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USE OF TB-ELISPOT FOR DIAGNOSIS OF TUBERCULOSIS IN CHILDREN

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Use of Interferon- γ testing (TB-ELISPOT) for tuberculosis in children:

Aim of study: To look at usefulness of TB-Elispot for contact tracing for Tuberculosis in children in comparison with routine tuberculin skin test or mantoux
Background: UK On 22 March 2006, The National Institute for Health and Clinical Excellence (NICE) published their Guidelines for TB control in England and Wales. The NICE **Guidelines recommend:**

- Use IGRAs as the front line test for latent TB infection in preference to the tuberculin skin test (TST) where the skin test may be "less reliable" including all immunocompromised patients
- Use IGRAs as a secondary, confirmatory test in all cases when the TST is positive. The IGRA is used as a means of screening out TST false positives
- IGRAs also have a role to play in the diagnosis of TB disease especially in non-pulmonary TB and as a rule-out test in TB suspects

Methods: 40 children over a 15 month period had contact tracing done using the traditional tuberculin skin test or mantoux, followed by TB-Elispot where necessary as per national NICE guidance in UK.

Results: 10 cases out of 40 needed TB- Elispot; no negative ones where mantoux was positive. 1 case of TB- Elispot was positive even when mantoux was negative (done in view of close contact history and positive sputum)

Discussion: TB-Elispot appears to be a useful test in picking up both active and latent Tuberculosis in children and should be routinely used

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PANDEMIC INFLUENZA (H1N1) INFECTION IN PEDIATRIC AGE GROUP IN SOUTHERN IRAN

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Background: A novel strain of H1N1 Influenza (A/California/7/2009) has been prevalent since April 2009. Epidemiological and clinical studies showed that children at high risk for severe infection.

Objective: to determined the prevalence of new H1N1 in children with fever, cough, sore throat, bronchiolitis, pneumonia and wheezing symptoms.

Methods: pharyngeal swabs were taken from 450 children aged (1-60 months) with respiratory tract symptom between June 2009 to April 2010. The specimens were tested using real time reverse transcription-PCR.

Results: out of 450 samples 130 were tested positive for pandemic H1N1 infection.

Conclusion: According to our results 29.1% of respiratory infection in children in the south of Iran was due to new H1N1 during the foregoing pandemic. Our analysis revealed no significant correlation between males and females.

Key words: new H1N1, Iran, pediatrics influenza

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PREVALENCE OF HUMAN METAPNEUMOVIRUS (hMPV) IN CHILDREN WITH RESPIRATORY DISEASE SYMPTOMS - SHIRAZ-IRAN

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Background: Human metapneumovirus (hMPV) is one of the main causes of viral lower and upper respiratory tract infections which was the first isolated in 2001 from children with acute respiratory tract infections. hMPV have been classified in the *Pneumovirinae* subfamily within the *Paramyxoviridae* family. Since then, increasingly world wide investigators have been reported that hMPV is a leading cause of lower respiratory tract infections in children.

Objective: In this study we tried to determine the prevalence of human pneumovirus in hospitalized

children with asthma, wheezing and bronchiolitis symptoms.

Methods: Nasal pharyngeal swabs obtained from 155 children aged 1-60 months, hospitalized between February 2009 - March 2010, (this infection occurred predominantly from February to July). Collected samples were tested for the hMPV by RT-PCR with specific designed primer and evaluated with the gel electrophoresis.

Findings: In this study the result of amplified specific regions determined hMPV in 22 (14.2 %) of 155 patients suffering from respiratory symptoms.

Conclusion: Comparison of the results in this study and other studies it has been concluded although over the 70% of the respiratory disease could be result of common respiratory viruses like RSV, rhinovirus, Parainfluenza virus, adenovirus and influenza viruses but some viruses like metapneumovirus can be either important in disease of children with upper and lower respiratory symptoms and must be consider and determine it's etiologic role in lung disorders like the other alternatives.

Key Words: Metapneumovirus, Iran, pediatrics

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EVALUATION OF THE EVIDENCE BASED APPROACH TO MANAGEMENT OF BRONCHIOLITIS: A PROSPECTIVE STUDY AT ST JOHN'S HOSPITAL, UK

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Background and aims: To review current practice in management of bronchiolitis and assess compliance with evidence based national guidelines.

Methods:

1. Prospective study
2. Period: October to December 2008
3. DGH in Essex, UK
4. Included :All patients with suspected Bronchiolitis.
5. Excluded :Any child with chronic and congenital problems

6. Clinical practice was reviewed and assessed based on the SIGN guidelines.

Results: Total: 75 patients. There were 39 males & 26 females . Of these 42 were < 6 months and 33 were >6 months.

All our patients had SaO₂ measured on admission. Blood gas was done only in 6 /75 (8 %) due to worsening respiratory distress and increase in oxygen requirements. CXR was done in 12 /75 for atypical chest sign or worsening respiratory distress.

NPA was done for inpatients 25 /33 of which 13 were positive.

None received Ribavarine. 7 /75 (9.3%) received Antibiotics- These children were unwell or had worsening respiratory signs, high temperature or non Blanching spots. Salbutamol was given in 9/75 (12%). Nebulised ipratropium was given in 6/75 (8%). 2 patients required CPAP support. 1 patient with severe distress & recurrent apnoea was transferred to a tertiary PICU.

On discharge all patients had saturations above 94% and oral intake more than 75% of normal.

Conclusions: A very safe and evidence based practice is being followed that ensures that children who are seriously unwell are picked up and receive specialist care immediately. Reduction of unnecessary investigations and inappropriate treatment has ensured appropriate use of resources.

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SITUATION OF CRIMEAN-CONGO HEMORRHAGIC FEVER (CCHF) IN IRANIAN CHILDREN FROM 2000 TO 2009

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Aims: Crimean-Congo Hemorrhagic Fever (CCHF) is a viral tick-born disease which caused by CCHF virus. The virus belongs to *Nairovirus* genus and *Bunyaviridae* family, and is transmitted to humans by infected tick bite, handling of infected blood or tissues or nosocomially. In this survey, the probable sera were analyzed by serological and molecular techniques.