

Prevalence of impaired renal function in medical inpatients*

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Dear Sir,

Renally cleared drugs may cause problems in patients with renal insufficiency (RI). Our focus is on low molecular weight heparins (LMWH) [1] which are used in 50–90% of medical inpatients [2]. Although the prevalence of RI in the general public is well known [3], there are scant data for medical inpatients. On two days in the medical department of a tertiary care hospital we conducted a cross-sectional study including all inpatients except those on intensive care. Glomerular filtration rate (GFR) was calculated (MDRD) and renal function was classified (stages 1–5) as described [3].

A total of 352 patients were included (149 women), with median age 72 years (range 16–93), and BMI 24.8 kg/m² (range 14.4–61.0). We found a negative correlation between age and GFR ($r_s = -0.466$, $p < 0.0001$), but no influence of gender on GFR ($p = 0.38$). The frequency of RI (Table 1) was higher in our population than in the general public [3], as could be assumed given medical inpatients' age and comorbidity. Our results are comparable with those among selected

Table 1

Distribution of renal function (calculated glomerular filtration rate, GFR).

Stage	GFR mL/min per 1.73 m ²	n (%)
1 or healthy	≥90	134 (38%)
2 or healthy	60–89	128 (37%)
3	30–59	57 (16%)
4	15–29	15 (4%)
5 with dialysis		12 (3%)
5 without dialysis	<15	6 (2%)

populations [4] and closely match those of a recently published study [5]. 82% of our patients were on some form of anticoagulation, chiefly with LMWH (69% of all patients). Use of anticoagulants did not differ in patients with stage 4 and 5 RI compared to others (79% vs. 83%, $p = 0.6$) although LMWH were used less often (50% vs. 88%, $p < 0.0001$).

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