Title of the project
Evaluation of volountary reports and triggers redarding adverse drug events over time from a Childrens Hospital in Stockholm Sweden

- **Research organization**

Astrid Lindgren Childrens Hospital, Stockholm, Sweden

- **Author**

Per Nydert, Synnöve Lindemalm

- **Goal of the project**

The purpose of this study was to analyze identified adverse drug events (ADE) by a pediatric trigger tool and the spontaneously reported ADE's at the Karolinska University Children's Hospital, Stockholm, Sweden.

- **Research method**

During the first three months of 2008, 2009 and 2010 a random selected patient population of 20 children per month (0-18 years with a hospital stay of more than two days were evaluated with the pediatric trigger tool developed by Institute of Healthcare Improvement. From the electronic adverse event report database (HändelseVis) all drug associated events were extracted from the total population and compared with the extrapolated numbers from the selected population. All events are broken down into parts of the drug handling process and described over time.

- **Results**

On average 8 triggers per 100 patients were identified having a probable correlation to drug therapy.
1,6 voluntary report with risks, medication errors and adverse drug events were collected per 100 patients. Adverse events with NCCMERP category of ≥E accounted for 0,2 reports per 100 patients.
The adverse drug events over time describe eg. that wrong reconstitution of vancomycin vanished in 2009 with the introduction of compounded vials, being replaced by dosing errors with a CPOE system lacking pediatric specific tools as dose range checks.

- **Conclusions**

The reporting rate is similar to international studies. Recurrent errors in a drug handling process needs a build in memory which continously help to identify known risks eg. pediatric dose range checking, smart pumps, pediatric formulary, pediatric hospital pharmacy etc.

- ***Contact information***

Neonatal Unit H10:2, Childrens Hospital
Karolinska University Hospital
171 76 Stockholm, Sweden
E-mail: per.nydert@karolinska.se

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Synnöve Lindemalm
Barnläkare
Astrid Lindgrens Barnsjukhus
Karolinska Universitetssjukhuset
Stockholm, Sverige
Mobil: 073 966 08 07