PHARMACISTS INTERVENTIONS IN THE EMERGENCY ROOM OF A TERTIARY-LEVEL HOSPITAL

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**background**
The presence of a full-time pharmacist in the emergency room (ER) is well established and acknowledged in many institutions as of great value.

**purpose**
To analyze and assess the clinical impact of the pharmacist’s interventions in the ER of a tertiary-care teaching institution.

**methods**
Patients >65 years-old on >4 medications were included. Drug-related problems (DRP) were classified according to: (a) therapeutic group, (b) intensity: mild, moderate, severe, and very severe, and (c) type (from Martí et al, 2005): indication, safety, adherence, and effect. Patients were monitored up to 72h upon floor admission.

**results**
Patients included: 111, 70.2% male, median age 78.9 years [65-94].
Completed pharmaceutical recommendations: 34 (1/3.2 patients)
Rate of acceptance: 85.2%.
\(\text{a: anti-thrombotics (29.4%), anti-hypertensives (5.4%)}
\(\text{b: Indication: 58.62% (81.1% of them were untreated conditions)}
\quad \text{Safety: 31.03% (mostly overdosage)}
\quad \text{Compliance: 6.89%}
\quad \text{Effectiveness: 3.44% (infradosage).}
\(\text{c: mild-to-moderate impact 75.86%}
\quad \text{moderate-to-severe: 17.25% (involving mainly anticoagulants)}
\quad \text{serious or very serious: 6.89% (immunosuppressants)}

**conclusion**
On-the-go support to physicians and nurses in the ER allowed the early detection of potential DRP in one third of the patients. Cardiovascular diseases gathered almost two thirds of them, with antithrombotics as the drugs mainly involved (1/10 patients in need for thromboprophylaxis lacked it). However, the clinical impact was minimized by the short time spent in the unit (slightly below one day), and by the further medication thorough-revising upon floor admission. In addition, the narrower therapeutic range of the drugs involved (such as immunosuppressants), the more decisive happen to be the timely-manner contribution of the pharmacist. In conclusion, the presence of a full-time pharmacist in the ER would reduce DRP by an exhaustive pharmacotherapeutic assessment, which is particularly important for older or poly-pharmacy patients.