competency-based measurement. The Accreditation Council for Graduate Medical Education (ACGME), the governing body for this process in the United States, is transitioning to a system of collecting annual program performance and attainment of competencies by trainees as key measures of training program performance. This presentation will describe this new accreditation system and introduce, with examples, the concept of achieving "milestones" based on six core competencies. These competencies include: patient care, medical knowledge, practice-based learning and improvement, interpersonal/communication skills, professionalism, and systems-based practice. This new approach recognizes that process measures and relying on clinical exposure alone may not be adequate in assuring that trainees have acquired the skills to practice independently in their field.

118 CONTROVERSIES IN BREAST MILK FORTIFICATION

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Inadequate nutrition has been associated with impaired brain development among preterm infants. Especially low protein intake has been proven to be the primary limiting factor responsible for growth failure among preterm infants during the first critical week(s) after birth. In order to recover or catch-up after these first weeks, feeding has to replace both the deficit accumulated and to meet the requirements for normal growth.

Human milk (HM) has many advantages in the nutrition of preterm infants. Protein-concentration in HM is though variable and decreases with the duration of breastfeeding.

Fortification of HM with a multicomponent fortifier makes it possible to increase the concentration of nutrients - especially protein to meet the nutritional requirements of the preterm infants.

Fortification of HM can be achieved by standard fortification or individualized fortification. With individualized target fortification, the fortification method is based on HM analyses, adding protein to reach the targeted intake.

Fortified HM is easily fed as long as the preterm infant has a nasogastric tube during hospitalization. After hospital discharge fortification of HM becomes a challenge, but can be established using a bottle with fortified HM as supplementation while breastfeeding.

Among "healthy" preterm infants catch-up growth can be achieved before discharge, while "sick" and small for gestational age preterm infants might not achieve catch-up growth until months or years after discharge. A gradual return to normal for all growth variables while avoiding excessive weight gain should be the goal for nutrition of very preterm infants during and after hospital discharge.

119 CHALLENGES IN PEDIATRIC TRIAGE AT THE EMERGENCY DEPARTMENT

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Triage aims to identify patients in the emergency department who need immediate care and those who can safely wait in order to decrease mortality and morbidity. The Manchester Triage system (MTS) is based on expert opinion. It is based on flowcharts and specific decision rules which allocate urgency level (1 to 5) for a broad population visiting the emergency department. The reliability is dependent of the clinical experience and MTS training of the triagist, unambiguous of the system and diversity in flowcharts and discriminators to match the patients. The fundamental

problem in studies to validate triage tools is the lack of consensus of the reference standard for "true urgency". Does the MTS urgency predicts true urgency? A proxy reference standard can be a combination of vital signs, disease severity, resource use and follow-up or just hospitalization. The validity of the MTS in a large prospective study of 17600 children in the Netherlands was moderate and low for febrile children compared to the combined reference standard. Age related fever modifications were validated in a new sample and improved specificity while sensitivity remained similar. The modified MTS agreed in 37% with the reference standard of urgency and 36% were overtriage and 13% undertriage (2% by > 1 category). Over and undertriage need to be balanced to have a safe triage system. Performance of the MTS in different settings and in large populations need to be studied. New modifications on flowchart or subgroup level might further improve the MTS.

120 PROCEDURAL SEDATION AND ANALGESIA IN THE PAEDIATRIC EMERGENCY DEPARTMENT

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Pain is one of the most common reasons for which children visit the emergency department (ED). Nevertheless, pain is frequently under-recognized and under-treated in this setting. Ongoing evidence continues to show the harmful effects of pain on children's behavior and development.

The treatment of acute pain and anxiety in children undergoing therapeutic and diagnostic procedures in the emergency department has improved dramatically over the last few years. The availability of noninvasive monitoring devices and the use of short acting sedative and analgesic medications enable physicians to conduct safe and effective sedation and analgesia treatment. In today's practice of paediatric emergency medicine, sedation and analgesia has been considered as the standard of care for procedural pain.

This lecture will be focused on the basic principles of paediatric procedural sedation and analgesia in the paediatric ED.

121 SPECIAL ATTENTION FOR LONG-STAY PATIENTS?

doi:10.1136/archdischild-2012-302724.0121

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Background and aims PICU admission is a major event for children and their parents. Therefore our guidelines dictate that a primary care nurse is assigned to (expected) long-stay patients in any case after two weeks. The primary care nurse coordinates nursing care, informs and supports parents, and organizes multidisciplinary meetings. Because this guideline was not always followed we organized an awareness week. This study evaluates the effectiveness of this intervention.

Methods Data were collected retrospectively over two three-month periods: before and after the awareness week. Background variables including the presence of a primary care nurse were collected for all patients admitted > 2 weeks. The two periods were compared using chi square tests, Fisher exact tests and Mann-Whitney tests.

Results The percentage of patients assigned a primary care nurse dropped statistically significantly from 56.8% to 33.3%, $p=0.024$. Length of stay was statistically significantly shorter in the after period.

Abstract 121 Table 1

Variables	Before N=44 long-stay patients	After N=48 long-stay patients	p-value
Patient age in months, median (IQR)	6 (0 to 99)	2 (0 to 48)	0.40
Girls, n (%)	21 (47.7%)	22 (45.8%)	0.86
Length of stay, median (IQR)	26 (20 to 42)	22 (15 to 33)	0.036
Primary care nurse assigned, n (%)	25 (56.8%)	16 (33.3%)	0.024
Start day primary care, median (IQR)	12 (8 to 16)	12 (8 to 18)	0.76

Conclusions Regrettably, the awareness week did not bring about improvement in compliance with assigning a primary care nurse. On the contrary, the compliance was worse. Therefore we need to consider other strategies in the assignment procedure, which is now on a voluntary basis.

122 THE RIGHTS OF HOSPITALIZED CHILDREN. A SURVEY ON THEIR IMPLEMENTATION IN ITALIAN PEDIATRICS UNITS

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Background Several "Charts of rights" have been issued in Europe to solemnly proclaim the Rights of children during their hospital stay. However, notwithstanding such general declarations, the actual implementation of hospitalized children's rights is unclear. Nurses play a fundamental role in putting into effect the Charts of rights of hospitalized children.

Goal. To evaluate to what extent the rights of hospitalized children are actually respected in Italian Pediatrics Units.

Methods Cross-sectional study. The study was promoted by Italian Society of Pediatric Nursing Science (SISIP). A 12-item online questionnaire was set up and an invitation was sent by email to pediatric Nurses using SISIP's mailing lists. Responders indicated to what extent each right is respected in their hospital using a numeric scale from 1(never) to 5(always).

Results 536 questionnaires were returned. The best implemented right is the right of children to have their mothers with them (mean score 4.47). The least respected is the right of children to express their opinion about care (mean 3.01). Other rights considered: right to play (4.29), right of information (3.95), right to the respect of privacy (3.75), right to be hospitalized with peers (3.4), right not to experience pain ever (3.24), right to school (3.08). According to the majority of Nurses, the most important is the right to pain relief.

Discussion Despite official declarations, the rights of hospitalized children are far from being enforced in Italian Pediatrics Unit. Nurses must proactively participate to the respect of such rights, in particular the right to pain relief.

123 WEANING FROM VENTILATION: A DEVELOPING ROLE FOR PEDIATRIC INTENSIVE CARE UNIT (PICU) NURSES? EVIDENCE FROM TWO COCHRANE REVIEWS

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Background Mechanical ventilation (MV) carries potential risks to mortality and morbidity; therefore, weaning should not be delayed. To safely reduce ventilator support, practice has transitioned from individual preference to a structured approach with guidelines.

Objectives To highlight international challenges in developing PICU nurses' role in weaning children from MV by reviewing the

prevalence of, and evidence for, weaning protocols, and the current state of nurses' roles and responsibilities in ventilator weaning.

Main body Protocolised weaning has shown some success in reducing MV duration in adults and children. Consequently protocols have gained popularity with surveys reporting their use in 56–69% of European adults ICUs and 18% of UK PICUs. Findings from two systematic reviews show support for weaning protocols in adults, but that cannot yet be said regarding children. There are only a small number of randomised trials of protocolised weaning in children; they used diverse protocols and reported discordant findings making it impossible to pool results. Internationally, there is insufficient information about PICU nurses' role in weaning, but a recent UK survey reported that nurses rarely titrated ventilator settings. It is possible that reticence to actively engage in the weaning process is linked to associated risks with pediatric extubation, but does not explain why nurses cannot progress weaning to the point of extubation.

Key challenges If paediatric nurses are to confidently engage in the process of weaning they require suitable training and support. Developing appropriate protocols may be an important vehicle for safely changing practice in this respect.

124 EARLY INFLUENCES ON ASTHMA

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Childhood asthma is a common condition where symptoms are often present from preschool years and continue into adult life for many individuals. Asthma can be treated but not cured and the most promising means to reduce asthma prevalence is prevention. This talk will address two key questions relevant to asthma prevention: "what are the early influences on asthma?" and "when are they acting?". The focus will be on the fetal and preschool years and will include interactions between genetic and environmental factors. The audience will gain an understanding of the complexity of the early origins of asthma and also take home some (hopefully useful) practical advice for parents and governments.

125 COPD IN THE NEXT 50 YEARS-SHOULD WE BLAME THE NEONATOLOGISTS?

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In this talk, the current knowledge of respiratory sequelae following preterm birth in adulthood will be summarized. Specifically it will review respiratory symptoms, pulmonary function, exercise capacity and structural lung disease as determined by high resolution computed tomography.

How much of the problems of ex-preterms are due to natural causes, how much to iatrogenic causes? Of these two items, it is the natural influences that are studied most. A large number of cohort studies showed several themes that may have impact on lung development: antenatal factors such as the effects of smoking on airway anatomy and the fetal immune system, gene-environment interactions and post natal exposures. In this talk however, the focus will be on an area of growing interest- the iatrogenic long term influences on lung health. I mention here the follow up of neonatal intensive care but others exist such as the long term effects of lung transplantation.

During the talk data will be demonstrated showing that

- ex-preterms do have more respiratory symptoms, also later in life and that the preterms with the lowest mean birth weight do have the most symptoms.