

MEDICATION-RELATED ADMISSION WAS MORE FREQUENT IN ELDERLY PATIENTS HOSPITALISED IN AN ORTHOPEDIC UNIT THAN IN AN EMERGENCY DEPARTMENT IN TWO FRENCH HOSPITALS



H. CAPELLE¹, C. BALDIN², I. PONS³, C. MARBLE⁴, C. DUMAZER¹, G. HACHE²

¹CENTRE HOSPITALIER EDMOND GARCIN, PHARMACY, AUBAGNE, FRANCE.
²ASSISTANCE PUBLIQUE HÔPITAUX DE MARSEILLE, PHARMACY, MARSEILLE, FRANCE.
³CENTRE HOSPITALIER EDMOND GARCIN, EMERGENCY, AUBAGNE, FRANCE.
⁴CENTRE HOSPITALIER EDMOND GARCIN, SURGERY, AUBAGNE, FRANCE.



n°4CPS-246

Background and Importance

Medication-related admissions (MRAs) are common in elderly and are preventable in almost half of cases. **Pharmaceutical care** aims to promote medication safety and reduce **potentially inappropriate prescriptions**. In our hospitals, clinical pharmacists perform **medication reviews** in both **emergency department (ED)** and **orthopedic units**. As part of an ongoing process of quality improvement, we conduct a study to identify MRAs in patients over 75 years old hospitalized in these two clinical settings.

Aim and Objectives

The aim of this study was to compare **MRAs prevalence** in elderly patients hospitalized in ED and orthopedic units, in order to reassess the management of **clinical pharmacists' interventions** during hospitalizations.

Material and Methods

This **prospective observational multicenter study** was conducted between May 2019 and March 2020, including patients over 75 admitted in the ED and orthopedic surgery departments of 2 French hospitals.

We use the **AT-HARM10 tool*** to distinguish possibly vs unlikely MRAs in elderly patients.

Results

Emergency Department (ED) :

Demographics	166 patients
Sex ratio	66M/100F
Mean age	86.0 ± 5.7 y.o.
Mean number of prescribed drugs	7.7 ± 3.8

We included 266 patients

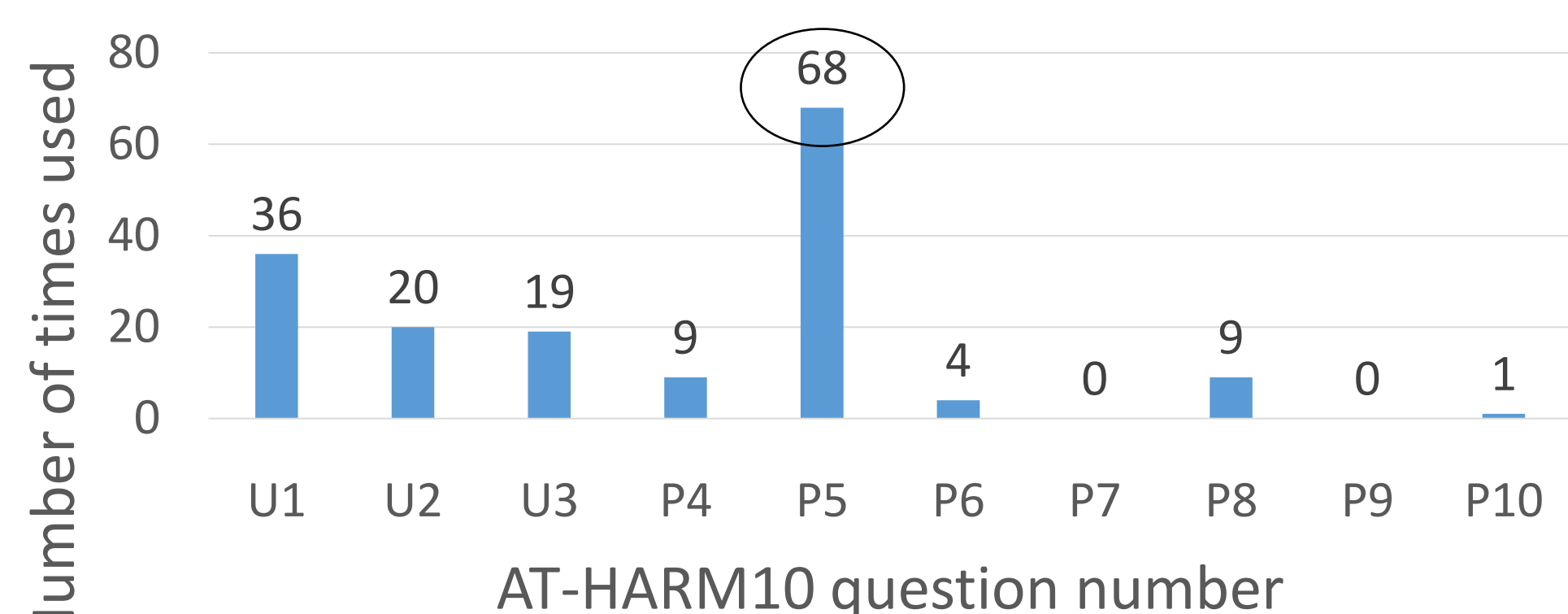
Orthopedic Units :

Demographics	100 patients
Sex ratio	30M/70F
Mean age	85.2 ± 6.1 y.o.
Mean number of prescribed drugs	6.4 ± 3.6

Polypharmacy

Polypharmacy

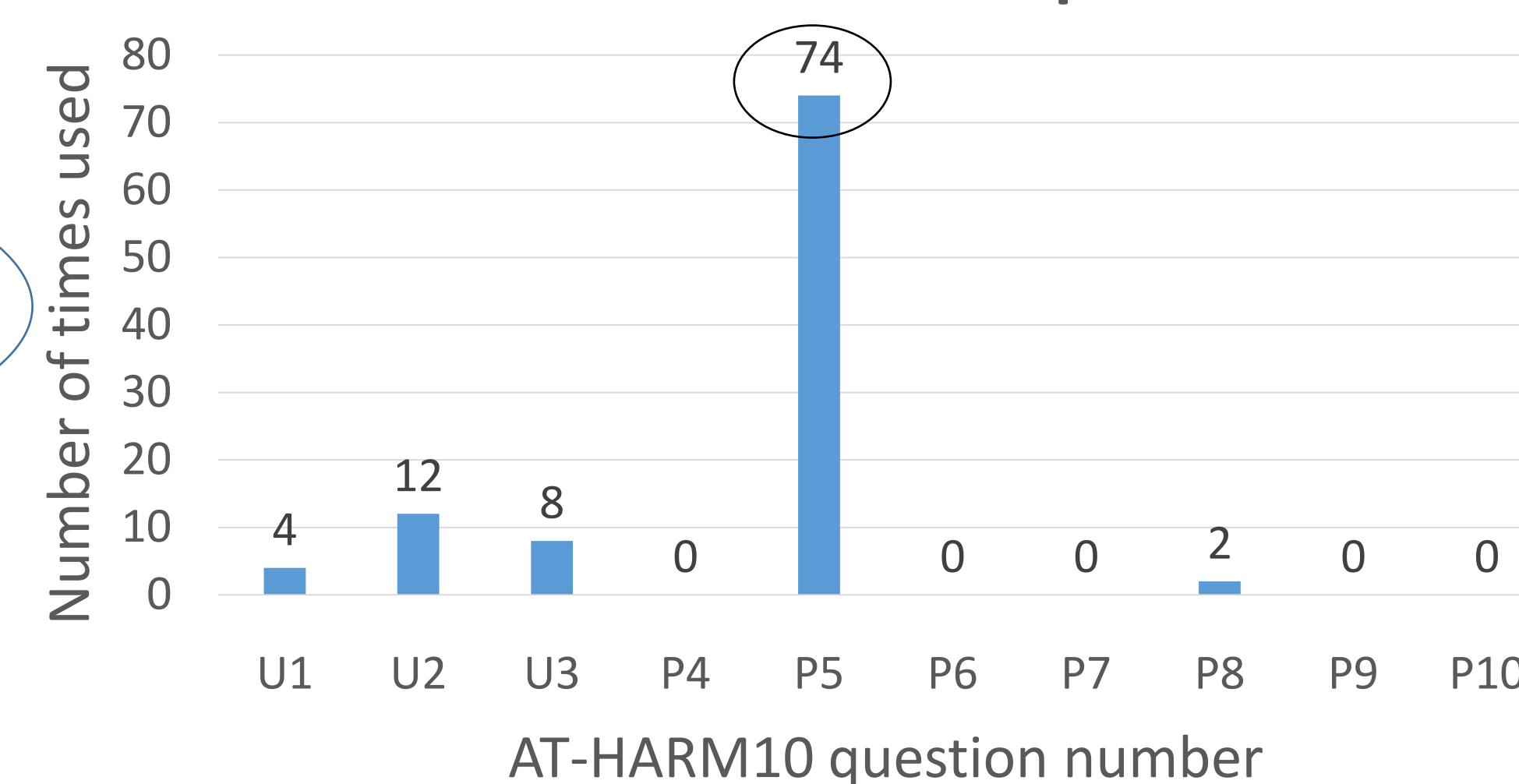
AT-HARM10 results in ED



➤ The most represented question was **P5** in both groups

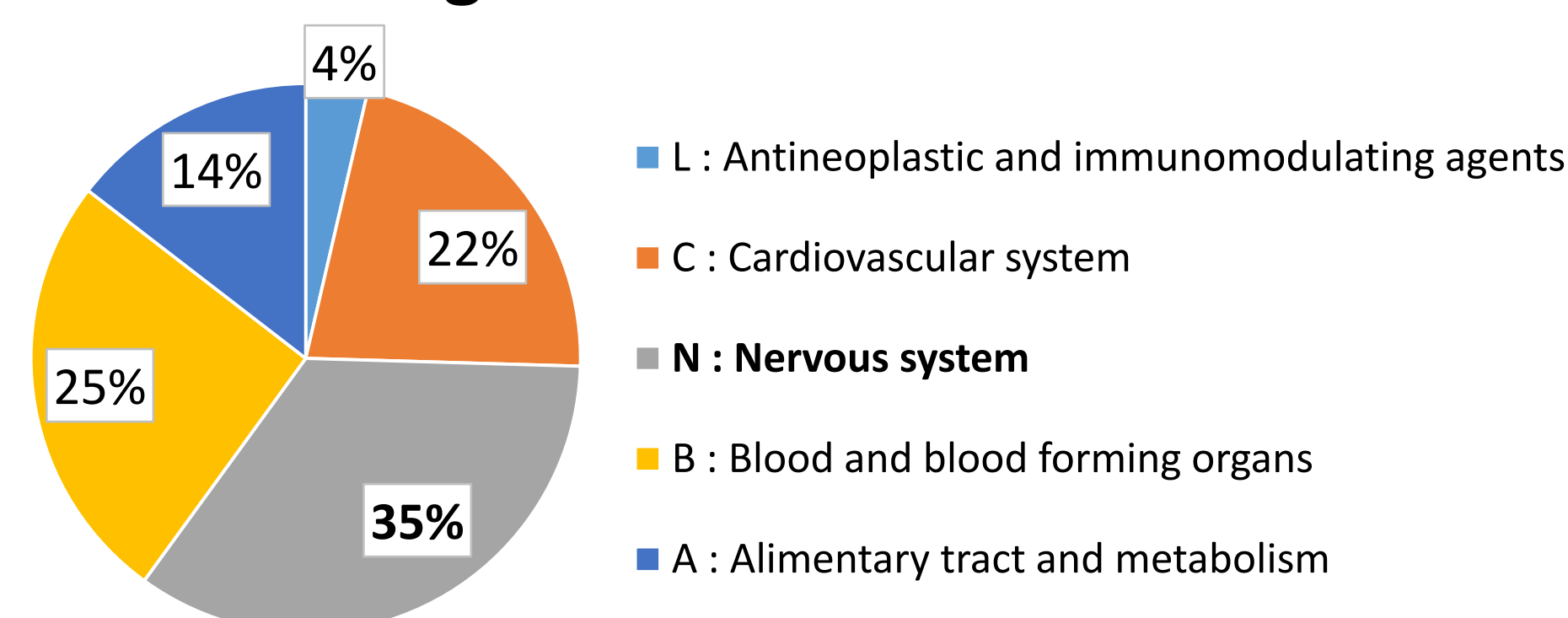
« Might side effects of the medications the patient was taking prior to hospitalization have caused the admission ? »

AT-HARM10 results in Orthopedic Units



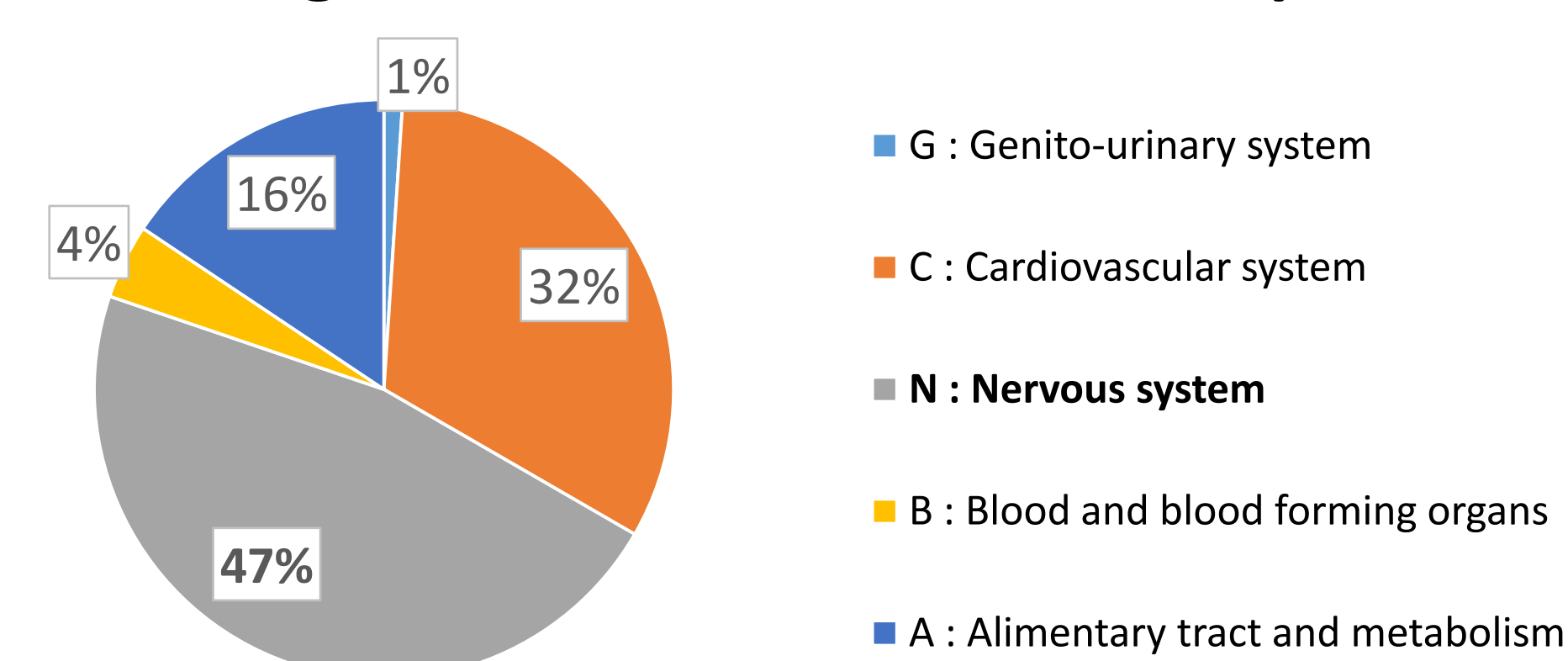
➤ We identified 91 (**55%**) MRAs in **ED** and 76 (**76%**) MRAs in **orthopedic units** (p<0.05). Approximately half of all admissions in *Kempen's* study were considered *possibly* medication-related, according to both the gold standard experts (50%) and the AT-HARM10 assessments (48–58%).

ATC code for drugs involved in MRAs in ED



➤ Most involved drugs were acting on **nervous system (ATC-N)**, followed by blood system (ATC-B) in ED like previous studies.

ATC code for drugs involved in MRAs in Orthopedic Units



Conclusion and Relevance

We found **MRAs rates comparable to results reported in previous studies about elderly patients in ED**. MRAs were more frequent in **elderly patients admitted in orthopedic surgery**. These results lead us to prioritize more **medication reviews** by clinical pharmacists for older patients in **surgery departments**, to guarantee a continuity of patient's care and potentially avoid re-hospitalizations.

*Kempen et al, Int J Clin Pharm, 2018.