

BARCODESCANNING IN THE PHARMACY FOR A SAFER THERAPY

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Background

The origin of medication errors can mainly be found in prescribing & transcribing of therapy (60 %) and administration of medication (36 %). After implementation of a performant clinical decision support system and an intelligent bedside scanning application the odds are changing. Full control of the process of dispensing is the next step towards a better therapy and optimal patient safety.

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Opportunities

Due to the hospitalwide deployment of an intelligent CPOE all orders are electronically available in the pharmacy and as a result of bedside scanning all medication in the hospital is barcoded on the single-dose level.

Methodology

After the hospital pharmacist screened the medication orders for appropriateness all validated requests are automatically sent to 12 handterminals and barcoded shipping labels are printed. Pharmacy technicians are operating the picking process: They identify themselves by scanning their personal ID. Reading the barcode on the shipping label triggers the order and guides the operator to the right location, which will be confirmed by scanning the bin. Scanning the single dose package guarantees the picking of the right drug. Logistic corrections on the number of doses can be registered into the terminal and will be uploaded to the patients record in the Hospital Information System. After picking of a batch the terminals are synchronised with the main database so the supervising pharmacist can check the process and clear the medication for transportation, in sealed containers, to the different wards where the nurse acknowledges the reception by scanning the shipping label.

Results

The number of picking errors is reduced to nearly zero and the workload in the pharmacy has lesser peaks. Documentation is realtime and errorless.



Conclusions and future perspectives

By using the opportunities from the implementation of CPOE and bedside scanning picking errors are nearly inexistant. Medication is double checked and the workload is optimized freeing up time for the hospital pharmacist to perform a check of appropriateness on all therapies.