

1770 "YOU'LL BE FINE" (PLEASE DON'T DIE!); THE EXPERIENCE OF UNCERTAINTY AMONG GP TRAINEES

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Background and Aims Uncertainty is at the heart of clinical practice. The learning curve leading from apprentice to expert brings us into contact with uncertainty on a daily basis yet there is relatively little emphasis on it in medical training.

This project aimed to explore GP trainees' experience of uncertainty, its impact, and the skills required to counter it.

Methods An eight question survey was distributed to trainees on the Western Training Programme in General Practice exploring their decisiveness, their experience of uncertainty, and the resources they employed to deal with it. Results were analysed with Excel.

Results 45 questionnaires were returned (78% response rate).

In terms of combating uncertainty, experience and knowledge of "red flags" ranked highest. Clinical knowledge and experience had the biggest impact on decision making, with fear of making a mistake more pronounced among trainees reporting higher degrees of uncertainty (94% said it influenced their decisions compared to 58% of the occasionally uncertain). Patients' anxieties and expectations impacted to a lesser extent (74%).

Conclusion How often trainees experience uncertainty may lessen with advancing clinical knowledge and experience. Support from senior colleagues is important, as is fear of making mistakes. Building personal resilience (emotional support, good lifestyle), and developing self-awareness didn't rank as highly in terms of what trainees found helpful in dealing with uncertainty; perhaps a reflection of a lack of emphasis on these in general in medical training and something that could be explored as a basis for student education in coping with uncertainty.

1771 USE OF OXIMETER IN CLINICAL ASSESSMENT OF INFANTS AT BIRTH IN LOW RISK DELIVERIES AFTER HOME BIRTH IN THE NETHERLANDS

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Background Objective assessment of infant's condition at birth by oximeter is now recommended in resuscitation guidelines. However, midwives supervising home birth in primary care still use color and count heart rate for evaluation.

Aim To evaluate the additional value of an oximeter when assessing term infants after birth in a home birth setting.

Methods During ten months 27 midwives supervising (home) births used a Masimo oximeter directly after birth for ten consecutive minutes. Data were obtained concerning outcomes, interventions, usefulness, applicability and decision-making.

Results During the study period the oximeter was used in 153 uncomplicated births in primary care. Only one infant received supplemental oxygen and one infant received bag and mask, which was the only hospital referral after birth.

The majority of midwives (88%) found the oximeter easy to use, but in their clinical judgment was not influenced by the use of the oximeter (in 97 % of births). In 5 cases (3%), the midwife felt uncertain about the infant's condition and the oximeter gave reassurance in all cases and it was decided not to refer.

Forty percent of midwives indicated to use the monitor again if they had one available and in case of suboptimal neonatal condition, all midwives would use it.

Conclusions It is feasible to use an oximeter during low-risk deliveries at home or in hospital, but was not considered an important contribution for evaluation in majority of the cases. However, midwives would prefer the availability of this device in case of suboptimal neonatal condition.

1772 ALKALINE PHOSPHATASE ACTIVITY IN HUMAN COLOSTRUMS AS A VALUABLE PREDICTIVE BIOMARKER FOR LACTATING MASTITIS IN NURSING MOTHERS

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Mastitis is defined as an inflammation of the mammary gland. It often presents with the disease already at an advanced stage when the treatment is less effective and the health consequences for nursing mothers and their newborn babies are more severe.

From the pediatric viewpoint it is extremely important to predict occurrence of lactating mastitis as early as possible in order to prevent vertical transmission of infections from mother to infant as well as to prevent stopping of newborn breast feeding.

Biochemical investigations have shown that indigenous milk enzyme such as alkaline phosphatase (ALP) which is detectable in the cuboidal (epithelial) mammary gland cells, plays a very important diagnostic role in clinical medicine, since its activity varies in different tissues and serves as a specific indicator of diseased states.

The purpose of this study was to evaluate ALP activity in human colostrum as a possible early predictive biomarker for lactating mastitis in nursing mothers.

During a period from May to July 2010, a total of 60 healthy nursing mothers were prospectively followed from day 1 postpartum to the end of their lactation.

There was a significant difference in colostrum ALP activity ($p < 0.001$) from the breast with mastitis when compared with both the contralateral asymptomatic breast and "healthy" breasts.

In our opinion, determining ALP activity in colostrums could be a valuable biochemical marker for an early prediction of mastitis in nursing mothers.

1773 CHEST DRAIN INSERTION AND TRAINING OF NEONATAL DOCTORS: USE OF AN ANIMAL MODEL

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Background and Aims Neonatal pneumothorax is a potentially fatal condition if not managed promptly and effectively. The little training in chest drain insertion is highlighted by doctors regularly. This is compounded by various factors including decreased incidence of pneumothorax and decreased working hours.

The animal models have been used for such training. We started and tested such training model in our unit to improve the skills and confidence of junior doctors in chest drain insertion.

Methods The workshop included presentation (theoretical), videos of procedure and then the hands on experience on dead rabbits. The rabbits were prepared by the local butchers and were easily available. The training was delivered (2 hour) as part of regular departmental teaching programme and was conducted in the first few weeks of start of job. A three point likert scale was used to record the feedback.

Results 25 colleagues were trained including 17 junior doctors, 3 consultants and 3 advanced neonatal nurse practitioners (23 feedbacks received).

All of the them feedback that the session fully met their professional needs.

Everybody (23) felt that the integration of theory and practical in this way was excellent.

3 participants did not have any opinion about using the animal model. One person did not like the idea of animal model (religious reasons).

Conclusion A rabbit model for chest drain training was found to be extremely useful to majority of our trainees. This type of training should be arranged once every 6 months with the changing team of junior doctors.

1774 CAUSE OF RESPIRATORY DISTRESS IN NEONATAL INTENSIVE CARE UNIT: A RETROSPECTIVE EVALUATION

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Purpose To determine the demographic characteristics of the newborns with respiratory difficulties, frequency of neonatal disease, analyze of the prognostic factors and effectiveness of treatment who were hospitalized in NICU of our hospital between 2008 and 2009.

Methods In this study, file records of the newborns who were hospitalized in NICU of Selcuk University, Meram Medical School were analyzed retrospectively.

Results Of the 771 newborns, 225 who admitted due to respiratory distress in 2008 and of the 692 newborns, 282 who admitted due to respiratory distress in 2009. Mean birth weight was 1954±972gr in 2008, and 2140±1009gr in 2009. Mean pregnancy weeks were 32.4±5.0 in 2008 and 33.4±4.9 in 2009. Diagnosis of patients were sepsis (77.8%), respiratory distress syndrome (RDS) (40.4%), pneumothorax (20.9%), patent ductus arteriosus (PDA) (12.4%), meconium aspiration syndrome (MAS) (6.2%), intraventricular hemorrhage (IVH) (5.3%), pneumonia (3.6%), retinopathy of prematurely (ROP) (3.1%), bronchopulmonary dysplasia (BPD) (2.7%) and transient tachypne of newborn (TTN) (2.2%) in 2008. In 2009, percentage of the diagnosis was 69.5% sepsis, 33.3% RDS, 17.0% PDA, 16.0% pneumothorax, 10.3% pneumonia, 8.2% IVH, 6% TTN, 5.3% BPD, 3.2% MAS and 3.2% ROP. 33.7% of the patients were died in 2009 and 43.6% of them in 2008.

Conclusion The newborns with respiratory distress who admitted to the hospital must be evaluated according to the pregnancy week, way of birth and accompanying problems during first examination and convenient transportation of the ones who need to be cared in advanced center where an intensive care support can be applied to decrease mortality and morbidity of newborns distress.

1775 THE EVALUATION OF LUNG FUNCTION MEASURED BY IMPULSE OSCILLOMETRY METHOD IN VERY LOW BIRTH WEIGHT BORN CHILDREN AT PRESCHOOL AGE

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Chronic lung disease is one of the most important complications of prematurity and results in short and long-term morbidity. Survival of more prematurely born babies leads to an increase in the incidence of bronchopulmonary dysplasia (BPD).

The Aim of this study is to evaluate the lung function of babies who were born under birth weight of 1500 grams using impulse oscillometry in preschool age.

Eighty-six children who were 3–6 years old and followed in our neonatology clinic (born under birth weight of 1500 grams) were enrolled in the study as the patient group and 40 term-born healthy children as the control group. The demographic data of the patients, duration of mechanical ventilation and oxygen therapy and presence of BPD were recorded. After routine physical examination, lung functions of the patients were measured by impulse oscillometry. The data were evaluated by SPSS 16 program.

Forty-nine (57%) of 86 patients were non-BPD, 20 were mild BPD, 14 were moderate BPD and 3 were severe BPD.

Weight and height of premature and control groups were similar. There was a statistically significant difference between the two groups in terms of resistance (R5, R10, R20), reactance (X5, X10, X20) and resonant frequency (fres). The airway resistance was significantly higher and reactance was significantly lower in the premature group. However, there was no difference between BPD and non-BPD groups.

In conclusion; although premature babies can catch-up their peers at 3–4 years old in terms of their body percentiles, their lungs still reflect the traces of prematurity.

1776 RESPONSE THRESHOLDS TO PULSE OXIMETRY ALARMS IN THE NICU - AN OBSERVATIONAL STUDY

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Background and Aims Manual control of oxygen delivery to premature infants is conducted mainly by NICU nurses. This involves $F_{I}O_2$ adjustments in order to keep the S_pO_2 within a specific target range (88–92%). Pulse oximeters have alarms set to alert the nurses when S_pO_2 values are outside the range (85–95%). Our aims were to study $F_{I}O_2$ alteration in terms of magnitude and time outside target immediately before the $F_{I}O_2$ change.

Methods Infants receiving CPAP or ventilation on the Babylog 8000 ventilator (Dec 2010- Apr 2012) were studied. Signals were acquired from oximeters and ventilator using the PowerLab data acquisition system. The 9-minute epoch prior to each $F_{I}O_2$ change: $F_{I}O_2$ increase (ΔPOS) and $F_{I}O_2$ decrease (ΔNEG) were studied.

Results Recordings were obtained from 7 (5 male) infants with mean (\pm SD) gestation of 26.9 (± 1.9) weeks and birthweight 767 (± 200) g. 253 $F_{I}O_2$ adjustments were recorded (130 ΔPOS and 123 ΔNEG) from 105 hours of total recording time. Mean (range) magnitude of ΔPOS and ΔNEG was 4.6% (0.5–19.5) and 4.5% (0.5–57.0), respectively. Proportion time spent with low alarm in the 9 minutes before ΔPOS was 50.8%, with 28.4% (± 20.2) of time in 80–85%, 15.8% (± 16.7) in 70–80% band and 6.6% (± 11.3) less than 70% saturation. 22.5% of time was spent with high alarm (before ΔNEG) with 4.3% (± 8.7) time S_pO_2 exceeding 98% and 7.7% (± 11.4) in 96–98% band.

Conclusion Nurses were more likely to tolerate low oxygen saturations than high saturations in preterm infants. Mild desaturation episodes (between 80–85%) were often managed conservatively.

1777 A MUSICAL MNEMONIC IMPROVES THE CONTROL OF CHEST COMPRESSIONS AND MANUAL VENTILATION DURING SIMULATED NEONATAL CARDIOPULMONARY RESUSCITATION (CPR)

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