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MEDICINES RECONCILIATION ON ADMISSION : A PATIENT SAFETY STRATEGY

CP-171

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Introduction/Objectives

Medication Reconciliation on Admission (MRA) aims to identify and solve Unintended Medication Discrepancies (UMD) defined as differences between the home treatment prescription and the first hospital prescription.
Our study aims to assess the impact of the MRA on UMD and to identify risk factors for the development of UMD.

Study design

Methods
- Retrospective study in 2013.
- Six services: vascular surgery, geriatrics, haematology, infectious diseases, nephrology and urology.
- Management by pharmacy students, supervised by clinical pharmacists.
- Inclusion criteria: patient who can benefit of MRA within the 48 hours of the patient's admission.
- Interview with the patients about their home treatment prescription, self-medication, allergies, adverse events and therapeutic adherence.
- Call by phone to community pharmacists (dispensed drugs information in the last 3 months).
- Further information collected from other sources: patient's medical record, interview with the family, letters from community doctors.
- Determination of potential harm of each UMD (high, moderate or minor risk) accessed by two pharmacists.

Endpoints
- Number of UMD and risk factors for the development of UMD.
- UMD clinical impact.

Statistical analysis
- Correlations between all the parameters were statistically tested (Wilcoxon signed-rank test; Kruskal Wallis Test; Spearman's rank correlation coefficient).

Results

- 645 patients were enrolled in 2013 ; 5673 medications analysed.

Number of UMD / Risk factor

Number of UMD/patient	Number of patient (%)
1	151 (23.4)
2	61 (9.5)
≥ 3	65 (10.1)

Table 1: Patients distribution according to number of UMD.

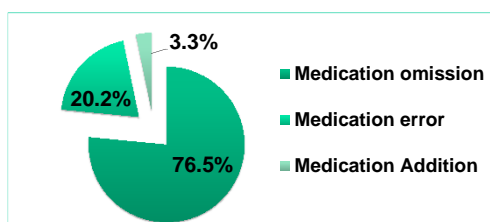23.4% of patients had at least one UMD and 10.1% of patients had at least three UMDs.

Figure 1: UMD caracterization

The most frequently UMD is « Omission ».

The number of lines on the home treatment prescription is a risk factor for UMD, as is the type of service in which the activity takes place Medication adherence was not correlated to the incidence of UMD.
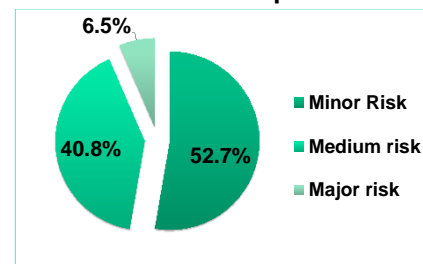
UMD clinical impact

Figure 2 : UMD Clinical impact distribution.

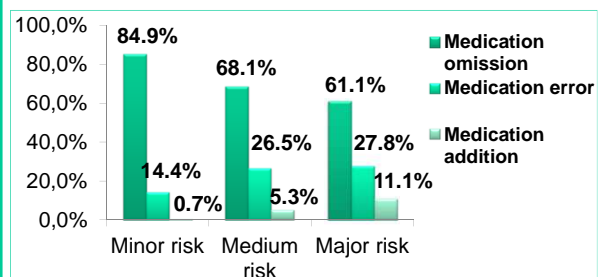Among all the detected UMDs, 47.3% were associated with a moderate to major risk for the patient.

Figure 3 : UMD distribution according to the clinical impact

Potential harm is significantly linked to UMD type (p = 0.051).
The risk rise then the UMD is a medication error.

Discussion/Conclusion

MRA is a useful process to detect UMD[1]. This retrospective study confirms that polymedication is a high risk factor of UMD development. 47.3% of DNI have a clinical impact for the patient. These data support those published in the literature review of Kwan *et al*[2].
Pharmacy students sometimes have trouble identifying UMD, so it is necessary to supervise them.
MRA will develop in parallel with the use of new information technologies for communications. It participates in structuring the "community-hospital" link.

Bibliography [1] Tam *et al.*, Can Med Assoc J. 2005 – [2]Kwan *et al.*, Ann Intern Med, 2013