

EFFECT OF BAR-CODE TECHNOLOGY ON THE SAFETY OF CYTOSTATIC DRUGS ADMINISTRATION

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PURPOSE:

Incorporate an electronic system of validation and control of cytostatic drug administration using bar codes and an electronic medication-administration system (eMAR).

METHODS:

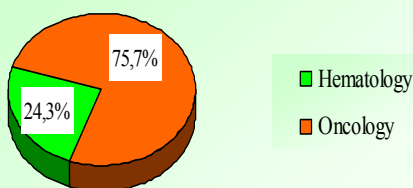
The nurse scan the bar codes printed on patient's wristband, automatically drug information about medicines to be administered appears on the screen of the PDA. After this the nurse scan the bar code on the medication's labels of cytostatic drugs. If the dose being scanned corresponds to a pharmacist-approved medication order and the patient is due for this dose, administration is automatically documented (green colour). However, if the dose does not correspond to a valid order, the application issues a warning (red colour).



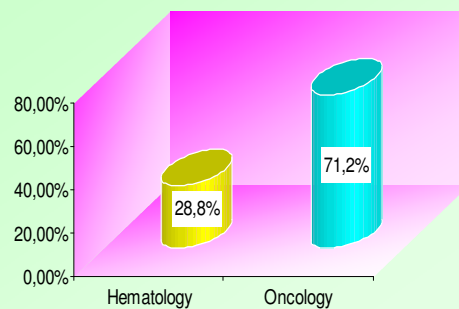
RESULTS:

Study period: the first month and a half since its introduction

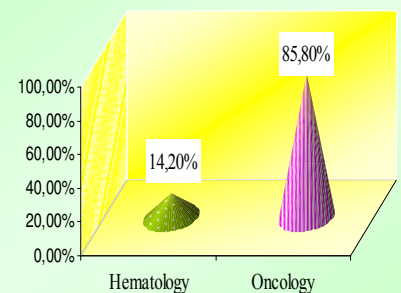
Distribution of Patients (n=202)



Medication orders scanned (n=486)



Identified doses (n=1522)



Validated variables by the scan: patient, drug administration sequence, dose, start and end times

During the study period were detected:

- 4 cases of incorrect administration order
- 2 cases of already administrated drug
- 9 cases of selected drug that does not belongs to scanned patient

CONCLUSIONS

The implementation of bar-code medication-verification technology embedded in an eMAR in an onco-hematological day hospital act as an additional safety net in medication administration and in patient safety. This system also improves treatment efficiency and achieve a greater interdisciplinary collaboration.