

# INTRODUCING COLOUR CODES TO DRUG LABELLING TO INCREASE PATIENT SAFETY

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## BACKGROUND:

Administration of wrong drugs is one of the most common medication errors in Denmark. A reporting system of adverse events has revealed that use of inadequate or different drug labels leads to medication errors in Anaesthetics and ICU wards at the Danish North Region Hospital.

## PURPOSE:

To develop a new drug labelling coding system to improve patient safety in Anaesthetic and ICU wards at the Danish North Region Hospital.

## MATERIALS AND METHODS:

A literature study was conducted to identify recommendations regarding colours and designs of drug labelling. Search terms drug labelling, user-applied drug labels and syringe labelling were used. Legal requirements and international standards of user-applied labels of anaesthetics were ascertained. Through e-mail contact qualitative input from clinicians were collected from the Anaesthetic and ICU wards.

## RESULTS:

New and standardised drug labels complying with national legal requirements were developed.

The labelling design addresses different elements contributing to medication errors:

- Trade name and strength has a prominent placement and is emphasized in bold
- Drugs with similar names are differentiated using “tall man letters” e.g. Epinephrine and NORepinephrine
- Size of drug label is adjusted to different sizes of syringes
- Colour code reflects the effect of the drug e.g. blue signal opioids while yellow indicate induction agents

Further procedures of compatibility assessment for the use in question have been established, and labels are altered continuously to be consistent with changes in trade names due to adjustments in drug supply.

## CONCLUSION:

The labels were successfully developed and implemented. Whether the patient safety actually has improved will be evaluated by assessing the number of reports of adverse events involving drug labelling.

No potential risk of interest  
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