AVICENNE 4CPS-2'

Beyond the expected: the enhanced detection of drug related problems, the most of the pharmaceutical decision support system

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Background and importance

According to the EAHP statements, pharmaceutical analysis is part of the pharmaceutical practice mentioning that all prescriptions should be reviewed and validated as soon as possible by a pharmacist. However this practice is highly variable, reviewing all prescriptions and detecting all **drug-related problems** (DRPs) remain a challenge

Pharmaceutical decision support systems (PDSS) reduce the number of adverse drug events and improve prescribing practices

Our PDSS runs on patient's data, modelled situations and Pharmaclass® (Keenturtle - F) in real time

Materials and methods

Observational prospective study from November 2019 to June 2023

- 2 hospitals 1600 beds
- 201 modelled situations integrated into the PDSS

A DRP resolution strategy structures the pharmaceutical analysis of DRPs and the DRP resolution strategy is the support of the human supervision of the PDSS.

Data collected are the following: alerts analyzed, DRPs, Pharmaceuticals interventions (PIs) and accepted PIs Data analysis is performed by using Pandas library in Python

Results

14 331 alerts analyzed

3 157 technical false positives (22.0%)

3 821 situations without DRP (26.7%)

7 353 DRPs detected (51.3%)

For 1364 DRPs a physician changed the drug management just before analysis of the alert

927 DRPs had already benefited from a PI by another pharmacist

5 062 Pharmaceutical interventions (PIs)

2 671 Accepted PI (52.8%)

❖A pharmacist failed to identify the presence of a DRP in 2 648 among the 5 062 PIs during prior analysis **❖** After further analysis, **838 more PIs were made because new DRPs were found**

The preceding two statements underscore the added value afforded by employing a PDSS

Aim and objectives

Show pharmacists' the ability to detect DRP in usual care by using a PDSS

Conclusion and relevance

A PDSS is efficient and offers added value in routine care to secure the patient's medication management











