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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

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?
I am just going to focus my comments on prescribing and declare a bias. Years of work and over 100 people have worked with me on this.

Ineffective and harmful prescribing

Every year adverse drug events, resulting from prescribed medications, kill 100,000 people in the USA, and 95,000 people in Europe. Adverse drug events are responsible for 12% of Emergency Room visits, 5% of hospitalizations, and 10% of direct health care costs.

There are five major issues that have led to this situation;

1. Genetic variation results in medications prescribed not working or causing harm.

2. More people are living with multiple chronic diseases such as diabetes. One quarter of people over the age of 65 have three or more chronic conditions;

3. People are taking multiple medications for these conditions with 16.9 % of the adults receiving four to nine medications;

4. There are many new complex medications that are now available with 1400 having FDA approval

5. Physicians have very little time to identify the optimal drug(s)

To address this problem both computerized order entry systems in electronic medical records using drug database systems, and stand-alone drug interaction databases, were introduced. There has been a rise in adverse drug events matching the increase in use of both these technologies. Alerts within the electronic medical record systems are ignored in up to 96% of cases. The evidence exists to make prescribing safer, but there is too much for a busy clinician to assess. Automation is the answer.

Medication decision support systems (MDSS) need to display medications that are likely to be safe and effective for the individual, taking into account other medications, diseases and the personâ□□s physical state.

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

Use sources of funding linked to genetics - that is where we have found a lot of the 1.6 million raised to date.

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

Therapeutic management

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

Our group is global. The evidence need for identifying the safe effective drug options for an individual is huge and takes a large team of doctors, scientists, epidemiologists and pharmacists and long time to trawl through before even starting to create algorithms. WE have to work as partnership.