

Metamizole and post operative analgesia: are the guidelines respected ?

Alma Feka^{1,2}, Anne Fournier¹, Nancy Perrottet¹, Eric Thein³, Nicolas Demartines⁴, André Pannatier^{1,2}, Pierre Voirol^{1,2}

¹. Service of Pharmacy, Lausanne University Hospital (CHUV), Lausanne, ². School of Pharmaceutical Sciences, University of Geneva, University of Lausanne, Geneva, ³. Service of Orthopedic Surgery and Traumatology, CHUV, Lausanne, ⁴. Service of Visceral Surgery, CHUV, Lausanne, Switzerland

Introduction

- **Metamizole (MTZ)** is widely used after surgery as an **analgesic, antipyretic and spasmolytic drug**.
- However **complications** such as agranulocytosis, anaphylactic choc and renal impairments have been reported. This medication has therefore been withdrawn in several countries because of those side effects.
- A recent study showed a 8 times increased of MTZ use within the last 10 years in Switzerland*. In our hospital, the Drug and Therapeutic Committee **recommends to use MTZ only in the cases where no other option is possible** and to use it **no longer than 3 days**.

Purpose

Analysis of MTZ prescription and administration in the 3 services main users and comparison with the use in other Swiss hospitals

Methods

Local observational study:

The medical records of all the patients discharged from the services of orthopedic surgery, traumatology and visceral surgery have been analysed over a 3-week period.

Data on duration of treatment, doses, frequency of use and way of administration of MTZ have been recorded as well as details on discharge prescriptions.

National survey

A survey has been sent to all Chief-Pharmacists of the Swiss hospitals in order to evaluate the practices in their institution.

Results

Local observational study

- In total, 303 patients' files have been reviewed. Patients characteristics are presented in Table 1
- Patients' distribution according to their operating status and prescription of MTZ is presented in Diagram 1.
- Durations of administration (shorter than 3 days or not) are presented in Figure 1
- The usual daily dose was 3 g/day and the MTZ was given orally in 94% of cases.
- 33% of patients who were prescribed MTZ during the hospital stay kept it on the discharge prescription.
- In the vast majority of cases, MTZ was used as first intention NSAID in 95% of cases, when prescribed after surgery (Figure 2)

Table 1: patients characteristics

	Number	Median age (years)	Sex (F/M)	Patients operated	Mean length of stay (days)
Patients	303	57 [16 – 93]	149 / 154	250 (83%)	8 [1 – 40]
CHV	115 (38%)	57 [16 – 91]	56 / 59	90 (70%)	7 [1 – 39]
TRA	80 (26%)	57 [20 – 93]	40 / 40	54 (68%)	10 [1 – 40]
OTP	108 (36%)	58 [18 – 90]	53 / 55	106 (98%)	6 [1 – 31]

Figure 1: Duration of treatment

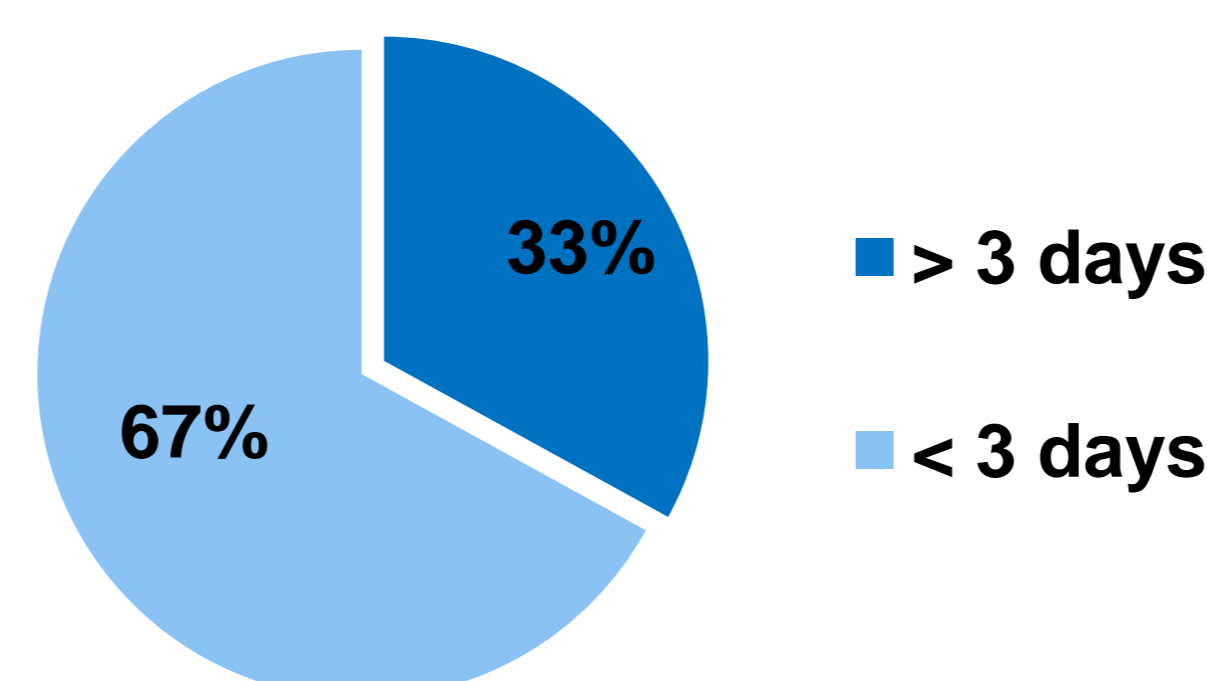


Diagram 1: operating status and MTZ use

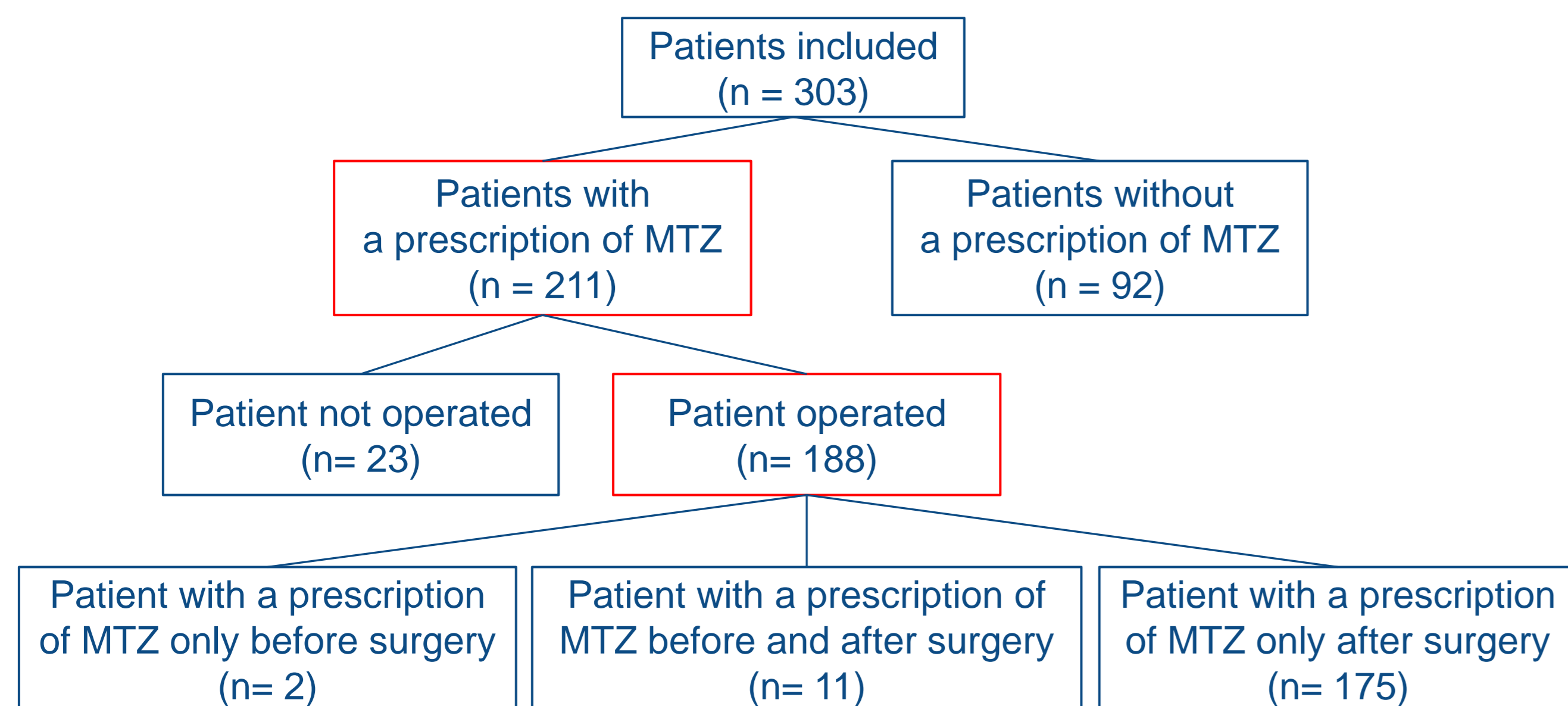
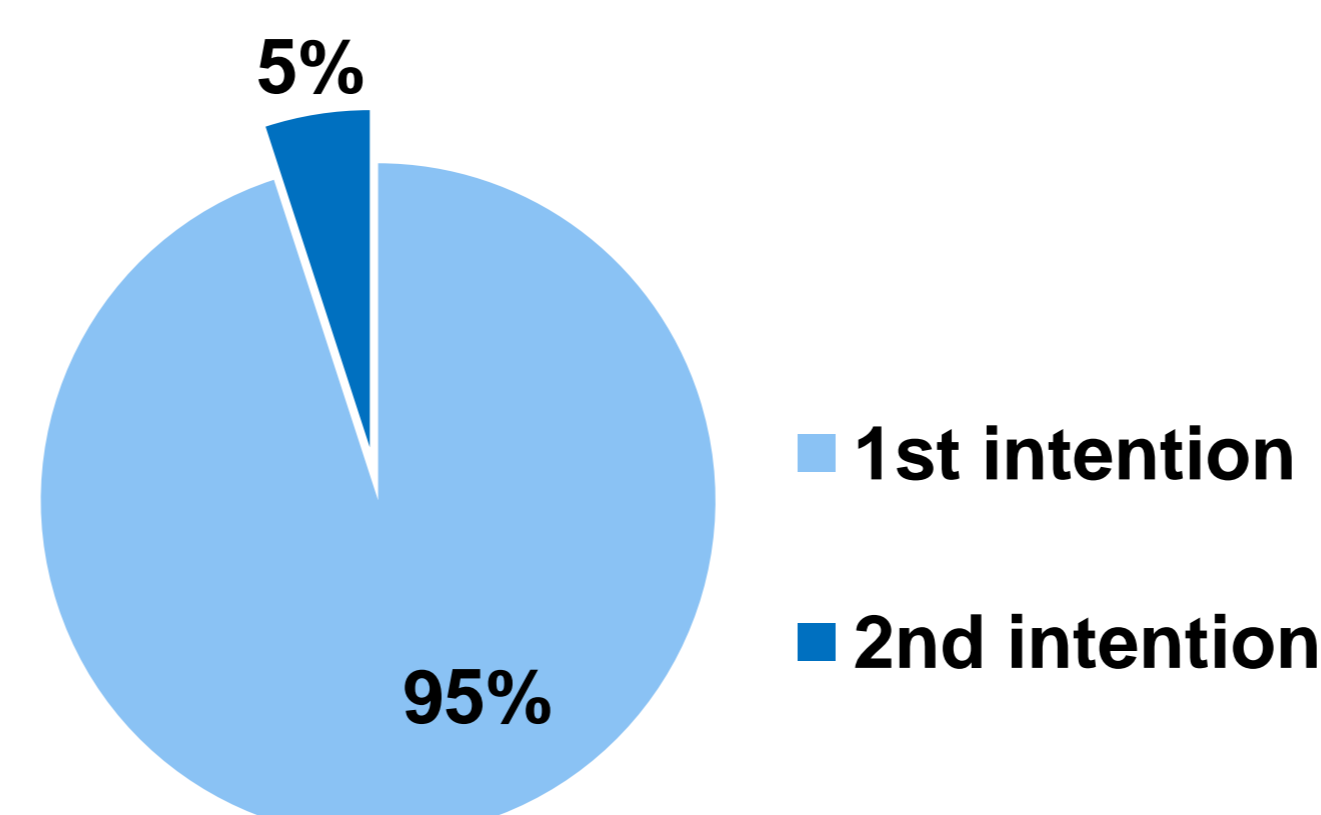


Figure 2 : 1st intention use of MTZ



National survey

- 28/47 hospitals answered our national survey.
- Among them, **95% were using MTZ** frequently to very frequently
- **Guidelines** aimed at limiting MTZ use were **available in 43%** of the hospitals.
- The 3 wards main users of MTZ are **surgery, orthopaedic surgery and emergency**.
- The 3 analgesics mainly used as alternative to MTZ are **acetaminophen (paracetamol), ibuprofen and diclofenac**.

Discussion - Conclusion

- MTZ is very frequently used as first line post surgery analgesic in the CHUV as in many other Swiss hospitals instead of other safer analgesics. Moreover, the duration of treatment is often (1/3 of prescriptions) longer than locally recommended.
- Publication of local guidelines does not seem to limit the prescription.
- Discussions have to be conducted with the prescribers in order to redefine the place of MTZ after surgery.