

IV Access Care Improvement Plan by use of “ **P.A.T.I.E.N.T.** ” Approach

HA Convention 2025

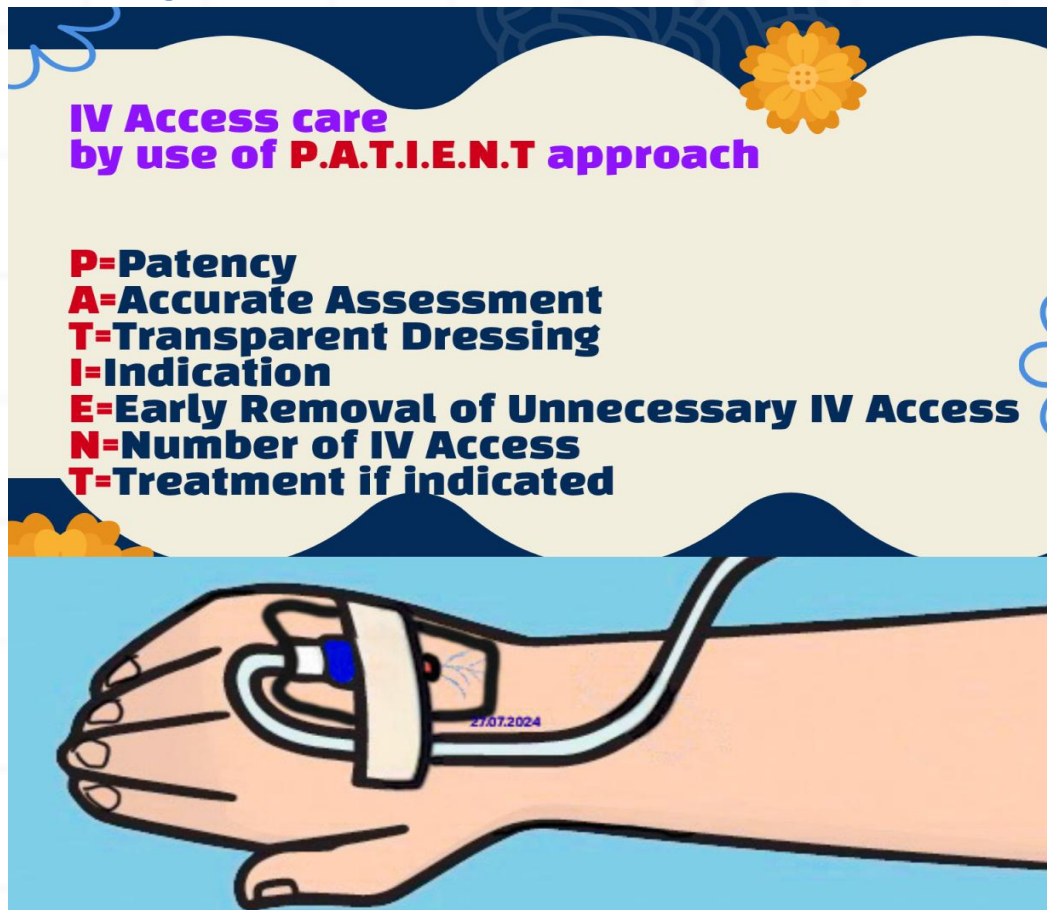
Oral Presentation

Clinical Safety and Quality

Service II

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Background

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- IV access is commonly used in surgery department for multiple purposes
- Improper IV access care could lead to serious or even fatal complications, e.g: amputation, bacteraemia

(Zingg et al., 2023) (Goli et al., 2022)

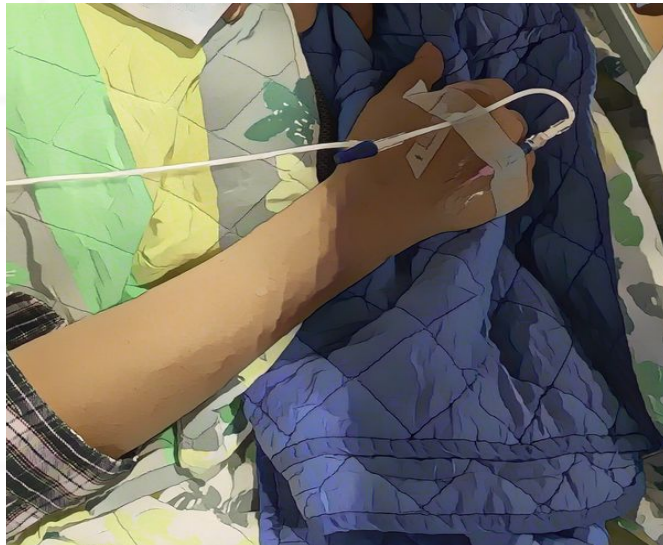
An IV access Care improvement project is needed to make the problem a sharp turn!



Objectives of this Quality Improvement Project

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- To enhance the **quality** of IV access care
- To foster **staff competency** on **managing phlebitis**
- To prevent **serious or life-threatening complications** resulted from drip site infection

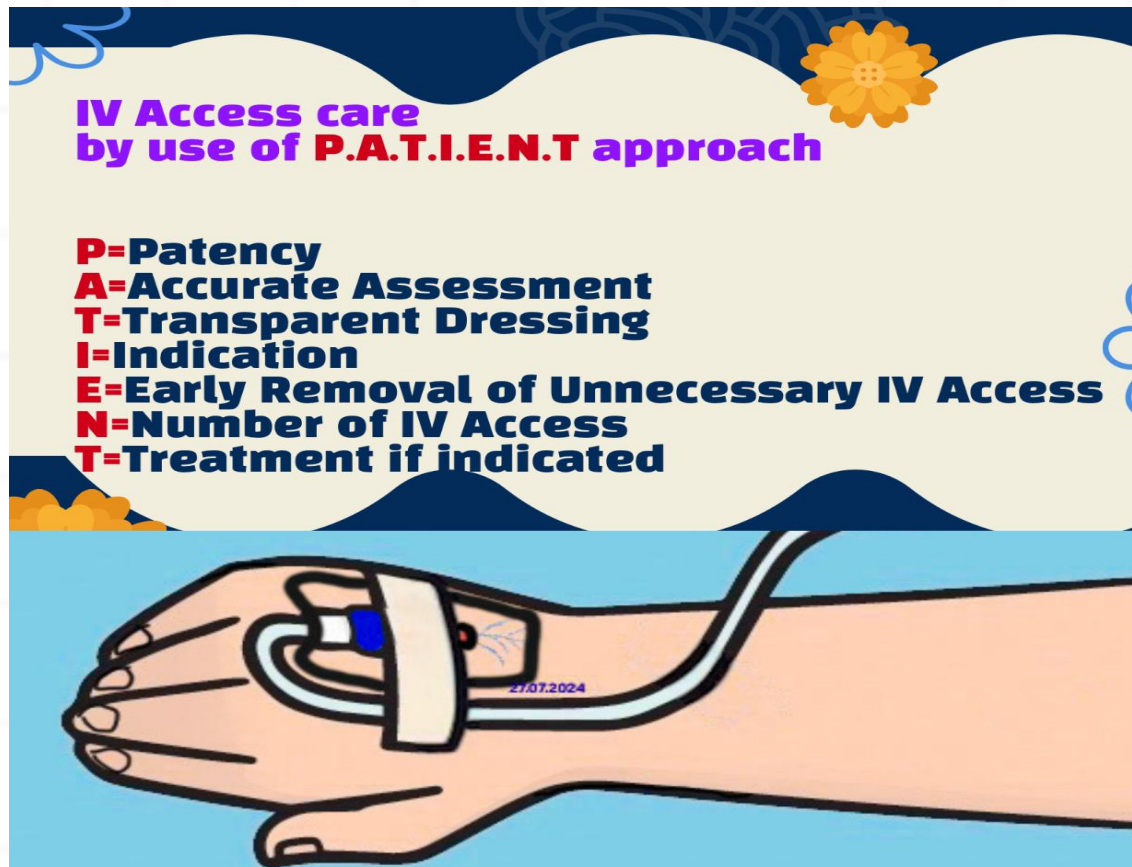


Introduction of Surgery

CQI Project

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A comprehensive strategic project with the acronym of
“**P.A.T.I.E.N.T**” encompasses 7 important elements of
proper IV access care



Timeline of Surgery CQI Project

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Pilot trial of
implementation in one
surgical ward in July 2024

Fully Implemented across the
department by August 2024

In line with the IV Access
Campaign launched by PMH
ICN since December 2024

End of June 2024

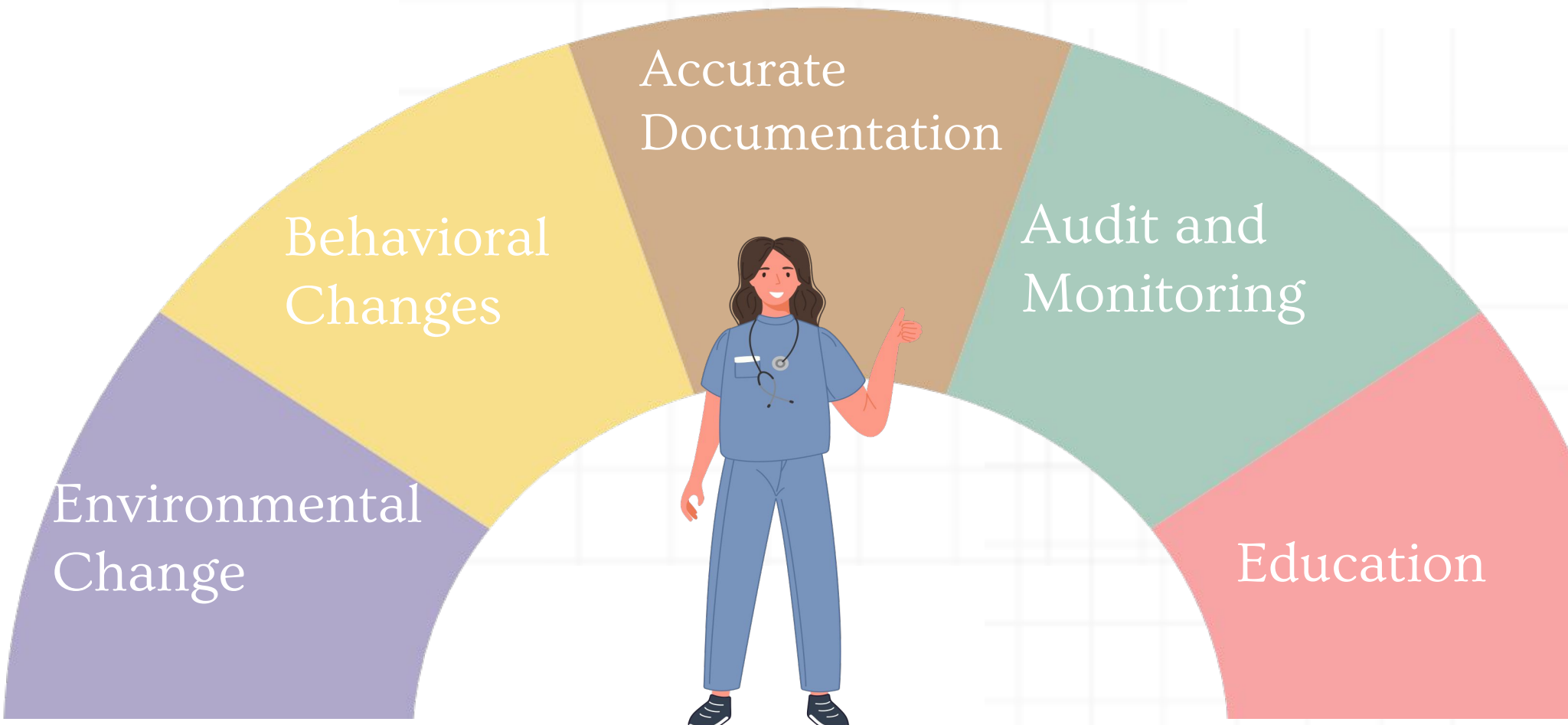
August 2024

December 2024 till
present

Ongoing Review

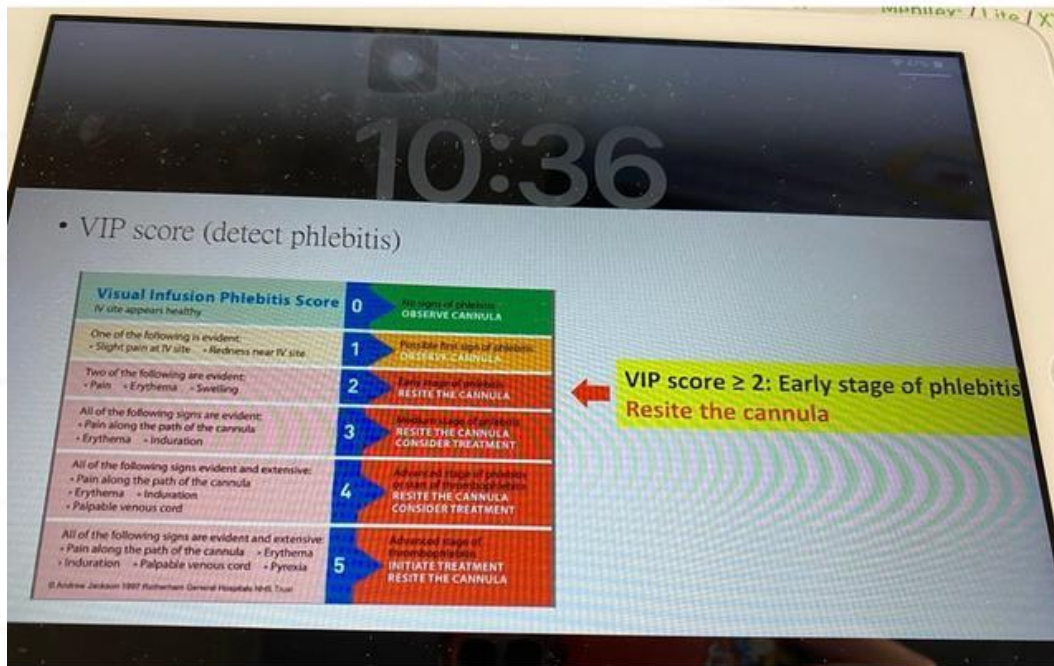
5 Key Components of CQI Project Initiative

(Centre for Health Protection, 2024)



Environmental Changes

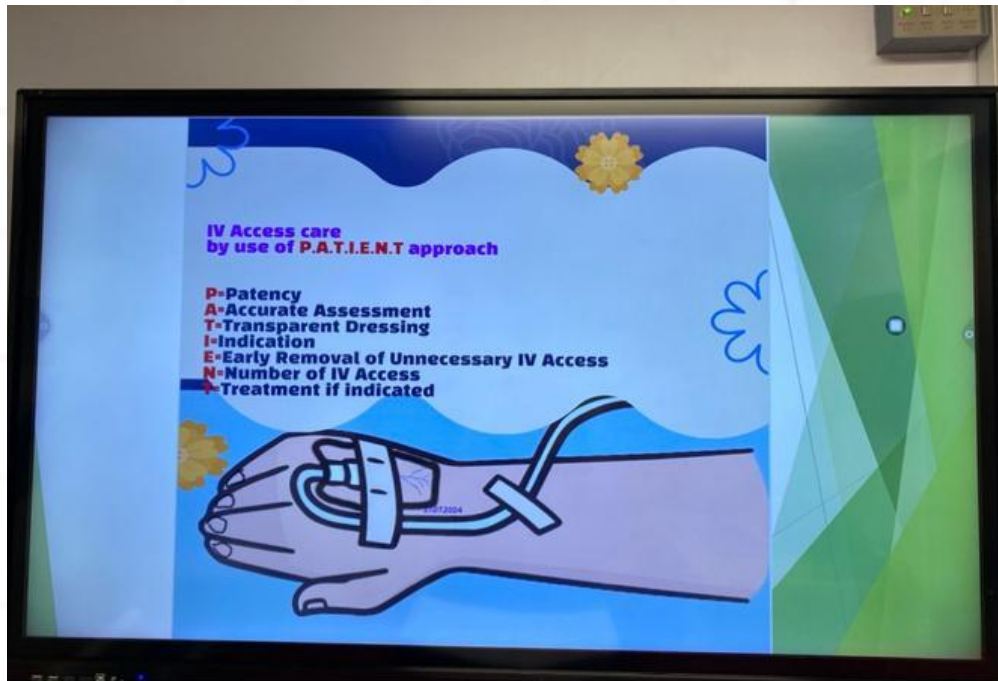
Objectives: To arouse staff awareness on signs of phlebitis and appropriate IV access care



- VIP score applied as iPad Lock Screen
- Highlighting the importance of resetting IV access when VIP score ≥ 2

Environmental Changes

Objectives: To arouse staff awareness on signs of phlebitis and appropriate IV access care



- Displaying the “P.A.T.I.E.N.T” icon in nursing station and applied as iPad wallpaper
- To remind staff to stay vigilant on proper IV access care



Objective

Objectives:

- Identify any idle IV access and remove promptly
- Direct the need of prescribing saline flush If indicated
- Quick overview of all IV access in a cubicle to facilitate duty handover
- Both paper and electronic version of IV access table are available

IV Access Table

Accurate Documentation

Objectives: To minimize inaccurate documentation for better communication and continuity of care



- Template documentation of IV access care is retrievable via **HA drive**
- Expedite knowledge delivery via **mobile phone**

Accurate Documentation

Objectives: To minimize inaccurate documentation for better communication and continuity of care

- Updated content of IV access care documentation from PCHOS in each mini-station for easy reference

Audit and monitoring

Objectives: To ensure the compliance on proper IV access care in a sustainable manner

- Randomly invite nursing staff (especially **junior staff**) to participate in **auditor role** in monthly PVC audit
- Make use of monthly audit form adopted by surgery department
- Surgical ICLN initiated case discussion with nursing staff based on those 7 elements of “**P.A.T.I.E.N.T**” during audit round



Education

Objectives: To foster the knowledge base of appropriate IV access care to nurse and family members

- Education focus on PVC/CVC care bundles and hand hygiene via HA drive and group chat channel (Sun et al., 2020)

(Gunasundram et al., 2020)

Format: Photo guide, Video, PowerPoint, etc

- Daily cleansing by use of 2% Chlorhexidine wash cloths for patient with CVC (Garcia et al., 2024) (Reynolds et al., 2021)



Education

- **Objectives:** To foster the knowledge base of appropriate IV access care to **nurse** and **family members**
- **Family involvement** in education and emphasis on the importance of **hand hygiene** and **daily cleansing** (Garcia et al., 2024)
- Previous MRSA bacteraemia case review prepared by surgical ICLN



Education

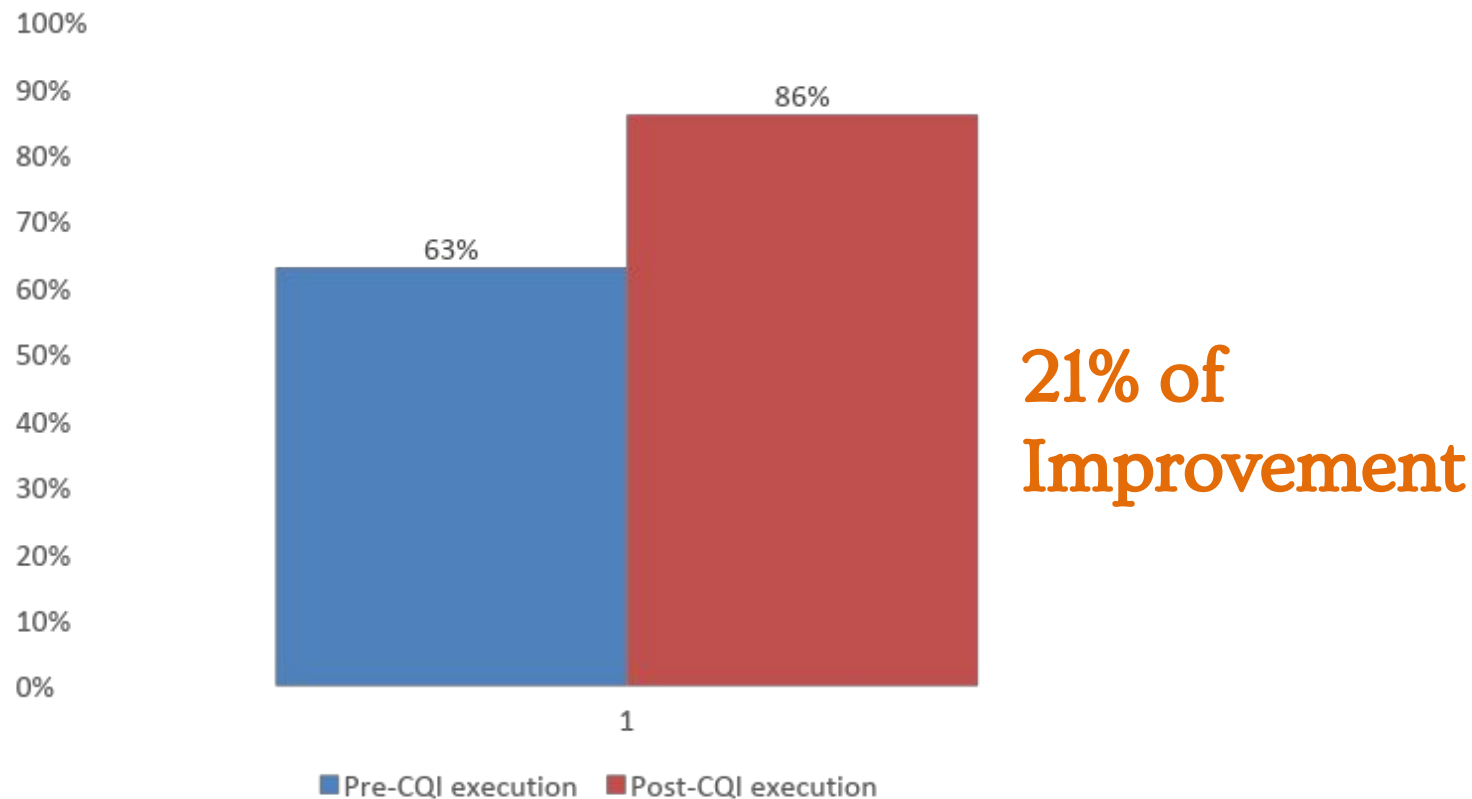
MRSA Bacteraemia Case Review (Case number: HN [REDACTED])



P	Patency is ensured with continuous IV fluid
A	Reminded for constant monitoring on appropriateness of physical restraint as it might hinder the visualisation of IV access site
T	With the correct use of transparent dressing
I	On continuous IVF
E	Reminded for the importance on early removal of IV access if no longer clinically indicated
N	Uphold "keeping minimum IV access" principle
T	Nursing intervention included warm/cold pad and appropriate dressing according to actual assessment Medical treatment include: Topical cream such as anti-inflammatories/phytotherapeutics product (e.g: chamomile) as suggested by research articles

Results and Outcomes

- 1) The overall PVC care compliance improved with up to >90% in December 2024
- 2) 21% of improvement on PVC documentation accuracy noted

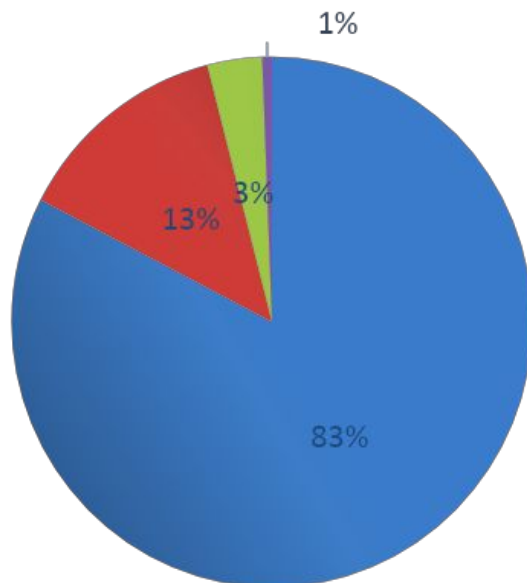


Results and Outcomes

3) 96% of staff self-reported with enhanced awareness and competency on nursing management to patient with phlebitis signs after execution of this CQI project

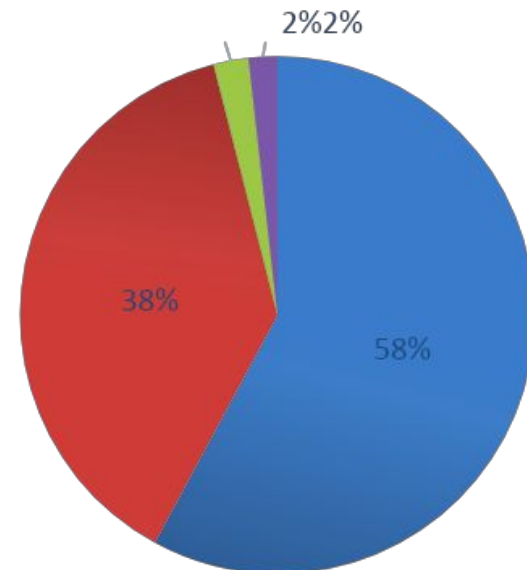
Do you agree that this CQI project enhance your awareness on IV access care?

■ Strongly Agree ■ Agree ■ Disagree ■ Strongly Disagree



Do you agree that this CQI project can enhance your competency in managing phlebitis?

■ Strongly Agree ■ Agree ■ Disagree ■ Strongly Disagree





Way Forward



Team Approach

- Cooperate with medical team could lead to higher success (Ruiz et al., 2024)
- Promote the use of **USG-assisted/infra-red assisted insertion** for difficult cannulation case (Garcia et al., 2024)

In line with PMH ICN IV Access Campaign

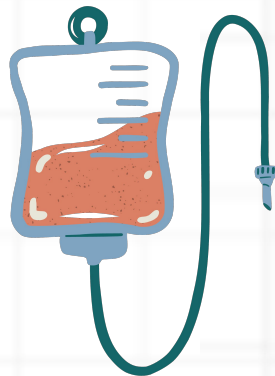
- Share **feedback** and **audit report** done by ICN to colleagues
- Focus group education and hands-on training

Hand hygiene campaign

- Multidisciplinary involvement (e.g: Phlebotomist, Physician, Patient, Nurse) (Centre for Health Protection, 2024)

Conclusion

- By rigorously applying those 7 elements encapsulated in “**P.A.T.I.E.N.T**” framework → *Patient* outcomes would be significantly improved in long run
- **Collaborative** approach is crucial in better IV access management as supported by research evidence





THANK YOU

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Reference

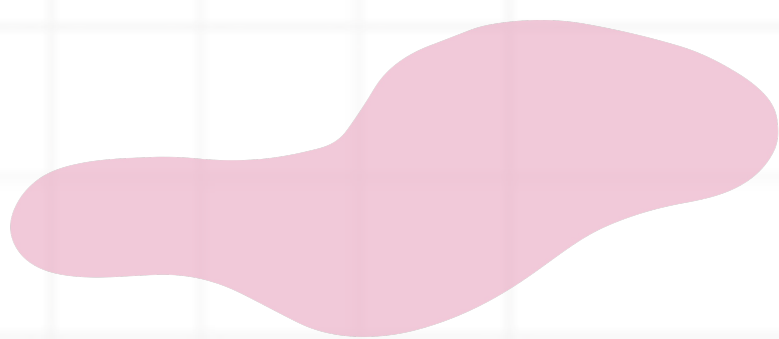
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