

# If a picture paints a thousand words: Illustration in drain labeling

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HA convention 2025



# Background

Increased clinical incidents related to misidentification of drain in terms of wrong laterality and wrong site removal or shifting by interns & nurses

Non-standardized drain labelling with illegible handwriting

→ How to enhance Communication with better identification ?



# Objective

System change in standardizing drain identification with clear illustration in terms of wordings and pictures.



# Methodology

- Stakeholders of various departments are included in meetings to discuss on their current methods of drain labeling for gap analysis.
- Commercially printed drain labels with Chinese and English wordings with pictograms are designed for users' feedback and hands-on trial.

# Type of drain labels

- Two sizes

Abdominal drain



80 mm x 50 mm / 70 mm x 40 mm  
Stick on drainage bag, collection bottle

Abdominal drain

Abdominal drain

140 mm x 20 mm  
Stick on catheter, connecting tube, tubing



## Type of drain labels

- 12 designs

Left Percutaneous Nephrostomy drain  
(Left PCN)



Right Percutaneous Nephrostomy drain  
(Right PCN)



Drain

Left Percutaneous Nephrostomy drain (PCN)

Left Percutaneous Nephrostomy drain (PCN)

Right Percutaneous Nephrostomy drain (PCN)

Right Percutaneous Nephrostomy drain (PCN)

Drain


Drain

For abscess, ascites, etc. in Radiology Department

Percutaneous Transhepatic Cholecystostomy

(PTC)

膽囊



Percutaneous Transhepatic Cholecystostomy (PTC)	Percutaneous Transhepatic Cholecystostomy (PTC)
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Left Percutaneous Transhepatic Biliary Drainage

(Left PTBD)

左膽管

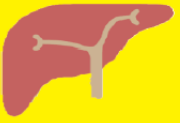


Left Percutaneous Transhepatic Biliary Drainage (PTBD)	Left Percutaneous Transhepatic Biliary Drainage (PTBD)
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Right Percutaneous Transhepatic Biliary Drainage

(Right PTBD)

右膽管



Right Percutaneous Transhepatic Biliary Drainage (PTBD)	Right Percutaneous Transhepatic Biliary Drainage (PTBD)
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Left pleural drain

左肺



Left pleural drain	Left pleural drain
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Right pleural drain

右肺



Right pleural drain	Right pleural drain
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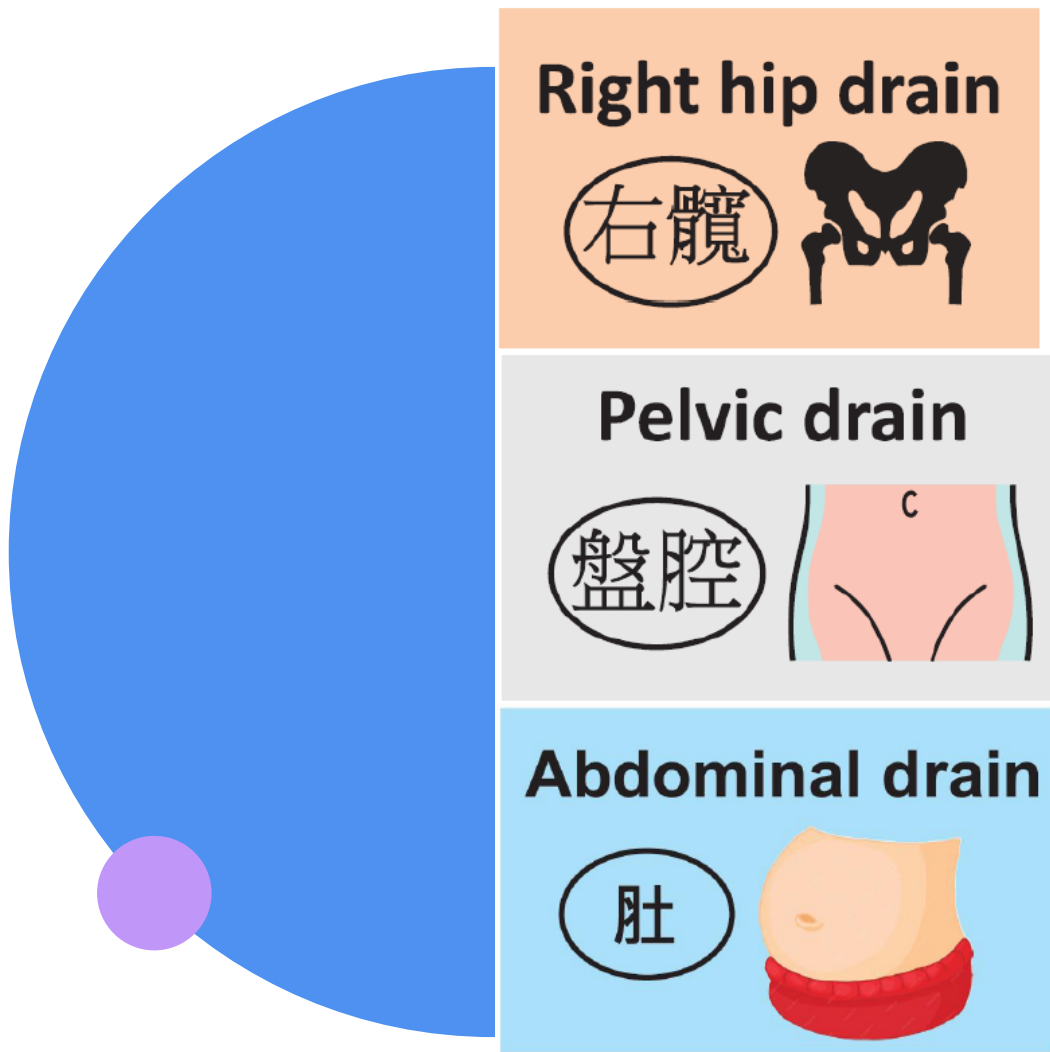
Left hip drain

左髖



Left hip drain	Left hip drain
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**Right hip drain**

**Right hip drain**

**Pelvic drain**

**Pelvic drain**

**Abdominal drain**

**Abdominal drain**

For **tubal drain**  
in OT/ Surgery,  
etc.

If a picture paints a thousand words....





- **Ensure** the marking can be seen after applying the label
- **Remove** the drain labels if patient is discharged outside PMH or LKB area, for example, other hospitals, home, hostels or old age home.
- **Keep** the drain labels if patient is transferred to LKB.
- **Consider** to use blank labels to specify other type of drains:



or keep current department practice in labeling the drains



# Methodology

- Pilot implementation in operation theatre and interventional suites was commenced in PMH in April 2024, while this was rolled out in May 2024 in CMC.
- Evaluation was conducted after half year roll-out in Oct 2024.

# Evaluation Results of CQI

## Participants:

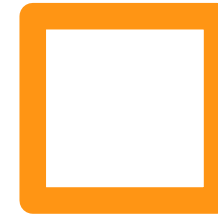
Total Respondents: **120** (12 specialties x 10 surveys).



## Breakdown:

**3** Doctors from Each Specialty: Total 36 doctors

**7** Nurses from Each Specialty: Total 84 nurses

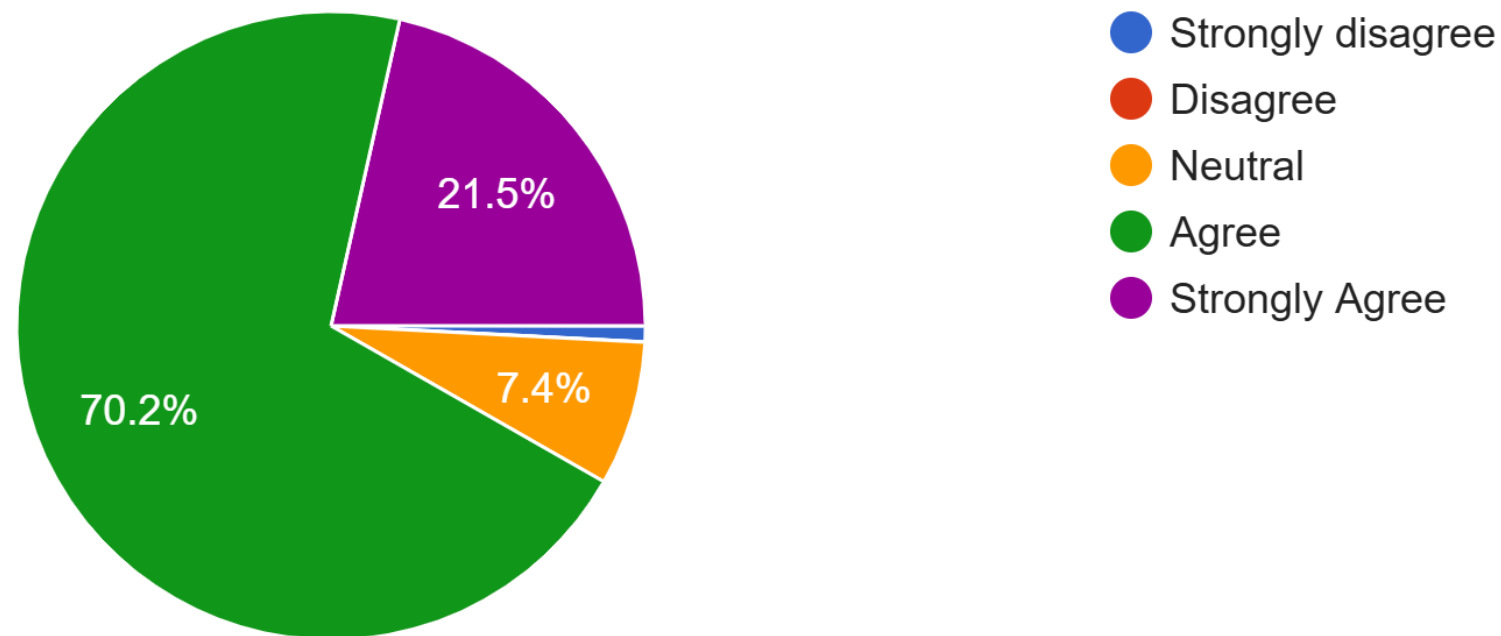


## Survey Format:

Online questionnaire

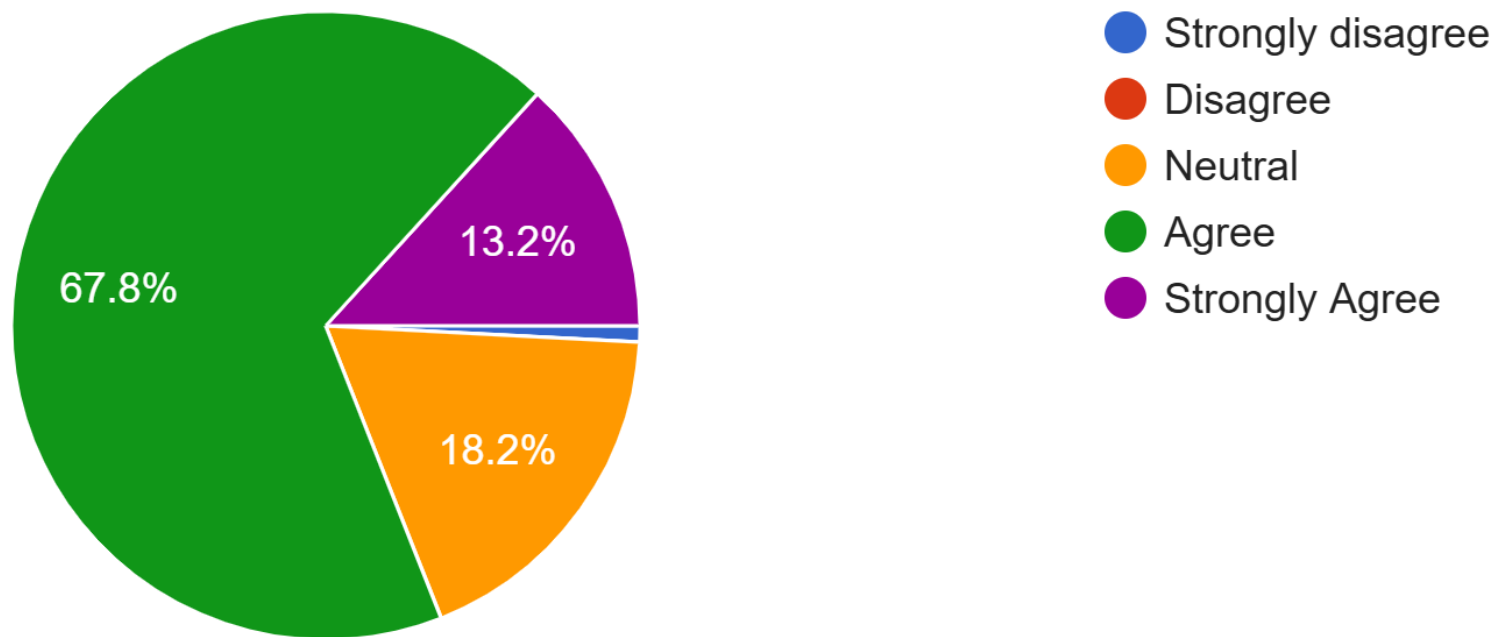
The color-coding of the drain labels is clear and easy to understand.

121 則回應



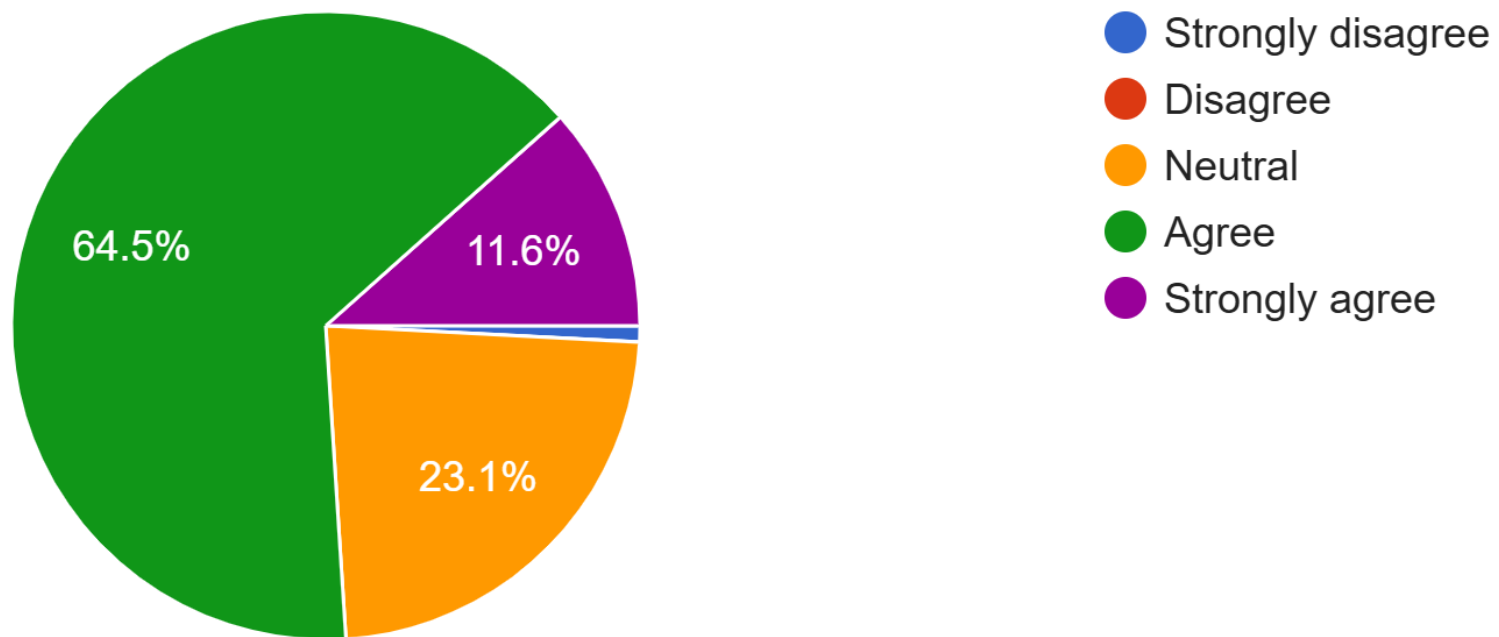
The color-coding helps to quickly identify the drain type (e.g., Abdominal drain, PTBD Drain, etc.).

121 則回應



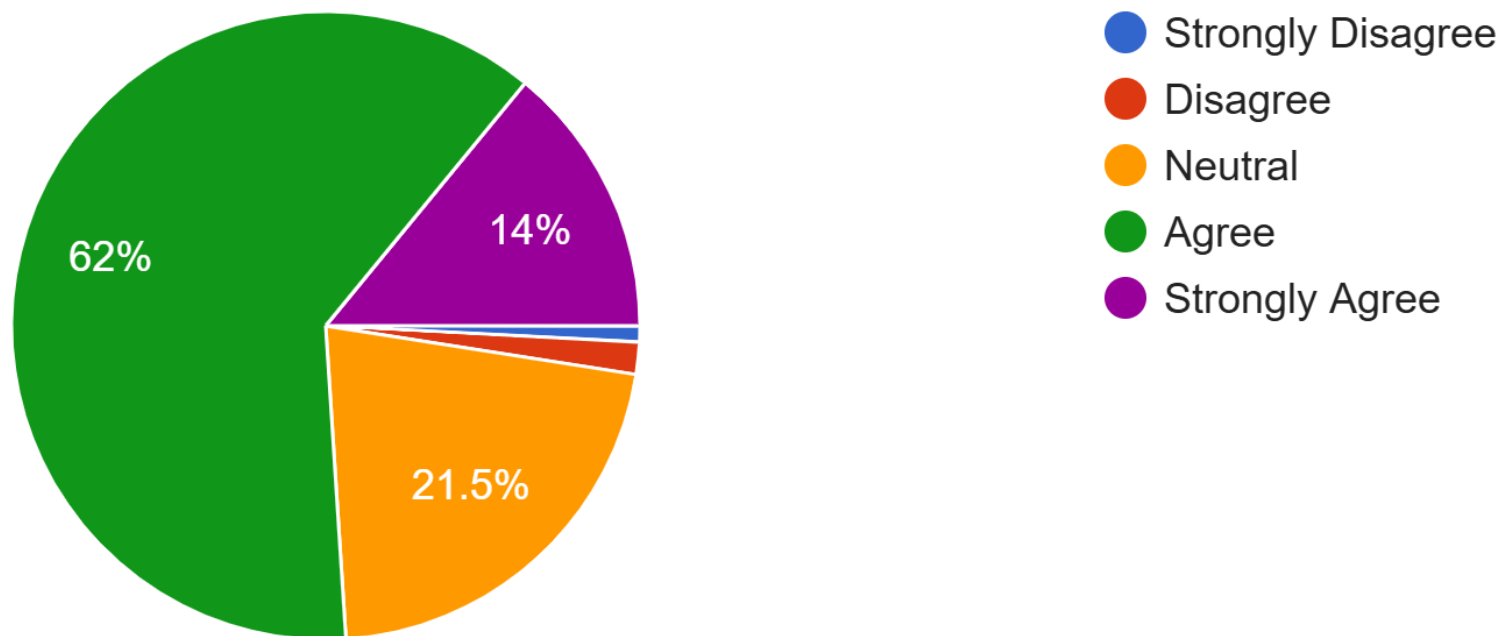
The color-coded labels have improved communication and handover during patient care activities.

121 則回應



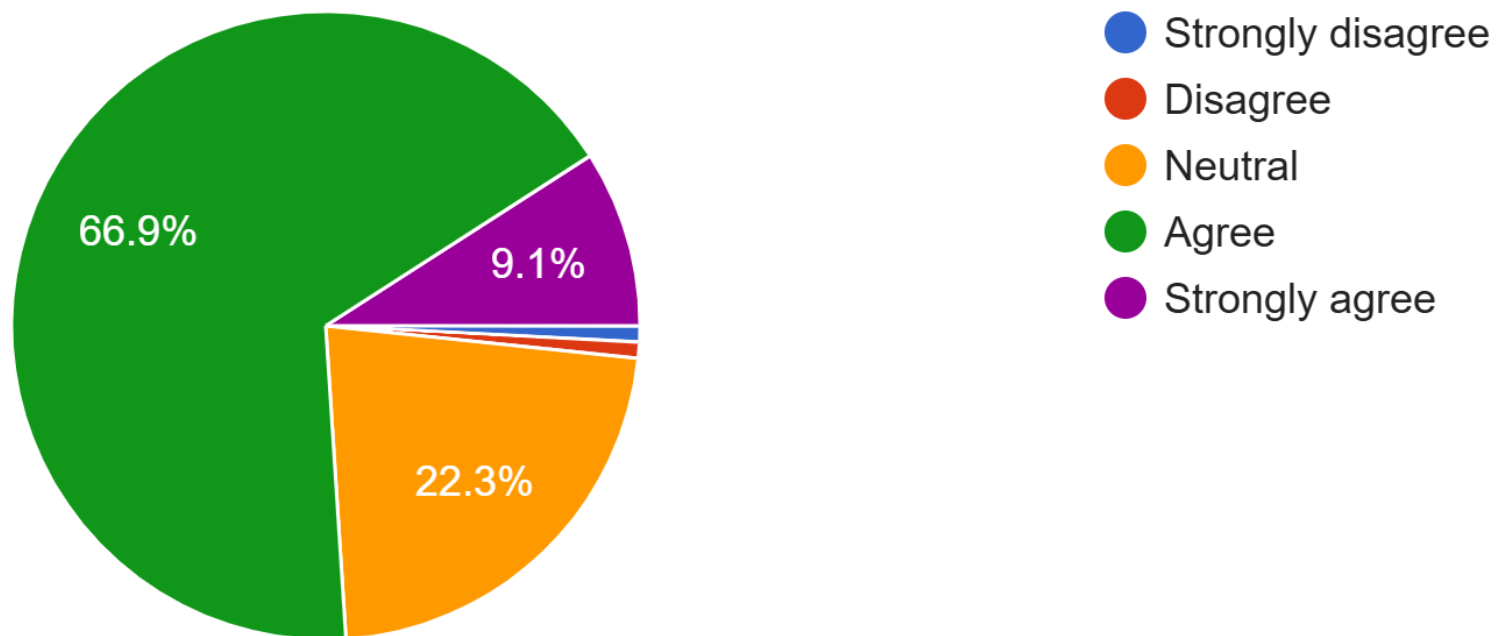
The color-coded labels have reduced the risk of drain misidentification.

121 則回應



The overall quality and durability of the outsourced color-coded labels are satisfactory.


121 則回應








## Benefits of the Pilot Drain Label

- **Error Reduction:** Helps prevent misidentification and mix-ups, contributing to patient safety.
  - **Enhanced Communication:** Improved clarity among staff, especially for PCAs, facilitating better handovers.
  - **Clear Identification:** Easy identification of drain sites and types, aiding quick decision-making and patient care.
  - **Visibility:** Eye-catching, color-coded labels enhance visibility and make drains easier to observe.
  - **Standardization:** Consistent labeling formats improve recognition and readability for all staff.
  - **Facilitation of Ward Rounds:** Clear labels assist in identifying drains quickly during ward rounds.
  - **Overall User Experience:** Generally perceived as useful, provided initial labelling.
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## Challenges and Limitations of Color-Coded Drain Labels

- ◆ **Label Size Issues:** Labels may be too large for small drains, requiring cutting.
  - ◆ **Single Use:** Labels for drains like tubal drains can only be used once per shift.
  - ◆ **Visibility Issues:** Labels may not be easily visible in some lighting conditions.
  - ◆ **Initial Labeling Errors:** Incorrect initial labeling can compromise safety.
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## Way forward

- After implementation of this improvement measures, no incident related to wrong drain removal or shifting was yielded.
- In view of the promising results, we tend to roll this out to other hospitals in KWC and all hospitals are guaranteed for further rollout.



Thank you