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# Cannulation Reduction in Emergency Department Implementation Toolkit (CREDIT)

Initiative Type

Redesign

Service Improvement

Status

Deliver

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<https://cnxp3cuvtvrn68yjaibaht5ywrxspj7m.clinicalexcellence.qld.gov.au/improvement-exchange/credit>

## Summary

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The Cannulation Reduction in Emergency Department Implementation Toolkit (CREDIT) initiative uses a multimodal educational intervention aimed at reducing insertion of unnecessary, "just in case" Peripheral Intravenous Catheters/Cannulas (PIVCs). CREDIT centres on a simple message for clinicians: "Are you 80 per cent sure that the cannula will be used in your hemodynamically stable patient within the next 24 hours?" or more commonly "Are you 80 per cent sure?".

### Key dates

Aug 2017

Jun 2020

### Implementation sites

Royal Brisbane and Women's Hospital

### Partnerships

Griffith University, Prince Charles Hospital

## Key Contacts

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## **Aim**

The aim of CREDIT is to reduce insertion of unnecessary PIVCs.

## **Benefits**

- Empowering staff and promoting clinical decision making.
- Reducing risk of hospital associated infection.
- Avoiding unnecessary pain for patients.
- Cost savings.

## **Background**

The CREDIT Initiative Lead is Tracey Hawkins, Senior Clinical Research Nurse at the Emergency Trauma Centre (ETC), Royal Brisbane and Women's Hospital (RBWH), Metro North HHS. The insertion of PIVCs is the most common invasive medical procedure worldwide, however research indicates that only half PIVCs inserted in the ED are used. Unused "just in case" PIVCs constitute low value care as they provide no benefit to the patient, cause pain, and increase the risk of bloodstream infection. Studies indicate that PIVC-related Staphylococcus Aureus Bacteraemia (SAB) represents up to 25 per cent of all healthcare-associated SAB episodes.

## **Solutions Implemented**

Improvements in cannulation behaviours were achieved by:

- Education and training
- Clinical change champions and advertising
- Surveillance and feedback

## **Evaluation and Results**

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Following CREDIT implementation, the RBWH Emergency Trauma Centre reduced the number of PIVCs inserted by 9.8 per cent and increased the PIVC utilisation rate by 13 per cent. This equated to a cost saving of \$4,718 over a two-week period. The cost saving does not include cost of adverse events resulting from unnecessary PIVC insertion.

## References

Hawkins, T., Greenslade, J. H., Suna, J., Williams, J., Rickard, C. M., Jensen, M., ... & Cullen, L. (2018). Peripheral intravenous cannula insertion and use in the emergency department: an intervention study. *Academic Emergency Medicine*, 25(1), 26-32.

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