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Special Article

The Asia-Pacific Clinical Practice Guidelines for the Management of Frailty

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A B S T R A C T

Objective: To develop Clinical Practice Guidelines for the screening, assessment and management of the geriatric condition of frailty.
Methods: An adapted Grading of Recommendations, Assessment, Development, and Evaluation approach was used to develop the guidelines. This process involved detailed evaluation of the current scientific evidence paired with expert panel interpretation. Three categories of Clinical Practice Guidelines recommendations were developed: strong, conditional, and no recommendation.
Recommendations: Strong recommendations were (1) use a validated measurement tool to identify frailty; (2) prescribe physical activity with a resistance training component; and (3) address polypharmacy by reducing or deprescribing any inappropriate/superfluous medications. Conditional

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recommendations were (1) screen for, and address modifiable causes of fatigue; (2) for persons exhibiting unintentional weight loss, screen for reversible causes and consider food fortification and protein/caloric supplementation; and (3) prescribe vitamin D for individuals deficient in vitamin D. No recommendation was given regarding the provision of a patient support and education plan.
Conclusions: The recommendations provided herein are intended for use by healthcare providers in their management of older adults with frailty in the Asia Pacific region. It is proposed that regional guideline support committees be formed to help provide regular updates to these evidence-based guidelines.

Frailty is a modern geriatric giant, and a major public health problem in the older population.[1] It has been recently defined by the International Association of Gerontology and Geriatrics Frailty Consensus as a reduced strength and physiologic malfunctioning that increases an individual's susceptibility to increased dependency, vulnerability, and death.[1] Frailty can be used as a marker of adverse outcome risk in older adults[2–4] and is increasingly used to predict patient outcomes across specialties such as oncology, cardiology, and orthopedics.[5–8]

There are multiple etiologic factors leading to frailty, including physiological changes and/or diseases associated with aging, inflammation, sarcopenia, polypharmacy, endocrine disorders, protein energy malnutrition, social isolation, and poverty.[1,3,5,9] The prevalence of frailty in community-dwelling older adults in the Asia-Pacific region is approximately 3.5%-27%,[4,10–24] which is comparable to the prevalence across Europe and the Americas.[25–31] Socioeconomically disadvantaged and indigenous communities can have a frailty prevalence of over 50%.[32,33] This frailty prevalence may be underestimated in several studies because of the large number of nonresponses in population health surveys of older adults.[34]

Frailty is more common in females and increases in prevalence with age.[1,3,30] It overlaps with comorbidity, although it can and often does occur independently from the presence of any chronic disease.[3,32,35] Frailty is not synonymous with disability but is causally related.[35,36] The condition is also costly, with reported healthcare expenses around €3500 ($4000 USD) over 3 months for older adults with frailty, approximately 5 times the cost for nonfrail adults.[37] This expense is of particular concern in the Asia-Pacific region, where older adults with high healthcare needs are often those not able to access publicly funded healthcare services.[38]

Currently, no accepted reference standard exists to identify frailty, and extensive international efforts are underway to identify the means of optimal measurement. Three major approaches to defining frailty exist:

(1) The physical phenotype model of Fried et al[36] and its rapid screen: FRAIL[39]
(2) The deficit accumulation model of Rockwood and Mitnitski which captures multimorbidity[40]
(3) Mixed physical and psychosocial models, such as the Tilburg Frailty Indicator[41] and Edmonton Frailty Scale[42]

Although most of the published literature on frailty focuses on its identification, etiology, and risks, there remains a large knowledge gap: consolidating the evidence-base of scientific literature to develop Clinical Practice Guidelines (CPGs) for treating frailty once it has been identified. There is an urgent need to develop such guidelines for the Asia-Pacific region, which has the largest population of older adults worldwide combined with much heterogeneity regarding population socioeconomics, provision of healthcare services, and ethnic diversity.[11,43,44]

Developing Clinical Practice Guidelines for Frailty

Conventionally, clinicians use CPGs as the basis for their standard care.[45] CPGs are evidence-based recommendations systematically developed by expert panels who have a working clinical knowledge of respective medical conditions.[45] CPGs for frailty are urgently needed for a variety of reasons:

- For better recognition of frailty by healthcare professionals;
- For the delivery of the best available evidence for the identification and management of frailty;
- To improve health and quality of life outcomes for older individuals affected by frailty; and
- To encourage healthcare providers to focus on improving the functional ability of older adults with frailty.

Although best practice guidelines have been developed for frailty in community and outpatient settings by the British Geriatrics Society,[46] these guidelines fall short on providing specific clinical recommendations.

The aims of this article are to develop evidence-based, multidisciplinary CPGs for the identification and management of frailty, specifically targeting health practitioners in the Asia-Pacific region. These guidelines will incorporate principles from the World Health Organization, which has recently highlighted the need to focus on maximization of the functional independence of older adults, rather than simply using a traditional single-disease medical approach.[47] This report will also discuss the evidence-base behind the development of each CPG.

Methods

Throughout the remainder of this article, the term "guidelines" will be used when referring to CPGs. The guidelines were developed using an adapted Grading of Recommendations, Assessment, Development and Evaluation (GRADE) methodology.[45,48–50] The GRADE approach involved evaluating the current scientific evidence and forming consensus recommendations by a clinical expert panel comprised of multidisciplinary experts on frailty from various countries. The guidelines arose out of presentations at the Asia-Pacific Geriatrics Conference on "Geriatrics Beyond Borders: Are We Frailty Ready?" held in Singapore in 2016. Utilizing the information presented and the discussions at this conference, combined with a comprehensive literature search and review, a basic document was developed. This document was distributed to the expert panel who were encouraged to rank the strength of the guidelines and to propose changes. A modified Delphi process was used until all members of the expert panel were satisfied with the final document.

The strength of a guideline refers to its supporting evidence base, as well as the extent that its benefits outweigh any potential risks.[45,51] A strong recommendation in our manuscript is conceptualized as "we strongly recommend," and reflects that in the expert panel's judgement, there are substantial clinical benefits to the patient that distinctly outweigh the risks of undesirable effects,[45,51,52] taking into consideration patient preference.[53] A statement of "we conditionally recommend" means that although the majority of clinicians and informed patients would choose this modality, many would not because the benefits of treatment could potentially be undermined by an adverse event occurring.[45] A statement of "no recommendation" specifies that there is a low level of evidence supporting the