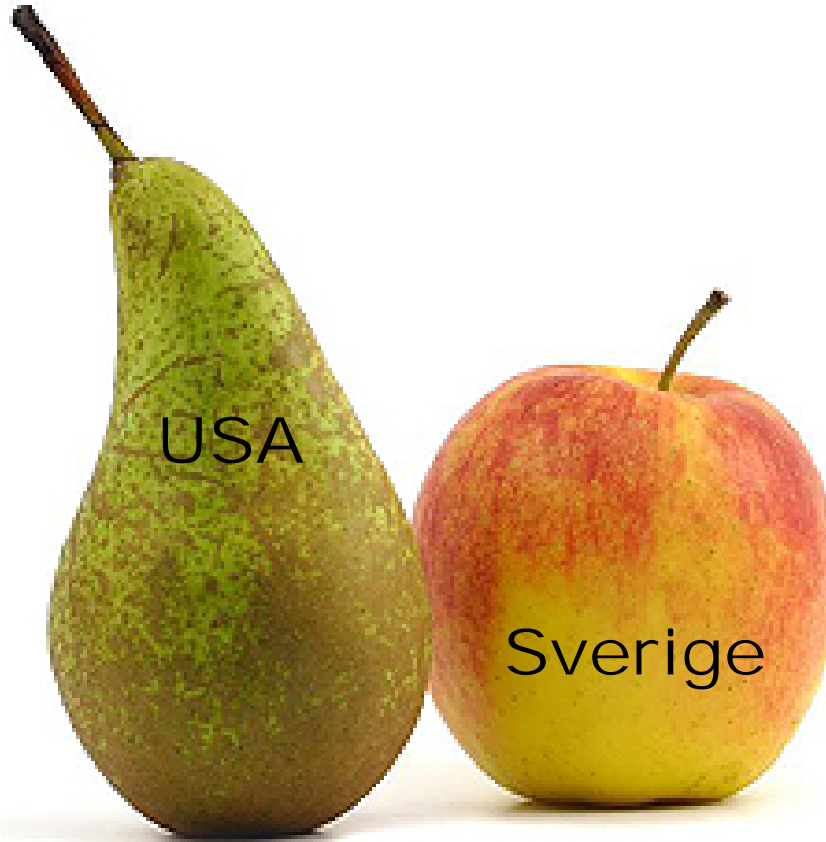
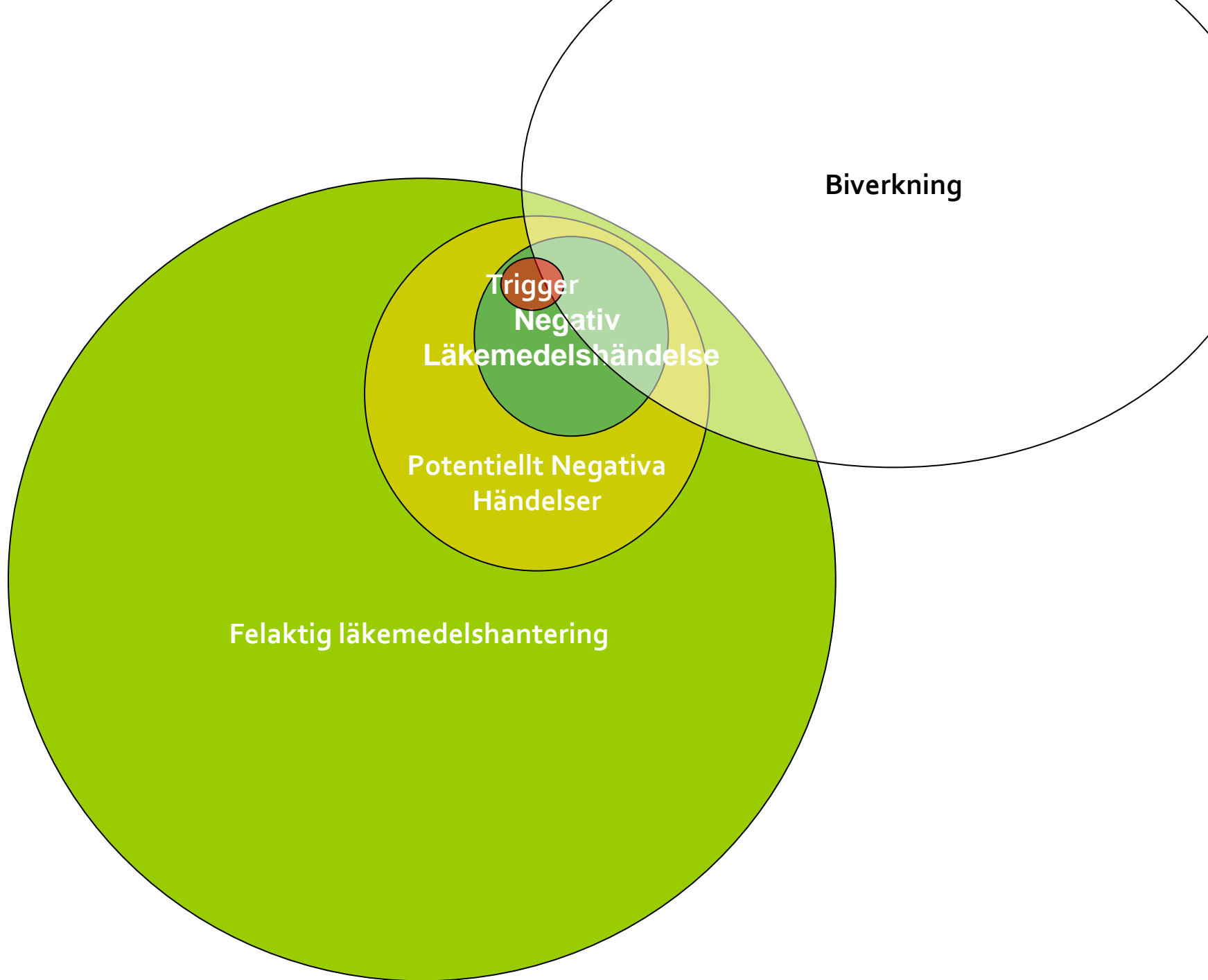


Barn och läkemedelssäkerhet ur ett svenskt och amerikanskt perspektiv

Per Nydert
Leg. Apotekare
Neonatalverksamheten
Karolinska Universitetssjukhuset

LäkemedelsHANtering LäkemedelsFÖRsörjning





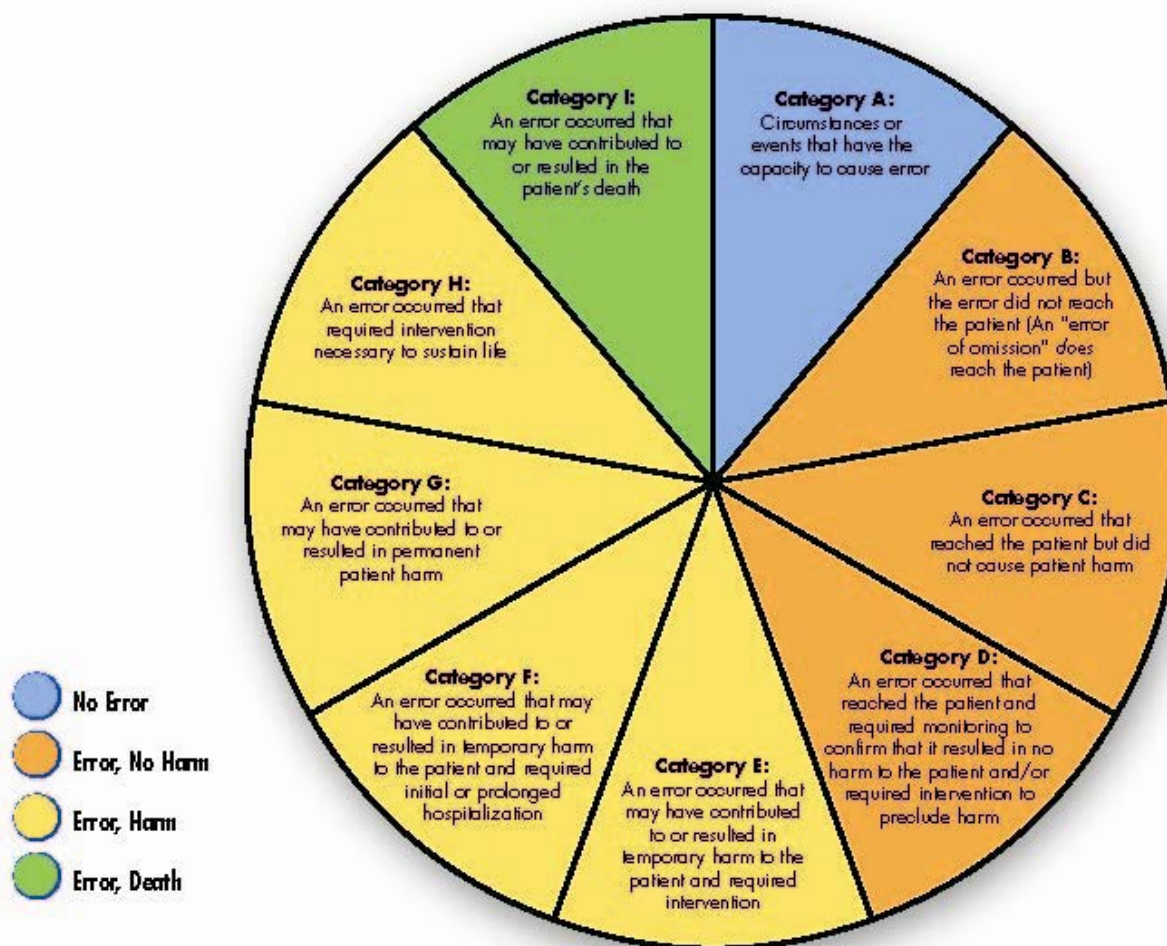
Biverkning

Trigger
Negativ
Läkemedelshändelse

Potentiellt Negativa
Händelser

Felaktig läkemedelshantering

NCC MERP Index for Categorizing Medication Errors



Definitions

Harm

Impairment of the physical, emotional, or psychological function or structure of the body and/or pain resulting therefrom.

Monitoring

To observe or record relevant physiological or psychological signs.

Intervention

May include change in therapy or active medical/surgical treatment.

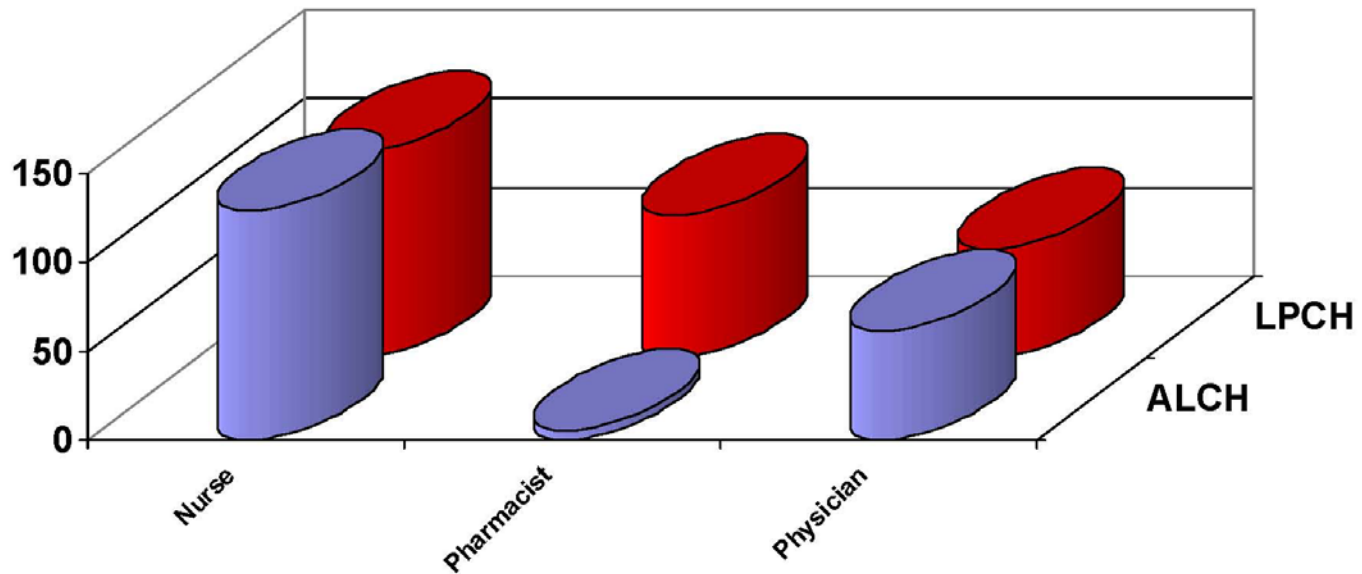
Intervention Necessary to Sustain Life

Includes cardiovascular and respiratory support (e.g., CPR, defibrillation, intubation, etc.)

Study Locations



Number of incidents by profession 2008



3 avvikelser per 1000 patientdagar

Spontanrapporter

- 0,15-17,2 % av patienterna fick felaktig läkemedelshantering
 - ♦ *Ghaleb M, Barber N, Franklin B. D, Yeung V. W, Khaki Z. F, and Wong I. C. Systematic review of medication errors in pediatric patients. Ann Pharmacother. 2006 Oct; 40(10): 1766-76.*



Observationsstudie

- Negativ läkemedelshändelse
- Förekommer hos 2,3 % av patienterna
- 0,52 % kunde förebyggas

» *Kaushal, R. et al, Medication Errors and Adverse Drug Events in Pediatric Inpatients, JAMA. 2001;285:2114-2120.*

Triggers-analys

- Hos 9 % av patienterna hittas läkemedelstriggers

– *Takata G. S, Mason W, Taketomo C, Logsdon T, and Sharek P. J, MD. Development, Testing, and Findings of a Pediatric-Focused Trigger Tool to Identify Medication-Related Harm in US Children's Hospitals. PEDIATRICS. 2008 Apr; 4:(121): e927- e935.*

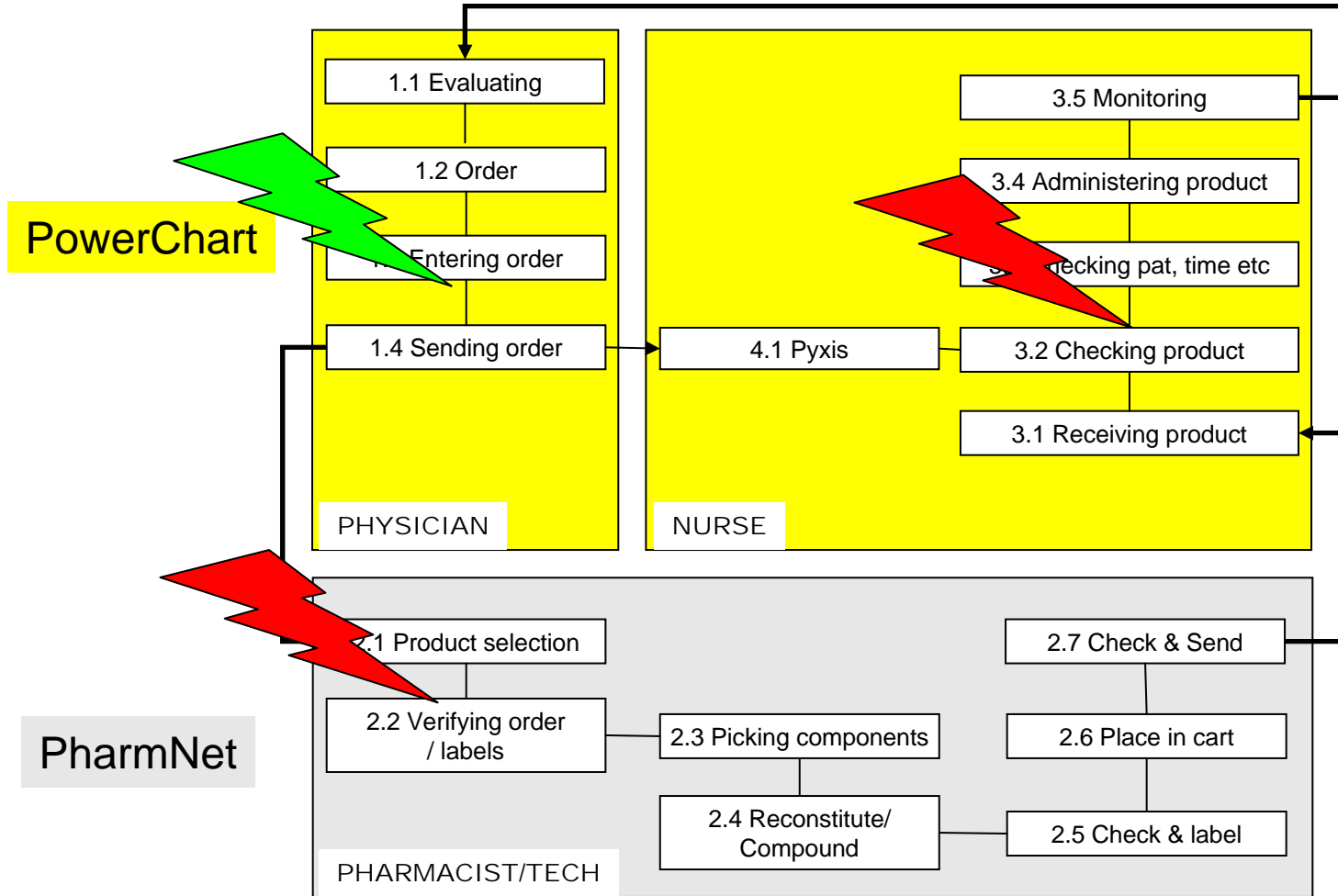
Hantering av den kända risken för felaktig läkemedelshantering?

- Elektronisk läkemedelsmodul
 - Barnanpassad **med Beslutsstöd**
- Processer med minne
 - Med **samlad kunskap**
 - **Det som tidigare har hänt ska inte ske igen...**
- Alla system kan generera fel
 - Kontinuerligt förbättringsarbete

Assessment questions

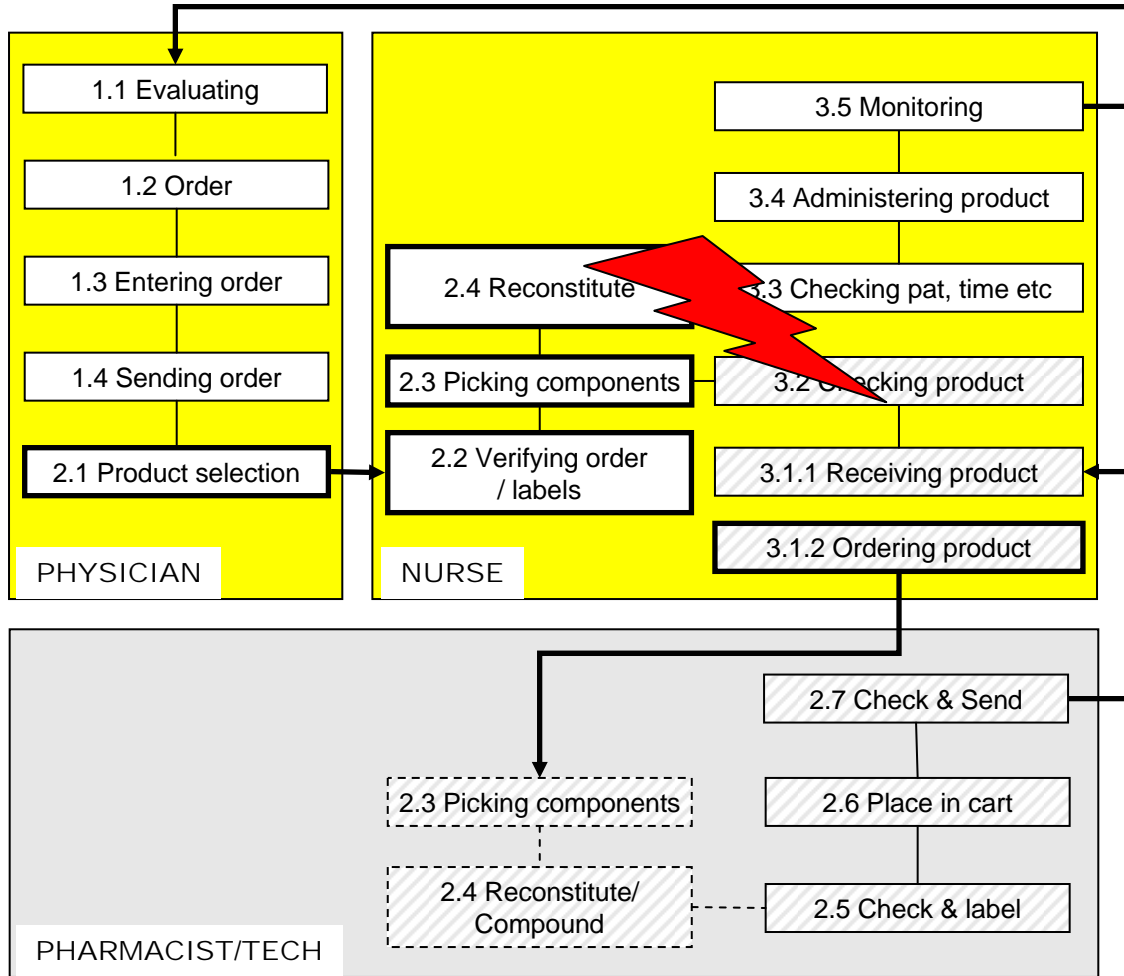
1. What is the main difference of a paper based US and Swedish Medication Administration Record (MAR)?
 - Physician orders are transcribed to the MAR - US
 - Orders are written directly on the MAR by the physician - Swe
2. What are the traditional models of the drug handling process in US and Sweden?
 - Unit dose - US
 - Floorstock – Swe

USA



SWE

TakeCare



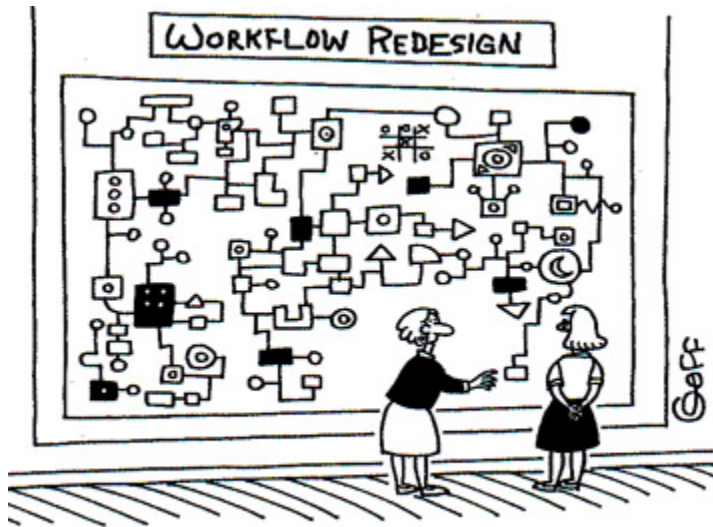
APS

Earlier study comparing US and EU

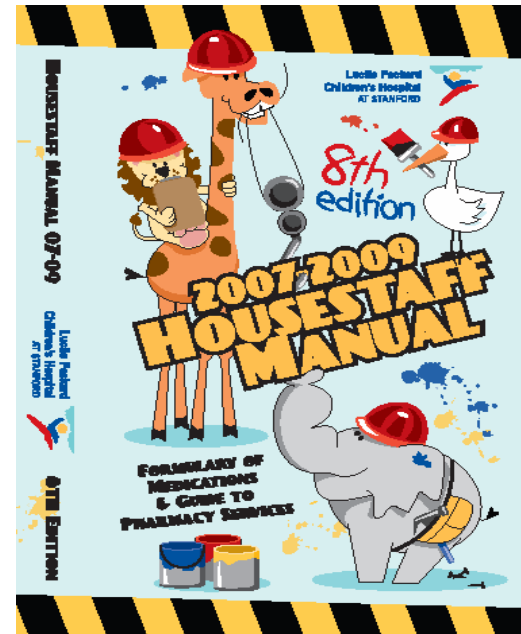
Dean BS, et al., AJHP 1995, 52(22), 2543-49.

- Disguised observation technique at a UK and US university hospital
- Medication error rate;
 - US 6.9% and UK 3.0% of the oral doses
- Incorrect and omitted doses was the most common errors
- Reasons for the higher error rate in the US were the risk of transcribing of orders in US and more clinical pharmacists in UK

Två stora behov



"And this is where our ED workflow redesign team went insane."



 EDITORIAL

Medication Errors: Neonates, Infants and Children Are the Most Vulnerable!

Robert L. Poole, PharmD¹ and Bruce C. Carleton, PharmD²

¹Director of Pharmacy, Lucile Packard Children's Hospital at Stanford and Stanford School of Medicine, Department of Pediatrics Neonatal and Developmental Medicine, Palo Alto, California, ²Department of Pharmaceutical Sciences, University of British Columbia, Pharmaceutical Outcomes, Policy and Innovations Programme Children's and Women's Health Centre of British Columbia Vancouver, British Columbia, Canada

KEYWORDS medication errors, prevention of errors

J Pediatr Pharmacol Ther 2008;13:65-67

“..as CPOE systems are implemented, clinicians and hospitals must focus on errors these systems cause in addition to errors they prevent.

sometimes fatal adverse drug events. Studies have shown that up to 93% of medication errors in children might have been prevented by computerized physician order entry (CPOE) and unit-based clinical pharmacists.^{1,4} A recent

ing staffs; promote clinical research, and decrease resource utilization.

2. Most drugs are available in unit dose packaging for adult patients (e.g. 1 tablet

Case Report ■

Implementing a Commercial Rule Base as a Medication Order Safety Net

“Although commercial vendors often have a robust set of drug dosage rules, the effectiveness of this rule-based CDS is frequently diminished by poor positive predictive value of these rule sets. Unfortunately, alert overload is a common feature of decision support systems using unmodified commercial rule bases.”

Medication errors are a national concern that has received substantial attention since the 1999 Institute of Medicine (IOM) report suggested that 44,000 to 50,000 deaths occur annually in the United States from medication errors. More than 7,000 of these deaths were preventable.

Furthermore, it has been reported that more than half of all

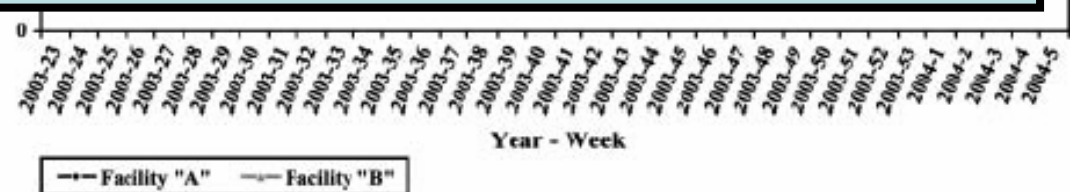


Figure 1. Impact of refinements on weekly alert volume. Calc = calcium; CL_{cr} = creatinine clearance.

bases to address this issue. The purpose of this paper is to de-

Hantering av den kända risken för felaktig läkemedelshantering?

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 - Kontinuerligt förbättringsarbete

Är koncentrerade elektrolyter säkra?

Inköp/Företag/LMV sa Ja



Avvikelser säger Nej

Är Vioxx säkert?

Läkemedelsverket sa Ja



FAS IV-studier säger Nej

Är barnmat säkert?



Etiketten sa Ja

Innehållet sa Nej

Tack

