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Acutely Presenting Older Patient study**
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Improving the care for older emergency department patients: the Acutely Presenting Older Patient study

Acutely ill older people who arrive in the emergency department (ED) are particularly vulnerable, with a high risk of undesired outcomes: loss of independence, loss of quality of life or even death. In the Netherlands, 3 months after over 70-year-old patients visit the ED for any reason around 10% are deceased and another 20% do not functionally recover up to the level prior to ED presentation [1]. Not surprisingly, those who suffer loss of functional capacity also report reduction of quality of life [2].

Various factors complicate the care for older people in the ED and contribute to the high risk of adverse outcomes. First, older people present with different problems than younger patients, such as delirium or falls and healthcare professionals in the acute setting do not automatically have the knowledge and expertise to recognize and treat these complex geriatric syndromes. Second, older people may provide atypical presentation of frequent diseases, such as the absence of fever and hypotension in older patients with sepsis. Such atypical presentations are not part of clinical guidelines and may result in inadequate diagnostics or treatment. Finally, older people are very diverse with respect to their level of vitality and frailty on different dimensions of cognitive, physical and social functioning. Older people with frailty may benefit from different care that fit older people, which requires advance care planning and timely initiation of geriatric and palliative care.

The present coronavirus disease 2019 (COVID-19) pandemic accentuates the challenges of delivering adequate care for

acutely ill older people. The population of older people are the hardest hit, with the majority of fatalities in higher age groups: in-hospital mortality of older people is reported up to more than 60% in some studies [3]. Older people hospitalized for COVID-19 also presented more often with atypical symptoms, such as syncope and confusion, whereas typical COVID-19 symptoms, such as myalgia, cough and fever are more infrequent in the highest age groups [4]. On top of high calendar age, the presence of frailty is independently associated with an increased risk of adverse outcome [5]. Older people with a clinical frailty scale of 6 or higher (on a 9-point scale, indicating presence of moderate to severe frailty) [6] have a risk of mortality from COVID-19 that is three-fold higher than fit older people. Furthermore, older people have a high risk of delirium, the management of which is extremely complicated in circumstances of patient isolation and healthcare workers dressed-up to protect [7]. The longer-term outcomes of older people in terms of level of independence and cognitive functioning in the COVID-19 pandemic have not been reported but given the huge impact on these outcomes even in younger patients, they may be poor in older patients, especially those with frailty.

All of these circumstances beg the question: “how do we deliver the best possible care to our older ED patients?”. At present, assessing diversity of older people in terms of frailty or vitality is not part of our routine clinical work-up in the ED. Delivering the entire comprehensive geriatric assessment (CGA) in

the ED may not be feasible as it requires the presence of a multidisciplinary team and hours of time to perform, both of which are not available in most healthcare settings; however, initiating the principles of CGA in the ED may well start on the doorstep of the hospital [8], in which a screening instrument could help to identify those older patients in need of geriatric care. Screening-instruments that have previously been developed perform modestly at best [9]. In a recent review interventions [10] those that may be effective have been identified, although high-level experimental evidence on effectiveness is scarce. Taken together, despite years of research, implementation of geriatric care in the emergency department remains complex but this should not stop our endeavours to deliver the best possible care to our older patients [11].

In the Netherlands, in the past 5 years we have developed and implemented an integrated screening program for older people in the ED based on the Acutely Presenting Older Patient (APOP) study. We successively undertook a number of steps to develop and implement a comprehensive screening program for older patients in the ED. The program consists of the APOP screening instruments, a selected set of interventions and training for ED professionals. Based on a prospective cohort study among 2500 patients aged 70 years or older presenting to 4 EDs in the west of the Netherlands, all patients were included during their visit to the ED and followed for 1 year for mortality, daily functioning and quality

of life. Based on patient characteristics at presentation, which included a mini-geriatric assessment of cognitive, physical and social functioning, an accurate prediction model was constructed to predict 3-month mortality and functional decline [1]. In preparation for implementation in routine clinical practice, the prediction model was implemented and assessed in a pilot study. This study included validation in two additional hospitals, and experiences of the ED nurses to administer the screening instrument, resulting in a refined and updated version of the screener [12]. Finally, the APOP screening program was implemented in everyday clinical practice and proved to be feasible in a sustainable manner: during the months after the implementation the screening rate remained adequate [13]. During the implementation phase, professionals in the ED received education on the principles of geriatric emergency medicine, based on the European curriculum that was developed for this purpose [14].

In the present issue of *Zeitschrift für Gerontologie und Geriatrie* we present yet a next step in our continuous efforts to improve the care for our older patients in the ED [15]. Colleague Blomaard assessed the effects of implementation of the APOP screening program on the implementation of the program in routine clinical practice of the ED in the Leiden University Medical Center in March 2018 [15]. Much more than being the final piece of evidence for the APOP screening program, this manuscript marks a new beginning: now all elements of the program have been implemented in routine clinical care, we have started a process of continuous evaluation and adaptation in a plan-do-study-act cycle. Future iterations of evaluations should continue to make improvements to the APOP program and ultimately to prove effectiveness. Until then, the APOP program makes a daily contribution to improve quality of geriatric emergency care, as it effectively implements a number of established quality indicators [16] and initiates an increased number of CGAs in hospitalized older patients with frailty, the effectiveness of which has previously been demonstrated [17].

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Conflict of interest. S. P. Mooijaart declares that he has no competing interests.

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