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Service Evaluation of Renal Link Nurse Programme

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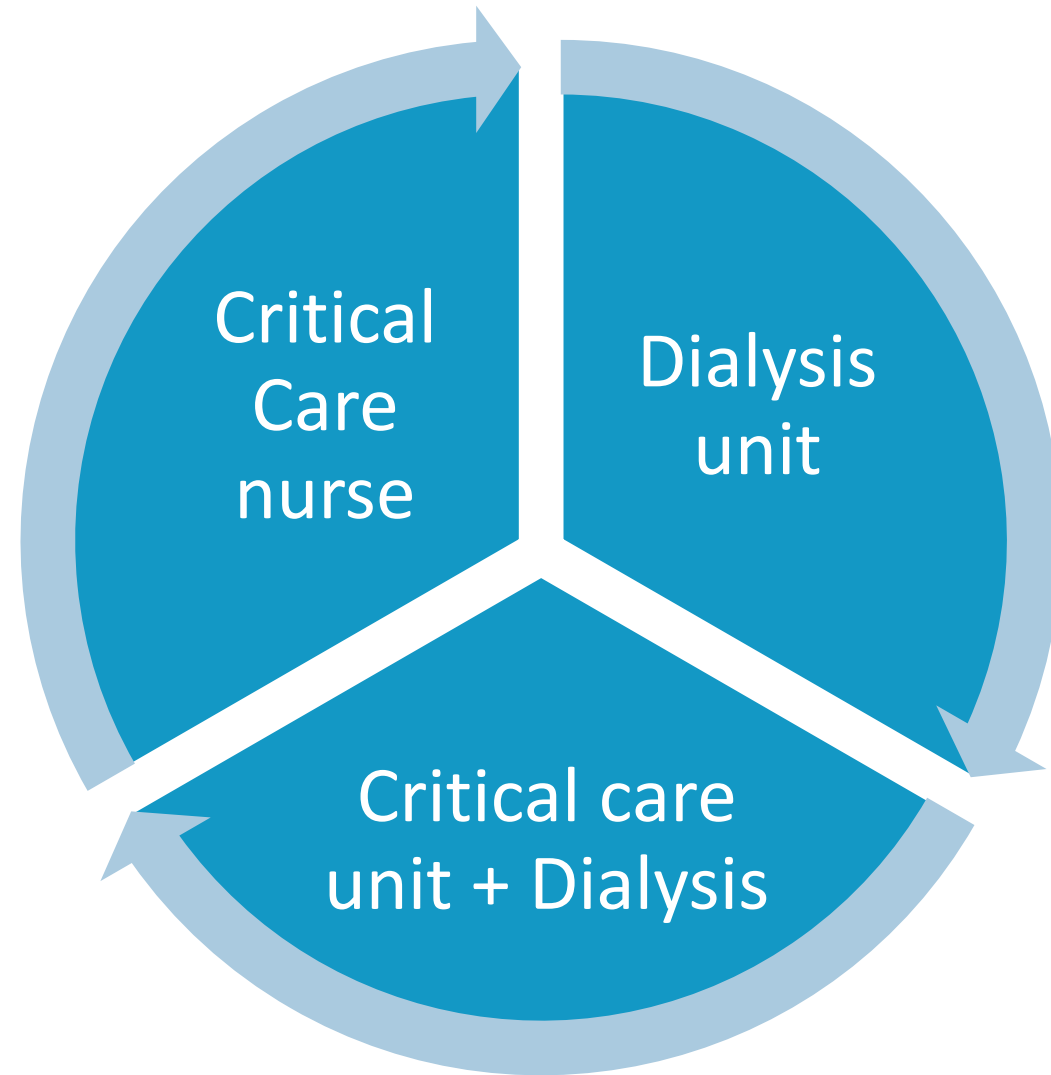


Introduction

- AKI is a common complication in 57.3% of critically ill patients (1)
- 8-12% of patients with AKI require some form of renal replacement therapy (1)
- CRRT is most prevalent mode of renal replacement therapy used in critical care
- CRRT is a highly specialised therapy
- Specialised education and training is essential for efficiency and safety



CRRT care delivery





Why the study topic is important?

- The Adult Critical Care Services Specification Annex for Renal replacement therapy (2) by NHS England emphasised fully established and maintained staff training and expertise embedded in ICU.
- The QUALITY CRRT trial by Opgenorth et al. (3) identified CRRT leadership and training as one of the key performance indicators to provide validated and standardised therapy.
- Oh et al. (4) concluded that a proficiently trained CRRT expert team could be beneficial for patient outcomes by improving the quality of care for patients requiring CRRT in critical care.



Background

- RLH delivers more than 1500 patient days of CRRT per year
- CRRT uses significant resources both in time and money
- To provide increased support and expertise in the unit, we developed CRRT link nurse programme
- CRRT link nurse- Local expert in CRRT



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Renal Link Nurses programme



Face to face learning

e-learning





Renal Link Nurse Programme

E-learning module

Basic concepts in CRRT, anticoagulation

CRRT in special conditions

Assessment – MCQ test

Face to Face learning

Advanced trouble shooting

X ray interpretation of vascath

CRRT modalities and anticoagulation

Case Scenarios

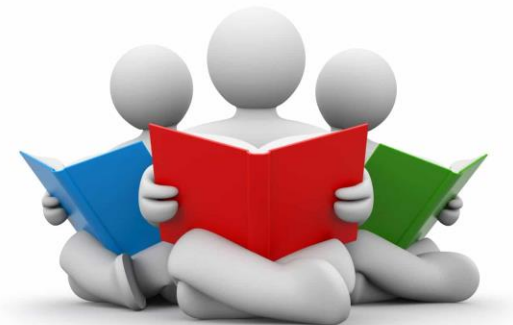
Assessment- Kahoot MCQ play



Study Objectives

The main objectives are to explore how the Renal Link nurse programme

- Improves CCNs' perception of their confidence when caring for patients with CRRT therapy in critical care.
- Enhances CCNs' perception of clinical decision-making when caring for patients with CRRT therapy in critical care





Methodology

- A descriptive qualitative study
- Semi structured face to face interviews with 12 critical care nurses
- All interviews are audio recorded and transcribed verbatim for thematic analysis
- Braun and Clarkes (5) six phase thematic analysis was used

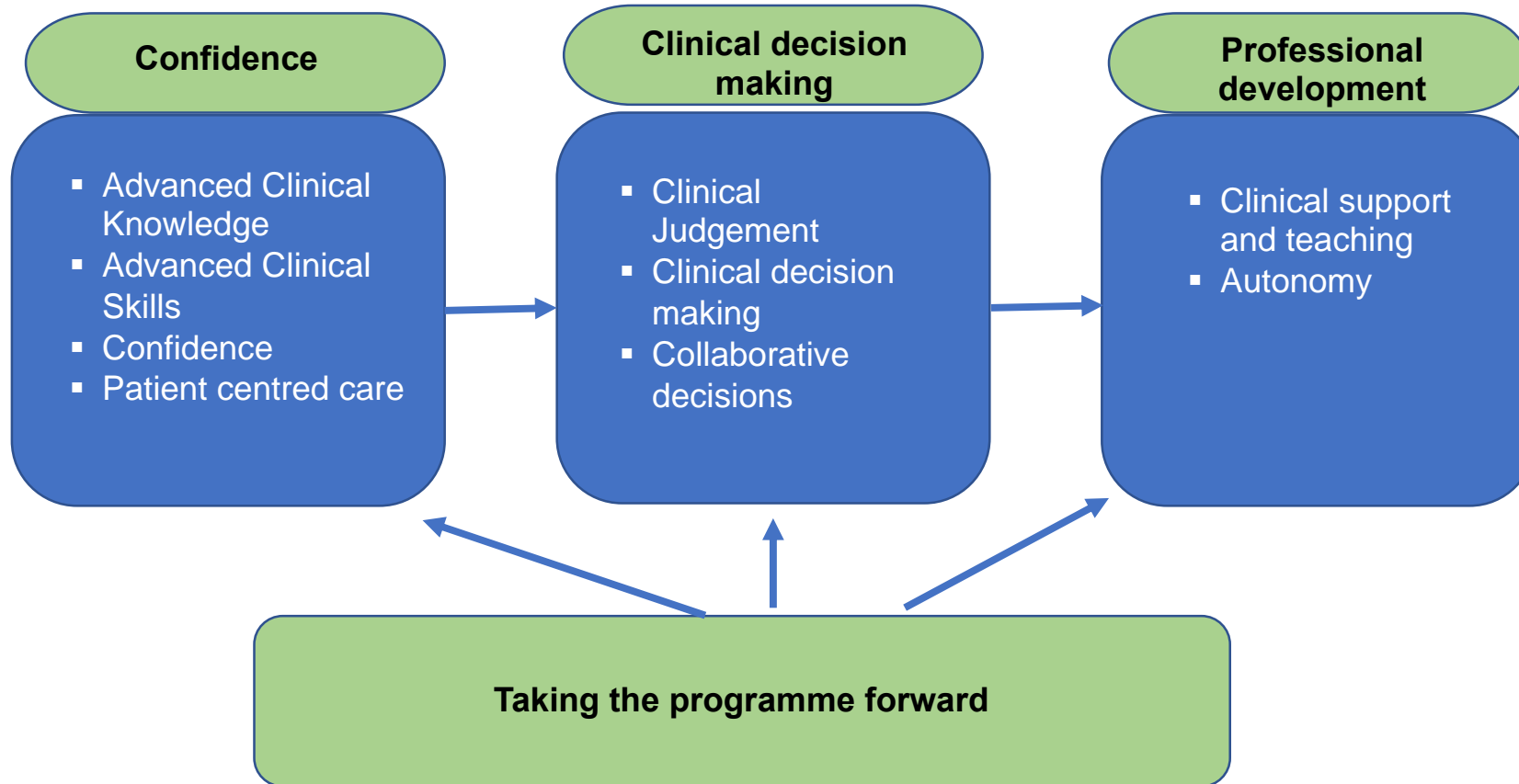


Data Analysis

- 12 participants
- Years of experience 4-17 years
- Participants attended the CRRT link nurse programme within 2 years of the interview
- Four main themes
- 9 subthemes



Findings





Themes

- **Advanced clinical knowledge**

“I improved my knowledge and skill around renal replacement therapy... helped me to do more research and do more reading around renal replacement therapy.” P1

- **Advanced clinical skills**

“Troubleshooting was challenging, I used to get sweat.... I don't want to lost the circuit and stop the treatment. Now I can do the things very quickly and troubleshoot it better.” P3

“We got to train to look where the vascath is in the x-ray. We always look at the vascath in the x-ray before we start the therapy.” P3



Themes

Patient centred care

“Able to provide safer therapy for the patient” “Presence of someone who is knowledgeable and skilful in CRRT benefit the patient because we can choose the right therapy for the patient.” P4

Clinical judgement

“The knowledge I received from the programme helped me to deal with the patient who has high bilirubin or pancreatitis and choose right therapy.”

P6



Themes

- **Collaborative decisions**

“It is a tight community where you can share information and help each other via WhatsApp, and I felt actually quite a bit of pride joining the group.” P2

- **Autonomy**

“I have the confidence in telling them what I learned and improved my autonomy to decide and challenge the wrong things.” P3



Themes

- **Clinical Support and clinical teaching**

“As a renal link nurse, I have done a renal teaching for new starters, and I am really happy about that, and it improved my relationship with junior colleagues” ... “I am the one to support the doctors to choose the right therapy.” P12

- **Confidence**

“I have the confidence to speak up” ... “I built my confidence and competent in CRRT.” P5



Conclusion

The programme improved

- Critical care nurses' knowledge and troubleshooting skills
- Team working and making collaborative decisions on CRRT allowed the nurses to be more efficient and autonomous in their decisions
- Vascular access management and troubleshooting of alarms enhanced nurses' confidence and clinical decision making
- They provided clinical support and teaching in the unit for their colleagues, junior staff and junior doctors



What's Next

- Create a CRRT expert team with other multidisciplinary team members (doctors, ICU technologists and pharmacists) as CRRT requires the collaboration of specialities to provide efficient care.
- This educational model should be adopted by other critical care units in the same trust to provide expert support in CRRT.
- Self-study packages, including videos, on advanced skills such as vascular access management and X-ray interpretation of vascular access position should be developed.



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