EPIQ 2021

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Background

- In the past, professionnals implied in the QI were mostly doctors. In the past year, we included other staff members such as a clinical nurse.
- In the past year, we worked on 2 QI projects:
  - Implantation of probiotics
  - Reducing the rates of our NIs.
- Unfortunately, with the pandemic, we were unable do fully terminate the PDSA cycle, but we would still like to present where we are at in our projects.

Nosocomial infection prevention at CHUS nicu

- Background
  - 2017
    - CNN CONS CLABSIs rate was 3.0 / 1000 central line days and non-CONS CLABSIs rate was 3.9/1000 central line days
    - CHUS CONS CLABSIs rate was 3.5/1000 central line days and non –CONS CLABSIs rate was 8.8/1000 central line days
  - Following participation in the 2018 EPIQ conference
  - Familiarization with the bundle of care Nosocomial infection (March 2015)

Bundle NI

- We chose objective interventions that we could find in the chart review and in connection with the reduction in the duration of an iv catheter
- 4 following questions were asked
  - 1- Is enteral feeding introduced in the first 24h?
  - 2- Does the prescription of enteral feeding comply with the local recommendations of the CHUS nicu?
  - 3- Is the venous line removed when enteral feeding has reached 120ml /kg/d?
  - 4- Is the umbilical venous catheter installed for less than 7 days?

Methodology

Inclusion criteria	• Premies less then 33 weekers • Inborn or transfer at less than 24h of life
Exclusion criteria	• Death before 7 days • Abdominal surgery in the first 7 days

The last 30 charts available for newborns under 29 weeks and the last 30 charts available for newborns between 29 and 32+6 weeks starting from the most recent between 2015 and 2018.

Results : Introduction of enteral feeding

	< 29 WEEKS	29-32^{+6} WEEKS
FEEDING PRESCRIPTION	N : 29	N : 29
<24H	20/29 (69%)	27/29 (93%)
≥24H	9/29 (31%)	2/29 (7%)
Clinical justification if prescribed >24h	3/9 (33%)	1/2 (50%)
Feeding administered if prescribed <24h		
<24h	16/20 (80%)	24/27 (89%)
≥24h	4/20 (20%)	3/27 (11%)
Prescription for exclusive mother's milk when food administration ≥24h and was prescribed <24h	4/4 (100%)Exclusive mother's milk	2/3 (67%) Exclusive mother's milk

Results: Compliance with the feeding protocol

	< 29 weeks	29-32^{+6} weeks
Initial prescription complies with local protocol	17/30 (56%)	11/30 (37%)
If not, slower progression	12/13 (92%)	17/19 (89%)

Results: Q3: Venous line removal

	< 29 weeks	29-32^{+6} weeks
Venous line removed if enteral feeding reached 120 ml/kg/jour and IV was not required	26/30 (87%)	20/30 (67%)

Results: UVC removal

	< 29 weeks	29-32^{+6} weeks
	N :30	**N : 19**
UVC removed < 7 days	**25/30 (83%)**	**18/19 (95%)**

Discussion

31% of <29 weekers do not receive milk in the first 24 hours of life, of which a third without clinical justification

Although a feeding protocol has been in place since 2011, it is followed in only 56% of those <29 weeks and in 37% of the 29 to 32 $^{+6}$ weekers. 90% of the time, initiation or progression is slower than suggested.

It is for the 29 to 32^{+6} weekers that we later withdraw the vein access, despite the fact that they tolerate 120 ml/kg/d. Other étiologies such as electrolyte abnormalities, weight loss were not explored.

The withdrawal of the UVC in the first 7 days is quite well respected.

Conclusion

This QA project allowed us to make the following recommendations:

1-Ensure that all members of the neonatal service are aware of the “bundle of care” for the prevention of nosocomial infections developed by the Canadian“nosocomial infection” group EPIQ.

2-Review the dietary protocol with all professionnals of the NICU and modify it as needed so that the initial prescription meets the established protocol.

3-During each medical round, the relevance of the venous line be questionned according to digestive tolerance and the need for continued medication.

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