Dansk Selskab for
Patientsikkerhed

A re-design evaluation from the real world

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Evaluation of a new design

- **The medilabel safety design was implemented for taxpayers´ money in 2008 after a design competition**
  - Make the most safe label design in the world for generic hospital medicines
  - Use all available information including NPSA hand book, interviews with staff and visits to hospitals
- **The winning design ”MEDILABEL” reached the finals of a global contest ”Index Awards” in ”design for life”**
- **Evalaution 2012**
  - Simulation study
  - Reported errors study

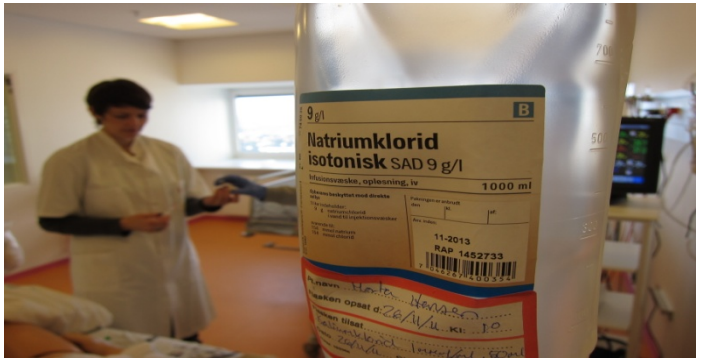

Magnesium-
sulfat SAD
Koncentrat til infusionsvæske
Skal fortyndes
SUXAMETON SAD
Injektionsvæske 50 mg
2 mmol/ml
SKAL FORTYNDES
Magnesium-
sulfat SAD 2 mmol/ml
Koncentrat til infusionsvæske, opløsning
50 mg/ml
SUXAmeton
SAD 50 mg/ml
Injektionsvæske, opløsning

Nine features in the design

- New Font
- Clean up the label
- Strength in upper left corner
- Abilty to make changes
- Code for dilution
- Code for danger
- Code for strenght
- Space for specific guidance text
- Space for ATC code (used for storage)

More details www.amgros.dk

Simulation study



General features – post simulation standardized interview

- Clear and easy to read font
- Identical construction principle across labels
- Improved pattern recognition
- Bar code compatible with scanners!

- Some colours have more than one meaning
- Dilution stripe has more than one function
- ATC Code largely unknown
- Many combinations of codes are difficult to remember

Reported errors study

- **3764** medication errors with relevant generic names
  - **951** unique **dispensing** errors with relevant generic names
    - **165** unique dispensing errors involving one or more drugs **from SAD**

951 unique dispensing errors with relevant generic names

	Misinterpretate label	Calculation errors	No or delayed dispensing	Application of wrong label at syringe/bag	Others	Total
2007	262 (60%)	48 (11%)	38 (9%)	15 (3%)	72 (17%)	435
2010	254 (49%)	62 (12%)	83 (16%)	18 (3%)	99 (19%)	516

165 dispensing errors involving at least one drug from SAD

- **No over all differences in harm to patient**

- **No over all differences in errors related to the codes before and after implementation of new design**

Conclusion

- Dispensing errors related to misinterpretation of labels remain a problem despite using the best hand book and the best designers
- Testing medication labels in simulation contexts provided information on what worked and what should be optimized in the label. Focus areas for implementation could be identified
- Using reported medication errors as a data source for this type of research is possible but improved quality of the data and inclusion of data identifying the exact product is necessary.
- Research in proper label design remains a relevant topic

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- Cooperation between Amgros and the Danish Society for Patient Safety
  - Hanne Fischer , Marianne Hald Clemmensen, Simon Schytte Hansen, Annemarie Hellebek
- The Danish Institute for medical simulation did the simulation study
  - Peter Dieckmann, Pina Kunstek
- The National Learning office helped with access to reported errors
- The study was supported by a grant from TrygFonden

AMGROS

Patientombuddet

DIMS
DANSK INSTITUT FOR MEDICINSK SIMULATION

TrygFonden