MEDICATION ERRORS ASSOCIATED WITH RECONCILIATION IN A HOSPITAL WITH COMPUTERIZED PHYSICIAN ORDER ENTRY SYSTEM WITH ACCESS TO PRIMARY CARE TREATMENT

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BACKGROUND

Recently introduced computerized physician order entry system (CPOES) in hospital and primary care electronic record system facilitate prescription and information about patients´ medicines. These tools should improve reconciliation process and diminish potential errors associated to chronic medication.

PURPOSE

The aim of this study is to describe and analyze the discrepancies between chronic medication recorded on the electronic health record system and the prescription of this medication at the admission to hospital.

METHODS

From March through May 2011, data of admitted patients older than 60 years with chronic medication prescribed and updated preadmission treatment were collected. The pharmacist compared the computerized prescriptions with the current chronic medication list associated to the prescription program (e-Osabide®). Chronic medication data were verified with the patient primary care electronic record system (GlobalClinic®). In case of discrepancies the admission reports were turned up to decide if they were justified. Non justified discrepancies were notified and classified as reconciliation errors.
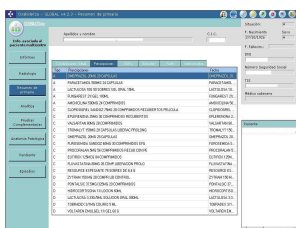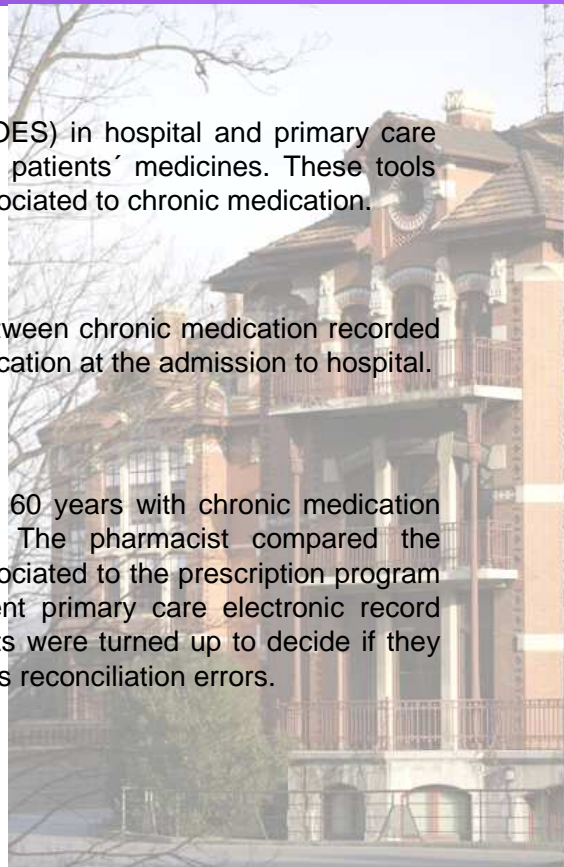

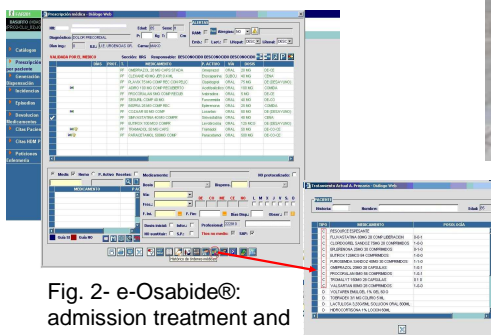Fig. 1- GlobalClinic®: primary care record system.

Fig. 2- e-Osabide®: admission treatment and chronic medication list.

RESULTS

Chronic treatment of 88 patients was analyzed (Average age: 73.3 years. 48 women, 40 men). 33 patients were admitted in emergencies (E), 26 in surgery services (S) and 29 in no surgery services (NS).

The average chronic medication per patient and prescribed at admission was 7.3 and 5.4, respectively.

Non justified 32 discrepancies were found (26.1% of patients, 0.36 per patient). Classified by service: E, 24.2% of patients (0.42/patient); S, 30.8% (0.38); NS, 24.1% (0.28).
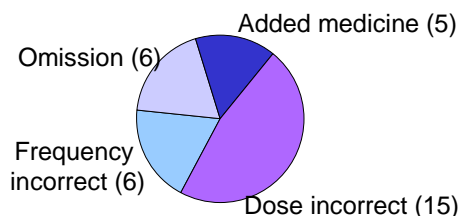
The acceptance of made interventions was 56.3% (18/32).

Fig. 3 -Reconciliation errors (n=32)

Added medicine (5)
Omission (6)
Frequency incorrect (6)
Dose incorrect (15)

CONCLUSIONS

The integration of CPOES and electronic healthcare record system makes the reconciliation process easier and reduces prescription errors. With recently introduced CPOES incomplete prescription error disappears. However, preventable prescription errors associated to reconciliation occur due to not using the present tools available.