Analysis

Impact of COVID-19 on individuals with multimorbidity in primary care

BACKGROUND

Defined as the coexistence of two or more chronic conditions in the same individual,[1] multimorbidity (MM) affects over a quarter of people in England.[2] Encompassing mental and physical health, MM requires engagement with numerous healthcare providers and settings, and accounts for half of GP consultations and hospital admissions.[2]

Primary care is an ideal setting to tackle health system navigation, care integration, and continuity challenges affecting individuals with MM.[1,3] However, effective primary care management of MM still presents difficulties. Complex needs in MM necessitate substantial administrative effort in proactive identification and tailored access, as well as extended consultations to support a holistic approach and essential continuity of care.[1,3]

These challenges were compounded by the COVID-19 pandemic, which stretched limited primary care resources globally. With age and existing MM presenting significant risk factors for infection and serious adverse outcomes,[4] COVID-19 has the potential to affect negatively the health and wellbeing of individuals with MM through multiple pathways.

This article explores the direct impact of COVID-19 on individuals with MM, and indirect effects on their care through changes in healthcare provision necessitated by the pandemic, and considers the potential future impact of these changes.

DIRECT IMPACT: MULTIMORBIDITY AND VULNERABILITY TO COVID-19

As the pandemic developed, it quickly became evident that certain groups had greater vulnerability to COVID-19 infection, serious complications, and mortality. Older age,[5] ethnic minority background, obesity, long-term conditions (LTCs),[4,6] and socioeconomic deprivation[6] were identified as significant risk factors.

MM is associated with increased risk of COVID-19; those with at least two LTCs are at 48% higher risk of infection.[7] Polypharmacy, sometimes considered a proxy for MM, is similarly associated with increased infection risk.[7] Where other prognostic factors (ethnic minority background, economic deprivation, obesity, or reduced renal function) exist in combination with MM, they seem to exacerbate infection risk.[7]

Individuals with MM appear to be at higher risk of dying of COVID-19. Of patients admitted with COVID-19 to 24 hospitals in Italy, at least one LTC was reported in 73% of non-survivors, with the presence of comorbidities associated exponentially with mortality, independent of age.[4]

Increasing evidence is accumulating of 'long COVID', comprising individuals who experience typical COVID-19 symptoms for longer than expected, or report lasting effects on health following infection.[8] Longer-term impact includes pulmonary,[9] neurological, and cognitive effects;[10] some of those with existing impairments may be more likely to suffer such long-term consequences.[11] Trauma resulting from infection, including infection of loved ones, may result in a substantial burden of mental health conditions, including post-traumatic stress disorder.[12] Neurological and cognitive impacts also increase the risk of mental disorder.[13]

It is likely, therefore, that an increase in MM may be observed post-COVID-19, as a consequence of individuals with or without previous health problems developing one or more physical or mental health problems following infection.

INDIRECT IMPACT: COVID-19 PREVENTION MEASURES AND HEALTH SYSTEM CHANGE

COVID-19 prevention measures, including social distancing and shielding, were mandated in most affected countries from March 2020. In the UK, more than 2 million extremely vulnerable people, including many with MM, were advised to self-isolate or shield for 12 weeks. This was followed by a prolonged period of less severe social distancing measures and shielding for a limited group of vulnerable individuals.

COVID-19 prevention measures resulted in near-immediate and dramatic changes to primary health service provision, with a 'total triage' model mandated to reduce viral transmission.[14] Consequently, telephone and video consultations more than doubled, with face-to-face meetings reserved for essential physical examination;[15] secondary care outpatient services similarly adopted remote consulting. This is likely to have had a greater impact on individuals with MM already faced with health system navigation difficulties.

Access to non-COVID-19 health and social care services was substantially reduced because of the shift in resources to COVID-19-related activities.[16] Most individuals with MM will have experienced withdrawal or reduction in their usual support networks and services. Increased loneliness, reduced interaction with family and friends, and limited face-to-face contact with clinicians, as well as anxieties about COVID-19, likely had significant impact on those with MM, particularly those requiring shielding.[17]

POTENTIAL FUTURE IMPACT OF CHANGES MADE BY COVID-19

COVID-19 has presented many challenges for patients with MM in primary care. However, some changes in healthcare provision necessitated by the virus may have a potential beneficial impact on those with MM after the pandemic.

Remote consultations

Essential changes in care provision towards remote consulting led to rapid development and uptake of healthcare communication technology. The shift to remote care may have negatively affected healthcare access for some, particularly those with sensory impairments or lack of access to necessary technology. However, greater flexibility may have led to improved patient experiences, through reducing the necessity to attend multiple appointments and simplifying health system navigation. The pandemic has also led to uptake of technology enabling self-care and self-monitoring, reducing reliance on health care, and enhancing health literacy. Furthermore, online communication may have facilitated primary care involvement in multiagency working on complex care.

Primary–secondary interface

Necessary communication between professionals during the pandemic may have resulted in improved communication between primary and secondary care, with benefits for individuals with MM in timely, holistic care. Greater innovative, cross-organisational working may emerge from improvised collaborations between local councils, community groups, and the third sector, which may be particularly important in managing a significant rise in demand for mental health services.

Polypharmacy management and prevention

Limitations on face-to-face consultation have necessitated significant advancement in use

of electronic medicines management, with medication reviews carried out remotely. Enhanced polypharmacy management and prevention via more effective use of electronic patient records, building on progress made during COVID-19, may have future benefits for patients with MM in reductions in medication-related error, adverse effects, and treatment burden.[18]

Case finding and COVID-19 vulnerability

The differential impact of COVID-19 on patient groups, as well as reduced face-to-face health and social care contact, made identification and follow-up of the most vulnerable necessary. This included telephone 'welfare' checks of frail and older individuals, and follow-up of at-risk individuals after COVID-19 diagnosis. Experience of the benefits of identification and prioritisation of those with complex needs may result in a continued proactive approach, with regular wellbeing contacts for the most vulnerable. This may improve patient experience and outcomes, while reducing reliance on urgent and emergency services. It may also lead to an increased sensitivity to the holistic nature of illness, including mental health, financial insecurity, and physical loneliness. This may include increased awareness of the specific needs of MM patients from ethnic minority communities, demonstrated to be at higher risk during the pandemic.

CONCLUSION

COVID-19 is associated with distinct vulnerability to infection and adverse outcomes for people with MM. The impact of the pandemic on this group is both direct and indirect, in the short and longer term, affecting a range of domains, including physical and psychosocial. It is essential that individuals with MM are actively reviewed, to ensure aspects of care neglected or put on hold during the pandemic are appropriately addressed. Additionally, as those potentially constituting a proportion of the long COVID cohort, patients with MM and a COVID-19 history should be identified and reviewed, referring to long COVID clinics and other secondary care services as appropriate.

While it will remain important to support any individuals potentially disadvantaged by technology, changes in health services necessitated by the pandemic (remote consultations, increased self-care, and improved cross-agency communication) offer opportunities to improve service provision and experience for individuals with MM. Building on advances in remote health provision and communication, opportunities exist for primary care professionals to continue to develop systems that proactively identify and support individuals with MM holistically.

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