

risk of obesity and serious adult health problem such as cardio vascular disease, diabetes cancer, hypertension, psychological problem, arthritis, arthrosclerosis and diminished physical abilities.

**Conclusion** Due to dramatic increase in epidemiology of obesity and related health problem we have to prevention of it from fetal period and so we should start it before pregnancy with controlling intervention causes of obesity in mother and provide appropriate educating and counseling. Furthermore follow up care during pregnancy infancy and child hood is needed to reduce risk of diseases that has relation to obesity.

### 1723 NEWBORN AUTOPSIES: EXPERIENCE OF A REFERRAL LEVEL III NEONATAL INTENSIVE CARE UNIT IN TURKEY

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**Aim** Neonatal autopsies is a guide to explore the causes of the perinatal mortalities which is important marker for evaluation of the health policies. Multidisciplinary approach which includes obstetrician, pediatrician, pathologist and geneticist is required for the neonatal autopsies. We aimed to evaluate the neonatal autopsies in our center.

**Methods** Thirty-eight neonatal autopsies performed between January 2009 and December 2010 were evaluated in respect to demographic characteristics, clinical and pathological diagnosis retrospectively.

**Results** 7055 neonates were administered to our NICU between January 2009 and December 2010. 404 of the neonates passed away (5.7%). Only the 38 (9.4%) of the neonates' parents give permission for autopsy. Of these neonates were 15 female (39%) and 23 male (61%). Sixty percent of these neonates were premature. Prematurity was higher in male neonates ( $p=0.001$ ). Median gestational age was 32 (22–41) weeks. Median overall survival of the neonates were 4 (0–80) days. Eighty-three percent of the clinical diagnoses were correlated with the pathological diagnosis. Sixty percent of the clinical and pathological diagnoses were cardiovascular anomalies, diaphragmatic hernia, perinatal asphyxia and prematurity. Two neonates had pneumonia diagnosis by the autopsy. Only one of the neonate's placenta had chorioamnionitis.

**Conclusion** Neonatal autopsy rates should be increased to decrease the neonatal mortality rate in our country. Neonatal autopsies should be done with multidisciplinary approach and become prevalent and get more progress in our country.

### 1724 INEXPENSIVE HOMEMADE AGAR-BASED MODELS FOR ULTRASOUND-GUIDED CENTRAL VENOUS CATHETERIZATION TRAINING PROGRAMS

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**Background and Aims** Central venous catheterization (CVC) plays a central role in patient management in intensive care settings. Compared with the use of traditional anatomical landmarks, ultrasound (US)-guidance is associated with higher success rate and fewer mechanical complications. In order to implement the use of US-guided CVC in our Neonatal and Paediatric Intensive Care Unit, we organized a hands-on training program based on the use of agar-handmade models.

**Methods** Two different models were constructed to simulate vessels, as described by S. Di Domenico et al in Journal of Ultrasound (2008). In model A the vessels were visualized under a flat surface in both transverse and longitudinal scans, whereas in model B the vessels were punctured under a curved surface and the Doppler function was demonstrated. The training session began with a 40-minute lecture followed by the hands on session. We trained 10 paediatric intensivists. Each test was considered completed when participants were able to position the needle correctly on the "first attempt".

**Results** 60% of trainees correctly positioned the needle at the first test on model A, whereas only 20% on model B because of the more complicated technique. The percentage of participants who achieved correct needle position increased steadily with repeated punctures showing a quick acquisition of the basic skills of US-guided puncture.

**Conclusions** Agar-based models are useful tools for teaching the basic hand-eye coordination skills of ultrasound-guided CVC thus reducing hazardous attempts on real patients and facilitating the introduction of this technique in clinical practice.

### 1725 SUCCESSFUL MEASURES TO DECREASE HOSPITAL LENGTH OF STAY IN GENERAL PAEDIATRIC WARD

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**ELOS = Expected LOS ALOS = Average LOS**

**Background and Aims** With the increasing demands on health care services a reduction in hospital length of stay (LOS) became a necessity. The number of patients admitted to the 40 beds paediatric ward at KFAFH has increased by 40% in 2011. The department has taken measures to optimize beds utilization.

**Methods** ALOS for the commonest diseases requiring admissions was calculated retrospectively for the year 2007 and was found to be higher than the reported values.

The following steps were implemented:

- Increase awareness and feedback in January 2008.
- Update Practice Guide lines in April 2008.
- Multidisciplinary Discharge Planning team in March 2009.
- Consultant profiling in October 2010.
- Forms for prolonged LOS justification in November 2010.
- ELOS included in history and physical forms in October 2011.
- Cards for ELOS in November 2011.

Abstract 1725 Table 1 Average length of stay in days per disease

Year	Asthma	Bronchiolitis	Diabetes Mellitus	Gastroenteritis	Pneumonia	Meningitis suspected	Sepsis suspected	Sickle Cell Disease	Seisures
2007	4.8	6.2	3.4	3.5	7.1	5.8	5.1	4.5	4.6
2008	4	3.7	2.1	3.1	4.8	5	5.1	5	4.8
2009	3.1	3.2	2.8	2.7	3.6	3.7	3.4	3.6	4.1
2010	2.73	3.73	3.09	2.55	3.08	3.4	3.77	4.03	3.41
2011	2.15	2.78	2.23	2.66	3.15	2.35	3.75	3.83	3.04

**Results**

ALOS has decreased significantly from the year 2007 to 2011 for all disease categories  $p < 0.001$ .

Re-admission rates remained the same.

**Conclusion** ALOS can be reduced by implementing discharge planning increase awareness and feedback to paediatric ward personal without compromising patient care.

1726

**PARENTS' SATISFACTION WITH CARE DURING THE BIRTH OF THEIR VERY PRETERM BABY: A QUALITATIVE STUDY**

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**Background and Aims** Satisfaction with childbirth is an important indicator of quality of care and is related to the health and well-being of the mother and her baby. Parents' experiences of care during preterm birth has received little attention. Therefore the aim of this study was to explore parents' experiences and satisfaction with care during the birth of their preterm baby and to identify aspects of care that they perceived as important.

**Methods** Parents were eligible for the study if they had a baby born less than 32 weeks gestation and spoke English well. Semi-structured interviews were carried out with 32 mothers and 7 fathers about their experiences of care during the birth.

**Results** Results showed the majority of parents were very satisfied with the care during the birth. Thematic analysis identified four key determinants of satisfaction:

1. staff professionalism, which included information and explanation, staff being calm in a crisis, staff appearing confident and in control, staff not responding to the patient;
2. staff empathy, which included caring and emotional support, encouragement and reassurance;
3. birth environment; and
4. involvement of father.

**Conclusions** Although these dimensions are generally consistent with previous research on birth satisfaction a number of unique factors to preterm birth were also identified. Improvements in care during preterm births should focus on providing information and explanations to parents, offering caring and emotional support, and involving fathers during the birth.

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1727

**IMPROVING INVESTIGATION AND TREATMENT OF BRONCHIOLITIS**

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Using SIGN guidelines for bronchiolitis (SIGN 91), a retrospective audit was carried out in a DGH in Scotland, with the aim of improving the investigation and treatment of bronchiolitis.

The study evaluated cases between the months of November and March. Children under the age of two that were admitted with bronchiolitis were the target group.

Following the first cycle of the audit clear areas of improvement could be identified and a multidisciplinary strategy for improvement was implemented.

A second cycle was later carried out which revealed that these changes lead to more successful outcomes and delivery of health care services to the target group. Unnecessary investigations were substantially reduced from 30.3% to 16.3%. In particular, excess urine cultures, blood tests and chest x-rays were reduced by 91.7%,

50%, and 43.5% respectively. Unnecessary treatment was also reduced by 14.7% with particular reductions in unnecessary treatment with B2 agonists and antibiotics, reduced by 10.4% and 100% respectively.

Subsequent repetition of the first cycle audit, carried out in a DGH in Northern Ireland, has revealed similar opportunities to improve the delivery of health care services. As bronchiolitis is a very common condition, and the cause of multiple hospital admissions, it is essential that this condition is managed effectively - both in the interests of direct patient care, and the efficient use of staff and hospital resources. Application of similar base level improvements in other hospitals could lead to significantly improved, efficient and effective health care delivery.

1728

**ARE WE FOLLOWING THE RCPCH GUIDELINES FOR CLINIC LETTERS? AN AUDIT**

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**Introduction** This is an audit of letters done by various professionals in community paediatric clinic in a district hospital.

**Methods** Two letters each were selected from all Consultant and Associate Specialist clinics, nurse led enuresis clinic and nurse led constipation clinic. There were a total of 14 letters. These were compared with the Sheffield Assessment Instrument for Letters (SAIL) which is the standard suggested by RCPCH.

**Results** There was 100% compliance with standard requirement in 14 areas of RCPCH standard. The main deficiency was in writing drug dosages; only 57% letters have doses mentioned. Interestingly, more than one third of letters did not have a problem list. In 21.5% of letters, the documented examination was not appropriate to the problems and questions.

**Conclusion** After discussion in the departmental audit meeting, the following recommendations were made

1. SAIL checklist to be circulated among team members so that all are aware of the standards suggested by RCPCH.
2. A reaudit was planned after 6 months to check compliance.

1729

**A FOSTER CARERS TRAINING PACKAGE FOR HOME TREATMENT OF NEONATAL ABSTINENCE SYNDROME (NAS): FACILITATING EARLY DISCHARGE**

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**Background** Illicit drug use in the UK and further afield continues to be a significant public health issue. A significant proportion of those entering drug treatment programmes are women of child bearing age.

Infants delivered to such women are at risk of NAS often necessitating prolonged opiate treatment and a prolonged neonatal unit stay.

We identified those infants being discharged to foster care to be those most at risk of severe NAS. We reviewed the service delivered to these particularly vulnerable infants, aiming to identify areas where quality of care could be improved. Evidence suggests supportive, non pharmacological care is as important as pharmacotherapy in NAS. Such supportive care is best delivered in the home environment. By treating infants being discharged to foster care in such a home environment we will significantly improve their quality of care.