

Emergency Department (ED). 50% (3/6) of patients had acute symptoms prior to the fatal episode. None of the patients were attending secondary/tertiary services at the time of death. 60% (3/5) had a written personalised action plan. 75% (3/4) patients had been reviewed by the GP in the previous six months for an acute exacerbation and all had been prescribed oral steroids.

Conclusion Data suggests that most patients present to ED late, in extremis and with little warning signs of severity of the attack. Identifying those at risk is difficult. Better education on recognition of symptoms and initiation of action plan is required.

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P544 REVIEW OF NON-INVASIVE VENTILATION SERVICE IN AN IRISH PAEDIATRIC CENTRE

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Introduction Non-invasive ventilation represents a major advance in the treatment of acute respiratory failure with well-established clinical utility.

Aim This study aimed to review number, indication and adherence to NIV in an Irish paediatric centre between February 2011 and December 2018.

Methods A retrospective review of pediatric patients requiring non-invasive home ventilation was collected from 2011 to 2018. Adherence was recorded by downloads from the PAP device. 'Adequate' adherence was defined as ≥ 4 h/night for 50% of days

Results Over a period of almost 8 years (2011–2018) there were 97 pediatric patients needed to be started on home NIV for a diversity of medical reasons. 31% were due to non-syndromic adenotonsillar hypertrophy, 30% were due to triosomy 21 with upper airway obstruction, 18% were having Prader Willi Syndrome, 15% were having neuromuscular diseases, 6% were due to obesity.

The average age was 11.5 ± 5 years with male: female ratio 1:1.3.

The distribution of the patient according to the type of NIV were 89% on CPAP and 11% on BiPAP.

Of those 97 patients on home NIV, 50% (n=48) were non-compliant with NIV, 42% (n=41) were compliant with NIV, 8% (n=8) were stopped using NIV for different reasons like improvement after adenotonsillectomy, non-tolerance, refusal and for non-clear reasons.

The reasons for non-adherence included, 31% (n=15) were due to refusal, 27% (n=13) were due to intolerance, 17% (n=8) were due to behavioral reasons, same percentage was for the sensory reasons, 8% (n=4) were due to parental issues.

Conclusion In this Irish paediatric cohort (predominantly non-obese), the majority of our patients were on CPAP. The adherence to Bi-level was 73% whereas; it was 33% for CPAP. Adherence issues remains a major challenge in our population despite close monitoring.

P545 EPIDEMIOLOGY AND CLINICAL MANIFESTATIONS OF ACUTE VIRAL RESPIRATORY INFECTIONS IN PEDIATRIC PATIENTS IN UKRAINE

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Background Acute respiratory tract infections (ARTI) in children are the leading cause of morbidity in Ukraine. The role of respiratory viruses in the clinical manifestations of ARTI in children in Ukraine has not been sufficiently studied.

The aim of study

To investigate the etiology of ARTI and compare the clinical features of different virus infections in children during the period from September 2018 to January 2019.

The methods Nasopharyngeal swabs, collected from ARTI children aged 2 months - 16 years, who received outpatient treatment or were hospitalized to Eurolab clinic (Kyiv, Ukraine) were examined. They were screened for 7 respiratory viruses using Multiplex PCRs - *Respiratory Syncytial virus (RSV)*, *Parainfluenza virus (PIV)*, *Adenovirus (AdV)*, *human Metapneumovirus (hMPV)*, *Rhinovirus (RV)*, *human Bocavirus (hBoV)* and *Coronavirus (CoV)*. Although rapid influenza diagnostic test was used.

Results Respiratory pathogens detected in 125 of the 147 (85,0%) samples. *HMPV* was detected in 33 children. Clinical manifestation of *hMPV* infection were: tracheobronchitis - 13, pneumonia - 6, obstructive bronchitis - 7, bronchiolitis - 3, rhinopharyngitis -3, laryngitis -3. *Influenza A (IVA)* was detected in 28 children with ARTI: tracheobronchitis - 13, pneumonia - 6, obstructive bronchitis - 2. Half of children with *IVA* also have symptoms of rhinopharyngitis. *RV* was detected in 21 children, 12 of them have symptoms of rhinopharyngitis, 3 - croup and 3 - wheezing, 2 - bronchitis and 1 - laryngitis. Clinical characteristics of others viruses are following: *RSV* was detected in 10 children, it caused pneumonia (3 cases), obstructive bronchitis (5 cases). *HBoV* was detected in 7 children and caused rhinopharyngitis, laryngitis (6 cases), tracheobronchitis (2), two child had viral exanthema. *AdV* was detected in 5 children and caused rhinopharyngitis with lymphadenopathy in 3 cases, pneumonia in 2 cases. *PIV* during season caused rhinopharyngitis, laryngitis (2 cases), croup (1 case), obstructive bronchitis (1 case). The coinfection percentage was 13, 5%.

Conclusions During epidemic season in Ukraine the most prevalent viruses were *hMPV* -33 (26,3%), *IVA* -28 (22,4%), *RV* - 21 (16,8%). Using Multiplex PCR assay can be helpful in prognosing of probable clinical course of disease, for optimization therapy.

P546 A REVIEW OF THE NURSE-LED MDT CYSTIC FIBROSIS (CF) INFANT CLINIC IN TALLAGHT HOSPITAL

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Background Newborn screening (NBS) for CF offers the opportunity for early intervention and improved outcomes.¹