Table (3) Relation Between Reparatory Examination of Neonates at Day 1 after Birth& Length of Stay

Reparatory Examination At D1		Short Stay <10days	Long Stay >10 Days	Deaths
No Abnormality	Number	23	0	13
	Percentage	30.7%	0%	12.5%
Abnormality	Number	52	14	91
	Total	75	14	104
	Percentage	69.3%	100%	87.5%
	Total	100%	100%	100%

Chai square: 12.94, p value: 0.002.

Table (3) shows number of short stay neonates had no respiratory system abnormality include n= 23, 30.7%. Number of long stay neonates had no respiratory system abnormality include n= 0.0%. Number of neonatal deaths had no respiratory system abnormality include n= 13, 12.5%. Number of short stay neonates had respiratory system abnormality include n= 52, 69.3%. Number of long stay neonates had respiratory system abnormality include n= 14, 100%. Number of neonatal deaths had respiratory system abnormality include n= 91, 87.5%. The results are highly significance, p= 0.002.

Discussion:

In current study there was statistical significant difference Between the Complaint Per History& Length of Hospital Stay regarding NICU stay duration length& mortality rate, as shown in table (1) which shows that 66.7% of short stay cases are complaining of respiratory distress, 92.9% of long stay cases are complaining of respiratory distress, 84.6% of deaths are complaining of respiratory distress& this is met with the study of Suzanne Reuter et.al. (2014) who said that respiratory distress in the newborn can lead to short and long term complications, including chronic lung disease, respiratory failure, and even death.

In current study there was statistical significant difference Between the Antenatal Corticosteroids Per History& Length of Hospital Stay regarding NICU stay duration length& mortality rate, as shown in table 2 which shows that 82.5% mothers of mortality cases are not receiving Corticosteroids Per History this is met with the study of Tanya M. Medina et.al. (2006) who said that Corticosteroids can reduce many neonatal complications, particularly intraventricular hemorrhage and respiratory distress syndrome, and antibiotics are effective for increasing the latency period.

In current study there was statistical significant difference Between Reparatory Examination Of Neonates at Day 1 after Birth& Length of Stay regarding NICU stay duration length& mortality rate, as shown in table 3 which shows that 69.3% of short cases showing respiratory abnormality during day 1 examination, 100% of long cases showing respiratory abnormality during day 1 examination, and 87.5% of mortality cases showing respiratory abnormality during day 1 examination this is met with the study of Suzanne Reuter et.al. (2014) who said that respiratory distress in the newborn can lead to short and long term complications, including chronic lung disease, respiratory failure, and even death.

Conclusion:

Most of long stay cases have respiratory system abnormality. Most of mortality cases have respiratory system abnormality. Most of mothers of mortality cases did not receive antenatal corticosteroids per history include.

References:

1. Battin MR, Knight DB, Kuschel CA, Howie RN. Improvement in mortality of very low birthweight infants and the changing pattern of neonatal mortality: the 50 year experience of one perinatal center. **J. Pediatr Child Health** 2012; 48: 596- 599.
2. MacDorman MF, Kirmeyer S. Fetal and perinatal mortality, United States, 2005. **Natl Vital Stat Rep**. 2009; 57 (8).
3. E Mansour 1, A N Eissa, L M Nofal, I Kharboush, A A Reda. Morbidity and mortality of low- birth- weight infants in Egypt. **East Mediterr Health J**., 2005 Jul; 11(4): 723- 31.
4. Oona Campbell, Reginald Gipson, Ayman el- Mohandes, Adel Hakim Issa, Nahed Matta, Esmat Mansour, Lamiaa Mohsen. The Egypt National Perinatal/ Neonatal Mortality Study 2000. **J Perinatol** 2004 May; 24(5): 284- 9.
5. The Institute of Medicine (2006). "**Preventing Medication Errors**". The National Academies Press. Retrieved 2006- 07- 21.
6. Bates, DW; Leape, LL; Cullen, DJ; Laird, N; Petersen, LA; Teich, JM; Burdick, E; Hickey, M; Kleefield, S; Shea, B; Vander Vliet, M; Seger, DL (21st October 1998). "**Effect of Computerized Physician Order Entry and a Team Intervention on Prevention of Serious Medication Errors**".
7. Institute of Medicine (2001). **Crossing the Quality Chasm: A New Health System for the 21st century**. Washington, DC: The National Academies Press. Retrieved 2006- 06- 29.
8. Suzanne Reuter, Chuanpit Moser and Michelle Baack**, "Respiratory Distress in the Newborn**". 2014 Oct; 35(10): 417- 429.
9. Tanya M. Medina, and D. Ashley Hill. "Preterm Premature Rupture of Membranes: Diagnosis and Management". Florida Hospital Family. **Am Fam Physician**. 2006 Feb 15;73(4): 659- 664.
10. Samir Gupta& StevenM. Donn. "Assessment of neonatal perfusion" **Elsevier**, October 2020;25(5), 101144.
11. Pablo Marantz, M Mercedes Sáenz Tejeira, Gabriela Peña, Alejandra Segovia, Carlos Fustiñana. "Isolated congenital heart diseases and heart conditions associated with extracardiac abnormalities". **Arch Argent Pediatr**, 2013 Oct; 111(5):418-22.

Background:

Neonatology is a specialty that has undergone dramatic advances in the last 50 years and continues to strive for ways to improve outcomes for sick newborn infants. survival of infants with birthweight <1000 grams has increased from <10% to >70%.[1] The availability of neonatal intensive care has improved the outcomes of high- risk infants born either preterm or with medical or surgical problems.[2] Admission to NICU and mortality were more frequent in LBW (31.6%, 2.0%) than NBW infants (2.0%, 0.2%). LBW also had increased risk of neonatal jaundice, an increased risk of growth retardation and a much higher risk of mortality.[3] Infant mortality in Egypt is showing an epidemiological transition with a significant decrease in mortality. Infant mortality in Egypt declined 64% from 124 per 1000 between 1974 and 1978 to 44 per 1000 between 1995 and 1999, the decline being greatest among older infants; 55% of all infant deaths occurred during the neonatal period.[4] Prescribing errors are the largest identified source of preventable errors in hospitals. A 2006 report by the Institute of Medicine estimated that a hospitalized patient is exposed to a medication error each day of his or her stay.[5]

Computerized provider order entry (CPOE), can reduce total medication error rates by 80%, and adverse (serious with harm to patient) errors by 55%. Handwritten reports or notes, manual order entry, non-standard abbreviations and poor legibility lead to substantial errors and injuries, according to the Institute of Medicine (IOM) (2000) report.[6] The follow- up IOM (2004) report, Crossing the quality chasm: A new health system for the 21st century, advised rapid adoption of electronic patient records, electronic medication ordering, with computer- and internet-based information systems to support clinical decisions.[7]

Methods:

Prospective study; for using electronic patient record for detection of morbidity& mortality for neonatal intensive care unit (NICU) patients in Elwarrak central hospital during 12 months starting January 2019- End of December 2019 fulfilling the inclusion criteria from neonates admitted to NICU.

- Inclusion criteria; Newborn infants who are admitted to NICU within 28 days after birth are included regardless of sex, birth location, gestational age or birth weight.
- Exclusion criteria: All newborn infants who are admitted to NICU after 28 days of life patients' data collected will be recorded using the electronic medical record system.

Each patient is evaluated by:

1. Proper History Taking full medical examination at age of 1st 24 hours, Laboratory tests results at age of 24 hours, Medical diagnosis.
2. Analysis of collected data to search for valuable statistically significant Information.
3. Collected data were analyzed by SPSS version 12.

Results:

Table (1) Relation Between Complaint Per History& Length of Hospital Stay

Complaint Per History		Short Stay <10 days	Long Stay >10 Days	Deaths
Respiratory Distress	Number	50	13	88
	Percentage	66.7%	92.9%	84.6%
Jaundice	Number	21	1	4
	Percentage	28%	7.1%	13.5%
Congenital Anomalies	Number	1	0	1
	Percentage	1.3%	0%	1%
Surgical Abnormalities	Number	0	0	1
	Percentage	0%	0%	1%
Hematemesis	Number	1	0	0
	Percentage	1%	0%	0%
Total		75	14	104

Chai square: 35.88, p value: .0.003.

Table (1) shows number of short stay cases have RD are 50, 66.7%. long stay cases have RD include n= 13, 92.09%. mortality cases have RD include n= 88, 84.6%. Number of short stay cases have Jaundice are 21, 28%. long stay cases have Jaundice include n= 1, 7.1%. Mortality cases have Jaundice include n= 4, 13.5%. Number of short stay cases have Congenital Anomalies are 1, 1.3%. long stay cases have Congenital Anomalies include n= 0.0%. mortality cases have Congenital Anomalies include n= 1, 1%. Number of short stay cases have Surgical Abnormalities are 0.0%. Long stay cases have Surgical Abnormalities include n= 0.0%. mortality cases have Surgical Abnormalities include n= 1, 1%. Number of short stay cases have Hematemesis are 1, 1%. long stay cases have Hematemesis include n= 0.0%. Mortality cases have Hematemesis include n= 0.0% the results are highly significance, p=0 .003.

Table (2) Relation Between Maternal Antenatal Corticosteroids injection in premature rupture of membranes Per History& Length of Stay

Corticosteroids injection		Short Stay <10days	Long Stay >10 Days	Deaths
No Antenatal Corticosteroids Per History	Number	67	7	85
	Percentage	89.3%	50%	82.5%
Antenatal Corticosteroids Per History	Number	8	7	18
	Total	75	14	104
	Percentage	10.7%	50%	17.5%
	Total	100%	100%	100%

Chai square: 12.84, p value: 0.002.

Table (2) shows number of mothers did not receive antenatal corticosteroids of short cases= 67, 89.3%. Number of mothers did not receive antenatal corticosteroids of long cases= 7, 50%. Number of mothers did not receive antenatal corticosteroids of mortality cases= 85, 82.5%. Number of mothers received antenatal corticosteroids of short stay cases= 8, 10.7%. Number of mothers received antenatal corticosteroids of long stay cases= 7, 50%. Number of mothers received antenatal corticosteroids of mortality cases= 18, 17.5%. The results are highly significance, p= 0.002.

Implementation and Evaluation of Electronic Recording of neonatal mortality and Morbidity in Neonatal intensive care unit

Heba S Galal, [1]Hanan El-Gamal, [1]Salah Mostafa, [1]Omar El-Shourbagy, [2]Abeer Hosney
[1]Faculty of Postgraduate Childhood Studies, Ain Shams University.
[2]Om El Atabaa Hospital

Abstract

Background: Neonatology is a specialty that has undergone dramatic advances in the last 50 years and continues to strive for ways to improve outcomes for sick newborn infants. survival of infants with birthweight <1000 grams has increased from <10% to >70%. The availability of neonatalintensive care has improved the outcomes of high- risk infants born either preterm or with medical or surgical problems. Computerized provider order entry (CPOE), can reduce total medication error rates by 80%, and adverse (serious with harm to patient) errors by 55%.
Aim of study: using of electronic records to detect morbidity& mortality in neonatal intensive care unit.

Methods: Prospective study

Results: Number of cases admitted to ElWarrak central hospital Neonatal ICU (NICU) from Jan. 2019 to the end of Dec. , 2019 are 579; 193 cases are included in the study; number of deaths cases 107 cases at rate of 18.5%, number of short stay cases are 73 (stay in NICU less than 10 days), number of long stay cases are 13 (stay in NICU more than 10 days). Number of short stay cases have RD are 50, 66.7%. long stay cases have RD include n= 13, 92.09%. mortality cases have RD include n= 88, 84.6%. The results are highly significance, p= 0.003. Number of mothers did not receive antenatal corticosteroids of mortality cases= 85, 82.5%. the results are highly significance, p= 0.002. Number of long stay neonates had respiratory system abnormality include n= 14, 100%. Number of neonatal deaths had respiratory system abnormality include n= 91, 87.5%. The results are highly significance, p=0.002.

Conclusion: Most of long stay cases have respiratory system abnormality. Most of mortality cases have respiratory system abnormality. Most of mothers of mortality cases did not receive antenatal corticosteroids per history include.

Keywords: neonatology, mortality, corticosteroids.

تطبيق واستخدام النظام الالكتروني في تسجيل حالات الوفيات والاعتلال المرضى في وحدة الرعاية المركزة للأطفال حديثي الولادة للأطفال

المقدمة: طب الأطفال حديثي الولادة هو تخصص شهد تطورات هائلة في السنوات الخمسين الماضية ويواصل السعي لإيجاد طرق لتحسين النتائج للأطفال حديثي الولادة المرضى. زاد بقاء الرضع ذوي الوزن عند الولادة أقل من ١٠٠٠ جرام من <١٠% إلى> ٧٠%، وقد أدى توافر العناية المركزة لحديثي الولادة إلى تحسين نتائج الأطفال المعرضين للخطر المولودين إما قبل الأوان أو بمشاكل طبية أو جراحية. يمكن أن يؤدي إدخال طلب مزود الخدمة على الحاسب إلى تقليل معدلات الخطأ الدوائي الإجمالية بنسبة ٨٠% والأخطاء السلبية (الخطيرة والمضرة للمريض) بنسبة ٥٥%.

المنهج: دراسة مستقبلية لاستخدام سجل المريض الإلكتروني للكشف عن الامراض والوفيات لمرضى وحدة العناية المركزة لحديثي الولادة في مستشفى الوراق المركزي خلال ١٢ شهرا بدءا من يناير ٢٠١٩ حتى نهاية ديسمبر ٢٠١٩ اول ٢٨ يوم من عمر الطفل بغض النظر عن الجنس أو مكان الولادة أو عمر الحمل أو وزن الولادة. سيتم تسجيل بيانات المرضى التي يتم جمعها باستخدام نظام السجل الطبي الإلكتروني. يتم تقييم كل مريض من خلال أخذ التاريخ الصحيح، والفحص الطبي الكامل في عمر ٢٤ ساعة الأولى، ونتائج الاختبارات المعملية في عمر ٢٤ ساعة تشخيص طبي.تحليل البيانات إحصائيا.

النتائج: عدد الحالات التي تم قبولها في مستشفى الوراق المركزي العناية المركزة لحديثي الولادة من يناير ٢٠١٩ حتى نهاية ديسمبر ٢٠١٩ هي ٥٧٩ حالة؛ تم تضمين ١٩٣ حالة في الدراسة؛ عدد حالات الوفاة ١٠٧ حالات بمعدل ١٨,٥%، عدد حالات الإقامة القصيرة ٧٣ (البقاء في العناية المركزة لحديثي الولادة أقل من ١٠ أيام)، عدد حالات الإقامة الطويلة ١٣ (البقاء في البقاء في العناية المركزة لحديثي الولادة أكثر من ١٠ أيام). عدد الحالات التي لديها صعوبة في التنفس هي ٥٠ بنسبة ٦٦,٧%. عدد حالات الإقامة الطويلة لديها صعوبة في التنفس تشمل ١٣ بنسبة ٩٢,٠٩%. حالات الوفيات لديها صعوبة في التنفس تشمل عدد ٨٨ بنسبة ٨٤,٦ %. كانت النتائج ذات أهمية عالية، p= 0.003، عدد الأمهات اللائي لم يتلقين الكورتيكوستيرويدات قبل الولادة من حالات الوفيات= ٨٥ بنسبة ٨٢,٥%. النتائج ذات أهمية عالية، p= 0.002. عدد الولدان المقيمين لفترة طويلة الذين يعانون من خلل في الجهاز التنفسي يشمل عدد ١٤ بنسبة ١٠٠%. عدد وفيات الولدان المصابة بخلل في الجهاز التنفسي تشمل عدد ٩١ بنسبة ٨٧,٥% النتائج ذات أهمية عالية، p= 0.002.

الخلاصة: معظم حالات الإقامة الطويلة لديها خلل في الجهاز التنفسي. معظم حالات الوفيات لديها خلل في الجهاز التنفسي. معظم الأمهات في حالات الوفيات لم يتلقين الكورتيكوستيرويدات اثناء الحمل.