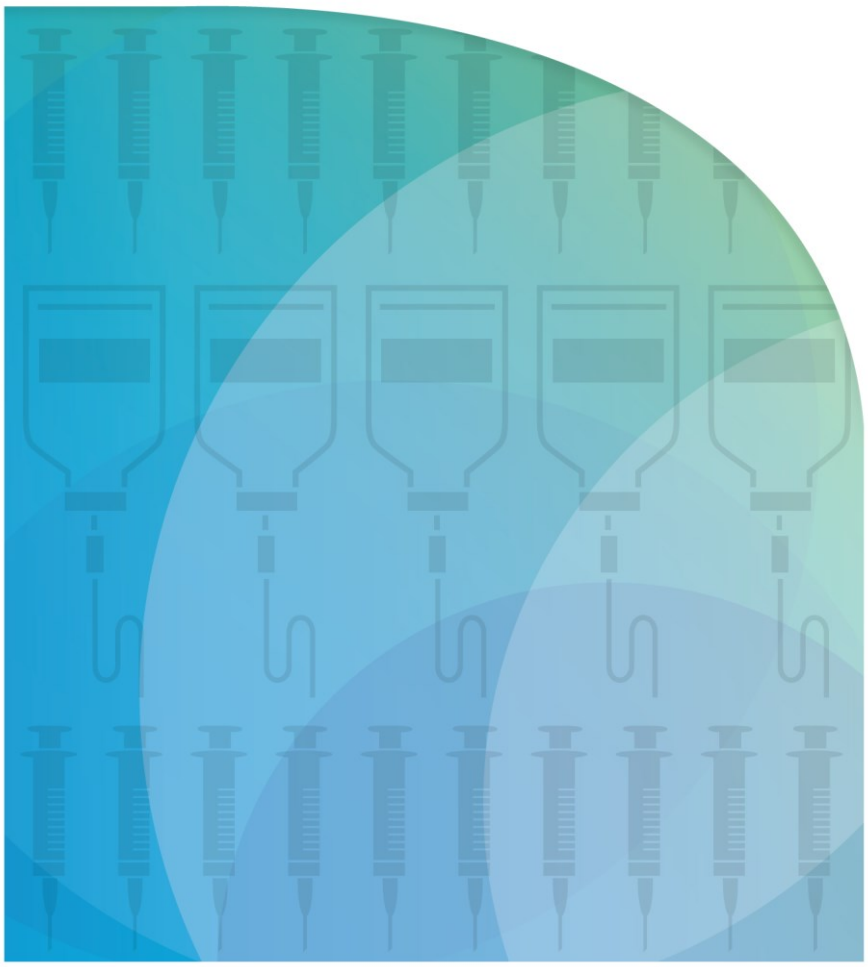
AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines



Audit tool user guide

ISBN 978-1-925224-54-2 (online)

Suggested citation
Australian Commission on Safety and Quality in Health Care. National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines: audit tool user guide. Sydney: ACSQHC, 2016.

Acknowledgement
The Commission wishes to acknowledge WA Health, SA Health and the Victorian Therapeutic Advisory Group Quality Use of Medicines Group for initial development of audit tools for user-applied labelling. The involvement and willingness of all concerned to share their experience and expertise is greatly appreciated.

The *National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines: audit tool user guide*, and other materials that support the *National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines* (Labelling Standard) are available on the Commission website at www.safetyandquality.gov.au

Contents

Introduction

The *National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines* (the Labelling Standard)[1] sets out the minimum requirements for labelling medicines and fluids that have been removed from their original packaging. Health services seeking accreditation under the Australian Health Service Safety and Quality Accreditation scheme are required to provide evidence of Labelling Standard implementation.

Implementing relevant action items in the National Safety and Quality Health Service (NSQHS) Standards[2] will assist clinicians to safely prescribe, dispense and administer injectable medicines. Implementation of the Labelling Standard, as part of Medication Safety Standard 4, is a mandatory requirement for meeting the NSQHS Standards.

Health services seeking accreditation are required to undertake regular assessments of injectable medicines management procedures in all clinical areas to identify risks and take action to reduce these risks. This audit tool user guide is for use by people conducting an audit of compliance with the Labelling Standard in healthcare facilities. It is accompanied by Microsoft Excel spreadsheets for data collection and data entry. Sample sizes for each area are indicated, as well as definitions for each hospital type. Detailed information about data collection and entry is also provided.

Audit scope

Sample selection

A random sample of inpatients should be selected from each clinical area, as detailed in Table 1. At least one ward/unit of each type should be included if there are multiple wards/units within the inclusion list. Where possible, include one or more closed-practice environments, such as endoscopy, radiology, operating room and cardiac catheter laboratory. An audit should be conducted at each hospital where there are multiple hospitals within a network.

To reduce the risk of an individual staff member's practices affecting data, it is recommended that patients under the care of different staff members are included in the audit.

Table 1 Sample sizes and data collection form by clinical area

Clinical area	Target sample size (no. of patients)[a]	Data collection form
Medical ward (including subacute)	6	Open-practice environment
Surgical ward	6	Open-practice environment
Paediatric ward	6	Open-practice environment
Emergency department	6	Open-practice environment: intensive
Intensive care unit	4	Open-practice environment: Intensive
Operating theatre	6	Closed-practice environment
Recovery room	6	Open-practice environment
Day treatment unit (including oncology)	6	Open-practice environment
Palliative care	4	Open-practice environment
Endoscopy suite	4	Closed-practice environment
Radiology	4	Closed-practice environment
Delivery suite	4	Open-practice environment
Cardiac catheter laboratory	4	Closed-practice environment
Neonatal intensive care unit	4	Open-practice environment: Intensive
Special care nursery	4	Open-practice environment

a Suggested target to be adjusted according to size of health facility

Audit inclusions

Two types of data collection should be undertaken in this audit:

- 'in place' data of containers and conduits (burettes and administration lines) that are already attached to patients and have associated user-applied labelling evident at that point in time
- 'preparation observed' data of containers, syringes and sodium chloride flushes, which is captured during preparation and administration.

The following inclusions apply:

- medicines administered via all parenteral routes, including subcutaneous and intramuscular administration
- administration lines for items excluded from audit (e.g. prefilled syringes and fluid bags)
- in the perioperative area
  - labelling of the container of any medicine or fluid on the perioperative sterile field
  - labelling of the container of any medicine or fluid not administered via a syringe for the purposes of anaesthesia (see exclusions below).

If the data collection team identifies any errors during the data collection that have the potential to cause patient harm, the team should immediately notify the patient's treating nurse and record the incident according to the hospital's incident reporting procedure.

Audit exclusions

The following situations are excluded from the audit:

- preparation and administration of a SINGLE medicine in one uninterrupted process, where the syringe does not leave the hands of the person who prepared it and that same person administers the medicine immediately, including syringes drawn up for immediate emergency use
- injectable medicines drawn up in syringes for use during anaesthesia; these should comply with International Standard ISO 26825:2008 (the Anaesthetic Labelling Standard)[3]
- fluid bags and bottles for infusion where no additional medicines are added – this includes intravenous fluids (e.g. 0.9% sodium chloride), premixed infusions (e.g. potassium, heparin) and peritoneal dialysis fluids. Unlabelled bags or bottles identified during the 'in place' data collection are assumed to not require labelling. Burettes are assumed to not contain additives if unlabelled at the time of viewing
- labelling of infusion pumps, syringe drivers, etc.
- syringes prefilled for bolus use and infusions labelled by external manufacturers or hospital pharmacy departments.

Data collection

Data collection forms

Three Excel spreadsheets are available for data collection (see Appendix 1): 'Open-practice environment', 'Open-practice: Intensive' and 'Closed-practice environment' (see Table 1 for each applicable area). Each is divided into sections as follows:

- Section A – Bags, bottles, syringe infusions and boluses
- Section B – Bags and bottles
- Section C – Syringe infusions or boluses
- Section D – Administration lines and catheters
- Section E – Burettes
- Section F – Locked catheters
- Section G – Sodium chloride flush.

The 'Open-practice: intensive' form includes Sections A–G, plus an additional Section H – Invasive monitoring lines. The 'Closed-practice environment' form includes Sections A–H, plus an additional Section I – Sterile field containers. The forms are designed to be printed as duplex (double-sided). Each form allows data collection of 'in place' containers and conduits, and 'preparation observed' data.

Where possible, it is recommended that the preparation of items requiring labelling is captured. This will be the only available data for syringe boluses and flushes. When preparation is not able to be observed, such as an infusion already running, it will only be possible to collect 'in place' data.

One data collection form should be allocated per patient. Multiple data points for each container and conduit may be completed in the one form. Each item requiring labelling is one data point. For example, a system containing a bag (with additives) and a line is considered as two separate data points. The audit team should only complete the areas of the data collection form that apply to the items requiring labelling for each patient.

Multiple forms can be used if an individual patient has conduits, containers and syringe boluses in excess of the recording space on one form.

Suggested data collection methodology

For general ward areas, including medical, surgical, day units and palliative care, it is estimated that the data collection for two ward areas will take up to one day. The methodology below is to assist with efficient data collection. When one data point is captured for the patient, check the patient for other containers and lines (including invasive monitoring lines) and include them in data collection.

The following are suggested steps for planning data collection:

1. Print multiple copies of the double-sided data collection form applicable to the area in which data will be collected. Alternatively, for facilities that are able to capture data directly, create and name multiple electronic data collection forms in folders according to ward and clinical area.

2. Select one ward within this area to audit at a time.

3. Review the medication charts when arriving in the ward to determine which patients will be receiving injectable medicines and the time when they will be administered. It may be practical to review the charts in two ward areas initially, to maximise data collection in the allocated time.

4. Devise a timetable for viewing the preparation of additives on the wards.

'In place' audit

This part of the audit can be completed while viewing the charts in step 3, above. Examples of the injectable systems that may be seen when conducting the 'in place' audit and which parts of the form to complete are shown in Table 2.

Table 2 Examples of 'in place' audit data collection

Injectable system	Container labelling	Conduit labelling
Bag or bottle with additive	Complete Sections A and B	An administration line will be used; complete Section D
Syringe infusion	Complete Sections A and C	An administration line will be used; complete Section D
Burette	Not required	Complete Section E
Locked catheter	Not required	Complete Section F
Sodium chloride flush	Not required	Complete Section G
Invasive monitoring line	Not required	Complete Section H
Sterile field containers	Complete Section I	Not required

Preparation observed audit

When prioritising which injectables to observe, the first priority should be bolus syringes. The second priority should be bags/bottles with additives, syringe infusions and burettes. Complete the following steps:

- Select a patient who will receive an injectable medicine that requires preparation by a nurse.
- Continuously observe the labelling practice of the nurse from the time the medications are prepared to the time they are administered to the patient.
- If the product is a syringe bolus, complete Sections A and C. If an administration line is used, complete Section D. If a sodium chloride flush is used, complete Section G.

If a syringe bolus is not observed during preparation, but it is labelled and included in the audit (e.g. observed administered only, or in a kidney dish waiting to be administered), this should be classified as 'in place', not 'preparation observed'.

Data collection items: all wards

Patient information

Patient identifier	Record hospital identifying number (e.g. UR(N), MRN). This is optional, but may reduce the risk of capturing the same patient data twice.
Patient audit number	Assign a number to each patient at the site of data collection. If there are multiple sites within a network, number sequentially.
Clinical area type	Circle the type of area in which data is collected.
Patient type	Circle the type of patient (adult, paediatric or neonate).

Container labelling

Complete Section A for bags, bottles, syringe infusions and boluses; Section B for bags and bottles; and Section C for syringe infusions and boluses.

Section A Bags, bottles, syringe infusions and boluses

Item	Assessment	Response options
Type of container	Circle appropriate container type: Bag, Bot (bottle with additive), Syrl (syringe infusion) or Bolus (syringe bolus). For audit purposes, a syringe bolus is an injection given over a short period of time that does not leave the hands of the administrator. A syringe infusion will be considered anything remaining with the patient for the administration time (e.g. spring infusers or drivers).	Bag/Bot/Syrl/Bolus
Type of data	Data collected is 'in place' (IP) or 'preparation observed' (P).	IP/P
Labelled	A label is on the container.	Yes/No
Patient name	First and last name of patient are written on the label (Yes or No). Surname plus or minus an initial is on the label (Int).	Yes/No/Int
Patient identifier	A legible identifying number is on the label (e.g. UR(N), MRN).	Yes/No
Date of birth	A legible date of birth is on the label.	Yes/No
Name of medicine(s) added	The name of the medicine is recorded on the label. If multiple medicines or additives are in the one bag, bottle or syringe, ALL of the medicines must be recorded to meet the criteria for a Yes.	Yes/No
Correct medicine	The medicine on the label matches the medicine ordered on the medication chart.	Yes/No
Name of medicine(s) correct	The name of the medicine(s) is exactly as written on the label.	Yes/No

Item	Assessment	Response options
Amount(s) of medicine(s) added	The amount and units of each medicine are identified on the label (Yes or No). Units are present on the label but an unacceptable abbreviation is used (Int). Acceptable handwritten abbreviations for units include microg, mg, g, IU and mmol.[4]	Yes/No/Int
Total volume of fluid	The approximate total volume of fluid in the bag/bottle or syringe AND units (mL) are documented. Approximate volumes are acceptable considering overage of bag and differing practices when adding small volumes.	Yes/No
Concentration	Concentration is documented as units/mL (e.g. mg/mL). Ratios are not acceptable.	Yes/No
Diluent	The name of the diluent is recorded on the label (Yes or No). The name of the diluent is recorded but with unacceptable terms (e.g. abbreviations) (Int).	Yes/No/Int
Date prepared	The date is recorded on the label (day/month is acceptable; e.g. 18/6).	Yes/No
Time prepared	The time of preparation is documented in 24-hour time, or using am or pm.	Yes/No
Prepared by signature	The signature of the nurse who prepared the container is recorded.	Yes/No
Checked by signature	The signature of the nurse who checked the container is recorded.	Yes/No/NA
Correct route label	The label is the appropriate colour for the route (IntraTHECAL, IntraVENOUS, EPIDURAL, Subcutaneous, REGIONAL, Intra-ARTERIAL, Enteral, Inhalation, Miscellaneous)	Yes/No
Route indicated by wording (miscellaneous labels only)	The route is identified on the label in handwriting AND this route does not have dedicated label of its own (i.e. the route is not IntraTHECAL, IntraVENOUS, EPIDURAL, Subcutaneous, REGIONAL, Intra-ARTERIAL, Enteral or Inhalation) (Yes or No). Examples of appropriate use of miscellaneous labels include the intraosseous and intraperitoneal routes. The route is indicated on the label but uses unacceptable abbreviations (Int).[4]	Yes/No/Int
Graduations visible	The syringe graduations are visible with labelling in place (Yes). The syringe graduations are obscured (No). The syringe is not labelled (NA).	Yes/No/NA

Section B Bags and bottles

Item	Assessment	Response options
Type of fluid visible	The name/type of base fluid is not obscured by the additive label.	Yes/No
Label on front	The label is placed on the front of the bag or bottle.	Yes/No
Batch number of base fluid visible	The batch number is not obscured by the additive label.	Yes/No
Expiry date of base fluid visible	The expiry date of the base fluid is not obscured by the additive label.	Yes/No
Graduations visible	The bag/bottle graduations are visible with labelling in place (Yes). The bag/bottle graduations are obscured (No). The bag/bottle is not labelled (NA).	Yes/No/NA

Section C Syringe infusions or boluses

Item	Assessment	Response options
Diluent used	The diluent used is documented on the label (Yes or No). No diluent is used or it is unclear whether a diluent is required (NA).	Yes/No/NA
Graduations visible	The syringe graduations are visible with labelling in place (Yes). The syringe graduations are obscured (No). The syringe is not labelled (NA).	Yes/No/NA

Conduit labelling

Section D Administration lines and catheters

Item	Assessment	Response options
Labelled	A label is on the line.	Yes/No
Correct route label	The label is the appropriate label for the route (IntraTHECAL, IntraVENOUS, EPIDURAL, Subcutaneous, REGIONAL, Intra-ARTERIAL, Miscellaneous).	Yes/No
Route indicated by wording (miscellaneous labels only)	The route is identified on the label AND this route does not have a dedicated label of its own (i.e. the route is not IntraTHECAL, IntraVENOUS, EPIDURAL, Subcutaneous, REGIONAL or Intra-ARTERIAL) (Yes or No). The route is indicated on the label using unacceptable abbreviations (Int).[4]	Yes/No/Int
Commenced: Date	The date the line commenced is indicated on the label.	Yes/No
Commenced: Time	The time the line commenced is indicated on the label.	Yes/No
Medicine label if dedicated continuous infusion	A dedicated continuous infusion medicine line is labelled with a medicine label (Yes or No). The line is a maintenance line for intermediate infusions (NA).	Yes/No/NA
Correct medicine label if continuous infusion	The medicine label on a continuous infusion is the correct name and colour, or the correct medicine name is completed on a black and white label if there is no dedicated medicine line label.	Yes/No
Name of medicine(s) correct	The name of the medicine(s) is exactly as written on the label (Yes or No). The name of the diluent is recorded but with unacceptable terms (e.g. abbreviations) (Int).	Yes/No/Int

Section E Burettes

Item	Assessment	Response options
Type of data	Data collected is 'in place' (IP) or 'preparation observed' (P).	IP/P
Labelled	A label is on the burette.	Yes/No
Patient name	The full first and last name of patient are written on the label (Yes or No). The surname only, with or without an initial is on the label (Int).	Yes/No/Int
Patient identifier	A legible identifying number is on the label (e.g. UR(N), MRN).	Yes/No
Date of birth	A legible date of birth is on the label.	Yes/No
Name of medicine(s) added	The name of the medicine(s) is on the label. If multiple medicines or additives are in the one burette, ALL of the medicines must meet the criteria for a Yes.	Yes/No
Name of medicine(s) correct	The name of the medicine(s) is exactly as written on the label.	Yes/No
Amount(s) of medicine(s) added	The amount and units of each medicine are identified on the label (Yes or No). Units are present on the label but an unacceptable abbreviation is used (Int). Acceptable handwritten abbreviations for units include microg, mg, g, IU and mmol.[3]	Yes/No/Int
Volume of fluid added to burette	The total volume of fluid added to the burette and units (e.g. mL) are documented.	Yes/No
Concentration	Concentration is documented as units/mL (e.g. mg/mL). Ratios are not acceptable.	Yes/No
Date prepared	The date is recorded on the label (day/month is acceptable; e.g. 18/6).	Yes/No
Time prepared	The time of preparation is documented in 24-hour time, or using am or pm.	Yes/No
Prepared by signature	The signature of the nurse who prepared the conduit is recorded.	Yes/No
Checked by signature	The signature of the nurse who checked the conduit is recorded.	Yes/No/NA
Correct route label	The label is blue and states 'Burette label for intravenous use only'.	Yes/No
Correct adhesive	The label has an adhesive that allows it to peel off after use.	Yes/No
Burette graduations visible	Graduations on the burette are not obscured by the label.	Yes/No

Section F Locked catheters

Item	Assessment	Response options
Labelled	The locked catheter is labelled.	Yes/No
Correct label	The label is a blue 'Catheter Lock' label.	Yes/No
Name of medicine added	The name of the medicine is on the label.	Yes/No
Date prepared	The date is recorded on the label (day/month is acceptable; e.g. 18/6).	Yes/No
Volume of arterial lumen	The volume of fluid in the arterial lumen is documented in mL.	Yes/No
Final amount of medicine in arterial lumen	The amount of medicine in the arterial lumen is documented.	Yes/No
Volume of venous lumen	The volume of fluid in the venous lumen is documented in mL.	Yes/No
Final amount of medicine in venous lumen	The amount of medicine in the venous lumen is documented.	Yes/No

Section G Sodium chloride flush

Item	Assessment	Response options
Labelled	The sodium chloride 0.9% flush is labelled. Select No for sodium chloride 0.9% syringe flushes observed in preparation that should be labelled but are not.	Yes/No
Labelled with 'Sodium chloride 0.9%'	The flush is labelled with 'sodium chloride 0.9%' (Yes or No). The flush is labelled but unacceptable terms are used (e.g. normal saline, N. Saline, NS and NaCl 0.9%) (Int).	Yes/No/Int

Additional data collection items: open-practice environment – intensive

Section H Invasive monitoring lines

Item	Assessment	Response options
Labelled	A label is on the line.	Yes/No
Correct route label	The label is the appropriate colour for the route (e.g. IntraVENOUS, Intra-ARTERIAL)	Yes/No
Route indicated by wording (miscellaneous labels only)	The route is identified on the label AND this route does not have dedicated label of its own (i.e. the route is not IntraTHECAL, IntraVENOUS, EPIDURAL, Subcutaneous, REGIONAL or Intra-ARTERIAL) (Yes or No). The route is indicated on the label using unacceptable abbreviations (Int).[3]	Yes/No/Int
Commenced: Date	The date the line commenced is indicated on the label.	Yes/No
Commenced: Time	The time the line commenced is indicated on the label.	Yes/No

Additional data collection items: closed-practice environment

Closed-practice environments include operating rooms and cardiac catheter laboratories.

Section I Sterile field containers

Item	Assessment	Response options
Labelled	A label is on the container.	Yes/No
Name of medicine(s) added	The name of the medicine is recorded on the label. If multiple medicines or additives are in the one container, ALL of the medicines must meet the criteria for a Yes.	Yes/No
Name of medicine(s) correct	The name of the medicine(s) is exactly as written on the label (Yes or No). The name of the diluent is recorded but with unacceptable terms (e.g. abbreviations) (Int).	Yes/No/Int
Concentration	The container contains adrenaline and the concentration is documented as it appears on the manufacturer's original label (Yes or No). The container contains a medicine other than adrenaline (NA).	Yes/No/NA
Colour appropriate for class of medicine	Where a colour is specified in the standard, the label is the correct colour for the medicine (e.g. blue for opioids) (Yes). Where a colour is specified in the standard, the label is the incorrect colour for the medicine (No). Where a colour is not specified in the standard, the label is black text on a white background (Yes).	Yes/No
Non-injectable medicines	The correct medicine label is used, including a red watermarked St Andrew's Cross.	Yes/No

Electronic data entry

Demographic data

It may be helpful to record demographic information pertaining to the hospital. Suggested inclusions in the spreadsheet labelled 'Demographic info' are hospital contact details and hospital type (see Table 3). For multiple hospitals within one network, it is suggested that demographic details AND data entry are completed for each hospital separately and saved as separate spreadsheets.

Table 3 Hospital classifications

Hospital classification	Definition
A1	Major teaching hospitals
A2	Major teaching hospitals with a lesser range of specialised services than Category A1 hospitals
B	Medium-sized suburban and regional/rural base hospitals
C	General hospitals in suburban and rural areas, which are generally smaller than Category B hospitals
D	Area hospitals with 500–1000 inpatients per year
E	Local hospitals with less than 500 inpatients per year
M	Multipurpose services (MPSs) that manage Commonwealth and state aged care, hospital and other healthcare services' funds. MPSs are established in remote or isolated rural communities who are unable to maintain viable, separate aged care, hospital and other community services
Z	Subacute hospitals

Data entry

Suggested inclusions in the spreadsheet labelled 'Data entry' (Appendix 2):

- Clinical area – Populate the data collection sheet with the acceptable key letter(s) indicated in Table 4.
- Patient type – Select adult (A), paediatric (P) or neonate (N).
- Patient audit number – Populate with the number assigned to the individual patient. Patient identifying numbers (e.g. UR(N)) are not required.

It may be helpful to allocate one row for each data point and only fill in the section in the row applicable to that data point (e.g. the first bag with additives for patient 1), then move onto the row below for the second data point (e.g. the first administration line for patient 1). Cells outside of the applicable area may be left blank. For example, when filling in one row for data collected about a bag label, leave all other areas in the row blank and move onto the row below for entering data about an administration line label. Cells can be populated with options as indicated in each column in the spreadsheet.

Table 4 Clinical areas

Clinical area	Key
Medical ward (including subacute)	M
Surgical ward	S
Emergency department	ED
Intensive care unit	I
Recovery room	RR
Operating theatres	OT
Day treatment unit	DT
Endoscopy suite	E
Radiology	Ra
Delivery suite	DS
Cardiac catheter laboratory	CL
Palliative care	PC
Special care nursery	SC
Neonatal intensive care unit	N

References

1. Australian Commission on Safety and Quality in Health Care. National Standard for User-applied Labelling of Injectable Medicines, Fluids and Lines. Sydney: ACSQHC, 2015. www.safetyandquality.gov.au/publications/national-standard-for-user-applied-labelling

2. Australian Commission on Safety and Quality in Health Care. National Safety and Quality Health Service Standards. Sydney: ACSQHC, 2012. www.safetyandquality.gov.au/publications/national-safety-and-quality-health-service-standards

3. International Standard ISO 26825:2008 Anaesthetic and respiratory equipment – user-applied labels for syringes containing drugs used during anaesthesia – colours, design and performance (the Anaesthetic Labelling Standard).

4. Australian Commission on Safety and Quality in Health Care. Recommendations for terminology, abbreviations and symbols used in the prescribing and administration of medicines. Sydney: ACSQHC, 2011.

Appendix 1 Data collection forms

The data collection forms are also available as an Excel spreadsheet on the Commission website.

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Labelling Standard audit tool
Data collection form
OPEN-PRACTICE ENVIRONMENT

One patient per form

Patient identifier				
Patient audit number				
Clinical area type (circle)	Medical Recovery	Surgical Day unit	Paediatric Pall care	Delivery SCN
Patient type (circle)	Adult	Paediatric	Neonate	

A) Bags, bottles, syringe infusions, boluses	Type of container	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus
	Type of data	IP/P	IP/P	IP/P	IP/P	IP/P
	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Patient name	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Patient identifier	Y/N	Y/N	Y/N	Y/N	Y/N
	Date of birth	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) added	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct medicine	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N	Y/N	Y/N	Y/N	Y/N
	Amount(s) of med(s) added	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Total volume of fluid	Y/N	Y/N	Y/N	Y/N	Y/N
	Concentration	Y/N	Y/N	Y/N	Y/N	Y/N
	Diluent	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Time prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Prepared by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Checked by signature	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
B) Bags and bottles	Type of fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Label on front	Y/N	Y/N	Y/N	Y/N	Y/N
	Batch no. of base fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Expiry date of base fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
C) Syringe infusions or boluses	Diluent used	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
D) Adminis-tration lines and catheters	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Commenced: date	Y/N	Y/N	Y/N	Y/N	Y/N
	Commenced: time	Y/N	Y/N	Y/N	Y/N	Y/N
	Medicine label if dedicated continuous infusion	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Correct medicine label if continuous infusion	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int

E) Burettes	Type of data	IP/P	IP/P	IP/P	IP/P	IP/P
	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Patient name	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Patient identifier	Y/N	Y/N	Y/N	Y/N	Y/N
	Date of birth	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) added	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N	Y/N	Y/N	Y/N	Y/N
	Amount(s) of med(s) added	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Volume of fluid added to burette	Y/N	Y/N	Y/N	Y/N	Y/N
	Concentration	Y/N	Y/N	Y/N	Y/N	Y/N
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Time prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Prepared by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Checked by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct adhesive	Y/N	Y/N	Y/N	Y/N	Y/N
	Burette graduations visible	Y/N	Y/N	Y/N	Y/N	Y/N

F) Locked catheters	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct label	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of medicine added	Y/N	Y/N	Y/N	Y/N	Y/N
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Volume of arterial lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Final amount of medicine in arterial lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Volume of venous lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Final amount of medicine in venous lumen	Y/N	Y/N	Y/N	Y/N	Y/N

G) Sodium chloride flush	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Labelled with 'Sodium chloride 0.9%'	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Labelling Standard audit tool
Data collection form
OPEN-PRACTICE - INTENSIVE

One patient per form

Patient identifier			
Patient audit number			
Clinical area type (circle)	ED	ICU	NICU
Patient type (circle)	Adult	Paediatric	Neonate

A) Bags, bottles, syringe infusions, boluses	Type of container	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus
	Type of data	IP/P	IP/P	IP/P	IP/P	IP/P
	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Patient name	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Patient identifier	Y/N	Y/N	Y/N	Y/N	Y/N
	Date of birth	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) added	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct medicine	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N	Y/N	Y/N	Y/N	Y/N
	Amount(s) of med(s) added	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Total volume of fluid	Y/N	Y/N	Y/N	Y/N	Y/N
	Concentration	Y/N	Y/N	Y/N	Y/N	Y/N
	Diluent	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Time prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Prepared by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Checked by signature	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
B) Bags and bottles	Type of fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Label on front	Y/N	Y/N	Y/N	Y/N	Y/N
	Batch no. of base fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Expiry date of base fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
C) Syringe infusions or boluses	Diluent used	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
D) Adminis-tration lines and catheters	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Commenced: date	Y/N	Y/N	Y/N	Y/N	Y/N
	Commenced: time	Y/N	Y/N	Y/N	Y/N	Y/N
	Medicine label if dedicated continuous infusion	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Correct medicine label if continuous infusion	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int

E) Burettes	Type of data	IP/P	IP/P	IP/P	IP/P	IP/P
	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Patient name	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Patient identifier	Y/N	Y/N	Y/N	Y/N	Y/N
	Date of birth	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) added	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N	Y/N	Y/N	Y/N	Y/N
	Amount(s) of med(s) added	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Volume of fluid added to burette	Y/N	Y/N	Y/N	Y/N	Y/N
	Concentration	Y/N	Y/N	Y/N	Y/N	Y/N
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Time prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Prepared by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Checked by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct adhesive	Y/N	Y/N	Y/N	Y/N	Y/N
	Burette graduations visible	Y/N	Y/N	Y/N	Y/N	Y/N

F) Locked catheters	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct label	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of medicine added	Y/N	Y/N	Y/N	Y/N	Y/N
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Volume of arterial lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Final amount of medicine in arterial lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Volume of venous lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Final amount of medicine in venous lumen	Y/N	Y/N	Y/N	Y/N	Y/N

G) Sodium chloride flush	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Labelled with 'Sodium chloride 0.9%'	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int

H) Invasive monitoring lines	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Commenced: date	Y/N	Y/N	Y/N	Y/N	Y/N
	Commenced: time	Y/N	Y/N	Y/N	Y/N	Y/N

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

Labelling Standard audit tool
Data collection form
CLOSED-PRACTICE ENVIRONMENT

One patient per form

Patient identifier					
Patient audit number					
Clinical area type (circle)	Theatre	Endoscopy	Radiology	Cardiac cath	
Patient type (circle)	Adult	Paediatric	Neonate		

A) Bags, bottles, syringe infusions, boluses	Type of container	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus	Bag/Bot/ Syrl/Bolus
	Type of data	IP/P	IP/P	IP/P	IP/P	IP/P
	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Patient name	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Patient identifier	Y/N	Y/N	Y/N	Y/N	Y/N
	Date of birth	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) added	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct medicine	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N	Y/N	Y/N	Y/N	Y/N
	Amount(s) of med(s) added	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Total volume of fluid	Y/N	Y/N	Y/N	Y/N	Y/N
	Concentration	Y/N	Y/N	Y/N	Y/N	Y/N
	Diluent	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Time prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Prepared by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Checked by signature	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
B) Bags and bottles	Type of fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Label on front	Y/N	Y/N	Y/N	Y/N	Y/N
	Batch no. of base fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Expiry date of base fluid visible	Y/N	Y/N	Y/N	Y/N	Y/N
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
C) Syringe infusions or boluses	Diluent used	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Graduations visible	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
D) Adminis-tration lines and catheters	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Commenced: date	Y/N	Y/N	Y/N	Y/N	Y/N
	Commenced: time	Y/N	Y/N	Y/N	Y/N	Y/N
	Medicine label if dedicated continuous infusion	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Correct medicine label if continuous infusion	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int

E) Burettes	Type of data	IP/P	IP/P	IP/P	IP/P	IP/P
	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Patient name	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Patient identifier	Y/N	Y/N	Y/N	Y/N	Y/N
	Date of birth	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) added	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N	Y/N	Y/N	Y/N	Y/N
	Amount(s) of med(s) added	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Volume of fluid added to burette	Y/N	Y/N	Y/N	Y/N	Y/N
	Concentration	Y/N	Y/N	Y/N	Y/N	Y/N
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Time prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Prepared by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Checked by signature	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct adhesive	Y/N	Y/N	Y/N	Y/N	Y/N
	Burette graduations visible	Y/N	Y/N	Y/N	Y/N	Y/N
F) Locked catheters	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct label	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of medicine added	Y/N	Y/N	Y/N	Y/N	Y/N
	Date prepared	Y/N	Y/N	Y/N	Y/N	Y/N
	Volume of arterial lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Final amount of medicine in arterial lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Volume of venous lumen	Y/N	Y/N	Y/N	Y/N	Y/N
	Final amount of medicine in venous lumen	Y/N	Y/N	Y/N	Y/N	Y/N
G) Sodium chloride flush	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Labelled with 'Sodium chloride 0.9%'	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
H) Invasive monitoring lines	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Correct route label	Y/N	Y/N	Y/N	Y/N	Y/N
	Route in words (misc only)	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Commenced: date	Y/N	Y/N	Y/N	Y/N	Y/N
	Commenced: time	Y/N	Y/N	Y/N	Y/N	Y/N
I) Sterile field containers	Labelled	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) added	Y/N	Y/N	Y/N	Y/N	Y/N
	Name of med(s) correct	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int	Y/N/Int
	Concentration	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA	Y/N/NA
	Colour appropriate for class	Y/N	Y/N	Y/N	Y/N	Y/N
	Non-injectable medicines	Y/N	Y/N	Y/N	Y/N	Y/N

Appendix 2 Data entry form

The data entry form is available as an Excel spreadsheet on the Commission website.

		A) Bags, bottles, syringe infusions, boluses	B) Bags and bottles	C) Syringe infusions or boluses	D) Administration lines and catheters	E) Burettes	F) Locked catheters	G) Sodium chloride flush	H) Invasive monitoring lines	I) Sterile field containers
Clinical area (see User Guide Table 4)		Type of container (Bag/Bot/Syr/Bolus)	Type of fluid visible (Y/N)	Diluent used (Y/N/NA)	Labelled (Y/N)	Type of data (IP/P)	Labelled (Y/N)	Labelled (Y/N)	Labelled (Y/N)	Labelled (Y/N)
Patient type (adult (A), paed (P) neonate (N))		Type of data (IP/P)	Label on front (Y/N)	Graduations visible (Y/N/NA)	Correct route label (Y/N)	Labelled (Y/N)	Correct label (Y/N)	Labelled with 'Sodium chloride 0.9%' (Y/N/Int)	Correct route label (Y/N)	Name of med(s) added (Y/N)
Patient audit number		Labelled (Y/N)	Batch no. of base fluid visible (Y/N)		Route in words (misc only) (Y/N/Int)	Patient name (Y/N/Int)	Name of medicine added (Y/N)		Route in words (misc only) (Y/N/Int)	Name of med(s) correct (Y/N/Int)
Data point (A-Z)		Patient name (Y/N/Int)	Expiry date of base fluid visible (Y/N)		Commenced: date (Y/N)	Patient identifier (Y/N)	Date prepared (Y/N)		Commenced: date (Y/N)	Concentration (Y/N/NA)
		Patient identifier (Y/N)	Graduations visible (Y/N/NA)		Commenced: time (Y/N)	Date of birth (Y/N)	Volume of arterial lumen (Y/N)		Commenced: time (Y/N)	Colour appropriate for class (Y/N)
		Date of birth (Y/N)			Medicine label if dedicated continuous infusion (Y/N/NA)	Name of med(s) added (Y/N)	Final amount of medicine in arterial lumen (Y/N)			Non-injectable medicines (Y/N)
		Name of med(s) added (Y/N)			Correct medicine label if continuous infusion (Y/N)	Name of med(s) correct (Y/N)	Volume of venous lumen (Y/N)			
		Correct medicine (Y/N)			Name of med(s) correct (Y/N/Int)	Amount(s) of med(s) added (Y/N/Int)	Final amount of medicine in venous lumen (Y/N)			
		Name of med(s) correct (Y/N)				Volume of fluid added to burette (Y/N)				
		Amount(s) of med(s) added (Y/N/Int)				Concentration (Y/N)				
		Total volume of fluid (Y/N)				Date prepared (Y/N)				
		Concentration (Y/N)				Time prepared (Y/N)				
		Diluent (Y/N/Int)				Prepared by signature (Y/N)				
		Date prepared (Y/N)				Checked by signature (Y/N/NA)				
		Time prepared (Y/N)				Correct route label (Y/N)				
		Prepared by signature (Y/N)				Correct adhesive (Y/N)				
		Checked by signature (Y/N/NA)				Burette graduations visible (Y/N)				
		Correct route label (Y/N)								
		Route in words (Y/N/Int) (misc only)								
		Graduations visible (Y/N/NA)								