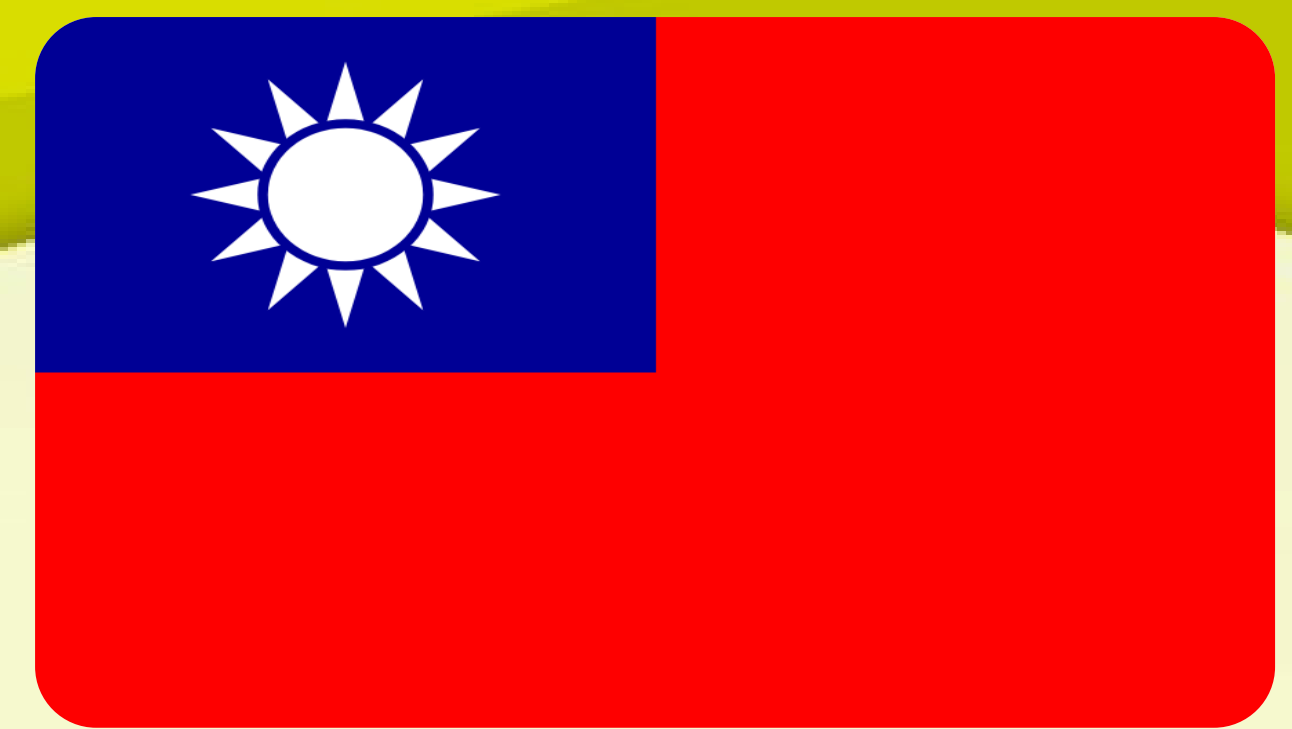


# Reducing the Occlusion Rate of Percutaneous Central Venous Catheters in Premature Infants in NICU

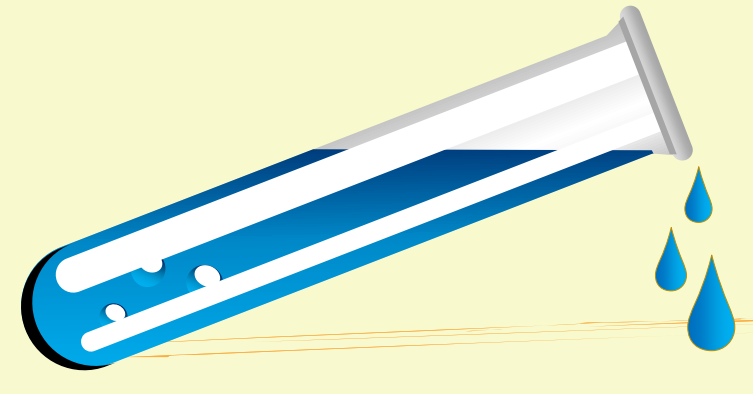


ID: 96685

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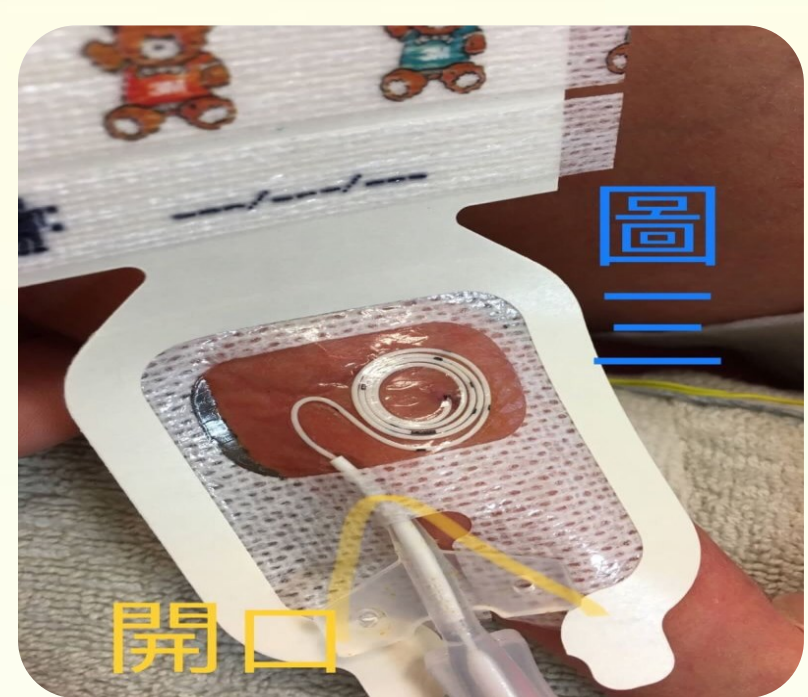


## Background

Vascular access is a major challenge in the management of preterm and critically ill term infants in neonatal intensive care units. In sick neonates these catheters have been shown to provide long-term vascular access necessary for the prolonged administration of parenteral nutrition and intravenous medications. Despite perceived benefits in neonates, peripherally inserted PCVC are associated with mechanical and infectious complications. Mechanical complications including occlusion, extravasation, dislodgement and thrombosis occur in 15 to 48 % of inserted PCVC.

## Purpose

The purpose of this project was to reduce the occlusion rate of percutaneous central venous catheters in a premature infants in NICU. In the investigated unit there was a percutaneous central venous catheters occlusion rate of 7.2%

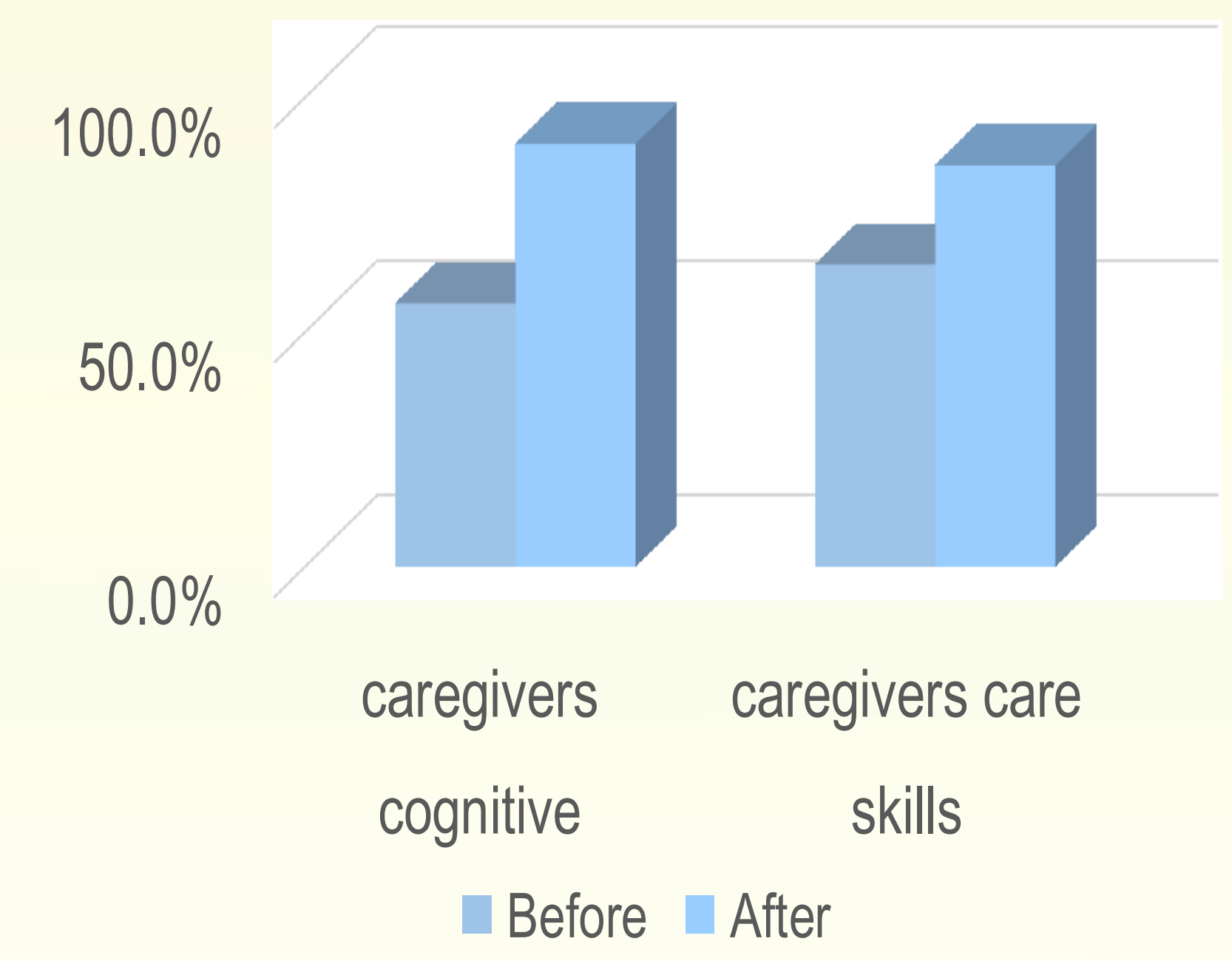


## Methods

An analysis of the collected variables revealed that the following factors contributed to increased occlusion rate: were lack of nursing follow-up among three shifts, inconsistent care, lack of a standardized assessment checklist, lack of staff training, lack of recognition of high-risk population.

Through a structured evidence-based review process, our solutions included establishing a checklist for 「high risk for percutaneous central venous catheters care」, a flow chart outlining the care process, staff education and training (0.9% sodium chloride intermittent flushing), an evaluation and tracking program, and enhancing caregivers cognitive and care skills for percutaneous central venous catheters care.

研究計畫書-降低PCVC閉塞率之品質改善計畫		計畫期間：本 月 日	計畫地點：本院 NICU
研究目的：降低PCVC閉塞率，提高護理品質		研究人員：林明瑩、張春珠	
序號	改善目標	改善前	改善後
1	PCVC 護理品質提升	7.2%	3.4%
2	護理人員對 PCVC 護理知識提升	56	90
3	護理人員對 PCVC 護理技能提升	64.3%	85.4%
4	護理人員對 PCVC 護理評估提升	64.3%	85.4%
5	護理人員對 PCVC 護理紀錄提升	64.3%	85.4%
6	護理人員對 PCVC 護理教育提升	64.3%	85.4%
7	護理人員對 PCVC 護理追蹤提升	64.3%	85.4%
8	護理人員對 PCVC 護理溝通提升	64.3%	85.4%
9	護理人員對 PCVC 護理合作提升	64.3%	85.4%
10	護理人員對 PCVC 護理尊重提升	64.3%	85.4%
11	護理人員對 PCVC 護理同理心提升	64.3%	85.4%
12	護理人員對 PCVC 護理誠信提升	64.3%	85.4%
13	護理人員對 PCVC 護理責任感提升	64.3%	85.4%
14	護理人員對 PCVC 護理正義感提升	64.3%	85.4%
15	護理人員對 PCVC 護理誠實提升	64.3%	85.4%
16	護理人員對 PCVC 護理勇敢提升	64.3%	85.4%
17	護理人員對 PCVC 護理公正提升	64.3%	85.4%
18	護理人員對 PCVC 護理包容提升	64.3%	85.4%
19	護理人員對 PCVC 護理尊重提升	64.3%	85.4%
20	護理人員對 PCVC 護理同理心提升	64.3%	85.4%
21	護理人員對 PCVC 護理誠信提升	64.3%	85.4%
22	護理人員對 PCVC 護理責任感提升	64.3%	85.4%
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27	護理人員對 PCVC 護理包容提升	64.3%	85.4%
28	護理人員對 PCVC 護理尊重提升	64.3%	85.4%
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31	護理人員對 PCVC 護理責任感提升	64.3%	85.4%
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40	護理人員對 PCVC 護理責任感提升	64.3%	85.4%
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51	護理人員對 PCVC 護理誠實提升	64.3%	85.4%
52	護理人員對 PCVC 護理勇敢提升	64.3%	85.4%
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59	護理人員對 PCVC 護理正義感提升	64.3%	85.4%
60	護理人員對 PCVC 護理誠實提升	64.3%	85.4%
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66	護理人員對 PCVC 護理誠信提升	64.3%	85.4%
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68	護理人員對 PCVC 護理正義感提升	64.3%	85.4%
69	護理人員對 PCVC 護理誠實提升	64.3%	85.4%
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72	護理人員對 PCVC 護理包容提升	64.3%	85.4%
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76	護理人員對 PCVC 護理責任感提升	64.3%	85.4%
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85	護理人員對 PCVC 護理責任感提升	64.3%	85.4%
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87	護理人員對 PCVC 護理誠實提升	64.3%	85.4%
88	護理人員對 PCVC 護理勇敢提升	64.3%	85.4%
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99	護理人員對 PCVC 護理包容提升	64.3%	85.4%
100	護理人員對 PCVC 護理尊重提升	64.3%	85.4%



## Results

By implementing this project, percutaneous central venous catheters occlusion rate reduced form 7.2% to 3.4%, nurses' knowledge on percutaneous central venous catheters care increased from 56 to 90, the assessment rate on percutaneous central venous catheters access improved from 64.3% to 85.4%.The results demonstrated the effectiveness of the interventions on increasing execution accuracy and Reducing the Occlusion Rate of percutaneous central venous catheters.

## Conclusions

Cross-team communication, coupled with the evidence-based percutaneous central venous catheters care, can effectively reduce the incidence of percutaneous central venous catheters occlusion rate, achieving the goal of project to improve the quality of catheter care. This project standardized education in terms of nesting and positioning practice goals and enhanced quality care for premature infants.