Abstract PO-1021 Table 1 Symptom profile of children in the CAP cohort

Presenting symptoms	
History of episodic cough	594 (99%)
Presence of Dry cough	366 (61%)
Predominantly Night-time cough	407 (68%)
Predominantly Day-time cough	59 (10%)
No diurnal variation in cough	128 (21%)
History of episodic wheezing	468 (78%)
Predominantly Night-time wheezing	332 (71%)
Predominantly Day-time wheezing	46 (10%)
No diurnal variation in wheezing	90 (19%)
Limitation in activity/play	433 (72%)
Chest tightness (among 352 children >60mo)	38/352 (11%)
Associated symptoms suggesting atopy	359 (60%)
Nasal symptoms, n (%)	
Frequent episodes of runny nose	201 (79%)
Episodic sneezing	113 (45%)
Itchy nose	31 (12%)
Blocked nose	9 (4%)
Skin symptoms	
Current diagnosis of atopic dermatitis	23 (26%)
Previous diagnosis of atopic dermatitis	49 (54%)
Undiagnosed previous itchy skin lesions	18 (20%)
Eye symptoms	
Frequent eye watering and redness	29 (83%)
Itching in eyes	25 (71%)
Pain in eyes	6 (17%)
Other symptoms	
Gastro-intestinal symptoms, n (%)	
Symptoms suggesting reflux	73 (68%)
Vague abdominal pain	21 (19%)
Altered bowel habits	14 (13%)
Chest pain (non-specific)	25 (4%)
Family history of atopy (first degree relative)	382 (64%)
Asthma	154 (40%)
Allergic rhinitis	209 (55%)
Skin allergy	19 (5%)
Combination of any of the above	63 (16%)

Abstract PO-1021 Table 2 Parental perception of exacerbating and relieving factors in the CAP report

Parental perception of exacerbating factors	
Seasonal variation in symptoms	
Symptoms worse during winter	111 (24%)
Symptoms worse during summer	28 (6%)
Symptoms worse during monsoon	14 (3%)
Symptoms worse during change of season	308 (68%)
Suspected outdoor allergens	
Pollens	84 (15%)
Ventricular pollution	55 (12%)
Proximity to wheat fields (194 children)	101 (52%)
Exposure to wheat threshing (294 children)	208 (71%)
Exposure to farm animals (301 children)	21 (6%)
Parental occupational exposure to allergens (223 children)	13 (6%)
Suspected indoor allergens	
House dust	188 (30%)
Smoke from burning solid fuel (210 children)	151 (72%)
Smoke from cooking (94 children)	49 (52%)
Exposure to tobacco smoke (45 children)	37 (82%)
Exposure to household pets (91 children)	11 (12%)
Playing with soft toys (381 children)	12 (3%)
Use of cosmetics (290 children)	12 (4%)
Dampness on walls/ceiling (91 children)	38 (42%)
Dietary allergens	
Consumption of nuts (438 children)	0 (0%)
Consumption of egg (243 children)	3 (1%)
Consumption of fish (30 children)	0 (0%)
Consumption of milk (583 children)	10 (3%)
Consumption of fruits (399 children)	141 (35%)
Consumption of pulses/legumes (441 children)	5 (2%)
Consumption of 'cold' products (cold drinks, ice-cream, cold eatables) (441 children)	265 (60%)
Consumption of processed items viz potato chips, noodles, ketchup and mixtures (354 children)	188 (53%)
Intake of medications with potential for exacerbation (48 children)	0 (0%)
Unable to identify a single exacerbating factor	26 (4%)
Parental perception of relieving factors	
Spontaneous Medication	
Bronchodilator by nebulised route (445 children)	385 (87%)
Bronchodilator by oral route (432 children)	87 (20%)
Short course oral steroid therapy (111 children)	27 (24%)
Alteration in dietary pattern and/or concerns (390 children)	101 (26%)
Unable to identify any relieving factor(s)	114 (19%)

Classification of severity, treatment plan, follow-up protocol and monitoring of response were as per GINA Guideline.

Results The mean age of enrolled children was 73.4 months (range 3–144) and mean age of symptom onset was 45.0 months (range 3.0–75.0). The age distribution was: <12 months (20, 3.3%), 12–60 months (228, 38.0%), 60–144 months (352, 58.7%). The male:female ratio was 2.7. Severity classification was: Mild intermittent-12.0%, Mild persistent-18.0%, Moderate-persistent-63%, Severe persistent-7%. Table 1 summarises the symptom profile and Table 2 shows parental perception of exacerbating/relieving factors.

Conclusion These observations suggest that childhood asthma phenotype in a developing country setting is distinct from developed countries.

PO-1022 CORRELATION OF PHENOTYPIC EXPRESSION WITH RESPONSE TO THERAPY IN INDIAN CHILDREN WITH BRONCHIAL ASTHMA

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Background Clinical experience suggests that asthmatic children in developing countries have a different phenotype and therapeutic response than in developed countries.

Objective To correlate therapeutic response in childhood asthma with phenotypic features.

Methods 180 children in the Childhood Asthma Phenotype (CAP) cohort (n = 600, age <12y, diagnosis based on NAEPR III Guidelines) underwent evaluation of phenotypic characteristics using a pre-tested semis-structured questionnaire. Classification of severity, treatment plan, follow-up protocol and monitoring of response were done as per GINA Guideline. Response to therapy was assessed 6 months after initiating treatment and modifying the drug/dose as required. Disease control was defined as per GINA.

Results The mean age of enrolled children was 81.4mo (range 3.0 to 144.0) with age distribution <12 months=9, 12–60

Abstract PO-1022 Table 1 Distribution of characteristics in children with uncontrolled versus controlled disease

Horizontal (Category) Axis		Disease Uncontrolled n=23	Disease Controlled n=127	Odds ratio (95% C.I.)
Gender	Male (n)	15 (13.40%)	97 (86.60%)	0.58 (0.22, 1.50)
	Female (n)	8 (21.05%)	30 (78.95%)	
Age	<1 year (n, %)	8 (22.2%)	28 (77.8%)	1.86 (0.66, 5.20)
	1-5 year (n, %)	10 (13.3%)	65 (86.7%)	
Cough duration	>12 months	19 (82.6%)	88 (69.8%)	2.11 (0.67, 6.60)
	<12 months	4 (17.4%)	39 (30.2%)	
Wheeze	>12 months	17 (73.9%)	59 (46.5%)	3.27 (1.20, 8.82)
	<12 months	6 (26.08%)	68 (53.5%)	
Night time symptoms	Present	12 (75%)	54 (42.5%)	33.55 (9.25-121.71)
	Absent	11 (8.2%)	89 (70.1%)	
History of atopy	Present	12 (52.17%)	65 (51.18%)	1.04 (0.42, 2.53)
	Absent	11 (47.83%)	62 (48.82%)	
Family history of asthma	Present	11 (47.8%)	73 (57.5%)	0.68 (0.28, 1.65)
	Absent	12 (52.2%)	54 (42.5%)	
Family history of atopy	Present	17 (17.0%)	83 (83.0%)	1.50 (0.55, 4.08)
	Absent	6 (12.0%)	44 (88.0%)	
Seasonal exacerbation	Present	18 (16.51%)	91 (83.49%)	1.42 (0.49, 4.12)
	Absent	5 (12.20%)	36 (87.80%)	
Exposure to outdoor allergens	Present	16 (16.50%)	81 (83.50%)	1.30 (0.50, 3.39)
	Absent	7 (13.21%)	46 (86.79%)	
Exposure to indoor allergens	Present	19 (82.6%)	89 (70.1%)	0.80 (0.31, 2.02)
	Absent	8 (19.0%)	34 (80.9%)	

months = 111, 60–144 months = 180. Severity classification: Mild intermittent=33, Mild persistent=61, Moderate persistent=181, Severe persistent=25. Children with persistent asthma received inhaled corticosteroid with (26%) or without (74%) long-acting-bronchodilator or Leukotriene-receptor-antagonist. Those with intermittent asthma received short course of bronchodilator. After 6mo, disease control could be assessed in 150 children who had at least 90% adherence to the prescribed treatment. Table 1 shows the distribution of demographic features, symptom profile, personal and family atopy, and exacerbating/triggering factors, in children with uncontrolled versus controlled disease.

Conclusion With the exception of night time symptoms at presentation, there are no specific features that can predict poor response to therapy in children with bronchial asthma.

PO-1023 OVER-PRESCRIPTION OF ADRENALINE AUTO-INJECTORS IN SCHOOL AGE CHILDREN?

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Anaphylaxis is an acute, potentially life-threatening condition. Referral to specialist allergy services is vital to allow identification of triggers involved. One of the key purposes of these clinics is prescription of rescue medication, which can include adrenaline auto-injectors.

Aim We reviewed all patients who attended the Paediatric Allergy Clinic and were supplied with an adrenaline auto-injector over the period of January 2008–December 2013. We aimed to compare this number with the number of children with anaphylaxis care-plans in schools within the Northern Health and Social care trust.

Method We reviewed all submissions to the Adrenaline Auto-injector log-book. This is held at the Paediatric Allergy Clinic and completed each time a patient is seen who has been prescribed an adrenaline auto-injector. Information was obtained from the Public Health nursing team to ascertain the number of children with an anaphylaxis care-plan for school.

Results In 2013 there were 49,286 children aged between 5–16 years within the NHSC; 580 children were identified with an anaphylaxis care-plan held in school. Prevalence of school aged children at risk of anaphylaxis was 1.2%. Only 160 children (from birth to 18 years), with adrenaline auto-injector devices were reviewed at the allergy clinic in 2013, with 157 reviewed in 2012.

Between January 2008 and December 2013 there was six fold increase in patients seen at the Paediatric Allergy Clinic. We reviewed a total of 476 submissions to the Adrenaline Auto-injector logbook; 339 new patients and 137 review patients. There were no specific trends identified with regard to gender but there was a majority of patients under 5 yrs. There was a predominance of nut allergy in the new and review patients. Of the 68 new patients identified with an egg allergy 18% had a sole egg allergy, all of who had been prescribed an adrenaline auto-injector.

Conclusion There is a major shortfall with regard to the total number of children within the Northern HSCT who have been prescribed an adrenaline auto-injector and those who are seen at the Paediatric Allergy Clinic. This study has focused future efforts to review each of these patients in a formal paediatric allergy setting.

PO-1024 THE IMPORTANCE OF PROINFLAMMATORY CYTOKINE'S IN IMMUNE RESPONSE IN MYCOPLASMA PNEUMONIAE INFECTION IN CHILDREN WITH BRONCHOPULMONARY AFFECTATION

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Aims Our study was to evaluate proinflammatory cytokine's (IL-2) interaction with humoral immunity in children with *Mycoplasma pneumoniae* lower respiratory tract infection.

Methods The study group included 20 children, aged 5 months – 7 years, with pneumonia and wheezing induced by *Mycoplasma pneumoniae* infection. The diagnosis of *M.pneumoniae* was based on clinical, radiological and on the immunological determinations of specific antibodies in diagnosis titers. Levels of IgA, IgM, IgG, IL-2 were determined in serum samples obtained from all children and were tested by ELISA.

Results IL-2 levels in children with *Mycoplasma*-positive bronchopulmonary disease was $36,51 \pm 2,26$ pg/ml (variation 20,0–100,85 pg/ml) and it is higher, than in healthy children (variation 2,44–7,2 pg/ml) pg/ml. In study group average level of IgA was $0,96 \pm 0,13$ g/l did not differ from levels of IgA in healthy children ($0,9 \pm 0,04$ g/l). But level of serum IgM was higher ($p < 0,05$) in *Mp*-positive group ($1,8 \pm 0,16$ g/l) in comparison with levels of IgM in healthy children ($1,2 \pm 0,1$ g/l). In study group level of IgG was higher ($9,47 \pm 0,67$ g/l; $p < 0,05$) in comparison with age norms ($7,5 \pm 0,1$ g/l).

Conclusion Inflammatory processes in children with *Mycoplasma pneumoniae* infection are characterised by hyper production of IL-2, and they are associated with high serum levels of IgM, IgG.

PO-1025 PERSISTENT WHEEZING CASES AND TREATMENT WITH INTRAVENOUS IMMUNOGLOBULIN DURING INFANCY

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Background When a physician comes across patients with recurrent wheezing are resistant to β_2 -agonist and anti-cholinergic therapy, known as atypical wheezing cases; he should investigate for hypogammaglobulinemia in these patients.

Aim Here, 3 cases are reported to make paediatricians aware of hypogammaglobulinemia, which is one of the reasons causing recurrent and persistent wheezing attacks during infancy and beyond.

Case presentations Case 1: 24 month-old girl presented to us with complaining of coughing and persistent wheezing. Her symptoms persisted even though she was using religiously nebulized salbutamol+budesonid therapy. Before this episode, she had 9 other wheezing attacks in her past medical history beginning from 2 months of age. Low IgG level (358 mg/dl) was detected at two different times. At the fourth day of admission, she was given IVIG 500mg/kg/dose. Case 2: 8-month-old girl came to our outpatient clinic with complaints of coughing and wheezing. Despite routine therapy, wheezing persisted for 2 months and wheezing severity increased and it did not respond to β_2 -agonist therapy. Low IgG level (304 mg/dl) was detected at two different times. At the 15th day of admission, she was