Can low levels of suPAR (proxy of disease burden) be used as cut-off in pharmacist risk stratification of patients for medication review?

We characterized patients with **low suPAR** who died within 90 days of hospital discharge in the identification of patients in high risk of **death** who might have benefitted from a **medication review.**

EMERGENCY DEPARTMENT

Patients are often stratified for medication review based on age and number of medications without considering disease burden. Soluble urokinase plasminogen activator receptor (suPAR) is a proxy of disease burden and high levels of suPAR is associated med readmission and death. It is suggested that suPAR levels <3 ng/mL can be used for safe and early discharge from the ED.

We found…

That patients with low suPAR who died had higher morbidity than what was reflected by suPAR and that using suPAR in clinical settings may be challenging in patients with low suPAR and a high number of medications. Additionally, when stratifying patients for medication review, we suggest to include **medications, routine blood tests,** and **selected diagnosis codes** in combination with **suPAR.**

Method

Observational registry-based study of acutely admitted patients in the Emergency Department (ED) of Hvidovre Hospital.

A characterization of patients with low suPAR (<3 ng/mL) who died within 90 days of hospital discharge (n = 87) based on a comparison to patients with low suPAR who survived within 90 days of hospital discharge (n = 15,122).

Patient characteristics described include age, medications, common diagnoses, Charlson Comorbidity Index, and frailty index (FI-OutRef).

Results

Compared to patients with low suPAR who survived, patients with low suPAR who died had:

⬆ Higher age (75.4 vs 48.1 years)
⬆ Higher number of medications (7.0 vs 2.0)
⬆ Higher FI-OutRef (5.0 vs 2.3)

The most common diseases were:
1. Chronic pulmonary disease
2. Cerebrovascular disease
3. Dementia
4. Diabetes without complications
5. Myocardial infarction

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Pharmacist risk stratification: A characterization of patients with low soluble urokinase plasminogen activator receptor who died within 90 days of hospital discharge

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REGION H