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PRESCRIPTION OF HYPNOTICS DURING HOSPITAL STAY: AN EPIDEMIOLOGICAL STUDY IN A SWISS HOSPITAL

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Background

- Hypnotics have been associated with many adverse effects, such as drowsiness, confusion, falls and dizziness, especially in the elderly population
- Chronic use can cause decreased cognitive performance and addiction
- Few studies explored this issue during hospital stay
- A regional prevention campaign "Hypnotics? Not necessarily needed" conducted in the Canton of Vaud, focused on this topic
- This study aimed to describe introduction and discharge prescription of hypnotic drugs during stay in an internal medicine ward

Objectives & Methods

- **Where ?** A 70-bed internal medicine department in a Swiss regional hospital
- **When ?** May-August 2014 (3 months)
- **Who ?** Patients ≥ 18 years old, hospital stay for more than 24 hours, discernment and patient's approval
- **What ?** Data collected:
  - demographic data : age, gender, diagnosis, comorbidities
  - medication data : chronic hypnotic use, new prescription of hypnotics, day of introduction, drug-related problems (DRP)

Results

→ Characteristics of the study population are shown in **Table 1**

→ **34%** of patients (n=98) were chronically taking hypnotics before hospital stay

Home

→ **44%** of patients (n=128) had a hypnotic prescription at the end of the hospital stay

Hospital discharge

Increased prescriptions

Hypnotic drugs started during hospital stay

37% of patients (n=108) had a new prescription of hypnotics

→ **62%** of patients (n=180) had at least one prescription of hypnotic, including drugs that patients were already taking, drugs newly introduced in the hospital or both

→ The classes of hypnotics prescribed are shown in **Figure 1**

→ Different hypnotics were used depending on age **(Figure 2)**

→ Characteristics of new prescriptions:

- 68% of hypnotics were prescribed to be used as needed
- 52% of hypnotics were prescribed during the first 24 hours of hospital stay
- 76% of hypnotics were not reassessed during hospital stay

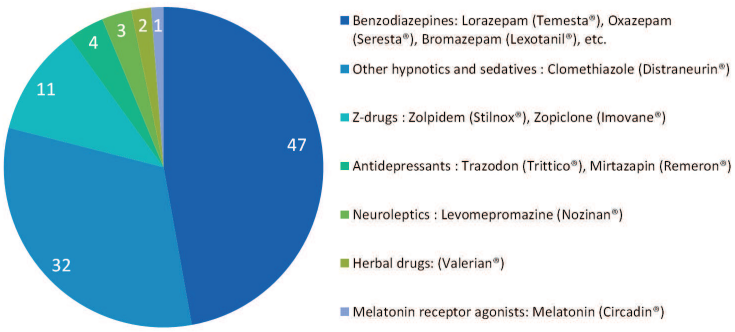

Figure 1: Class of hypnotics prescibed (%)

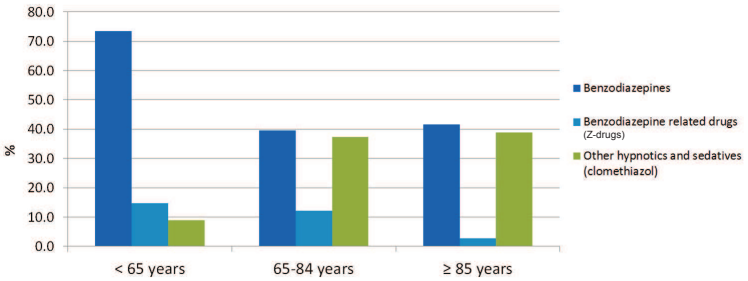

Figure 2: Hypnotics presciptions depending on age (%)

Characteristics	n (%)
Age (years)	
< 65	78 (27)
65-84	132 (45)
≥85	80 (28)
Gender	
Female	169 (58)
Male	121 (42)
Chronic use of hypnotic	98 (34)

Table 1: Patient's characteristics (n=290)

Analysis of new hypnotic prescriptions (DRP)

68% of new hypnotic prescriptions presented a drug-drug interaction (details are shown in Table 2)

Interactions	n (%)
Pharmacodynamic (PD)	136 (87)
Addition of CNS depressant effects	123 (90)
Addition of QTc prolongation effects	8 (6)
Increased other side effects	5 (4)
Pharmacokinetic (PK)	20 (13)
Cytochrome P450 (CYP)	18 (90)
Increased new hypnotic drug effects	12 (66)
Decreased new hypnotic drug effects	3 (17)
Increased other drugs' effects	3 (17)
Unknown mode of action	2 (10)

Table 2: Drug-drug interactions

Conclusions

- Introduction of a hypnotic medication happened in nearly 40% of hospitalized patients
- One-third of new hypnotics were kept at the end of the hospital stay
- These prescriptions may generate chronic use and expose patients to drug-related problem (adverse effects and interactions)

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