pathphysiology. So it can be used as an early and sensitive marker for the evaluation of gut wall integrity loss in GE particularly rotavirus gastroenteritis (RV-GE) in Egypt.

Patients and methods This case-control cross-sectional study was conducted on 93 Egyptian cases who suffered from acute viral gastroenteritis. 28 healthy children matching in age were recruited as the control group. We collect all clinical data concerning disease manifestations and severity criteria.

Serum I-FABPs were measured using the Enzyme linked Immune Sorbent Assay (ELISA) technique. Viral detection and typing was done by Polymerase Chain Reaction (PCR) for adenovirus, and by Reverse transcriptase PCR (RT-PCR) for rotavirus, astrovirus and norovirus.

Results Results of this work revealed that serum I-FABPs levels were generally higher in the study group cases compared to the control group (1026.4 ± 494.4 pg/ml versus 267.9 ± 200.4 pg/ml, $P < 0.001$). They were also significantly higher in the 46 RV-GE cases compared to other types. Furthermore, Serum I-FABPs levels were significantly higher in severely dehydrated cases as compared to mildly dehydrated ones ($p = 0.037$). Serum I-FABPs levels were correlated significantly with those hospitalised ($r = 0.223$, $p < 0.05$).

Conclusion Serum I-FABPs can be successfully used not only as early and sensitive predictor marker of gut wall integrity loss in viral GE (especially RV-GE) but also their levels can indicate case severity.

Pulmonology/Allergy/Immunology/Asthma

PO-0994 LTRI IN PAEDIATRICS: ANALYSIS OF AN ANNUAL SURVEY

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Background and aims Lower tract respiratory infections (LTRI) are very frequent in paediatric population. We collected epidemiological, etiological and clinical data and correlated them to some variables.

Methods We performed an observational study of all children with a LTRI, admitted to our Paediatric Unit from February 2013 to January 2014. The population was grouped in three classes of ages (0–2yr, 3–6yr, >6yr). All patients underwent to a questionnaire focused on exposition to protective and risk factors for respiratory diseases.

Results 83 children were included. We grouped them according to discharge diagnosis and analysed the distribution for ages, sex and season of onset. At the admission 18 patients had respiratory distress; O₂ therapy was necessary for 11 of them, infusion therapy for 40, endovenous antibiotic therapy for 34.

Swabs were positive in 1 case for Parainfluenza viruses and in 2 for S. Aureus; sierological tests were positive in 5 cases for

Abstract PO-0994 Table 1

Diagnosis	N	Sex	0–2yr	3–6yr	>6yr	Hospital day
Pneumonia	56 (43 Typical-13 Atypical)	35M-21F	17	17	22	6,28
Bronchiolitis	9	6M-3F	all			5,1
Bronchitis	9	6M-3F	2	4	3	7,6
Wheezing	9	5M-4F	1	5	3	3,4

Mycoplasma Pneumoniae, in 2 for Chlamydia Pneumoniae, in 1 for ParvovirusB19, in 1 for Coxsackievirus. In 28 patients (33%) exposition to passive smoke was observed, in 17 (20%) to aero-allergens and in 33 (40%) a personal or familiar story of atopy.

Conclusions Our experience showed a higher prevalence of LTRI in males (63%), in winter (35%) and spring (33%), without a difference between preschool and school age children.

PO-0995 SWEAT TESTING SINCE THE INTRODUCTION OF NEWBORN SCREENING IN WEST MIDLANDS, UK

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Background Cystic Fibrosis (CF) is an autosomal recessive condition caused by gene mutation which affects sodium and chloride transport across the membrane of secretory epithelial cells. New born screening for CF was introduced in the West Midlands, UK in November 2006. ~20% of CF patients may present with meconium ileus. The majority of the remainder are expected to be picked through new-born screening. Sweat test remains the gold standard for the diagnosis of CF and is a critical component of +ve newborn CF screening protocol.

Aim To investigate the positive yield of sweat test at Queen's Hospital Burton Upon Trent (in patients with negative new born CF screen) since the introduction of new born CF screening.

Methods We retrospectively collected local data on all the sweat test results since the introduction of new born CF screening in the West Midlands.

Results Out of 129 sweat tests performed, only one case yielded positive result (born before new born CF screening). Another patient had a borderline test result which was subsequently repeated and found to be normal. Therefore, we effectively have no positive sweat test results so far since the screening commenced.

Conclusion Even though our data is encouraging and suggests increasing the threshold required for performing a sweat test (in individuals born after Nov 2006), this investigations should still be carried out in patients with high index of clinical suspicion as occasional cases will be missed despite universal new born CF screening programme.

PO-0996 ELEVATED LEVELS OF INTERFERON-INDUCIBLE PROTEIN 10 (IP-10) IN PATIENTS WITH 22Q11.2 DELETION (DIGEORGE) SYNDROME

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10.1136/archdischild-2014-307384.1614

Background and aim The 22q11.2 deletion syndrome (DS), also known as DiGeorge syndrome, is a genetic disorder with an estimated incidence of 1 in 4000 births. These patients may suffer from disorders of many organ systems, but cardiac malformations, thymic hypoplasia/aplasia, hypoparathyroidism, cleft palate and psychiatric disorders are most frequent. In addition, the

incidence of autoimmune diseases is increased in older patients. The reason for the latter is not known.

Methods Only patients with a proven deletion of chromosome 22q11.2 by *in situ* hybridization (FISH) test or multiplex ligation-dependent probe amplification assay (MLPA) was included in the study. Age and sex matched healthy controls were included. Serum levels of 27 cytokines, chemokines and growth factors were analysed using a multiplex cytokine assay. For comparison of two groups, the Mann-Whitney U test was used.

Results 22q11.2 DS patients had significantly raised serum levels of interferon-inducible protein 10 (IP-10) compared with healthy controls. In contrast, there was no significant difference in the serum levels of the other cytokines, chemokines and growth factors between 22q11.2 DS and healthy controls.

Conclusion Our finding suggest that IP-10, which has been shown to contribute to the development of autoimmune diseases, might play a significant role in the pathogenesis of 22q11.2 DS.

PO-0997 FOOD ALLERGY IN SOUTH OF TUNISIA

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10.1136/archdischild-2014-307384.1615

Background and aims Food allergies (FA) are two to three times more common in children than in adults and it is the first cause of anaphylaxis. The aims of this study are to describe the characteristic of FA in our country.

Methods Retrospective study over a period of 5 years (2009–2013) collected cases of FA in the paediatric department of Sfax.

Results There were 45 cases (sex ratio=2). The mean age at onset of symptoms was 5 months. The symptoms were triggered by ingestion of the food in all cases and contact and inhalation (4 cases). They were digestive symptoms (33 cases), cutaneous (23 cases), respiratory symptoms (8 cases) and anaphylaxis (4 cases). Skin prick tests were performed in 29 cases and Atopy patch test (9 cases). Oral food challenge was performed in 14 patients. Cow's milk protein allergy (CMAP) was the most common allergy (33 cases), followed by egg (6 cases), fish (4 cases), peanuts (4 cases), nuts (3 cases), sesame (2 cases) and goat milk (1 case). 5 children had multiple FA. After a mean follow-up of 21 months, the acquisition of tolerance was complete in 18 patients and partial in 7 cases with tolerance of cooked foods. A desensitisation protocol was started in 4 patients with persistent CMAP, with a full acquisition of tolerance in one case and partial (2 cases). Asthma associated with FA was the only risk factor for persistent allergy in our study.

Conclusion FA is increasing in our country. CMAP is the most common allergy (73%). The results of oral desensitisation in persistent FA are encouraging.

PO-0998 ASTHMATIC INFANT IN SOUTH OF TUNISIA STUDY OF 156 CASES

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10.1136/archdischild-2014-307384.1616

Background and aims Asthma is the most common chronic disease of childhood. The aims of this study is to describe epidemiological and clinical characteristics of asthmatic infant in south of Tunisia and to identify factors of uncontrolled asthma.

Methods A retrospective study of asthmatic infant <3 years enrolled in the paediatric department of Sfax over a period of 5 years (2007–2011). We were interested to social and environmental factors, in the allergic background, clinical severity of the disease at the beginning, results of allergic skin tests and respiratory outcome.

Results We collected 156 children with a sex ratio of 2.31 (109 male and 47 female). Family history of atopy and exposition to passive tobacco were noted in 45% and 50% of cases respectively. Atopic dermatitis was found in 22 cases. The mean age of onset of wheezing was 6.43 months where as the mean age of asthma diagnosis was 14 months. Triggers were viral infections in 64% of cases. Gastroesophageal reflux disease was associated to asthma in 30 cases. Skin tests were positives in 30% of cases. 121 patients (77%) had a persistent wheezing and inhaled corticosteroids were initiated. After a mean follow-up of 23 months, good adherence was achieved in 38.1% and asthma was controlled in 26.8% of cases. A complete clinical remission was achieved in 17 patients (13.5%) at an average age of 30 months.

Conclusion Factors of poor asthma control found in our study were the presence of atopic dermatitis ($p = 0.035$).

PO-0999 SUBOPTIMAL VITAMIN D STATUS IN A POPULATION-BASED STUDY OF ASIAN CHILDREN: PREVALENCE AND RELATION TO ALLERGIC DISEASES AND ATOPY

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Background and aims New evidence shows high prevalence of vitamin D deficiency in many countries and some studies suggest a possible link between vitamin D status and allergic diseases. The objectives of this study were to determine the prevalence of suboptimal vitamin D status in a population sample of Asian children and to investigate the relationship of vitamin D status with allergic diseases and atopy.

Methods Children aged 5–18 years ($n = 1315$) in the Prediction of Allergies in Taiwanese Children (PATCH) study were evaluated using questionnaires, anthropometric measurements, and serum levels of 25-hydroxyvitamin D [25(OH)D] and total and specific immunoglobulin E (IgE).

Results The mean concentration of serum 25(OH)D was 20.4 ng/mL (SD: 7.1 ng/mL). Vitamin D deficiency (defined as serum 25(OH)D $p = 0.001$), winter and spring seasons (compared to summer; P both $p = 0.011$) were independently associated with low serum 25(OH)D levels. After adjusting for potential confounders, serum 25(OH)D status had no association with asthma, rhinitis, eczema, atopy, or total serum IgE (all $p > 0.05$).

Conclusions Low serum 25(OH)D levels are remarkably common in this population sample of Asian children, which should be a matter of public health concern. Our results provides epidemiological evidence against the association of vitamin D status with various allergic diseases and atopy in Asian children.