P1-46: The Effects of Severity of Illness on Length of Stay and Time to Age at Full Feedings

**Author List:**
**Presenting Author:** Deborah Fisher
**Additional Author:**

Presenting Author: Deborah Fisher

Address: 1250 E Marshall Street, Box 985841
Richmond, Virginia 23298
United States
Ph: 804-828-6781
Fax:
Email: dfisher@mcvh-vcu.edu
Institution: VCU School of Nursing

**Presentation Preference:** Student poster submission

**Abstract Categories:**
Research Interest Groups (RIGs): Parent-Child
Thematic Areas: Perinatal/Neonatal/Infancy

**Abstract:**
**Introduction:** In most preterm infant feeding readiness guidelines, gestational age and weight are the sole variables used. No previous study has examined the relationship between severity of illness or neurobehavioral maturity and the clinical outcomes of length of stay and age at full feedings. The purpose of this secondary analysis was to examine the relationship between severity of illness on the clinical outcomes of age at full feedings (AFF) and length of stay (LOS; days of hospitalization). Predictive variables used to measure severity of illness were the Neonatal Morbidity Index (NMI) and APGAR scores. The Neurobehavioral Maturity Assessment scale (NMA) was used to measure maturity.

**Method(s):** Data were drawn from a study of 95 preterm infants; 46 were male. The mean birthweight was 1290 grams (SD=397 grams, range = 550-2390 grams) and the mean post-menstrual age (PMA) at birth was 205 days (SD= 13.98, 168-230). The mean PMA at full feedings was 242 days (SD=11, 224-307) and at discharge was 249 days (SD= 12.57, 231-320). The mean LOS was 44 (SD=22, 9-138). Regression analyses were used to determine the effect of the dependent variables (APGARs, NMI and NMA) on clinical outcomes (AFF and LOS).

**Results:** The final fixed model showed a significant negative correlation between NMI and AFF and AD. The regression model examining the effects of severity of illness and maturity on age at full feedings showed that 45% variability could be accounted for by this model (F(4,51)=10.56; \( p-value <0.0001 \)). The regression model examining the effects of severity of illness and maturity
on age at discharge showed that 66% of variability could be accounted for by this model
(F(5,51)=19.62; \textit{p-value}<0.0001). Neither APGAR scores nor NMA were found to have a
significant relationship with either clinical outcome.

**Discussion & Conclusions:** Severity of illness in preterm infants has a significant effect on two
major clinical outcomes - age at which full oral feedings are achieved and age at discharge.
Severity of illness should be considered when starting oral feedings. The NMI is easily
calculated and might be useful to feeding algorithms. Severity of illness may also be useful in
discharge planning and the development of care maps.

**Abstract History:**
This abstract has not been presented or accepted for presentation in whole or in part at the SNRS
or other scientific meeting.

**Financial Disclosure:**
No, I (or a member of my immediate family) have not received something of value* from or own
stock (or stock options) in a commercial company or institution related directly or indirectly to
the subject of my presentation.

**FDA Disclosure:**
I will not be describing any pharmaceutical and/or medical device.

**Non-Exclusive License:**

Submitted by:
dfisher@mcvh-vcu.edu