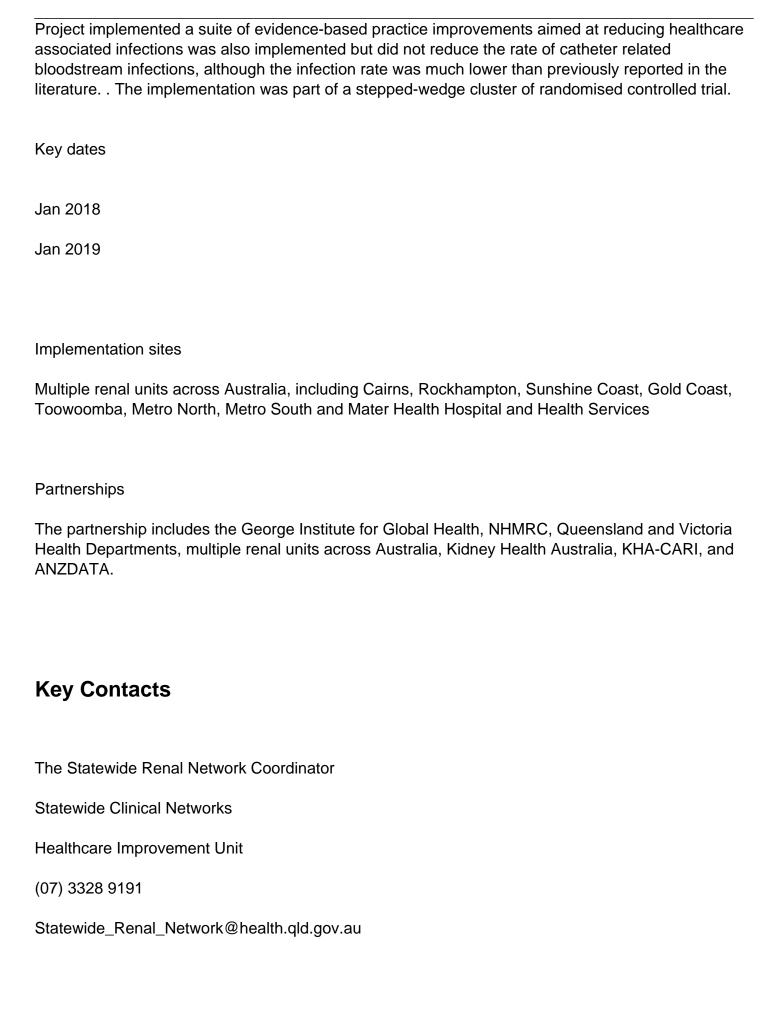
# **REDUCCTION Project** Initiative Type Model of Care Redesign Status Sustained Added 23 January 2018 Last updated 05 May 2022 **URL** https://clinicalexcellence.qld.gov.au/improvement-exchange/reducction-project

## **Summary**

The National Health and Medical Research Council (NHMRC) funded REDUCCTION (Reducing the burden of dialysis catheter complications: a National approach) Project developed a tool to allow data capture and monitoring of dialysis catheter related infections across renal units in Australia. The



### Aim

To reduce the rate of dialysis catheter related infections across Queensland and Australia.

#### **Benefits**

- 1. To define the national, clinical and economic burden of dialysis catheter infections in Australia
- 2. To implement an evidence-based and systematic intervention package using a stepped-wedge cluster design with the objective of reducing dialysis catheter related bacteraemia.
- 3. To establish a framework for monitoring dialysis catheter related bacteraemia and sustaining improvements from the intervention phase.

## **Background**

Healthcare associated infections (HAI) cause significant and life-threatening harm to patients and incur major additional costs. Patients with kidney disease are especially susceptible to HAI, due to the harm associated with central dialysis catheter use. These catheters, essential to the delivery of life-sustaining dialysis treatment, are widely used and are a major driver of blood stream infection and increased mortality seen in patients receiving dialysis. The National Health and Medical Research Council funded program has four stages:

- 1. Developing an electronic database
- 2. Baseline data collection
- 3. Implementation of a suite of interventions to reduce infections
- 4. Achieve sustainable data collection and maintain improvements

The partnership grant will take around four years to complete.

## **Solutions Implemented**

The project allowed renal units across Australia to compare infection rates for the first time. A suite of evidence-based practice improvements aimed at reducing healthcare associated infections was implemented. A data capture was developed and 37 renal units across Australia entered data on over 6,000 patients including 1.4 million catheter days. The interventions did not reduce the rate of catheter related bloodstream infections although the infection rate was much lower than previously reported in the literature.

## **Further Reading**

Multifaceted intervention to reduce haemodialysis catheter related bloodstream infections:
REDUCCTION stepped wedge, cluster randomised trial | The BMJ New England Journal Article - An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU The George Institute
Australia New Zealand Clinical Trials The JAMA Network

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