

# 13 Efficiency of a Nurse led service in the management of Central Venous Catheter Repairs for patients receiving Home Parenteral Support

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## Abstract text

### Aim/Introduction:

Patients receiving Home Parenteral Support (HPS) require the insertion of a Central Venous Catheter (CVC). CVC complications are possible, with CVC fracture/breakage being a common example. One solution is CVC removal and replacement, however a minimally invasive technique used to repair such breakages can be more cost effective, avoid catheter replacement and prevent hospital admission. We sought to evaluate the effectiveness of our Nurse led service in managing catheter repairs.

### Method:

A retrospective observational study was undertaken utilising a prospectively maintained dataset. All patients in the study had attended the nurse led service for CVC repair between the dates 1/1/18 and 31/3/23. This included repairs of tunnelled CVCs and Peripherally Inserted Central Catheters (PICCs). The primary outcome measures used were repair success, longevity of CVC post repair and catheter related blood stream infection (CRBSI) rates. The study was registered as service evaluation (ref: ID140).

### Results:

During the study period, there were 137 CVC repairs performed (105 tunnelled CVC, 32 PICC) from a total of 773 of HPS dependent patients managed by our centre. 120/137 (88%) of CVC repair attempts were successful with the patient being able to continue to receive HPS without any further intervention. Only 3 patients experienced a CRBSI within 90 days, yielding a CRBSI rate of 0.03/1000 catheter days in patients with a successful CVC repair. Patients required admission to hospital for refeeding on 14 occasions following repair, such that hospitalization was avoided in 103/120 (86%) occasions following successful CVC repair

The mean length of stay following an unsuccessful repair was 8.75 days (range 2-22 days), equating to an estimate of 901.25 bed days potentially saved for those undergoing successful CVC repair.

### Conclusion:

The results demonstrate that a Nurse led service is an efficient and effective service not only allowing patients quick and easy access to treatment but that CVC repair techniques are highly successful without an increased risk of CRBSI. Importantly, a substantial fiscal and bed occupancy saving can be achieved with CVC repair compared to replacement.

## References

N/A No reference list currently