Improving Growth in VLBW Infants: Implementation of ILPQC Nutrition Bundle of Potentially Better Practices to Improve Nutritional Outcome
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Overall Aim:
Decrease the percent of VLBW infants with discharge weight less than the 10th percentile from 2013 baseline of 22% to 15% and decrease the percent of infants with head circumference less than the 10th percentile from 2013 baseline of 19% to 12% by 12/31/2014 without increasing the rate of NEC.

Process aims:
Decrease hour of life TPN started to less than 2 hours
Decrease hour of life lipids started to less than 3 hours
Decrease day of life reaching 120 ml/kg/day fortified feeds to 12 days
Increase percent of infants receiving any breast milk at discharge to > 60%

Setting:
Level 3 Regional Perinatal Center in Northwest Illinois, 46 beds

Mechanism:
Multidisciplinary nutrition task force, ILPQC(Illinois Perinatal Quality Collaborative) Nutrition Toolkit, Continuation of ongoing Baby Friendly initiative, Collaboration with Rockford NICQNEXT Micropremie Home Room

Methods:
Multidisciplinary task force, use of ILPQC Toolkit, continued ongoing Baby Friendly initiative, revised all existing feeding protocols and algorithms, developed nutrition lab guidelines, education of staff in new protocols at staff meetings and having laminated copies at each bedside and at each Neo/NNP workstation and poster in NICU with protocols

Measures:
Hour of life TPN started
Hour of life lipids started
Day of life 120 ml/kg/day enteral feelings
Weight, length, head circumference at DOL 7, 28, 36 wks CA, discharge
Breast milk > 50% of enteral feeds at DOL 7, 28, 36 wks CA, discharge
NEC rate
Change in number of lab tests to monitor infants on TPN

Results:
Data collection for each VLBW infant is ongoing from 1/1/2014 and being entered in ILPQC Redcap online database. VON Nightingale data shows on target for overall growth aims at discharge. Result data to follow

Discussion:
The NICU at Rockford has had a focus on nutrition for several years and has achieved best quartile performance for VON growth measures since 2008 for weight and 2010 for head circumference. We had numerous protocols in place but felt that revising and updating them would improve our growth outcomes even more. We also have struggled with our VLBW population receiving breast milk especially at discharge. We have been involved in a Baby Friendly initiative for 18 months. We expect our use of donor milk and Baby Friendly initiative will improve breast milk dose for VLBW infants as well as breast milk thru discharge. We also expect a decrease in number of labs ordered for TPN monitoring with implementation of lab guidelines with potential cost savings and decrease in blood loss from labs.