, Canadian primary care network data sets are useful resources.

The diamond study is an Australian primary care cohort we established in 2005 and have collected ten years of data. It focuses on depressive symptoms but there is a high number of people with MM in that cohort. Data from 789 people has been gathered using an innovative psychosocial approach encompassing a social model of health. We have interview data and survey data and genetic data. International collaborators have also found it a useful resource. The baseline paper is here :

Med J Aust 2008; 188 (12): 119.

4. What are the key data, and what data sources exist, on the management of multimorbidity? Are there significant gaps in such data; if so, what are they?

This is an emerging field

Professor Martin Fortin's work of brining the literature together here:

<http://crmcspl-blog.recherche.usherbrooke.ca/>

Is of particular relevance to your review

5. What are the key sources of funding for research into multimorbidity? Are there gaps in funding and, if so, where?

In the Australian context this is non existent

I am aware of a major funding opportunity in Denmark focussing on MM. Professor Mogens Westergard

[http://pure.au.dk/portal/en/persons/mogens-vestergaard\(6f9d0f7c-8587-4e27-9c4c-d0decead7e3f\)/more.html](http://pure.au.dk/portal/en/persons/mogens-vestergaard(6f9d0f7c-8587-4e27-9c4c-d0decead7e3f)/more.html)

Is leading that initiative.

6. What should the definition of 'multimorbidity' be? How would this definition improve research and/or treatment?

when two or more long term conditions exist MM is present. MM can then be assessed to be either present, but not impacting on function, or present and impacting on function: to a mild mod or severe degree.

I think this is probably the simplest definition to operationalise globally.

7. What are the priorities for research about the prevalence, burden and determinants of multimorbidity?

Intervention research that tests models of care for dealing with those with MM

Patient centred research that assesses the impact of the health system on their health care and engages patients in designing care models

The use of digital technologies, self-care, peer support, lifestyle interventions and various combinations

MM is heavily influenced by the social determinants of health and hence interventions that combine health and social care are required.

Community based interventions to prevent MM are also important

All intervention work requires significant funding for developing and optimising the interventions before they are tested in experimental designs, but RCTs are also required. The challenge is that these interventions require a long lead time and follow up should be over years, not months.

Financial levers to influence care

8. What are the priorities for research about the prevention of multimorbidity?

See above

Regulatory controls

<https://grattan.edu.au/report/a-sugary-drinks-tax-recovering-the-community-costs/>

9. What are the priorities for research about the management (as defined above) of patients with multimorbidity?

See above

Polypharmacy research

De-prescribing research

Lifestyle interventions that are taken up and adhered to.

Peer support interventions

10. What should be the strategic response of both national and international research funders and agencies be to multimorbidity?

To encourage global collaborations, data pooling and Multi centre collaborations. At the same time context will need to be attended to. It is most likely that different settings will benefit from different approaches.