

SYRINGE LABELLING IN CRITICAL CARE AREAS REVIEW 2014

Since the new standard for syringe labelling was introduced in May 2003¹, it has become apparent that a number of changes need to be made. These changes are to bring the standard in line with the change from British Approved Names (BANs) to recommended International Non-Proprietary Names (rINNs)², and also to bring the standard in line with the Australian/New Zealand Standard³. The changes are as follows:

- **BANs to rINNs**

Examples of these affecting anaesthetic drugs are:

- Thiopentone to Thiopental
- Lignocaine to Lidocaine
- Glycopyrrolate to Glycopyrronium

- **Drug concentrations**

These were all shown on the original document as 'mg/ml'. Correct concentrations should be used. For example:

- Fentanyl micrograms/ml
- Lidocaine %
- Insulin units/ml

- 'Adrenaline' is to be used, not 'Epinephrine' (similarly 'Noradrenaline', not 'Norepinephrine').

- **Suxamethonium and Adrenaline**

All lettering to be black with the exception of the labels for Suxamethonium and Adrenaline which shall be printed against the background colour as bold reverse plate letters within a black bar running from edge to edge of the upper half of the label, the rest of which shall display the coloured background.

- **Antagonists**

To denote a drug of opposite action, 1mm wide diagonal stripes of the designated colour, alternating with a 1 mm wide white stripe is used. The stripes should run from lower left to upper right at approximately 45 degrees. The striping should be omitted behind and below the drug name. Protamine, as an antagonist of Heparin, should be a white label with black stripes.

- **Anti-emetics**

The syringe label for this group of drugs should have the background colour Salmon 156, which is shared by the major tranquillisers.

- **Combinations of drugs**

Drugs which are supplied ready mixed in the ampoule should have a syringe label which denotes the drug name of one of the two drugs against the appropriate background in the upper half of the label, and the drug name of the second drug against the appropriate background in the lower half. For example:

- Glycopyrronium and neostigmine
- Lidocaine % and Adrenaline

An exception to this is the label for Propofol with user-addition of Lidocaine. This label should read 'Propofol/lidocaine' with 'mg/ml' for Propofol against the induction agent background (yellow).

Note to users: The colours are only a guide. All syringes containing drugs must be labelled. It is important to check the drug ampoule and correctly label the syringe with the correctly texted label. Blank coloured labels are a potential source of confusion and should not be used.

Dr Tom Woodcock
Chairman Safety Committee
Association of Anaesthetists of Great Britain and Ireland

References

¹ Syringe labelling in critical care areas. RCoA Bulletin 19;May 2003:953.

² Changes in names of certain medicinal substances. Chief Medical Officer, Chief Nursing Officer and Chief Pharmaceutical Officer. DoH;17 March 2004:PL/CMO2004/1.

³ User-applied labels for use on syringes containing drugs used during anaesthesia. Australian/New Zealand Standard;4375:1996.

Induction agents

Propofol

.....mg/ml.

Ketamine

.....mg/ml.

Hypnotics

Diazepam

.....mg/ml.

Midazolam

.....mg/ml.

Neuromuscular blocking drugs

Suxamethonium

.....mg/ml.

Vecuronium

.....mg/ml.

Neuromuscular blocking drug antagonist

Neostigmine

.....micrograms/ml.

Opioids

Morphine

.....mg/ml.

Fentanyl

.....micrograms/ml.

Opioid antagonist

Naloxone

.....micrograms/ml.

Vasopressors

Adrenaline

.....micrograms/ml.

Ephedrine

.....mg/ml.

Hypotensive agent

Labetalol

.....mg/ml.

Anticholinergic agents

Atropine

.....micrograms/ml.

Glycopyrronium

.....micrograms/ml.

Local anaesthetics

Lidocaine

.....%.

Bupivacaine

.....%.

Anti-emetics

Ondansetron

.....mg/ml.

Miscellaneous

Heparin

.....units/ml.

Protamine

.....mg/ml.

Further information is available from the manufacturer or the following websites: www.astm.org and www.csa.ca

Please note that colours are only a guide and the correct Pantone colour code numbers are listed on the reverse of this sheet. It is still important to check the drug ampoule and correctly label the syringe containing the drug with the correctly texted label.

STANDARD BACKGROUND COLOURS FOR USER-APPLIED SYRINGE DRUG LABELS

Drug class	Examples	Pantone ® colour (uncoated)
Anti-emetics	Metoclopramide, Ondansetron	Pantone ® 156 (salmon)
Induction agents	Thiopental, etomidate, ketamine, propofol	Yellow
Hypnotics	Diazepam, lorazepam, midazolam	Pantone ® 151 (orange)
Hypnotic antagonists	Flumazenil	Pantone ® 151 (orange with white diagonal stripes)
Depolarising neuromuscular blocking drugs	Suxamethonium	Pantone ® 805 (fluorescent or warm red lettering out of black above, red below)
Non-depolarising neuromuscular blocking drugs	Atracurium, Vecuronium	Pantone ® 805 (fluorescent or warm red)
Neuromuscular blocking drug antagonists	Neostigmine	Pantone ® (fluorescent or warm red) with white diagonal stripes
Opioids	Morphine, fentanyl, remifentanyl	Pantone ® 297 (blue)
Opioid antagonists	Naloxone	Pantone ® 297 (blue) with white diagonal stripes
Major tranquilizers	Droperidol, chlorpromazine	Pantone ® 156 (salmon)
Vasopressors	Adrenaline, ephedrine, phenylephrine	Pantone ® 256 (violet) (Adrenaline is violet out of black above, violet below)
Hypotensive agents	Nitroprusside, nitroglycerine, phentolamine	Pantone ® 256 (violet) with white diagonal stripes
Local anaesthetics	Lidocaine, bupivacaine	Pantone ® 401 (grey)
Anticholinergic agents	Atropine, glycopyrronium	Pantone ® 367 (green)
Other agents	Oxytocin, heparin, protamine, antibiotics	Pantone ® transparent white (Protamine is Pantone ® transparent white with black diagonal stripes)

The examples shown are representative, not restrictive. See Pantone ® Colour Formula Guide. Pantone ® is a registered trademark of Pantone, Inc.