

Evolution in identified Drug Related Problems in pharmacist-notes at the Emergency Department, Hillerød hospital Denmark

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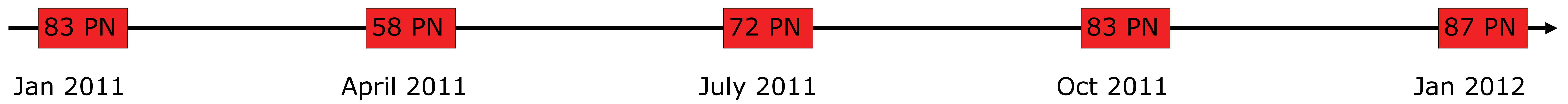
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Background

"Pharmacists in the Emergency Department" is a two-year implementation project carried out in collaboration between the pharmacy of Capital Region and the Emergency Department (ED) at Hillerød hospital, Denmark. The task of the pharmacist is to draw up a current and valid medication history and to make a medication review before the physician sees the patient at the ED.

Method

5 samples of pharmacist-notes (PN) were registered. The samples represent the interventions made in the 2 first weeks of each quarter of 2011 and the first quarter of 2012. Thereby the evolution in interventions made by pharmacists could be analyzed. The interventions were coded based on 8 categories of DRP introduced by Hepler and Strand.



Purpose

To describe the evolution of the interventions expressed by identified Drug Related Problems (DRP) described in the pharmacist-notes (PN).

Results

In total 383 pharmacist-notes were analyzed and 549 DRPs were identified. On average 1.4 DRPs were identified per pharmacist-note. 70-80% of the pharmacist-notes contained one or more DRPs.

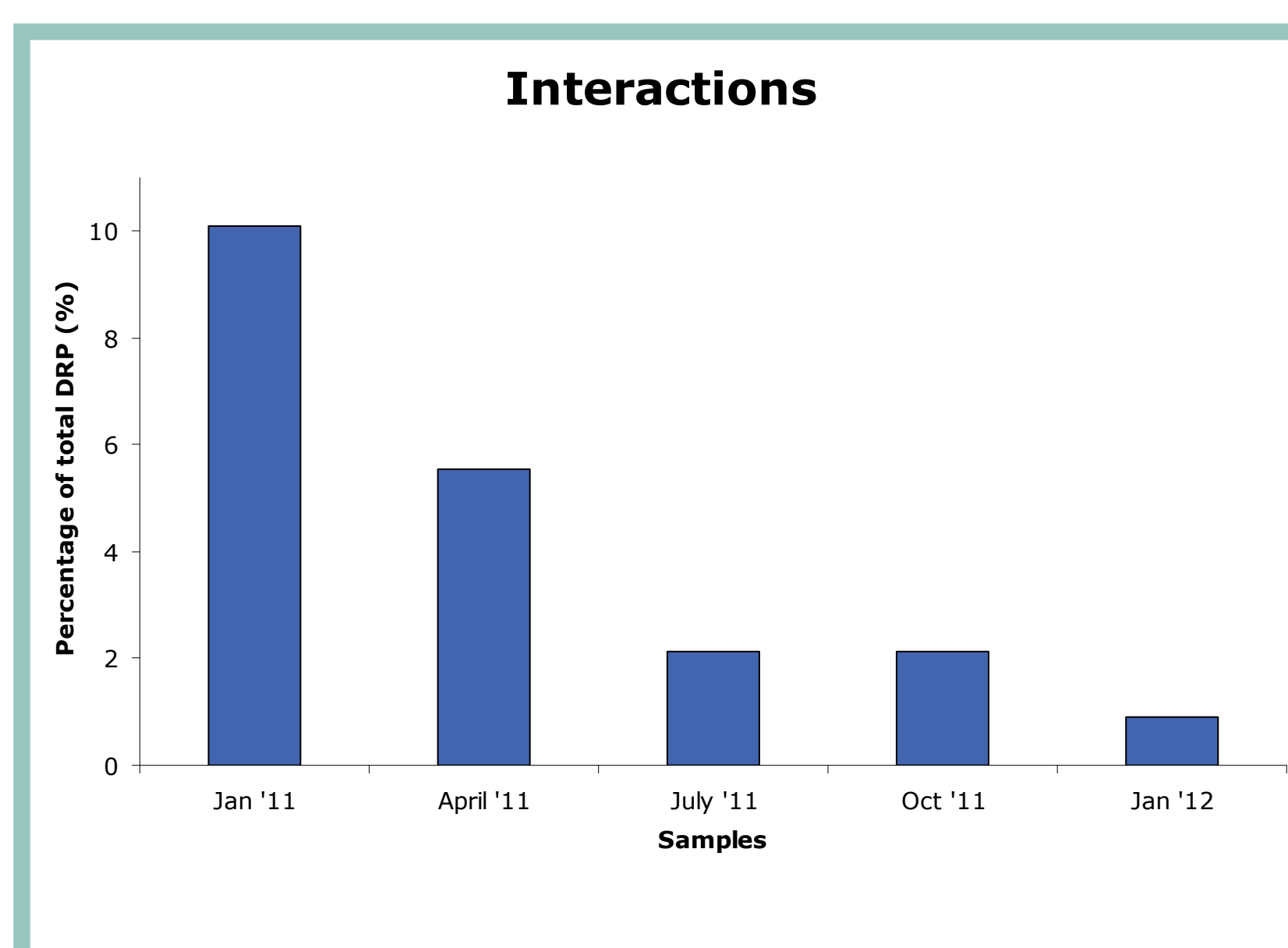
During the first 15 months of the project the DRPs registered evolved as follows:

Spot-on: The pharmacists' identification of DRPs were stable. Their competencies were spot-on.

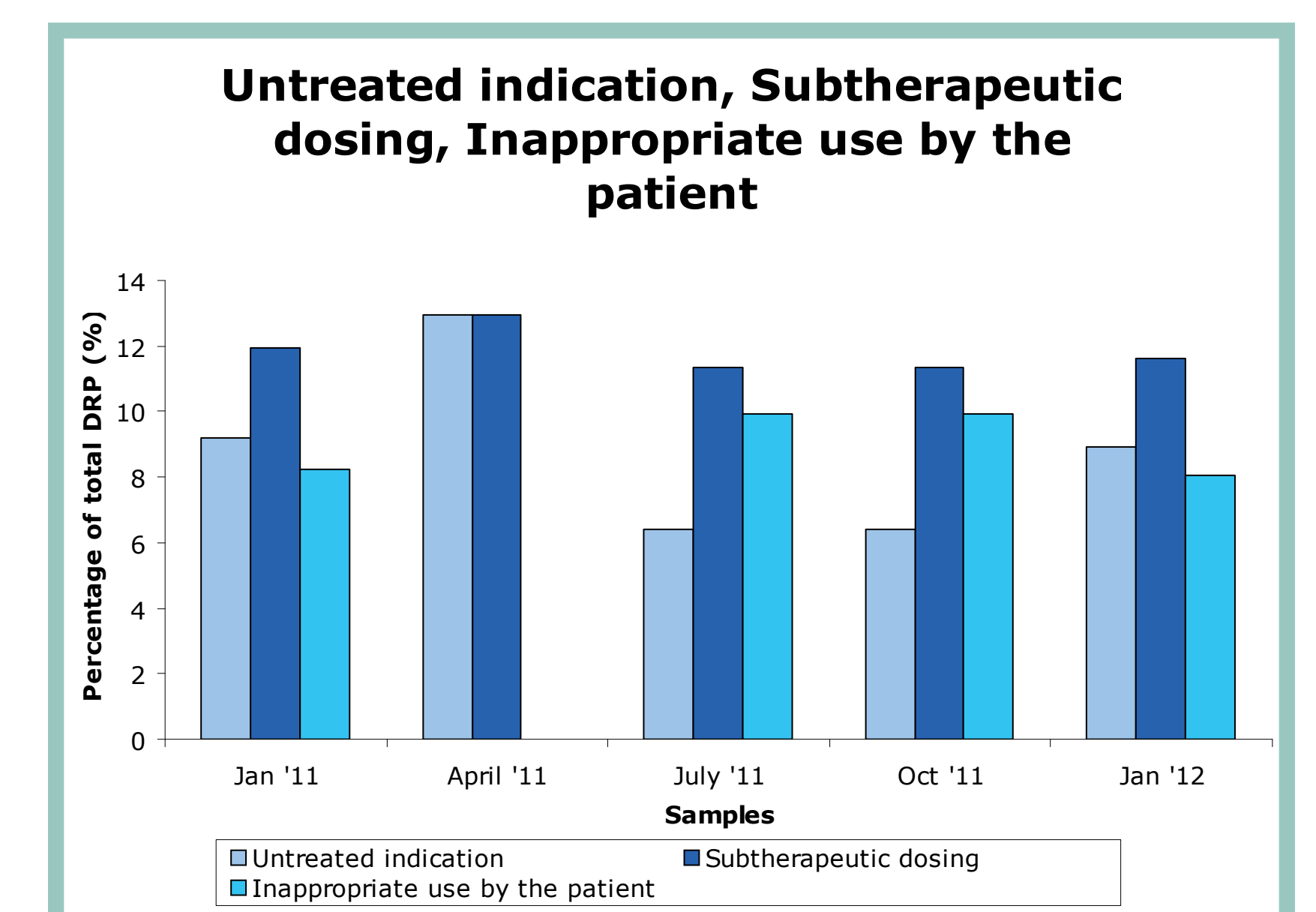
Overestimation: Pharmacists identified more DRPs of non clinical relevance than 12 months later. The pharmacists were retrained from desk pharmacy to bedside clinical pharmacy.

Underestimation: The pharmacists were not adequately experienced in identifying certain categories of DRPs. Bedside clinical pharmacy and patient interviews were trained.

From desk pharmacy to bedside clinical pharmacy Evolution of the pharmacists competencies



Pharmacists in ED have focused on the clinical relevance of the identified interactions, as evidenced by a decreasing proportion of DRPs through the project period.



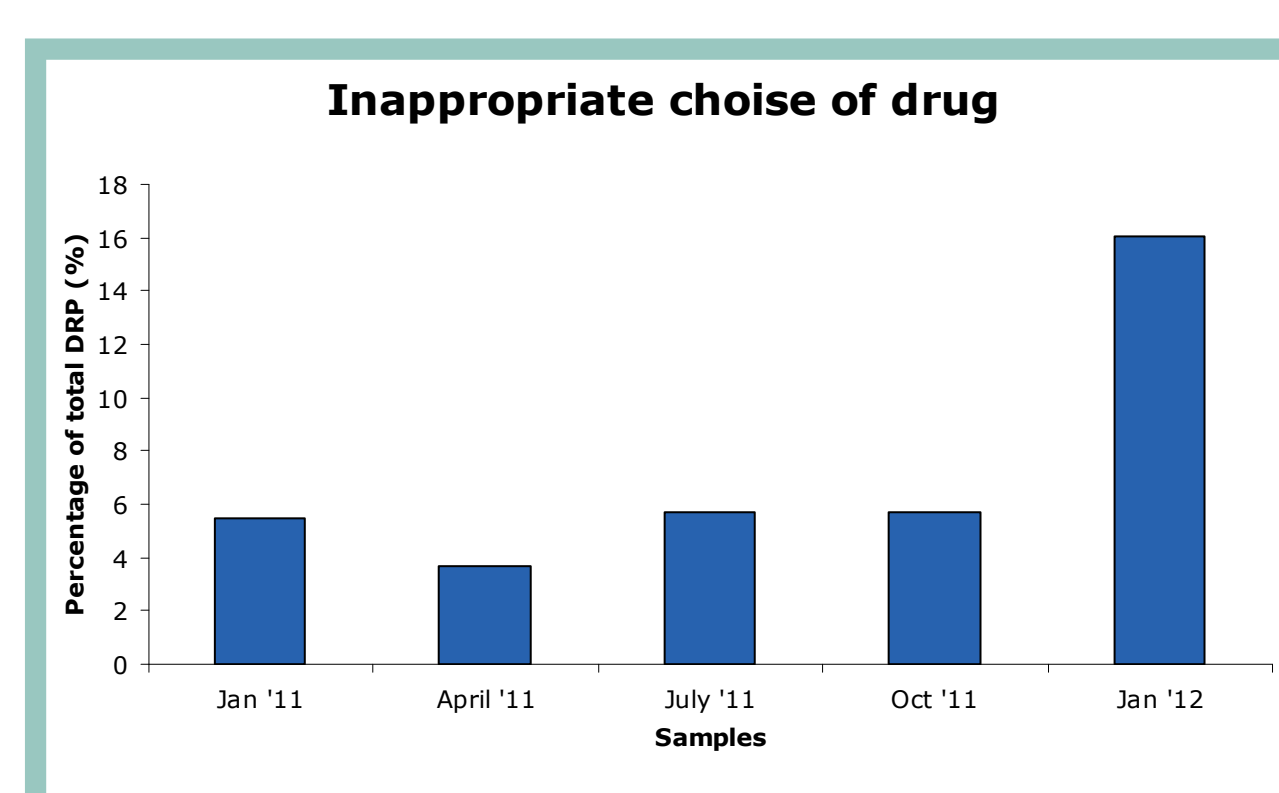
Stable trend of variation
In April 2011 no DRPs are registered in the category of "Inappropriate use of the patient". This can be attributed to a coincidence since DRPs from this category have been identified later in April 2011.



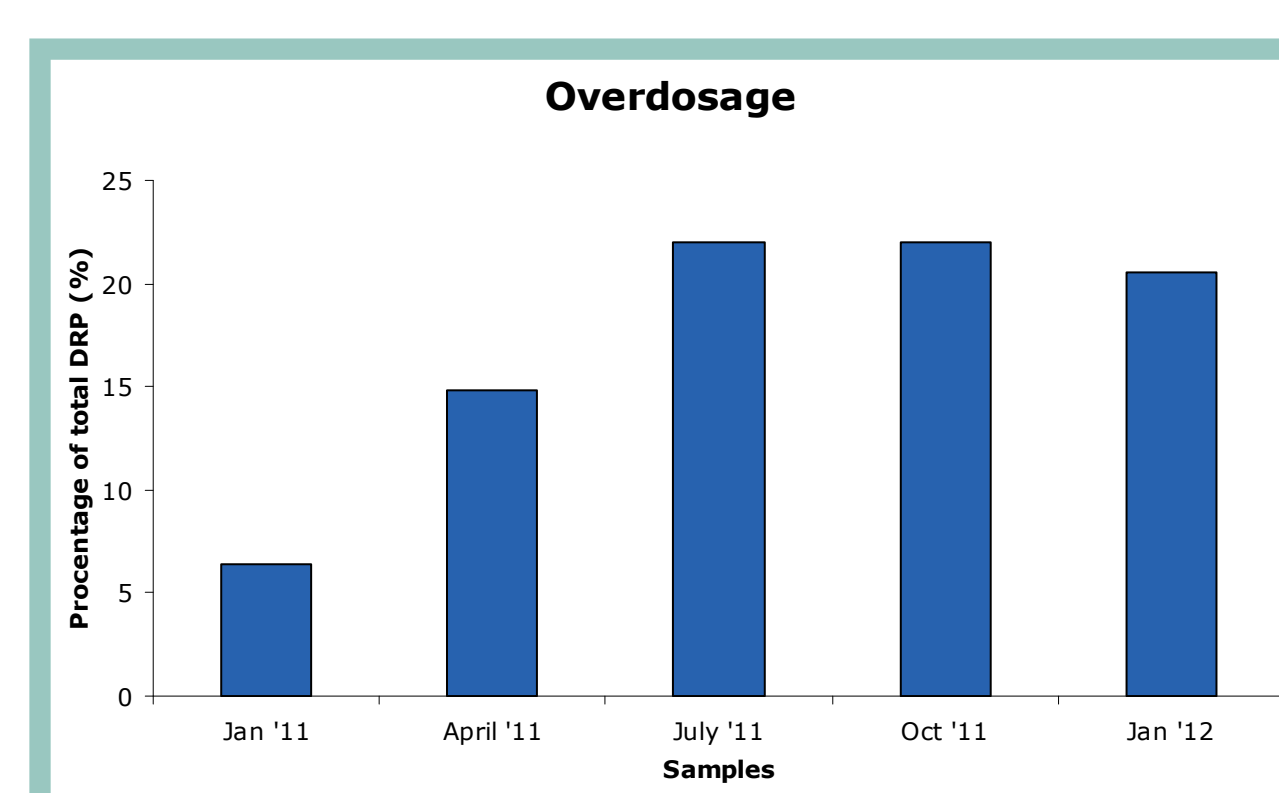
Overestimation

Spot-on

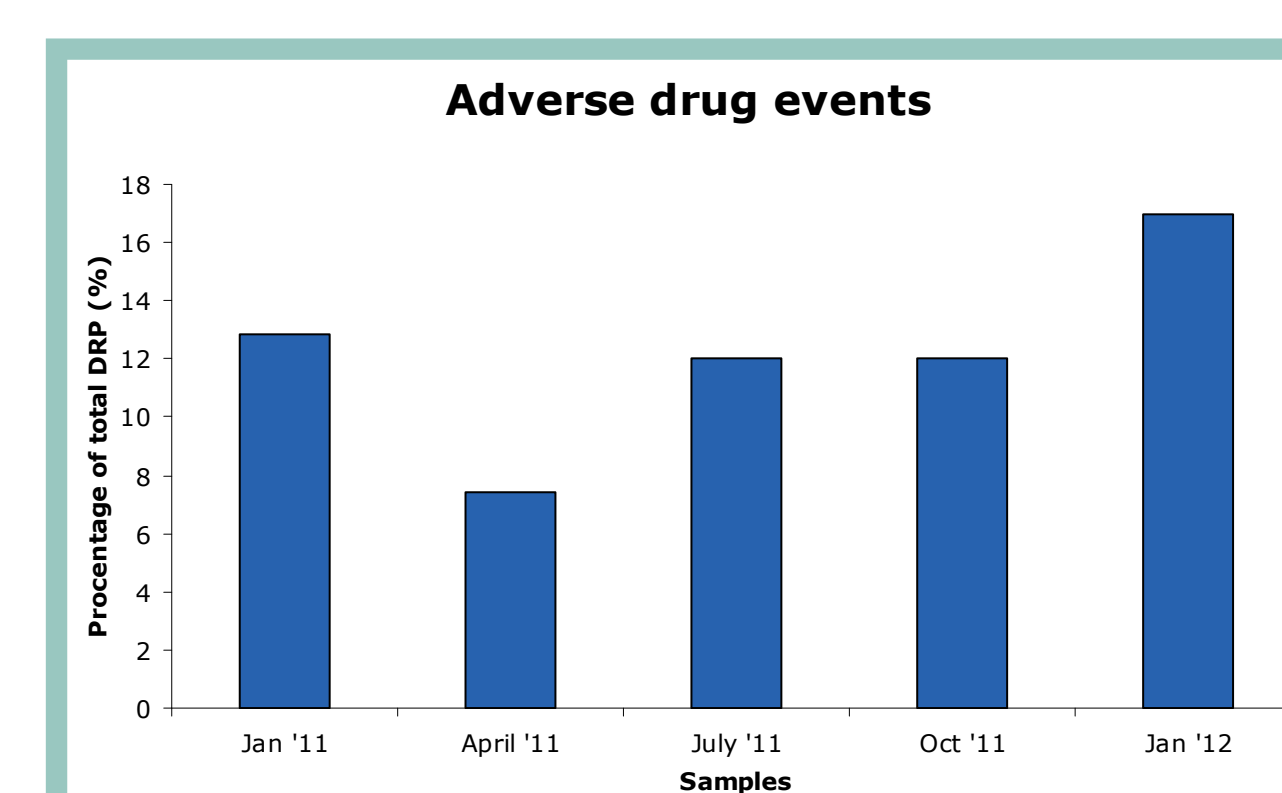
Underestimation



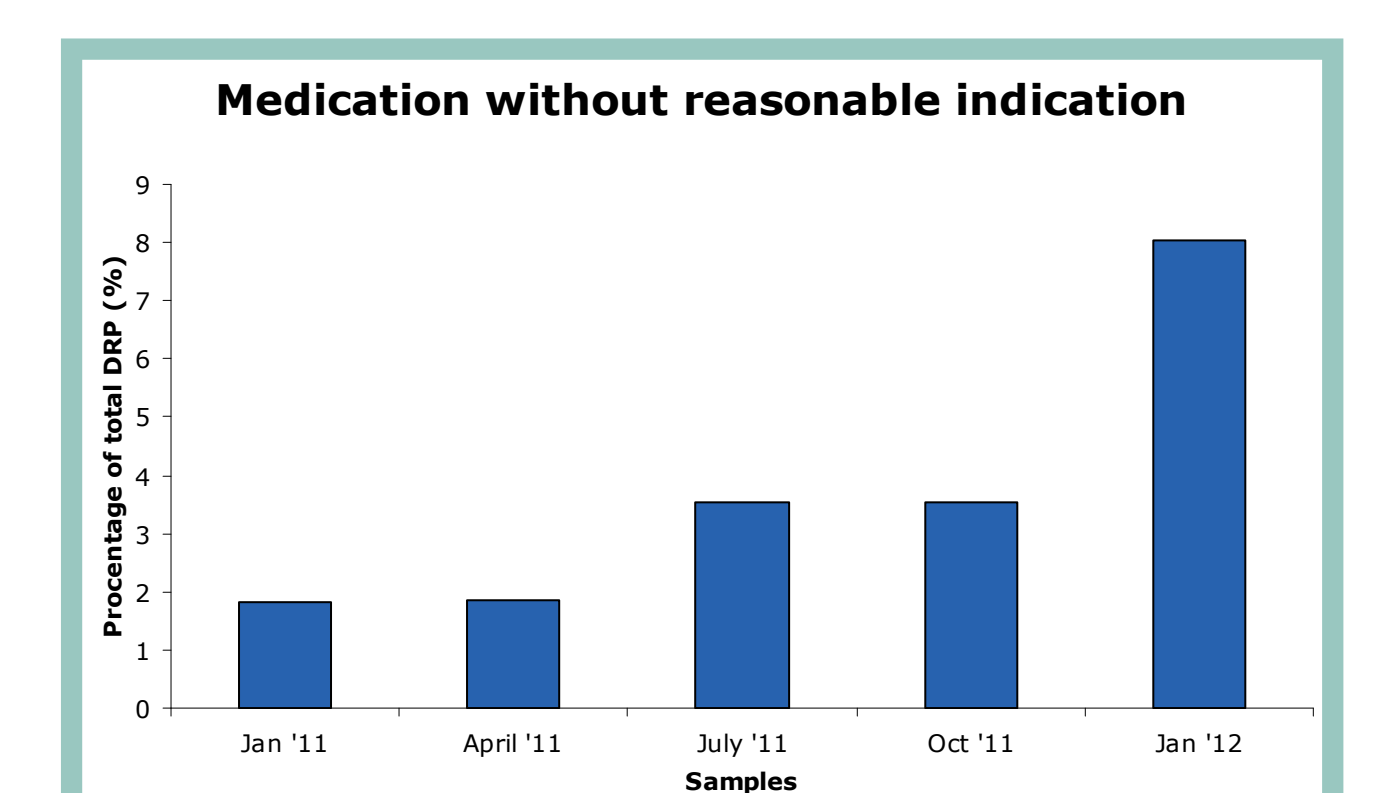
Contraindication of NSAIDs and ulcer.
Laxative therapy without adequate effect.



Pharmacists in ED have raised awareness of medical prescriptions where monitoring are missing. Ex. non-reduction of PPI to maintenance dosage after eradication treatment.



Throughout the project period there has been an increased focus on opioids and NSAIDs at Hillerød hospital. This is reflected in the pharmacists work in the ED.



Pharmacists in ED have become more aware of the in-depth questioning technique whereby self-medication without reasonable indication is identified.

Conclusion:

When introducing a new pharmaceutical service one must expect a gradually evolution of the intervention. The causes of this evolution is gradually development of pharmacist hands-on-competencies and clinical experience at the specific ward. After 12 months, the findings in the pharmacist notes were stable. This must be taken into account when introducing new pharmaceutical services in the clinic.