Characteristics of DRPs documented in a DRP-database at Danish hospitals

LJ Kjeldsen, T Birkholm, H Fischer, T Graabæk, KP Kibsdal, L Ravn-Nielsen, TH Truelshøj

The Danish Research Unit for Hospital Pharmacy, Copenhagen, Denmark

Background and Objective

• The DRP-database was implemented in 2010 to assist clinical pharmacy staff in documenting clinical pharmacy activities locally in Denmark.
• Good quality, reliability and generalisability of the DRP-database allow national analyses of the data.
• Analyses at the national level may identify and subsequently prevent DRPs by performing national interventions.

Setting and Method

The DRP-database is available to all clinical pharmacists at hospital pharmacies in Denmark, but the use is voluntary. Data documented in the DRP-database during the initial three years after implementation were analyzed retrospectively (Screen dump of selection of category when using the DRP-database in Figure 1 and examples in Box 1). The DRP-database contains DRPs reported at hospitals by clinical pharmacy staff. The analyses focused on DRP categories, implementation rates and drugs associated with the DRPs.

Main outcome measures

Characteristics of DRPs.

Results

In total, 72,044 DRPs were documented in the DRP-database during the first three years of implementation, and the number of documented DRPs increased every year (1st year = 15,901, 2nd year = 27,203 & 3rd year = 28,940).

The most frequently identified DRP categories were: “Dose”, “Non-adherence to guidelines” and “Supplement to treatment”, but the frequencies varied between the three years (Figure 2).

An overall stable implementation rate of approximately 56% was identified, and the highest implementation rates of DRP categories were similar for each of the three years: “Non-adherence to guidelines”, followed by “Therapeutic duplication” and “Dosing time and lines”, followed by “Therapeutic duplication” and “Dosing time and lines”. The study found that a national database on DRPs contained multi-facetted DRPs, however evenly distributed for each of the three years. Even though the top 25 drugs were involved in 58% of the DRPs, and the drugs most frequently documented were paracetamol (4.6% of all DRPs), simvastatin (3.0%) and lansoprazole (2.7%) (Table 1). The top 25 drugs in 58% of the DRPs, and the drugs most frequently documented were paracetamol (4.6% of all DRPs), simvastatin (3.0%) and lansoprazole (2.7%) (Table 1).

Conclusions

The study found that a national database on DRPs contained multi-faceted DRPs, however evenly distributed for each of the three years. Even though the top 25 drugs were involved in 58% of all DRPs, multiple drugs were associated with DRPs. The study emphasizes the importance of detecting and intervening for DRPs.