

Your membership matters.

Continue to help lead the fight against kidney disease. Renew today.

www.asn-online.org/membership



CJASN

Clinical Journal of the
American Society of Nephrology

HOME | CURRENT ISSUE | ADVERTISE | SUBSCRIBE | ARCHIVES | FEEDBACK | ALERTS | HELP

User Name

Password

LOG-IN

Search

Go

Advanced Search

Frailty Screening Tools for Elderly
Patients Incident to DialysisIsmay N. van Loon^{*,†,‡}, Namiko A. Goto[§], Franciscus T.J. Boereboom^{*,†},
Michiel L. Bots^{||}, Marianne C. Verhaar[‡], Marije E. Hamaker[†]

Author Affiliations

Correspondence:

Dr. Ismay N. van Loon, University Medical Center Utrecht, Nephrology,
Heidelberglaan 100, 3508 GA Utrecht, Postbus 85500, Utrecht, The Netherlands.
Email: i.vanloon@dianet.nl

Abstract

Background and objectives A geriatric assessment is an appropriate method for identifying frail elderly patients. In CKD, it may contribute to optimize personalized care. However, a geriatric assessment is time consuming. The purpose of our study was to compare easy to apply frailty screening tools with the geriatric assessment in patients eligible for dialysis.

Design, setting, participants, & measurements A total of 123 patients on incident dialysis ≥ 65 years old were included < 3 weeks before to ≤ 2 weeks after dialysis initiation, and all underwent a geriatric assessment. Patients with impairment in two or more geriatric domains on the geriatric assessment were considered frail. The diagnostic abilities of six frailty screening tools were compared with the geriatric assessment: the Fried Frailty Index, the Groningen Frailty Indicator, Geriatric8, the Identification of Seniors at Risk, the Hospital Safety Program, and the clinical judgment of the nephrologist. Outcome measures were sensitivity, specificity, positive predictive value, and negative predictive value.

Results In total, 75% of patients were frail according to the geriatric assessment. Sensitivity of frailty screening tools ranged from 48% (Fried Frailty Index) to 88% (Geriatric8). The discriminating features of the clinical judgment were comparable with the other screening tools. The Identification of Seniors at Risk screening tool had the best discriminating abilities, with a sensitivity of 74%, a specificity of 80%, a positive predictive value of 91%, and a negative predictive value of 52%. The negative predictive value was poor for all tools, which means that almost one half of the patients screened as fit (nonfrail) had two or more geriatric impairments on the geriatric assessment.

Conclusions All frailty screening tools are able to detect geriatric impairment in elderly patients eligible for dialysis. However, all applied screening tools, including the judgment of the nephrologist, lack the discriminating abilities to adequately rule out frailty compared with a geriatric assessment.

dialysis elderly frailty geriatric assessment screening Aged
Frail Elderly Geriatric Assessment Humans Judgment
Nephrologists Outcome Assessment (Health Care) renal dialysis
Renal Insufficiency, Chronic Risk Safety Sensitivity

Received November 16, 2016.

Accepted May 30, 2017.

Copyright © 2017 by the American Society of Nephrology

We recommend

Significance of frailty among dialysis patients.

Kirsten L Johansen et al., J Am Soc Nephrol

Considerations in starting a patient with advanced frailty on dialysis: complex biology

« Previous | Next Article »
Table of Contents

This Article

Published online before
print July 2017, doi:
10.2215/CJN.11801116
CJASN September 07,
2017 vol. 12 no. 9 1480-
1488

» Abstract Free

Figures Only

Full Text

Full Text (PDF)

Supplemental Data

Article Usage Stats

Article Usage Statistics

Services

Email this article to a
colleagueAlert me when this article is
citedAlert me if a correction is
posted

Similar articles in this journal

Similar articles in PubMed

Download to citation manager

© Get Permissions

Citing Articles

Google Scholar

PubMed

Current Issue

March 07, 2018, 13 (3)

Alert me to new issues of
CJASN

ONLINE SUBMISSION

AUTHOR RESOURCES

ABOUT CJASN

EDITORIAL BOARD

REPRINTS/PERMISSIONS

IMPACT FACTOR

MOST READ

MOST CITED

CJASN ePress

Updated on:
March 9, 2018
By Date / By Subject

Advertising Disclaimer

meets challenging ethics.

Mark Swidler, Clin J Am Soc Nephrol

Emilia and mortality in dialysis: evaluation of a clinical frailty scale

Copyright © 2018 by the American Society of Nephrology

Be a part of something
innovative,
influential

Print ISSN: 1555-9041

Online ISSN: 1555-905X



ASN members enjoy
discounts on ASN's
educational programs,
subscriptions to ASN's
publications, and more.

Join or renew today at
www.asn-online.org/membership

