1140

EFFECTS OF BODY POSITION ON OXYGEN SATURATION, TEMPERATURE, RESPIRATORY RATE, AND HEART RATE OF HEALTHY TERM AND PRETERM INFANTS

F. Alsufayan¹, A. Saker², S. Mahwi², S. Shawkat²

¹Pediatrics, ²Pediatrics, IABF-Hospital, National Guard, Dammam, Saudi Arabia

Background: Prone sleeping position increases the risk of Sudden Infant Death Syndrome (SIDS). Infant's arousability from sleep is affected by position and ambient temperature. The effect of side positioning has not been explored.

Objective: To determine the effects of prone, supine and side position on oxygen saturation, temperature, respiratory rate, and heart rate in healthy term and preterm infants 72-hour prior to hospital discharge.

Design/methods: A retrospective review of 117 healthy term and preterm infant with median birth weight of 2580 (630 4185) g, gestational age 36.5 (26 42.3) weeks and postconceptional age of 38 (34 42.3) weeks. Medical records data collected from January 2007 through December 2008. Data obtained during feeding time were excluded. None of the infant was receiving methylxanthine or antireflux medication.

Results: In prone position, infants had higher oxygen saturation ($p=0.02$) compared to side and supine position. Side positioning was associated with significantly higher body temperature and lower respiratory rate ($p < 0.0001$ and 0.004 respectively). No significant difference in heart rate. Respiratory rate was lower in supine and side position ($p= 0.005$ & $p= 0.004$ respectively).

Conclusions: Prone position is associated with higher oxygen saturation. Side positioning is associated with lower respiratory rate and higher temperature. Body position may influence infant's thermal instability.

1141

AUDIT ON ACCURACY & SPECIFIC INFORMATION ON THE WRITTEN HANDOVER SHEET IN NICU

V.K. Sundarajan, S. Craig

Neonates, Royal Jubilee Maternity Hospital, Belfast, UK

Aim: To arrive at a written handover sheet proforma in NICU- simple, easy to update, containing relevant, accurate and specific information about each patient.

Methods: It was a prospective audit collected at NICU, Royal Jubilee Maternity hospital, Belfast, U.K. from 30/11/09 to 4/12/09. The data was collected from written handover sheet in NICU, using an Audit proforma sheet.

The proforma contained data sets such as gestational age, corrected gestational age, gender, hospital number, up-to-date background & current problems, ventilation, current medication, total fluids, chest x-ray details, microbiology results, day and duration of antibiotics, outstanding jobs etc.,

55 Proformas were filled in after counter checking with medical notes and observing ward round plans for accuracy.

Results: Our study showed greater than 90% accurate and specific information were documented under data sets such as gestational age (100%), corrected gestational age (100%), hospital number (96.3%) and ventilation (94.5%).

Between 50% and 90% accurate and specific information were documented under data sets such as current medication (63.6%), up-to-date background & current problems (85.5%), total fluids (81.8%) and outstanding jobs (58.2%).

Less than 50% accurate and specific information were documented under data sets such as gender (0%), chest x-ray details (20%), microbiology results (30.9%), day of antibiotics (9%), duration of antibiotics (25.5%), specialist review and follow-up plan (43.7%).

Conclusions:

To implement the revised handover sheet suggested below.

To re-audit in 4 months after implementing revised handover sheet.

NAME, D.O.B, Hospital number, Gestation, Background

Day, Current problems, Medications, Total fluids

Plan, To do

1142

A PRACTICAL GUIDE TO MANAGING PAEDIATRIC PROBLEMS ON THE POSTNATAL WARD

C. Flannigan

*Neonatology, Royal Jubilee Maternity Hospital,
Belfast, UK*

Background: When a doctor embarks on their first paediatrics rotation covering the postnatal wards they often find that their training and previous experience leave them ill prepared for the task at hand.

Methods: It was decided that the above problem could be best addressed by the development of an iphone application specifically tailored to junior doctors needs. The application was developed by a team of paediatricians and an IT consultant. It is due to be distributed internationally via the iTunes store.

Results: The application developed can be divided into 3 main parts. Firstly, there is an electronic book which focuses on providing practical up to date advice on how to manage the most common problems the junior doctor will encounter on the postnatal wards. Secondly, there is an audiovisual section containing videos and audio presentations by experienced paediatricians on topics such as how to carry out a baby check and basis neonatal resuscitation. Finally, there is a calculator section containing a number of useful tools which will save time and reduce errors when for example a doctor needs to decide whether an infant requires phototherapy or an infants feeding requirements need to be calculated.

Conclusions: We feel our product will fill the much needed gap in the market by providing junior doctors with the practical advice and tools that they need to feel confident about managing the common problems they will encounter on the postnatal wards.

1143

COMPARISON BETWEEN TRANSCUTANEOUS BILIRUBINOMETRY AND TOTAL SERUM BILIRUBIN MEASUREMENTS IN PRETERM INFANTS < 35 WEEKS GESTATION

M. Ahmed¹, S. Mostafa¹, G. Fisher², T. Reynolds³

¹Paediatrics, Burton Hospitals NHS Foundation
Trust, Burton Upon Trent, ²Leicester Medical

School, University of Leicester, Leicester,

³Biochemistry, Burton Hospitals NHS Foundation
Trust, Burton Upon Trent, UK

Background: Neonatal hyperbilirubinaemia is a common occurrence and is a treatable cause of brain injury. If required, the treatment for this condition is phototherapy on most occasions. The decision whether to use phototherapy is currently dependent upon serum bilirubin assay results. However, repeated blood sampling is not only traumatic but may also be a cause of anaemia, especially in preterm neonates.

Aim: We evaluated a transcutaneous bilirubin assay method to determine whether it was suitable for routine use in preterm infants.

Methods: One hundred and eighty three transcutaneous bilirubin measurements were taken contemporaneously with blood samples for laboratory measurement of serum bilirubin. The study was carried out with informed parental consent and approval by the local research ethics committee.

Results: Regression analysis showed $r = 0.8965$, $P < 0.005$. A least squares X on Y regression plot for transcutaneous bilirubin (Y) vs laboratory bilirubin (X) gave Intercept = $17.7 \mu\text{mol/L}$, slope = 1.059 . The transcutaneous bilirubin method (BiliChek®) exhibited a consistent positive bias compared to the laboratory bilirubin assay. Consequently, for a given detection rate, the transcutaneous method had a higher screen positive rate. There was a margin of safety in the transcutaneous bilirubin assay calibration.

Conclusion: The BiliChek® transcutaneous bilirubin assay is a safe alternative to laboratory bilirubin assay in deciding whether phototherapy is required in preterm neonates..