mechanical ventilation. Only 1 patient admitted to ICU was previously healthy. Antiviral therapy was administered in 103 patients (51.5%) after a median of 2 days from onset of symptoms. Secondary bacterial infection was identified in 8/200 (4%). The median length of hospital stay was 4 days (range 1-72). Death occurred in 2 patients (1%), who both had severe prior medical conditions.

Conclusion: Pandemic H1N1 influenza rarely requires hospitalization and, in hospitalized children, it mainly appears to cause a mild disease. The presence of pre-existing conditions is the most significant risk factor for severe disease.

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POPULATION PHARMACOKINETICS ANALYSIS OF MOTAVIZUMAB IN CHILDREN AT RISK FOR RESPIRATORY SYNCYTIAL VIRUS INFECTION

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Aims: To develop a population pharmacokinetics (PK) model and evaluate the impact of demographic covariates on PK of motavizumab in young children.

Methods: Motavizumab serum concentrations from 6 pediatric (n=4316) studies and an adult study (n=30) were modeled simultaneously using nonlinear mixed-effects modeling. Children ≤ 24 months received up to 5 monthly doses of motavizumab 3 or 15 mg/kg. The structural PK model with different random effect assignments was evaluated first followed by assessment of effect of chronologic age (CA), gestational age (GA), body weight (BW), sex, race, and presence of CLD on motavizumab clearance (CL) and volume of distribution (V₂) using NONMEM.

Results: Motavizumab serum PK best fit a two-compartment model; CL and V₂ increased with BW. CL and V₂ were related to the sum of GA and CA and were described using an asymptotic-exponential model. Covariate analysis identified 7% lower motavizumab serum CL in infants without CLD compared with infants with CLD. V₂ was 23% lower in Hispanic infants compared with other races. After accounting for demographic covariates, there was 25% inter-individual variability in CL and 23% residual variability in motavizumab concentrations.

Conclusions: Population PK analysis of motavizumab concentrations demonstrated increased clearance with CA and BW. Motavizumab serum concentrations were similar across a range of GA, CA and BW confirming appropriateness of BW-based dosing. Given the inter-individual variability in motavizumab concentrations, the marginally lower clearance in patients without CLD and slightly lower volume of distribution in Hispanic patients are not expected to be clinically significant.

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OCCURRENCE OF BACTERIAL INFECTIONS WITH RESPIRATORY DISEASES AT CHILDREN AGE

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Introduction: The most common factors for the occurrence of respiratory infections at children age are the viral infections in 79% of the occasions, bacterial infections occur in 21% of the occasions. Bacterial infections appear very rarely at routine microbiological inspection of throat and nose and most frequently the saliva remains sterile.

Aim: To authorize the use of antibiotics in antitoxigrams with respiratory infections of established bacterial isolate.

Method and Results: The data is compiled from medical records statistically observed in the period from 2002-2006. Microbiology had served: mouth and nose saliva, less frequently tracheal aspirates. 3.400 children have been treated, out of which 870 children have positive bacteriologic nose saliva. Of those 870 children: 470 have *Moraxella catharalis*; 150 have *Streptococcus pneumoniae*; 117 have *Haemophilus influenzae*; 88 have *Haemophilus* species; 45 have A group of *Streptococcus pyogenes* e. t. c. Positive throat saliva appears in 77 children, the most common bacteria are: A group of *Streptococcus pyogenes* appears with 42 children; *Haemophilus influenzae* appears with 7 children; *Haemophilus* species with 5 children; *Streptococcus pneumoniae* appears with 23 children. Positive bacteriologic finding of tracheal aspirate appears with 15 children and the most frequent bacteria are *Streptococcus pneumoniae*; *Haemophilus influenzae*; *Moraxella catharalis*; and *Klebsiella*.

Conclusion: In establishing a diagnosis, besides the clinical inspection, there is a need for the laboratory and microbiology, which set the course for a right treatment. Exceeded use of antibiotics should be ceased when treating respiratory infections at children age without a valid bacterial contaminant.

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PARAINFLUENZA TYPE 3 COINFECTIONS - SERIOUS INFECTIONS?

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Introduction: Coinfections by parainfluenza type 3 virus (PIV3) are associated with bacterial pathogens and virus. It is not clear if these coinfections carry a worse prognosis.

Objective: To define PIV 3 infections and if coinfections determine a worse outcome.

Methods: Retrospective, descriptive study, from September 2009 to January 2010, of PIV3 infection in hospitalized children. The diagnosis was obtained by direct immunofluorescence on nasopharyngeal aspirates. Statistical analysis by EpiInfo, version 3.4.3.

Results: A total of 17 PIV3 infections were identified (22% of total nasopharyngeal samples). The median age was 16 months. Clinical diagnosis were pneumonia (7), bronchiolitis (3), laryngotracheitis (2), myositis (1), and other (4). Coinfection was detected in 5 children: 4 with bacterial pathogens - *Escherichia coli* (2); *Haemophilus influenzae* (1); *Streptococcus pneumoniae* (1) - and 2 with viral pathogens - metapneumovirus (1) and H1N1v (1).

Hypoxemia was the only complication in children with isolated PIV3 infection (4/12). Complications in coinfection occurred in 2/5 of children: hypoxemia in both patients, atelectasy and acute respiratory insufficiency with PIV3/metapneumovirus, and pleural effusion with PIV3/H1N1v/*Streptococcus pneumoniae*.

Children with coinfections had more days of fever (8,2 vs. 4,1 days; $p=0,17$) and hospitalization (12,6 vs. 7,7 days; $p=0,05$), but the rate of complications was not statistically significant.

Conclusions: Coinfections were common in children with PIV3 infection and were associated with longer hospitalization and higher severity of complications. Future prospective and extensive studies are needed to better define the impact of PIV3 coinfection in clinical outcome.

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COMPARING THE EFFECT OF METRONIDAZOLE AND SECNIDAZOLE FOR THE TREATMENT OF GIARDIASIS IN CHILDREN

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Giardiasis is one of the most common intestinal parasitic infection among children . It is a world wide and an important disease in Iran.

Abdominal pain, bloat, chronic or intermitant diarrhea and steaturrhea which cause malabsorption are the main clinical signs.

The etilogic agent is Giardia lamblia which is found in the form of trophozite

(pathogenic form) and cyst (infective form).

The infective form is Transmitted by water, direct contact, vegetables and flies In order to evaluate the efficacy of secnidazole (a new drug) and comparing with the effect of metronidazole, a study was undertaken over a 15 month period on 83 patients suffering from giardiasis in Imam Reza Hospital .

After a questionair was complited for each patient , the patients were treated with secnidazole (30 mg/kg single dose) and metronidazole (15 mg/kg tid for 7 days) randomly. Two weeks after the end of treatment , direct and formol- ether fecal examination was performed on 3 consecutive days for each child.

Examinations showed that secnidazole is effective in 94.4% and metronidazole is effective in 80% of infected children ($P < 0.05$).