

ANALYSIS OF ONDANSETRON PRACTICES IN THE CARE OF POSTOPERATIVE NAUSEA AND VOMITING



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INTRODUCTION

In 2013, the French Agency for the Medical Safety of Health Products (ANSM) provided recommendations for the use of intravenous ondansetron in the context of chemotherapy-induced nausea and vomiting (CINV). They focus on a reduction of maximum intravenous dose per injection because of a risk of dose-dependent QT prolongation. The use of ondansetron in postoperative nausea and vomiting (PONV) was not addressed in these recommendations, probably because of theoretical lower doses (4mg intravenous [IV] in a single dose). Moreover, in France, per os (PO) ondansetron has not marketing authorization as treatment for PONV (recommended dose in CINV 16 mg/day). We would like to know ondansetron actual doses used in PONV in our hospital, where no anticancer IV chemotherapy is done, to determine whether or not physicians need to be sensitized to issues of QT prolongation due to high doses of ondansetron.

OBJECTIVES



- ➔ Analyzing ondansetron prescription practices and compliance with the dosage recommendations in the treatment of PONV
- ➔ Evaluating the need of specific information about QT prolongation risk due to high doses of ondansetron in PONV

MATERIALS AND METHODS

A retrospective analysis of ondansetron prescription practices has been done over a 2 months period (June to July 2013). Following data were provided by the computer assisted prescription software : route of administration, daily dose (dose per intake, daily frequency), treatment duration, prescribing care unit, prescribing care unit type (medical or surgical).

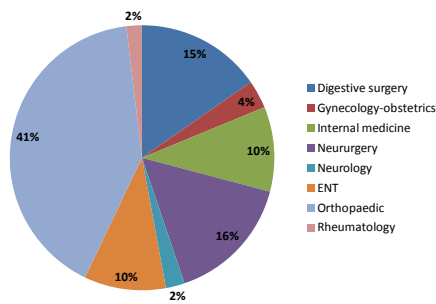


RESULTS - DISCUSSION

➔ 263 ondansetron prescriptions (for 223 patients) were obtained by our software.

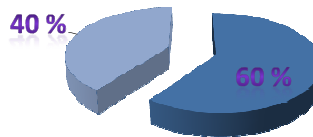
1) Analyzing ondansetron prescription in the management of PONV

Distribution of the prescriptions of ondansetron according to the various departments of care



Ondansetron routes

- IV administration (n = 158)
- PO administration (n = 105)



• 85% (n=224) of prescriptions come from surgical care units.

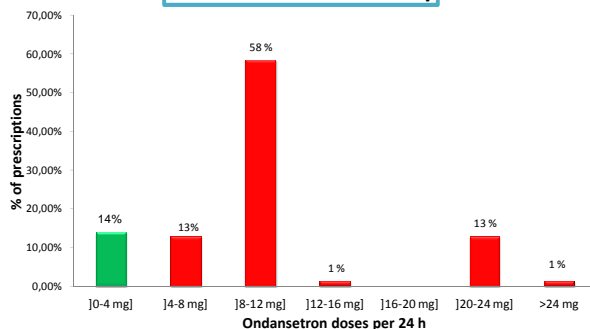
• The average treatment duration is 5 days and only 12% (n=31) of prescriptions include a single intake as recommended.

Prescribing care unit type

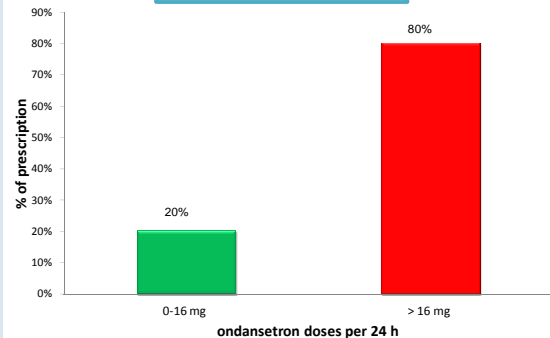
	n (%)
Surgical	224 (85)
Medical	39 (15)
Total	263 (100)

2) Evaluating the compliance with the dosage recommendations (according to summary of product characteristics in France)

Ondansetron IV doses daily



Ondansetron PO doses daily



• In the treatment of PONV, daily IV doses of ondansetron are higher than 4mg in 86% (n=136) of the prescriptions, and can even reach 32 mg (n=2). Daily PO doses are higher than 16mg in 80% (n=84) of the prescriptions, with a maximum dose of 24mg.

• 46% (n=121) of prescriptions (41% IV and 53% PO) are conditional ("if necessary")

• The majority of daily doses is higher than recommended doses and reaches recommended doses in NVCI (16mg for PO and 8 to 32mg for IV).

CONCLUSION

In the treatment of PONV, ondansetron doses actually used are much higher than those recommended by French marketing authorization. In this situation, all physicians, not only oncologists, should be aware of the risk of QT prolongation and cardiac arrhythmia with ondansetron. In addition, a strategy to remind to physicians recommended doses seems to be necessary

