Results The initial audit showed only 56% achievement in all domains of care in the first hour of care. Areas of improvement were recognised and a further awareness and training was conducted. This led to significant improvement which was reflected in the re-audit demonstrating an increase by >30% in the successful attainment of all aspects of golden hour. There was also a 100% achievement of temperature monitoring in first 60 minutes. Action plan has been devised to attain similar results in term babies.

Conclusion Despite the improvement which has been noticed in achieving the standard of Neonatal Super 60 in our NICU since the 1st audit, further improvement is required in terms of documentation, including full term admissions and aiming to reach the target of achieving the Super 60 in 100% of admissions in NICU.

Further teaching sessions, posters, fliers and auditing to be made to increase the awareness about the Super 60 project in both nursing and medical staff, in order to achieve the previously mentioned target of providing the best possible care for sick infants during their 60 minutes of admission in NICU.

106 PROCALCITONIN IS NOT VERY RELIABLE IN THE DIAGNOSIS OF NEONATAL SEPSIS

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Aims To determine the usefulness of procalcitonin (PCT) as an early marker in the diagnosis of neonatal sepsis in a tertiary teaching hospital.

Methods A prospective case-control hospital-based study among 60 neonates with suspected sepsis admitted into the newborn unit and healthy 60 age and sex-matched controls. At presentation, samples for PCT test were collected along with samples for routine sepsis workup and blood smear for malaria parasite. Samples for PCT were pooled and analysed using quantitative ELISA test. Sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) were determined at a PCT level of 0.5ng/ml. P value was at <0.05 with 95% confidence interval.

Results Nineteen (31.7%) of 60 had blood culture positive sepsis, 36 (60.0%) had blood culture negative sepsis and 5 (8.3%) had neonatal malaria. The commonest organism identified was Staphylococcus aureus. The median PCT levels in the subjects and controls were 0.98ng/ml and 0.40ng/ml respectively but 1.28ng/ml in blood culture negative sepsis, 36 (60.0%) had blood culture negative sepsis and 5 (8.3%) had neonatal malaria. The commonest organism identified was Staphylococcus aureus. The median PCT levels in the subjects and controls were 0.98ng/ml and 0.40ng/ml respectively but 1.28ng/ml in blood culture negative sepsis.

Conclusion PCT levels were higher in blood culture negative sepsis than blood culture positive sepsis though both were higher than healthy babies. Thus, PCT was insignificant as an acute phase reactant because of its low specificity and PPV.

A106 FREQUENCY AND SPECTRUM OF HEALTHCARE ASSOCIATED INFECTIONS IN NEONATAL CARE UNIT OF A TEACHING HOSPITAL IN NORTH INDIA

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Aims Health care-associated infections (HCAs) are infections that patients acquire while receiving treatment for medical or surgical conditions and are the most frequent adverse event during Health care delivery. The risk to acquire HCAI is universal and pervades every health-care facility and system worldwide, but the true burden remains unknown in many nations, particularly in developing countries. Neonates are particularly susceptible to infection because of abnormalities of the immune system and extrinsic risk factors, such as the use of central venous catheters (CVC), ventilators and surgical procedures. So, the present study was undertaken to assess the frequency & spectrum of HCAI in Level-4 nursery of a tertiary care hospital.

Methods A prospective observational study was conducted in neonatal ward, from December 2019 to March 2021. All neonates, from birth to 28 days of either sex, admitted in neonatal ward due to any underlying condition then having diagnosis compatible with HCAI as per CDC/WHO criteria were included in the study. Collected data was tabulated in an excel sheet, under the guidance of statistician. Difference between two groups was determined using student t-test as well as chi square test and the level of significance was set at p < 0.05.

Results Incidence of HCAI was found to be 21.79% (n=78). Overall infection rate was 19.9 cases per 1000 patient days. Incidence of HCAI was directly related to prematurity (<27 weeks [100%], 27-34 weeks [61.5%], 34-37 weeks [24.14%] & >37 weeks [5.88%]) and low birth weight (<750g [100%], 751-1000g [100%], 1001-1500g [71.43%], 1501-2500g [5.13%] & >2500g [4.76%]). The most common HAI was pneumonia (47.06%) followed by bacteremia (17.63%) and CLABSI (11.76%) (table 1). Most common organism revealed in the study subjects was Klebsiella species (29.41%) followed by Enterobacter species (23.53%) (figure 1). Ventilator-DAIR (Device Associated Infection Rate), central catheter-DAIR and Urinary Catheter DAIR per 1000 invasive device exposure (Device Associated Infection Rate), central catheter-DAIR and Urinary Catheter DAIR per 1000 invasive device exposure days were 28.3, 16.8 and 18.4 respectively. Mean hospital stay was 33.92±19.04 and 14.63±12.48 days among the subjects affected with and without HAI (p<0.01). Mortality rate was 70.59% among subjects affected with HCAI (p<0.01).

Abstract 110 Figure 1 Organisms found among the subjects having HAI