

Close Window

### [2179] Day of the Week Variations in the Neonatal Decision-Making Process--The Effect of Weekends on the Cost of Neonatal Care

Alan R. Spitzer, Michael Kornhauser, Sharon Kirkby, Michael Musci Pediatrics, SUNY-Stony Brook, Stony Brook, NY; Paidos Health Management Services, Deerfield, IL

**BACKGROUND:** Ideally, NICUs should provide round-the-clock progression of therapy, with no variation in delivery of services on any individual day of the week. Previous research from our group, however, has shown significant variation in timing of neonatal discharge from the NICU (Pediatr 2001; 107:73).

**OBJECTIVE:** To determine if other practices in the NICU were influenced by the day-of-the-week, we evaluated a series of common, critical NICU decisions to see if differences existed that might significantly affect the cost of care.

**DESIGN/METHODS:** 8,877 patients entered into the Paidos Health Management Services (PHMS, Deerfield, IL) database were included. Infants were born between 1/1/00 and 6/1/01. The following milestones were evaluated: day of first feeding; day of full enteral feeding (> 140cc/Kg/d for > 24h); day of all PO feeding; day into an open crib; and mechanical ventilation D/C day. With no day of week variation, one would expect equal distribution of care, with 1/7 (14.3%) of milestones achieved on each day. Chi-square was used to analyze variation between observed and expected milestone days.

**RESULTS:** Median GA was 35 wks (r = 24-43), mean BW was 2497 gms (r = 410-6080). Average LOS was 18.4 days (r = 2-366). 60% of infants were < 37 wks GA. For all milestones, there was a significant decrease in the frequency of milestone attainment on weekend days, with the exception of mech vent stop date, which decreased significantly only on Sunday (Table).

**CONCLUSIONS:** Important neonatal care decisions appear to be commonly deferred on weekends. This variation may prolong NICU stay and add significantly to patient costs.

	Start feed (%)	Full vol feed (%)	Full PO (%)	Open crib (%)	D/C Mech Vent (%)
Mon	14.3	15.8	15.3	14.2	14.4
Tues	15.2	15.0	14.5	15.9	14.8
Wed	15.0	14.8	15.1	14.7	14.7
Thurs	15.1	14.8	15.0	15.1	14.1
Fri	14.3	14.2	13.9	15.0	14.7
Sat	13.3	12.5	12.9	12.6	14.1
Sun	12.8	13.0	13.3	12.6	13.2
p value (Sat., Sun.)	<.001	<.001	<.001	<.001	0.55, <.01

Close Window