

330 Is there is a 'July Effect' on obstetric triage visits at an academic center?

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OBJECTIVE: To determine if the time of the academic year affects door-to-disposition time for patients presenting to our obstetric triage unit.

STUDY DESIGN: Triage records for 1813 patients at a tertiary academic center in July, December and June of two consecutive academic years, 2008 and 2009, were examined. The patients were triaged to one of three levels of acuity: emergent, urgent, and non-urgent. Admitted patients were excluded. Disposition times were compared across the academic year time periods at a particular acuity level with ANOVA and Kruskal-Wallis test as appropriate. Weekday versus weekend visits were evaluated using independent student t-test or Kolmogorov-Smirnov test. P was set at 0.05.

RESULTS: Over two academic years, there were 590 triage visits in May, 611 in July and 612 visits in December. Emergent, urgent, and non-urgent acuity levels represented 3.3%, 79.9%, and 16.8% of visits, respectively. When evaluating acuity across the months, a statistically significant difference was seen in disposition time (Table 1). Overall visit time significantly decreased between July, December and May (p<0.001). Pairwise comparisons were significantly different for urgent visits between July and May (p<0.001) and December and May (p<0.001). For non-urgent visits, pairwise comparisons were significant between July and May (p<0.05). A significant overall difference in disposition time across months was found for weekdays for urgent acuity (p<0.001, Table 4). No significant differences in disposition time between weekdays and weekends were found for any month at any acuity level. No significant overall differences in disposition time across months were found for weekdays or weekends for emergent acuity visits.

CONCLUSION: There was a continual decrease in door-to-disposition time over the academic year. This suggests that there is a "July Effect" with respect to the most common triage visits and that the month in the academic year does influence the length of triage visits in our cohort.

Table 1: Disposition Time by Month and Acuity in Minutes

Acuity	July		December		May		P-value
	N	Mean ± SD	N	Mean ± SD	N	Mean ± SD	
Emergent	19	157.3 ± 84.4	19	214.6 ± 107.6	20	181.9 ± 108.6	0.22
Urgent	492	182.9 ± 86.9	458	177.2 ± 85.8	433	154.8 ± 85.8	<0.001
Non-Urgent	81	189.4 ± 84.8	104	165.1 ± 73.9	107	163.7 ± 92.3	<0.05

331 Is It bad to be born in July?

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OBJECTIVE: Term patients are more likely to be managed by junior residents. The purpose of this study is to determine whether there is a "July" phenomena during the academic year in outcomes of term patients.

STUDY DESIGN: We compared 1st and 4th quarter delivery records of 3696 term patients at a single tertiary academic center over 3 academic years. Congenital anomalies and stillborns were excluded. Statistical comparisons were made using chi-square and independent t-tests as appropriate (P<0.05) with regards to mean Apgar scores, cesarean delivery, and a composite of NICU admission or low Apgar scores (1-minute <4 or 5-minute <7).

RESULTS: There were 1954 deliveries in the first academic quarter and 1742 deliveries in the fourth quarter between July 2008 and June 2011. There were no statistically significant differences between quarters in maternal characteristics or birth weight. The overall cesarean delivery rate was 26.5% in the first quarter and 23.1% in the fourth quarter. The primary cesarean rate was 15.4% versus 13.6% in the first and fourth quarter, respectively. There was no statistically significant difference between quarters in these respective rates. There was no difference between 1- and 5-minute mean Apgar scores in the first and fourth quarter. The composite rate of NICU admission or low Apgar scores was 4.1% in the first quarter and 3.6% in the fourth quarter. This difference was not statistically significant.

CONCLUSION: Our data suggest that there is not a July phenomenon in term obstetric patients at our institution. The quarter of the academic year does not influence route of delivery or neonatal outcome. Previous data shows no 'July' obstetric phenomena among all deliveries without regard to gestational age. We showed this phenomenon seems to hold true for term patients who are more likely to be managed by junior residents.

332 Necrotizing enterocolitis and risk of infant death

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OBJECTIVE: Necrotizing enterocolitis (NEC) is more common at earlier gestational ages. We sought to evaluate the neonatal and infant mortality of NEC by gestational age.

STUDY DESIGN: A retrospective cohort of infants delivered in California was stratified by gestational age and assessed for the presence or absence of death in infants within one year of life. These infants were then analyzed by the presence or absence of NEC.

RESULTS: When we examined the mortality by gestational age in infants with and without NEC, it was associated with increased mortality at 26 weeks and beyond (Table). However, the difference in mortality between those with and without NEC increased with increasing gestational age.

CONCLUSION: While NEC is associated with mortality, this association increases with gestational age. At earlier gestational ages, infants without NEC also have a high neonatal mortality rate. However, at later gestational ages the mortality rate for infants with necrotizing enterocolitis remains high even in term infants. Until treatment for necrotizing enterocolitis has improved, the prognosis for this condition, regardless of gestational age, is poor.