

PLACEMENT OFF-LABEL PERIPHERAL INSERTED CENTRAL CATHETER (PICC) IN UNDERWEIGHT NEONATES

Expanding skills of Vascular Access Team (VAT) Nurses

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Introduction

Choosing the appropriate vascular access in low-weight infants is a great challenge. When treatment includes TPN, VA optimization involves placing a bilumen catheter. The device available in our environment suitable for both infusion and blood sampling has 2.6F caliber and is designed to be placed in peripheral vein. However, in underweight neonates this device location leads to a high risk of thrombosis. For this reason, our VAT has agreed with the institution and those responsible of the pediatric areas that the placement of these devices should be in the IJV and performed by the VA nursing team. Therefore a clinical protocol has been implemented in those patients

Conclusions

The placement of the IJV catheter by specialized pediatric. trained VA nursing team is a safe option. After the initial cases, the profile of the VA specialized trained nurse for the placement of those devices was defined and an institutional protocol was established to support this procedure

Method

Retrospective analysis of clinical cases in electronic register and VAT records of CICC's implantation of a catheter designed as PICC in neonatal patients during the last 3 years.



Device, Materials, and Technique

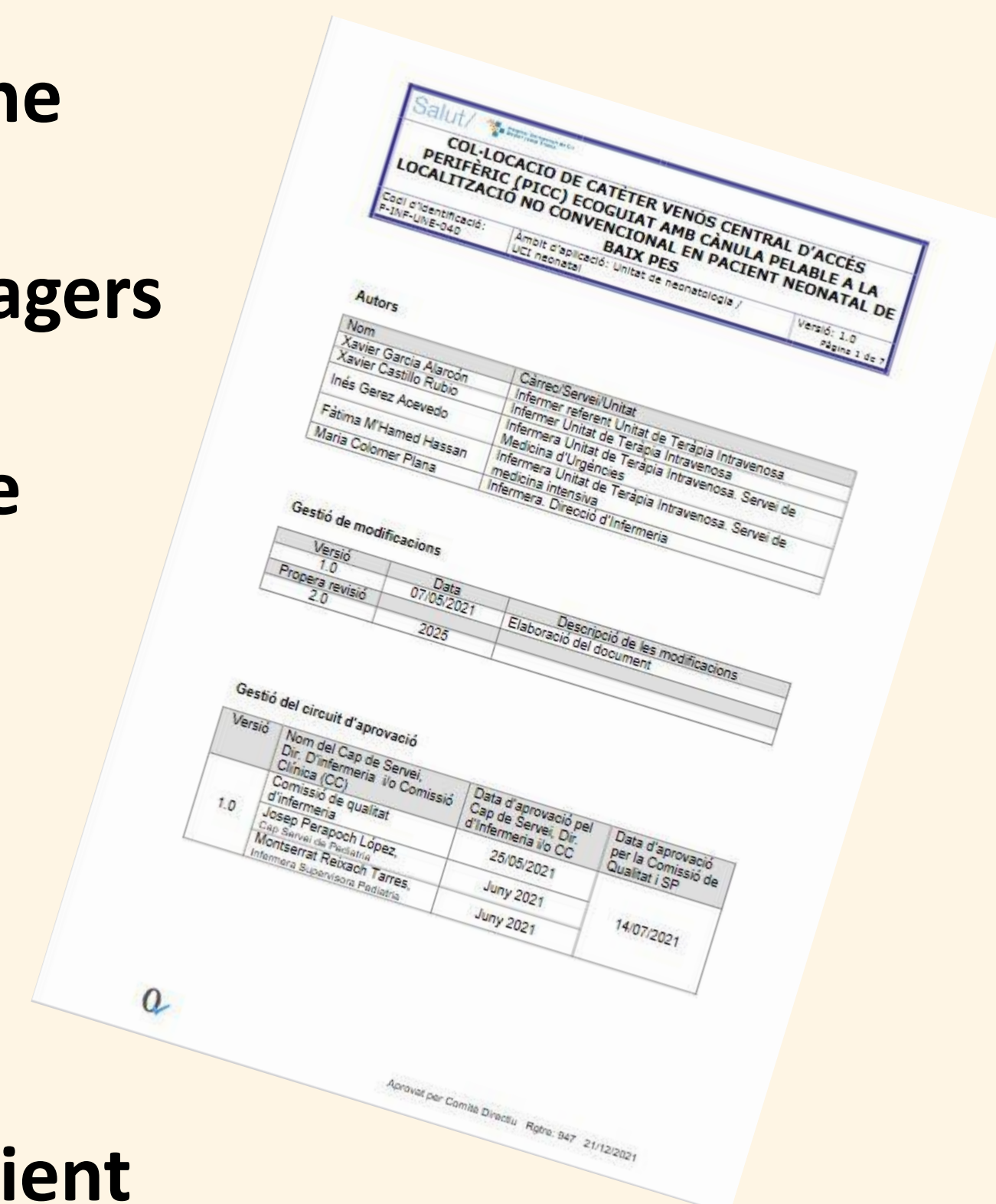
The catheter used was a 2.6F bilumen pediatric PICC. Made in thermosensitive polyurethane and adapted to the required size by distal cut. Placed with ultrasound-guided MST technique and peel-away cannula. Fixation using a neonatal suturless device with Zn oxide. Anti-reflux neutral displacement needleless connectors were placed.

Protocol

In order to standardize and normalize the procedure, a clinical protocol was established between VAT, hospital managers and pediatric area managers.

These protocol defines the profile of the validated nurse to place the described devices.

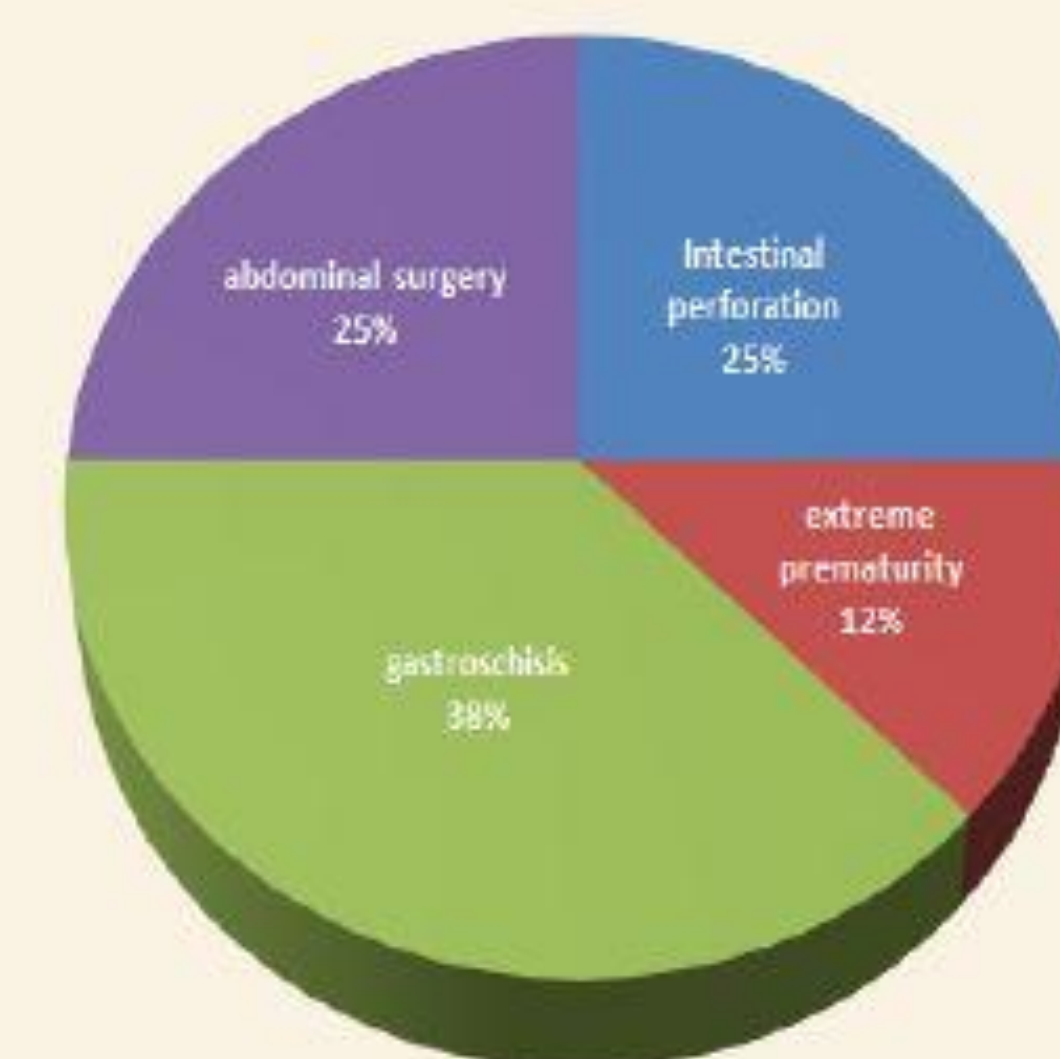
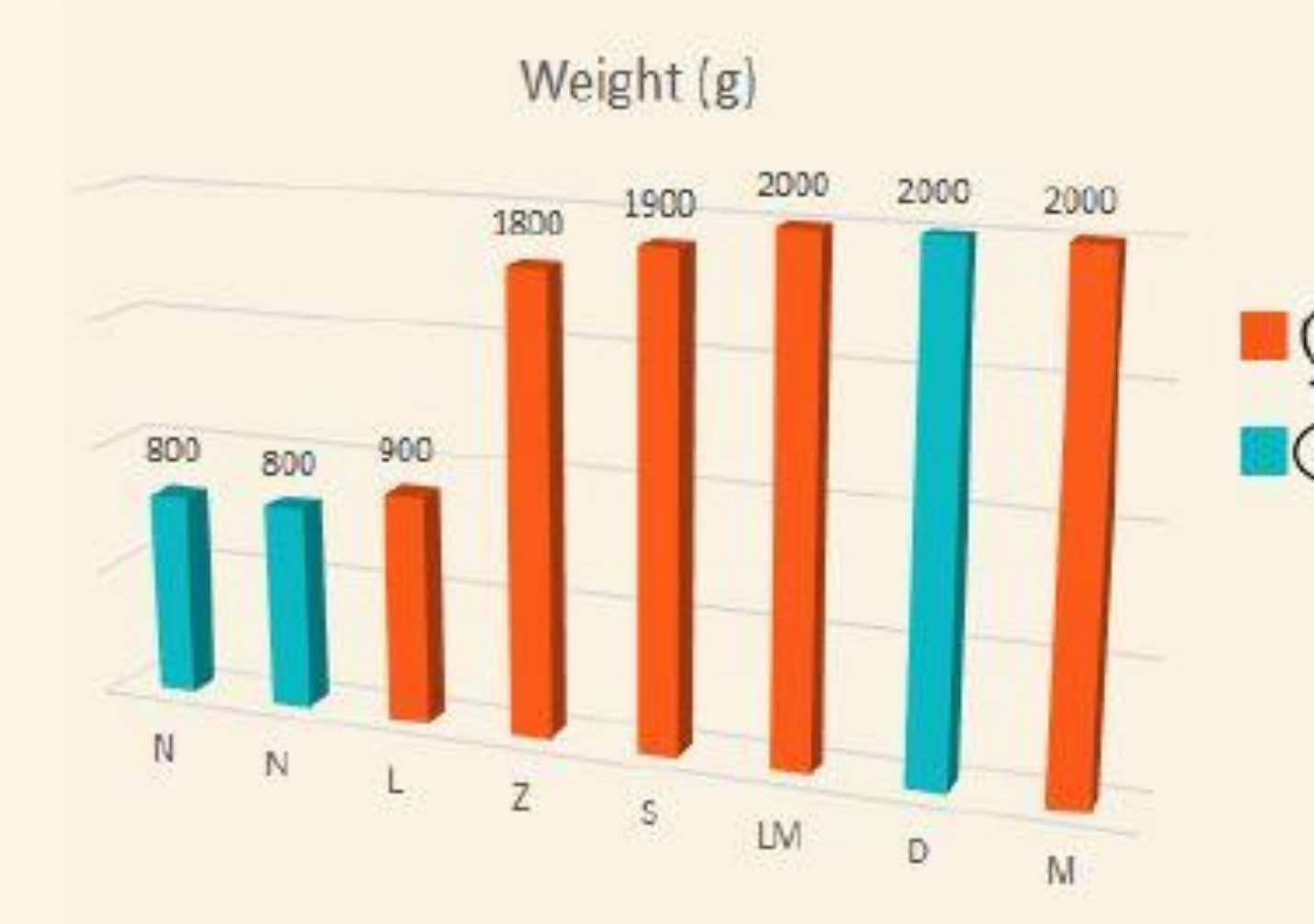
- VA specialist > 5 years
- Pediatric specialist
- US-guided VA certified
- Tunneling VA certified
- Experience with critical pediatric patient > 10 years



RESULTS

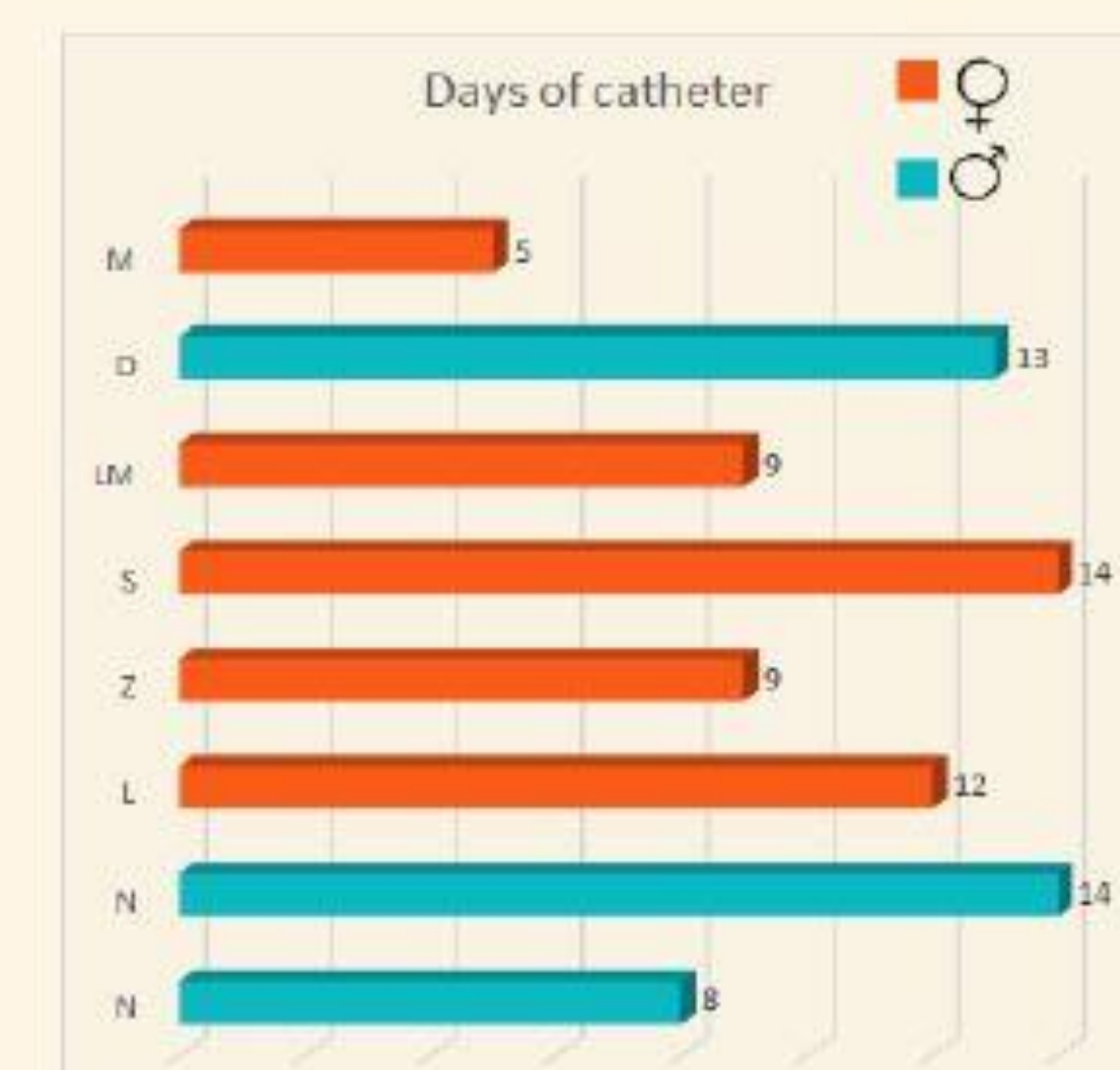
Case	Age (days)	Indication	IJV diameter	%	Attempts
N	4	TPN	3,5	6,60%	2
N	12	TPN	3,5	6,60%	2
L	8	TPN + VAD	2	20,20%	2
Z	0	TPN	2,2	16,70%	1
S	0	TPN	3,2	7,90%	1
LM	0	TPN	3	9%	2
D	105	TPN	2,2	16,70%	1
M	117	TPN	1,2	56,20%	1

Pathologies



Complications

The most frequent complication was the accidental removal of the device (3 cases). In one of the cases it was necessary to place a new device, for this reason two catheters from the sample were implanted in a single patient. One device was removed for suspected infection that was not confirmed. 4 devices were removed for the end of treatment.



MORE INFO

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