EBMT ONLINE MEETING - HOW DO YOU DO IT.....?

CENTRAL LINE CARE

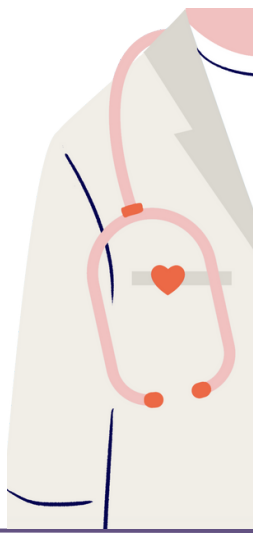
The meeting held on October 15, 2024, sought to empower nurses by promoting collaboration between centres and fostering networking for professional growth. It also aimed to compare nursing practices across Europe to better understand different approaches to care and work towards standardizing guidelines.

FROM WHICH COUNTRY WERE THE PARTICIPANTS?

Belgium, Brazil, Canada, Denmark, Ecuador, Egypt, Finland, Germany, Greece, India, Iraq, Israel, Italy, Morocco, Netherlands, Qatar, Slovakia, Spain, Sri Lanka, Sweden, United Arab Emirates.

Total participants: **24 people**

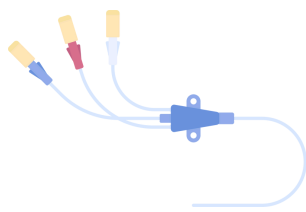
TOPICS RELATED TO CENTRAL LINE CARE



1. **What type of central line is mostly used and what are the main challenges of care of a central line**
2. **How often to change the plaster of a central line**
3. **Protocol regarding closure of a central line**
4. **Who inserts a central line**
5. **Discharge of children with a central line & blood samples**

1) MOSTLY USED CENTRAL LINES & THE MAIN CHALLENGES OF CARE

In most hospitals, **Hickman central line is used.**



The main challenges of taking care of a central line are usually related to:

- **preventing infections and organizing the administration of medications if there is no other line space**

Recommendations to prevent these central line infections include:

- **daily check and reporting**
- **little manipulation as possible**
- **following strict hygiene protocols such as hand hygiene (waiting for 30 seconds after administering disinfectant and before using a central line), use of disinfection caps**

(O'Grady et al 2011, article from CDC USA infection control)

2) HOW OFTEN TO CHANGE THE PLASTER OF A CENTRAL LINE

Half of the joined participants stated that they do this once a week and other half once every two weeks. Depending on if the central line plaster is loose or contaminated, change is required more frequently.

Products for changing the plaster include

- **transparent plaster**
- **use of 70% alcohol together with Chlorhexidine to disinfect**
- **good suggestion to use Chloraprep when changing the dressing since no need to touch the skin with hands or gloves**

- **sterile gloves, surgical mask if necessary**

Aseptic Non Touch Technique or ANTT is a tool used to prevent infections in healthcare settings. This means doing a procedure in a safe way that keeps pathogens from entering the patient's body.

For succesfull ANTT, **aseptic key parts must only come in contact with other aseptic key parts or sites, sterile gloves must be used if touched. A surgical mask with a hand wash and 15-30 second drying after a scrub.**

In the meeting, some participants stated that they don't use surgical masks and sterile gloves when changing the plasters.

3) PROTOCOL REGARDING CLOSURE OF A CENTRAL LINE

Majority of centers use **NaCl (sodium chloride) to lock central lines when in constant use, others use regular Heparin.** Heparin is used more widely when patient is discharged and central line is used less often.

How often the infusion set needs to be replaced if you infuse lipid free?

This policy differs in hospitals from every 24, 48, 72 hours up to once a week. A review of Rickard (2021) compared replacing times from 96 hours to once a week and came to the conclusion that all the time periods were safe with some exception cases.

Their results apply to the most common infusions, but should not be extrapolated to blood, lipid, inotrope, chemotherapy and cyclosporin infusion sets.

4) WHO INSERTS A CENTRAL LINE

Mostly surgeons inserts (un)tunneled central lines. When inserting a PICC line, a vascular team where nurses are involved is needed to do the procedure.

Recommendations can be reviewed from report of practice guidelines for Central Venous Access 2020 and from EBMT Textbook for Nurses; IV Line Care and insertion.

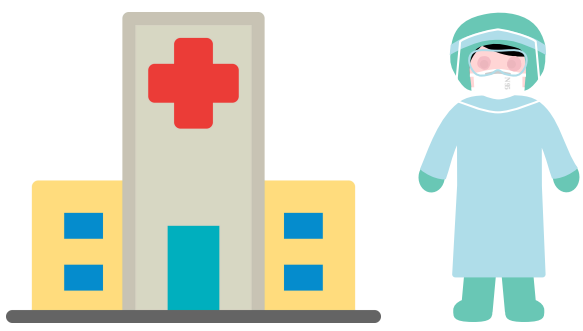
5) DISCHARGE OF CHILDREN WITH A CENTRAL LINE & BLOOD SAMPLES

The majority of centers discharge children home with central lines and often they need blood samples taken and transfusions in the first period.

Central line obstruction is managed by using heparin, urokinase or alteplase and checked with an X-ray when you still get no blood return but no resistance. If the X-ray is fine, in most cases the central line is approved to use.

Blood samples

Generally, 3-5mls of "waste" is taken before blood samples. Up to 8ml taken for blood cultures, no waste is taken.



EBMT Paediatric Nursing Committee

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