MEDICATION ERRORS IN A NEONATAL INTENSIVE CARE UNIT, SAUDI ARABIA: A RETROSPECTIVE STUDY

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Background and aims: Medication errors (MEs) are important causes of morbidity that may result in death of already sick neonates. We aimed to study the nature of MEs of neonates admitted to level III neonatal intensive care unit (NICU) at Riyadh Military Hospital, Saudi Arabia.

Methods: All incident reports (IRs) that were voluntarily reported to the Department of Continuous Quality Improvement and Patient Safety (January 2007 to March 2010) from our NICU were reviewed for MEs. From these reports, we estimated the incidence and nature MEs. In addition, our neonatal database was reviewed for patient characteristics.

Results: There were 66 IRs involving MEs with estimated incidence of one per 250 admissions (mean gestational age: 32(SD)± 4.8,wks, birth weight: 1797±1012gm and median age: 19 days). They were more common during day shifts (66.7%). Most prevalent type was dispensing error (91%). Nurses were involved more commonly than pharmacists and physicians (66, 33 and 1%; respectively). The most common type of MEs for nurses: delay/not giving; pharmacists: delay /not dispensing and physicians; incomplete prescriptions. The most common medications involved were antibiotics and TPN. Patient harm that required intervention (category E) occurred in 56% while near-misses occurred in 25% and no harm in 14%. Errors of commission were 61%.

Conclusions: In our NICU, the incidence of reported ME was low which could be due to underreporting. We recommend improving reporting system and training all staff involved in medication use about prevention of ME emphasizing on the nature of error in each category.