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Multimorbidity care model: Recommendations from the consensus meeting of the Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS)

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ABSTRACT

Patients with multimorbidity have complex health needs but, due to the current traditional disease-oriented approach, they face a highly fragmented form of care that leads to inefficient, ineffective, and possibly harmful clinical interventions. There is limited evidence on available integrated and multidimensional care pathways for multimorbid patients. An expert consensus meeting was held to develop a framework for care of multimorbid patients that can be applied across Europe, within a project funded by the European Union; the Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS). The experts included a diverse group representing care providers and patients, and included general practitioners, family medicine physicians, neurologists, geriatricians, internists, cardiologists, endocrinologists, diabetologists, epidemiologists, psychologists, and representatives from patient organizations. Sixteen components across five domains were identified (Delivery of Care; Decision Support; Self Management Support; Information Systems and Technology; and Social and Community Resources). The description and aim of each component are described in these guidelines, along with a summary of key characteristics and relevance to multimorbid patients. Due to the lack of evidence-based recommendations specific to multimorbid patients, this care model needs to be assessed and validated in different European settings to examine specifically how multimorbid patients will benefit from this care model, and whether certain components have more importance than others.

1. Introduction

Recently, chronic, non-communicable health conditions have replaced infectious diseases as the dominant health care burden, as they are now the main causes of morbidity and mortality in

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many countries. This epidemiological transition creates serious problems for health care systems that are still focused on episodic and acute care. However, health care systems worldwide are currently faced with the growing challenge of multimorbidity, defined as the co-occurrence of multiple chronic diseases or conditions in a single individual. Multimorbidity prevalence is high [1] and increases with age, affecting more than 60% of people aged 65+ [2–5]. Multimorbidity is associated with numerous negative outcomes, including mortality, disability, and poor quality of life, and the healthcare costs associated with it are high [6]. Multimorbidity is more prevalent among socially disadvantaged population groups [5], and thus failure to provide appropriate care for multimorbid patients is likely to also have a negative effect on equity in health care.

Multimorbid patients have complex health needs. However, there is still a focus on traditional disease-oriented approaches. Consequently, multimorbid patients often receive a fragmented form of care, leading to inefficient, ineffective, and possibly harmful clinical interventions. They often receive complex drug regimens, which increase the risk of inappropriate prescribing, drug–drug interactions, adverse drug reactions, and poor adherence to medications [7].

Compared to persons with one chronic disease, multimorbid patients more often have problems related to mobility, self-care, and functional activities, and quality of life, and more pain and cognitive problems [8], which makes care and treatment challenging. Ideally, care for multimorbid patients should involve numerous healthcare providers and resources. There is limited evidence on available integrated and multidimensional care pathways for multimorbid patients. Although integrated care programs for multimorbidity may currently be in implementation in practice, few are documented in the literature, and are tested in small populations [9–12]. Some interventions have been multi-dimensional, including different components, but they are poorly standardized, and not suitable for different populations or countries. A systematic review [10] highlighted only nineteen publications describing eighteen comprehensive care models for multimorbidity [13–30], mostly in North America, with only one in Europe [23]. They vary in the type of setting, patients, and interventions, including different components (Table 1), some describing only single features, while others multiple strategies. Although some results suggested that comprehensive care for multimorbidity might increase patient satisfaction, health-related quality of life, and functioning, and possibility reduce depressive symptoms, the evidence concerning the efficacy of these care programs is insufficient, and more studies are needed to reach conclusions. Not only is there a lack of evidence but it is difficult to interpret or generalize the evidence due to a lack also of definitions and concepts [12]. As evidence on the efficacy of care pathways for multimorbidity provide conflicting results, and there are no widely accepted care models [9–11], there is an urgent need to develop a system that works for multimorbidity, to deliver good quality of care [31].

With this challenge in mind, an expert group met to discuss the components of a multimorbidity care model, to discuss their definition, aims, key characteristics, target population, and relevance, to develop a framework for care of multimorbid patients that can be applied across Europe. This was done within a European Union funded project; the Joint Action on Chronic Diseases and Promoting Healthy Ageing across the Life Cycle (JA-CHRODIS), which focuses on the development of common guidance and methodologies for care pathways for multimorbid patients [6,32], and includes over 60 European partners from 26 European countries.

2. Method

Multimorbidity was defined as the co-occurrence of multiple chronic diseases or conditions in a single individual. First, we identified five components from the Chronic Care Model [33,34] and Innovative Care for Chronic Conditions Model [35]: self-management support; delivery system design; decision support;

Table 1
Original list of components discussed during the 1st JA-CHRODIS WP6 Expert Meeting, identified by systematic review [10].

Type of component	Components
Delivery system design	- Regular comprehensive assessment - Multidisciplinary team - Individualized care plans - Appointment of a case manager
Decision support	- Implementation of evidence-based medicine - Team training - Developing a consultation system to consult professional experts outside of the core team[a]
Self-management support	- Training of care providers to tailor self-management support for patients - Providing options for patients to improve their health literacy[b] - Patient education[b] - Involving family members and family education[b] - Offering approaches to strengthen patients' self-management and self-efficacy - Involving patients in decision-making - Training patients to use medical devices, supportive aids and health monitoring tools correctly[b]
Clinical information system	- Electronic patient records and computerized clinical charts - Exchange of patient information - Uniform coding of patients' health problems - Patient platforms allowing patients to exchange information with their care providers
Community resources	- Access to community resources - Involvement of social network - Psychosocial support[c]

[a] This component was added after discussion at the expert meeting.
[b] These components were merged into others, as it was thought that they were not mutually exclusive.
[c] This component was removed after discussion at the expert meeting.

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