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THE BEST POSSIBLE MEDICATION HISTORY FOR SURGICAL PATIENTS : OPPORTUNITIES FOR IMPROVEMENT

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Aim

To improve the quality of medication histories documented by the anesthetist in the electronic medical record (EMR) for patients coming to the pre-admission clinic.

Setting and method

Continuous quality improvement project in a Belgian teaching hospital involving two main approaches implemented from 2011 to 2013:

Objectives

Component 1

Empowering patients to generate the best preadmission medication list

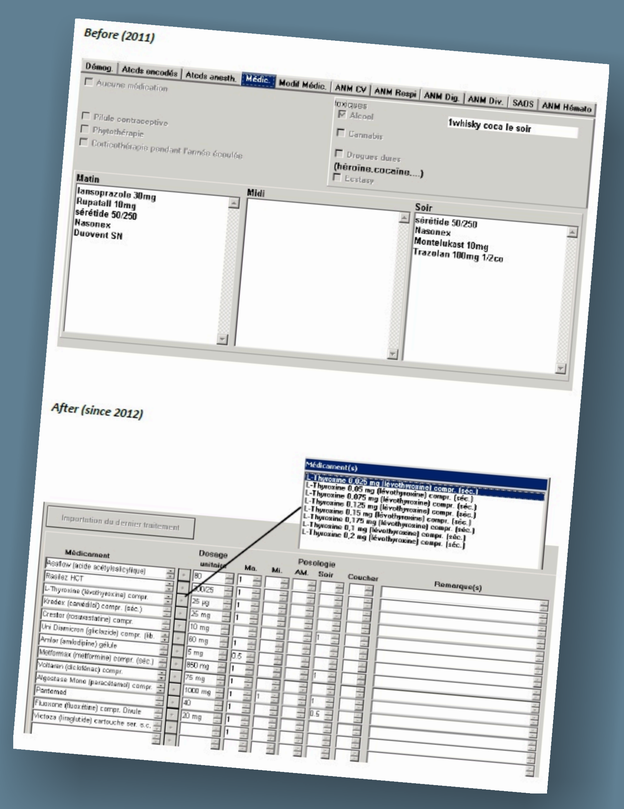
Component 2

Promoting accurate recording by the anesthetist in the EMR

Intervention

Development, pilot testing and editing of a standardized medication form to be filled in by patients or relatives; at the front: two check-lists (routes of administratoin and anatomic checklist) in order to minimize omissions; at the back: a structured table to list all medications

Improvement in the structure to report names, dosage, frequency and time of administration in the EMR; dedicated boxes were provided.
Audit and feedback to the staff.



Outcome measures

(a) rate of completeness of the patient-completed medication questionnaire and (b) discrepancies between answers to both checklists and the medications listed, for 2 successive versions of the questionnaire (144 patients coming to the pre-admission clinic in June 2012 and 151 patients in May 2013)

Proportion of medications with missing data relative to dosage in the preoperative medication list coded by the anesthetist (EMR) for patients seen in June 2011 (n=163), June 2012 (n=144) and May 2013 (n=151)

Results

Patient-completed questionnaire:

- 9 out of 10 patients came to the surgical pre-admission clinic with a patient-completed form (92% in 2012, 91% in 2013)
- Modifications in the medication form (layout and content) improved the rate of completeness (57% in 2012 vs. 74% in 2013);
- 1 out of 3 patients omitted to list a medication relative to a box ticked from the checklist (32% in 2012 and 2013);

List coded by the anesthetist (EMR):

- The proportion of drugs with missing data relative to dosage decreased (23% in 2011 vs. 11% in 2013);

Discrepancies:

- 1 out of 5 patients had at least one prescribed medication omitted in EMR (15% in 2012 vs. 22% in 2013) which was recorded in the patient-completed form: Most of them were “analgesics”. Upon discussion, anesthestists reported not considering omission of analgesics as a “clinically relevant” for their practice.
- In 10% of the patients, the anesthetist found at least one prescribed medication not indicated in the form (13% in 2012 and 2013)

Conclusions

- **The lay-out and content of the patient-completed form as well as the structure of the EMR influence completeness.**
- **Empowering patients is valuable, but careful validation of patient's list remains necessary. The routes of administration and anatomic checklists can be useful for this validation process.**
- **Completeness of medication history may be influenced by physician's specialty.**

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