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# Measurement of frailty – when, why and how?

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EDITORIAL

HANS FLAATTEN

E-mail: [hans.flaatten@uib.no](mailto:hans.flaatten@uib.no)

Hans Flaatten, MD, PhD, specialist in anaesthesiology, senior consultant at the Department of Anaesthesia and Intensive Care, Haukeland University Hospital, and professor at the Department of Clinical Medicine, University of Bergen.

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## **Assessment of frailty is important in assessing risk in older patients, in a geriatric context as well as in intensive care.**

In an article in the Journal of the Norwegian Medical Association, Krogseth and colleagues present a study of older patients who receive care in their own homes, and who were followed over two years <sup>(1)</sup>. A whole series of assessments and examinations designed to reveal specific changes linked to ageing were repeated every six months with a view to identifying factors that could predict hospitalisation and death. In this group of elderly patients, the authors could document the benefits of a geriatric assessment in which the degree of frailty was established using the Frailty Index. Perhaps rather unsurprisingly, they found that the group had a high degree of frailty and that this was associated with emergency hospitalisation and death over the two-year period. These findings are important, since elderly, severely frail patients who live at home have a significant risk of serious events and should receive particular follow-up, even if it remains unclear whether and how targeted interventions can reduce such risk.

Measurement of frailty is important also in other specialties, including intensive care, since frailty is a key risk factor among older people for various outcomes, particularly for death. It has been documented that frailty in patients  $\geq 80$  years is the main risk factor for death within 30 days after an emergency

admission to intensive care (2), and that frailty alone was a better prognostic factor than various combinations of comorbidity, cognition or level of activity. In addition, frailty was more important for the outcome than age in itself, although age was also an independent prognostic factor for survival.

It is a long way from the home situation in Sandefjord, where Krogseth and colleagues undertook their study, to the high-tech environment in an intensive care unit. It is therefore interesting to note that a single factor such as frailty has such a strong effect in both settings. This testifies to the potential inherent in assessing frailty in older patients.

*«Age is still important in assessment of prognosis, but factors such as frailty and level of activity can tell us so much more than the number of years alone»*

A number of tools are used to assess frailty, and Krogseth and colleagues used a composite geriatric assessment as their gold standard. Measurement of the frailty index takes time and depends on the patient being conscious and collaborating during the examination. A modified frailty index has therefore been developed, consisting of only five items (3), that most likely provides more information on comorbidity than on frailty. It has been argued that the modified frailty index is easy to apply and can be used on the basis of information from electronic data files, including ICD-10 codes. However, it is poorly correlated with traditional assessments of frailty (4). In assessments of frailty, it is important to use measurement tools that have a high degree of validity, and this applies in particular to the simpler methods that have been developed (5).

In critical situations, such as in emergency admissions departments, before emergency surgery or upon admission to intensive care units, an alternative method has gained acceptance, the Clinical Frailty Scale. This method was developed by Rockwood and colleagues after validation against the original frailty index (6). The tool consists of a nine-item scale for patient status, ranging from fully healthy to the terminal stage, with a pictogram accompanied by a simple text for each item. It is easy to use, makes for high compliance and has very low interrater variability. This was demonstrated in a recent European study of 2 000 pairs of observers who assessed frailty in elderly patients after admission to intensive care, where a high degree of correspondence was found between different groups of health personnel and sources of information (7). The Clinical Frailty Scale has been widely adopted in clinical practice in many areas (8).

Assessment of frailty is a powerful tool for assessing risk in patients, especially elderly patients. A systematic use of frailty assessment is probably also a key element in combatting age discrimination in clinical medicine. Age is still important in the assessment of prognoses, but factors such as frailty and level of activity can tell us so much more than the number of years alone.

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