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lance AR in CAP to provide information for judicious antibiotic use for the containment of AR.

Methods: A cross-sectional observational study was carried out in patients hospitalized with CAP. Patients were identified through daily visits to emergency and medicine wards and were followed from day of admission till the day of discharge from hospital. Severity of disease was assessed with help of severity assessment scales like PSI. The rates of AR were analyzed with help of WHO.net 5.4 software.

Results: The most common pathogen isolated causing CAP were *S. pneumoniae* 31 (25.62%), *K. pneumoniae* 24 (19.83%), *H. influenzae* 18 (14.87%), *S. aureus* 16 (13.22%), *P. aeruginosa* 14 (6.7%), and *M. pneumoniae* 7 (5.9%). *S. pneumoniae* resistance was high for penicillin (PEN) (45%), cefazoline (CZO) (40%), and erythromycin (ERY) (39%) with low resistance for ciprofloxacin (CIP) (8%) and ofloxacin (OFX) (14%).

K. pneumoniae resistance was high for ampicillin (AMP) (81%) with good susceptibility to imipenem (IPM) (100%), chloramphenicol (CHL) (90%), gentamicin (GEN) (87%). *H. influenzae* had high resistance for ERY while susceptibility was good (above 85%) for antibiotics like (GEN, CIP, IPM.)

Conclusion: *S. pneumoniae* was found to be most common pathogen in CAP. Incidence of gram negative pathogens (*K. pneumoniae*, *P. aeruginosa*) causing CAP was high. Infection by resistant pathogen had impact both on severity of disease and outcome.

PP-179 Preparation of overlapping peptides of human being' SARS virus M protein and its application as diagnose SARS

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Objective: Preparation of overlapping peptides of human being' SARS Virus M protein to diagnose SARS with linear B cell epitopes of human being' SARS Coronavirus M protein.

Methods: Analyze the hydrophilicity of Coronavirus M protein of human being' SARS using Genetyx-MAC9.0 soft. 164 overlapping peptides spanning of 6-mer were synthesized in the hydrophilicity area with Auto-spot Robot. Taking a reaction of Dot-ELISA uses the serum of 15 SARS patients and composing peptide chain.

Results: Several overlapping peptides showed positive binding with 15 patients with SARS, and five peptides seemed to be common epitope peptides. They are MKY1 (Gln-Len-Len-Gln-Gln-Trp-Asn-Len-Val), MKY2 (Trp-Ph-Asn-Pro-Glu-Thr-Asn-Ile), MKY3 (Val-Thr-Arg-Pro-Leu-Met-Glu-Ser), MKY4 (Ser-Tyr-Tyr-Lys-Leu-Gly-Ala), MKY5 (Val-Gly-Thr-Asp-Ser-Gly-Phe-Ala-Ala-Tyr), sera did not react with a control peptides, and normal sera also did not react with peptides of human being' SARS Coronavirus M protein.

Conclusion: Taken together, these results point to linear B cell epitopes of human being' SARS Coronavirus M protein could diagnose patients of SARS.

PP-180 Elaboration of viral vaccine delivery

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Elaboration of mucosal vaccines involving biodegradable polymer complexes is a topical problem. These polymers are capable of protecting the virus from acid gastric medium and releasing the virus in weakly alkaline intestinal medium. In addition, the majority of these polymers are capable of intensifying the immune response to the antigen introduced.

The purpose of work was the choice of the polymer system for effective viral vaccine development.

We used the following methods:

- microgranulation into a polymer matrix through atomization

of the viral material dissolved in polymeric solvent into a liquid nitrogen,

- microencapsulation through forming the coating on a drop containing the viral material, while contacting with solution of the forming material,
- micro- and nanoencapsulation by cryocoagulation method.
- coagulation of viral suspensions in hydrophobic liquids into a gelatin envelope.

The methods of transmission electron microscopy, atomic force microscopy, freeze-fractography, determination of specific activity and immunogenicity were used to control of viral preparations.

According to our data, the most perspective method was the cryocoagulation. The method proposed allows for production of spherical or irregular-shaped particles with size of 0.1-10 μm. This method is universal and may be applied for micro- and nanoencapsulation of different viruses and for design of various viral vaccines. International PCT patent application was submitted and registered as PCT/Ru/02/00465.

PP-181 A novel 2-tailed CUSUM control-chart for evaluating new therapies: hypertonic-saline in bronchiolitis compared to nebulized adrenaline

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Background: Randomized control trials are difficult to perform, expensive and involve thorny ethical issues. CUSUM is a continuous process of monitoring, used in industry that allows early detection of deviations from the norm. We used CUSUM to study 3% saline nebulization (3%SN), a new treatment for bronchiolitis. The response rate to standard therapy with nebulized adrenaline (STNA) provided parameters within which 3% SN was evaluated.

Methods: Children 2 months to 2 years admitted with first episode acute bronchiolitis were recruited. In phase-one, STNA was studied looking for improvement or deterioration on Downes respiratory-distress-score. Downes score at admission could improve or deteriorate during course of treatment. This provided the stopping rule and also the thresholds beyond which 3% SN can be considered as yielding more improvement than standard therapy. A total of 35 children were enrolled in phase 1 and 28 received 3% SN in phase 2.

Results: The probability of deterioration with 3% SN was half (1:14) compared to STNA (1:7) and 89.3% showed improvement compared to 82.8%. Plotting these in sequence on the CUSUM-chart allowed for continued use of the new therapy and confidence that it was not inferior to standard therapy.

Conclusion: Changes in score with treatment allowed the CUSUM-graph to depict if the new intervention produced more adverse events (crossing stopping threshold) or was significantly better. We found that 3% SN children had less deterioration than STNA and there was a trend for more improvement. CUSUM, as we have employed it, has potential in numerous medical evaluations.

PP-182 Systematic study the clinic characters of a local measles outbreak in East China

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Background: EPI has obviously decreased the incidence of measles, recently years locally outbreak still presence with some new clinical features, all of these bring new challenges to measles elimination.

Methods: We collected the clinical information detailed. 216 patients were divided into three groups: infants, children and