[1]Universiti Sains Malaysia, Penang, P. Penang, Malaysia, [2]Universiti Sains Malaysia, Penang, Malaysia, [3]King Saud University, Riyadh, Riyadh, Saudi Arabia, [4]Universiti Sains Malaysia, Penang, P.Pinang, Malaysia, [5]University of Balochistan, Quetta, Balochistan, Pakistan

OBJECTIVES: To evaluate Health Related Quality of Life (HRQoL) among general population of Quetta city, Pakistan. **METHODS:** The study was designed as a questionnaire-based cross sectional analysis. European Quality of Life scale (EQ-5D) was used for assessment of HRQoL. A total of 1500 healthy participants from March 2011 to July 2011, aging 18 years and above were approached. Descriptive statistics were used to describe demographic characteristics of the general population. Percentages and frequencies were used to categorize the categorical variables, while means and standard deviations were calculated for the continuous variables. Inferential statistics (Mann-Whitney and Kruskal Wallis tests) were used where appropriate. HRQoL was scored using values adapted from the UK general population survey. All analyses were performed using SPSS 16.0. **RESULTS:** One thousand five hundred questionnaires were distributed and 1255 were returned (with response rate of 83.67%). Six hundred and forty three (51.2%) were males. Majority (n=427, 34.0%) were categorized in age group of 28-37 years. Three hundred and thirty three (26.5%) had intermediate level of education. Two hundred and ninety one (23.2%) had monthly income of in between 10001-15000 Pakistan rupees with 828 (66.0%) having urban residency. HRQoL was measured as 0.64±0.21 and VAS score was 68.71±11.71. Only age and marital status, among all demographic characteristics had significant relation with HRQoL score (p<0.05). **CONCLUSIONS:** Results of the present study provide the general health status of healthy population of Quetta city, Pakistan, which could sever as baseline data for further investigations.

RESPIRATORY-RELATED DISORDERS - Clinical Outcomes Studies

PRS1

COST-UTILITY OF MOLECULAR IGE IN VITRO DIAGNOSTICS (IVD) IN CHILDREN SUSPECTED WITH PEANUT ALLERGY COMPARED TO MOST USED DIAGNOSTICS IN SELECTED ASIAN MARKETS

Hermansson LL[1], Glaumann S[2], Mascialino B[1], Wang LL[3], Nilsson C[4]
[1]Thermo Fisher Scientific, Uppsala, Sweden, [2]Södersjukhuset, Stockholm, Sweden, [3]China Allergology Society and Chinese Allergists, Uppsala, Sweden, [4]Sachs Childrens Hospital, Stockholm, Sweden

OBJECTIVES: In vitro diagnostic (IVD) has a considerable health economic impact: 60% of patients' information derives from IVD tests, but IVD makes 1% of the total health care budget in EU (EDMA, 2010). No cost-effectiveness (CE) analyses are available on molecular IVD in allergy; only NICE in the UK made a CE study IgE IVD for peanut allergy (PA). Given the impact of PA on quality of life (QALY), accurate diagnosis is crucial. 10% of children are considered peanut sensitised, but only 1-2% is true positive for PA world-wide. Subjects with IgE antibodies to allergens Ara h1-2-3 have high risk of allergic reactions (Astier, 2006). DBPCFC is the gold-standard for food-allergy diagnosis; however it is time-consuming, expensive and might induce severe reactions in PA subjects (Nicolau, 2010). Other cheaper options such as open challenge are also used. IVD can give clinicians a tool to decide the need of DBPCFC (Sastre, 2010); is IVD CE per QALY (CEQ) compared to DBPCFC or open challenge in suspected PA children in selected Asian markets (China, Japan and Korea)? **METHODS:** Clinical data was collected at Stockholm's Sach's Childrens hospital (Nilsson, 2011) and from published literature. A 5-year simulation model comparing IVD (ImmunoCap® - allergens f13, Ara h 1- 2-3-8-9) with DBPCFC or open challenge was developed with Exel ®, to analyse CE for IVD. The sensitivity and specificity of each diagnostics determines the percentage of patients true-allergic, false-allergic, true-healthy and false-healthy. Results are presented from the health care perspective. **RESULTS:** IgE IVD is CEQ and cost saving for children with suspected PA in multiple countries compared to gold-standard DBPCFC or open challenge. **CONCLUSIONS:** IVD is a CEQ alternative to DBPCFC in selected patients in multiple countries. DBPCFC might be replaced in selected cases, still being useful in subjects with conflicting immunological/clinical results (Codreanu, 2011).

PRS2

META-ANALYSIS OF THE EFFECTS OF THEOPHYLLINE ON KIDNEY FUNCTION IN NEONATES WITH PERINATAL ASPHYXIA

Pongmesa T, Poolsup N, Sirirattanapong K, Jitareerat S, Lertsesatid Y
Department of Pharmacy, Faculty of Pharmacy, Silpakorn University, Mueang, Nakhon Pathom, Thailand

OBJECTIVES: A number of studies have demonstrated that theophylline could prevent acute renal failure in neonates with perinatal asphyxia. No meta-analysis on this topic, however, is available. Hence, we aimed to conduct a meta-analysis on the efficacy of theophylline in preventing impaired renal function in such neonates. **METHODS:** A systematic search was performed through following electronic databases: PubMed, ScienceDirect, Cochrane Library and Wiley Online Library from their respective inception until February 2012. The bibliography of the retrieved studies was also reviewed. The searching keywords included: theophylline, asphyxia, renal dysfunction, kidney dysfunction, renal failure, neonate, newborn and randomized controlled trial. The inclusion criteria for study selection were: 1) being a randomized controlled trial (RCT); 2) evaluating the effects of theophylline on kidney function in neonates with perinatal asphyxia; and 3) reporting on serum creatinine (SCr) or glomerular filtration rate (GFR); and 4) being published in English. Study quality was assessed by the Jadad scale. Results were pooled using inverse variance-weighted method. Data were analyzed using Review Manager (RevMan) version 5.1.4. **RESULTS:** Altogether five RCTs met the criteria. All studies investigated the effect on SCr while only three of them reported the effect on GFR. The total numbers of patients included in the evaluation of effect on SCr and GFR were 247 and 127, respectively. Theophylline was found to significantly

reduce SCr, with the pooled mean difference in SCr being -0.32 mg/dL (95%CI: -0.52 to -0.13 mg/dL, p=0.001). Likewise, it was found to significantly increase GFR, with the pooled mean difference in GFR being 10.20 ml/min (95%CI: 4.80 to 15.59 ml/min, p=0.0002). **CONCLUSIONS:** This study suggests beneficial effects of prophylactic theophylline on reducing kidney dysfunction in neonates with asphyxia. Due to the small number of studies included in the analysis, however, a future meta-analysis including more RCTs is warranted to verify these findings.

PRS4

EVIDENCE SYNTHESIS OF ASSOCIATION OF HLA-B*1502 ALLELE AND CARBAMAZEPINE -INDUCED STEVENS JOHNSON SYNDROME AND TOXIC EPIDERMAL NECROLYSIS: A SYSTEMATIC REVIEW

Tangamornsuksan W[1], Chaiyakunapruk N[2], Somkrua R[3], Lohitnavy M[4], Tassaneeyakul W[5]
[1]Center of Pharmaceutical Outcomes Research, Muang, Phitsanulok, Thailand, [2]Center of Pharmaceutical Outcomes Research, Muang, Phitsanulok, Thailand, [3]Kasemrad Sriburin Hospital, Muang, Chiangrai, Thailand, [4]Center of Excellence for Environmental Health & Toxicology, Muang, Phitsanulok, Thailand, [5]Research and Diagnostic Center for Emerging Infectious Diseases, Muang, Khon Kaen, Thailand

OBJECTIVES: Despite some studies suggesting a possible association between human leukocyte antigen (HLA), HLA-B*1502 and carbamazepine induced Stevens - Johnson syndrome (SJS) and Toxic Epidermal Necrolysis (TEN), the evidence of association and its magnitude remain inconclusive. This study aims to systematically review and quantitatively synthesize the association between HLA-B*1502 allele and carbamazepine -induced SJS/TEN. **METHODS:** : A comprehensive search was performed in databases including Pubmed, Embase, CINAHL (Cumulative Index to Nursing and Allied Health Literature), IPA (International Pharmaceutical Abstract), HuGENet (Human Genome Epidemiology Network), Cochrane library and reference lists of studies, without language restriction. Databases were searched from their inception to July 2011. All studies were extracted by two independent authors. The primary analysis was the carrier frequency of HLA-B*1502 comparison between carbamazepine -induced SJS/TEN case and carbamazepine tolerant control. The summary odds ratios were calculated using a random-effects model. **RESULTS:** From 349 articles identified, 13 studies were included; 8 studies with 150 SJS/TEN cases and 498 matched-controls (carbamazepine tolerant control) and 5 studies with 45 SJS/TEN cases and 2,464 population-controls (general population). We found a statistically significant association between HLA-B*1502 allele in both groups of studies with matched-control (odds ratio (OR) = 124.18, 95% confidence interval (CI) = 47.48 - 324.77) and population-control (OR = 66.42, 95% CI = 9.20-480.04). Subgroup analysis in matched-control studies according to ethnicity yielded similar and significant findings (Han-Chinese odds ratio (OR) = 236.24, 95% confidence interval (CI) = 71.72 - 778.11; Thai odds ratio (OR) = 54.43, 95% confidence interval (CI) = 16.28 – 181.96). **CONCLUSIONS:** We found a strong and significant association between HLA-B*1502 and carbamazepine -induced SJS/TEN. Therefore, HLA-B*1502 allele screening should be considered in population with high risk of SJS/TEN.

RESPIRATORY-RELATED DISORDERS - Cost Studies

PRS5

COST ANALYSIS OF CHILDHOOD ASTHMA IN IRAN: A COST EVALUATION BASED ON REFERRAL CENTER DATA FOR ASTHMA & ALLERGIES

Rezvanfar MA[1], Kebriaeezadeh A[2], Moein M[3], Nikfar S[4], Gharibnaseri Z[3], Abdollahi-Asl A[3]
[1]TUMS, tehran, Iran, [2]Tehran University of Medical Sciences, Tehran, Iran, [3]TUMS, Tehran, Iran, [4]Tehran University of Medical Sciences, Tehran, Tehran, Iran

OBJECTIVES: Asthma as the most common chronic disease in childhood reduces the quality of life of children and their families. We aimed to estimate the cost of managing childhood asthma in Iran and to examine its variability depending on asthma severity. **METHODS:** The cost of asthma was estimated by building a cost assessment model regarding the factors that influence the cost of asthma in children including; age and sex distribution, prevalence of disease severity, level of resource utilization depending on disease severity (3 groups of controlled, partly controlled and uncontrolled were defined). The model was comprised of both medical (cost of medication, physician visit and respiratory tests) and nonmedical costs (transportation and hoteling). Furthermore the average family income in each category was figured and the share of asthma managing costs from the average income was calculated in different groups. **RESULTS:** According to the model, the total cost of childhood asthma in Iran was around 468 million dollars. Moreover, direct medical cost represented 45% of the total costs, among which 66% accounting for medication cost. Direct nonmedical costs, was estimated 55% with the majority (93%) expended on transportation. Additionally, the mean annual cost per child was approximately 541 dollars. In addition the results indicate the vast majority of patients (46%) are categorized in the uncontrolled group. **CONCLUSIONS:** The cost of childhood asthma in Iran is extremely high comparing to the average income of Iranian families in all categories of asthma severity. Considering the high amount of transportation cost, the accessibility of asthma treatment does not appear to be acceptable. The major source of costs is considered with the health care system expenditures that does not necessarily result in a well-controlled disease status.

RESPIRATORY-RELATED DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

PRS6

SELF-REPORTED ADHERENCE TO INHALED CORTICOSTEROIDS AND BELIEFS ABOUT MEDICINES IN ASTHMA PATIENTS: A STUDY FROM EMERGENCY ROOM OF A CHEST HOSPITAL IN DELHI, INDIA