

LOOKING FOR FRAILTY IN COMMUNITY-DWELLING OLDER PERSONS: THE GERONTOPOLE FRAILTY SCREENING TOOL (GFST)

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Abstract: The frailty syndrome is a pre-disability condition suitable to be targeted by preventive interventions against disability. In order to identify frail older persons at risk of negative outcomes, general practitioners must be provided with an easy and quick screening tool for detecting frailty without special effort. In the present paper, we present the screening tool for frailty that the Gérontopôle of Toulouse (France) has developed and implemented in primary care in the region with the collaboration of the Department of Family Medicine of the University of Toulouse. The Gérontopôle Frailty Screening Tool (GFST) is designed to be administered to persons aged ≥ 65 years with no physical disability and acute clinical disease. It is composed by an initial questionnaire aimed at attracting the general practitioner's attention to very general signs and/or symptoms suggesting the presence of an underlying frailty status. Then, in a second section, the general practitioner expresses his/her own view about the frailty status of the individual. The clinical judgment of the general practitioner is finally retained for determining the eventual presence of frailty. Preliminary data document that almost everyone (95.2%) of the 442 patients referred to the Gérontopôle frailty clinic by general practitioners using the GFST indeed presents a condition of (pre-)frailty according to the criteria proposed by Fried and colleagues in the Cardiovascular Health Study. The use of the GFST may help at raising awareness about the importance of identifying frailty, training healthcare professionals at the detection of the syndrome, and developing preventive interventions against disabling conditions.

Key words: Preventive medicine, primary care, elderly, risk factors, frailty.

Introduction

Although a growing body of literature demonstrates the high prevalence and major clinical relevance of the frailty syndrome in older adults, its implementation in the daily practice is still lacking (1, 2). Geriatric medicine is very focused at taking care of older persons with disabilities, and the attempts to anticipate the disabling cascade are still preliminary and/or not sufficiently convinced. Nevertheless, in order to reduce the burdens posed by disabilities (to the older person as well to the public health systems), it is important to preventively act, when clinical conditions of risk can still be reversed or at least attenuated. The frailty syndrome is today largely recognized as the pre-disability condition more suitable to be targeted by preventive interventions against disability (3, 4).

One of the major challenges in implementing preventive interventions against disability resides in the need of redesigning part of the current clinical standards. In fact, the detection of frailty can be adequately conducted only by anticipating the "medicalization" of the older subject. Leaving undetected and/or untreated the frailty syndrome means delaying possible interventions, rendering potentially irreversible the process directed towards the spiral cascade of disability. For this reason, it is necessary to take adequate countermeasures as soon as the first signs/symptoms of frailty become manifest. In other words, it is needed to identify subjects at risk before their vulnerability is made evident by the

onset of a major clinical event (e.g., falls, emergency room admissions, hospitalizations). In this context, a key role is played by general practitioners, primary referents for the individual's health as well as crucial for the implementation of every preventive action. Regrettably, the general practitioner's activity is often too busy to foresee the addition of new tasks or clinical duties to the daily routine. To efficiently and correctly identify frail older persons among his/her patients, the general practitioner must be supported, starting with the provision of an easy and quick screening tool for detecting the frailty status without special effort.

As previously described (5), since October 2011, we have developed in Toulouse (France) an innovative clinical setting specifically focused at targeting frailty with the aim of preventing incident disability in community-dwelling older persons. Such initiative, highly responsive to public health demands (6), has been designed and developed by the Gérontopôle and the Department of Family Medicine of the University of Toulouse. General practitioners in the Toulouse area have been first educated to the concept of frailty and the importance of detecting it in clinical practice. Then, they have been trained at the use of a specifically developed screening tool assisting their evaluation.

The Gérontopôle Frailty Screening Tool (GFST, Table 1) is designed to be applied to older persons (aged 65 years and older) with no physical disability (defined by complete preservation of the Activities of Daily Living (7)) and acute

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clinical disease. Two different parts compose the instrument. The first one appears as a questionnaire. Its main objective is to attract the general practitioner's attention to very general signs and/or symptoms potentially indicating the presence of an underlying frailty status. These questions largely mirror the criteria that are commonly used to operationalize the frailty status (8, 9). For example, they remind the general practitioner to pay attention to the gait speed and mobility of the individual, his/her weight stability, or the possible presence of exhaustion. This part also contains a specific question about eventual memory complaints of the subject (in agreement with current evidence linking the cognitive and physical domain in the determination and manifestation of frailty (10-13)) and another one about the social status of the person (a major component to consider in the design of preventive interventions against disability (14, 15)).

This preliminary, almost pedagogic, section is then followed by a second part in which the general practitioner expresses his/her own view about the frailty status of the individual. The clinical judgment of the general practitioner is here used to determine whether, after the evaluation of the previous criteria, he/she indeed believes the person is frail or not. Only if he/she agrees with the results of the first section identifying the possible presence of frailty, the intervention is proposed.


It might be argued that the design of the GFST may leave the detection of frailty to the subjective perception of the general practitioner. Such choice is mainly motivated by two reasons: 1) to avoid that a major clinical decision (i.e., referral of the individual to a clinical intervention) is solely left to a screening tool, and 2) to directly involve the general practitioner in the diagnosis and subsequent follow-up of the detected condition. Moreover, although the final decision is left to the clinical judgment of the general practitioner, it is still driven by the

preliminary section listing the main defining criteria of the frailty syndrome.

In the context of Toulouse, taking action after the identification of frailty means explaining the subject the opportunity to undergo a multidisciplinary clinical assessment at the dedicated platform of the Gérontopôle (5). Here, the individual is comprehensively evaluated by a team of different healthcare professionals (i.e., geriatrician, nurse, neuropsychologist, physical therapist, dietician) with the objective of designing a personalized plan of intervention against disability.

The instrument provided by the Gérontopôle to the general practitioners of the Toulouse area is not yet validated. In particular, we do not know exactly how many false negatives were excluded from the preventive intervention at the platform. Current studies are ongoing to fill this gap. Nevertheless, the GFST has shown to adequately support the identification of frailty in community-dwelling older persons. In fact, data from the first 442 participants evaluated at the platform show that almost everyone (95.2%) resulted pre-frail (31.1%) or frail (64.1%) according to the criteria proposed by Fried et al. (8). Less than 5% was incorrectly referred to the platform as being robust or already disabled in the Activities of Daily Living. It is also noteworthy the high acceptance that the instrument had among general practitioners, especially because not time-consuming or invasive of their clinical decisions and daily practice. All this implies that, after training the general practitioners at the detection of frailty, their clinical judgment may suffice at accurately estimating the risk profile of the older individual and seek for support. The use of the instrument we propose will likely become unnecessary once that the concept of frailty will be better established, the healthcare professionals will have familiarized with the detection of the syndrome, and

Table 1
 The Gérontopôle Frailty Screening Tool (GFST)

			
Patients aged 65 years and older without both functional disability (Activities of Daily Living score $\geq 5/6$) and current acute disease.			
	YES	NO	Do not know
Does your patient live alone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your patient involuntarily lost weight in the last 3 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your patient been more fatigued in the last 3 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your patient experienced increased mobility difficulties in the last 3 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has your patient complained of memory problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does your patient present slow gait speed (i.e., >4 seconds to walk 4 meters)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If you have answered YES to one or more of these questions:</i>			
Do you think your patient is frail?	YES <input type="checkbox"/>	NO <input type="checkbox"/>	
If YES, is your patient willing to be assessed for his/her frailty status at the Frailty Clinic?	YES <input type="checkbox"/>	NO <input type="checkbox"/>	

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specifically devoted clinical settings for its assessment/treatment will be available. At this time, we believe the GFST might optimally serve to diffuse knowledge about the detrimental syndrome of frailty, and render general practitioners more active in the promotion of preventive interventions against disability in older persons.

References

1. Vellas B, Cestac P, Moley JE. Implementing frailty into clinical practice: we cannot wait. *J Nutr Health Aging* 2012; 16: 599-600.
2. Clegg A, Young J, Iliffe S, Rikkert MO, Rockwood K. Frailty in elderly people. *Lancet* 2013; 381: 752-762.
3. Morley JE, Haren MT, Rolland Y, Kim MJ. Frailty. *Med Clin North Am* 2006; 90: 837-847.
4. Cesari M. Frailty and aging. *J Frailty Aging* 2012; 1: 3-5.
5. Subra J, Gillette-Guyonnet S, Cesari M, Oustric S, Vellas B. The integration of frailty into clinical practice: preliminary results from the gérontopôle. *J Nutr Health Aging* 2012; 16: 714-720.
6. Ferrucci L, Guralnik JM, Studenski S et al. Designing randomized, controlled trials aimed at preventing or delaying functional decline and disability in frail, older persons: a consensus report. *J Am Geriatr Soc* 2004; 52: 625-634.
7. Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffe MW. Studies of illness in the aged. The index of ADL: a standardized measure of biological and psychosocial function. *JAMA* 1963; 185: 914-919.
8. Fried LP, Tangen CM, Walston J et al. Frailty in older adults: evidence for a phenotype. *J Gerontol A Biol Sci Med Sci* 2001; 56: M146-56.
9. Morley JE, Abbatecola AM, Argiles JM et al. Sarcopenia with limited mobility: an international consensus. *J Am Med Dir Assoc* 2011; 12: 403-409.
10. Boyle PA, Buchman AS, Wilson RS, Leurgans SE, Bennett DA. Physical frailty is associated with incident mild cognitive impairment in community-based older persons. *J Am Geriatr Soc* 2010; 58: 248-255.
11. Avila-Funes JA, Pina-Escudero SD, Aguilar-Navarro S, Gutierrez-Robledo LM, Ruiz-Arregui L, Amieva H. Cognitive impairment and low physical activity are the components of frailty more strongly associated with disability. *J Nutr Health Aging* 2011; 15: 683-689.
12. Houles M, Canevelli M, Abellan Van Kan G, Ousset PJ, Cesari M, Vellas B. Frailty and cognition. *J Frailty Aging* 2012; 1: 56-63.
13. Auyeung TW, Lee JS, Kwok T, Woo J. Physical frailty predicts future cognitive decline - a four-year prospective study in 2737 cognitively normal older adults. *J Nutr Health Aging* 2011; 15: 690-694.
14. Barusch A, Waters DL. Social engagement of frail elders. *J Frailty Aging* 2012; 1: 189-194.
15. Gutierrez-Robledo LM, Avila-Funes JA. How to include the social factor for determining frailty? *J Frailty Aging* 2012; 1: 13-17.