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**Imported Baby Corn Causing Outbreaks of Shigellosis in Denmark and Australia**H.C. Lewis<sup>1,\*</sup>, S. Ethelberg<sup>1</sup>, K.E.P. Olsen<sup>1</sup>, M. Lisby<sup>2</sup>, S.B. Madsen<sup>2</sup>, M. Kirk<sup>3</sup>, R. Stafford<sup>4</sup>, K. Ungchusak<sup>5</sup>, K. Mølbak<sup>1</sup><sup>1</sup> Statens Serum Institut, Copenhagen, Denmark<sup>2</sup> Fødevareregion Øst (Regional Veterinary and Food Control Authority East), Copenhagen, Denmark<sup>3</sup> OzFoodNet, Department of Health, Canberra, Australia<sup>4</sup> OzFoodNet, Communicable Diseases Branch, Queensland Health, Brisbane, Australia<sup>5</sup> Bureau of Epidemiology, Ministry of Public Health, Non-thaburi, Thailand

**Background:** Outbreaks of foodborne shigellosis are rare in developed countries. Concurrent outbreaks of *Shigella sonnei* infection were detected in Denmark and Queensland, Australia in mid-August 2007. Baby corn or sugar snaps imported from Thailand were suspected to be the vehicle after preliminary interviews in Denmark. Both foods were recalled in Denmark on 17 August. Collaborative investigations were undertaken in Denmark, Australia and Thailand to pinpoint the source of the outbreaks.

**Methods:** *Sh. sonnei* cases were ascertained through national surveillance systems in Denmark and Australia (01/08/2007–30/09/2007). In Denmark, we conducted a retrospective cohort study amongst employees in one affected workplace to identify the source of infection. The outbreak strain was characterised using pulsed field gel electrophoresis (PFGE) and shared using Pulsenet International. We undertook food trace-back and microbiological investigation of samples from implicated batches.

**Results:** 215 cases were laboratory-confirmed in Denmark and 12 in Australia, along with a further 43 epidemiologically-linked cases. In the cohort study, we identified 27 symptomatic cases amongst 117 respondents (response rate 69%). The attack rate was 56% among employees who ate baby corn on 6 or 7 August (RR 4.0 95%CI: 1.8-8.9 and 3.7, 95%CI: 1.6-8.1 respectively) and in a multi-variable analysis, baby corn was the only independent risk factor. PFGE profiles of outbreak strains in Denmark and Australia were indistinguishable. We did not detect *Shigella spp.* in baby corn, but isolated high levels of *Escherichia coli* and *Salmonella enterica*. We identified a packing house in Thailand, which supplied baby corn to both Denmark and Australia.

**Conclusion:** Epidemiological, microbiological and trace-back evidence identified baby corn imported from one packing house in Thailand as the source of large *Sh. sonnei* outbreaks in Denmark and Australia. These outbreaks highlight the importance of international communication for linking outbreaks and pinpointing the source. We recommend improving hygiene standards for raw exotic vegetables and blanching before consumption.

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**Overlook on Epidemiology and Causative Agents of Rickettsia in Adults in Albania**

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**Objective:** Knowing the epidemiology and causative agents of rickettsia.

**Materials:** Study involved 202 cases with rickettsia ages 14–70 years old during 1986–2006. The identification was achieved through ELISA, Complement, Indirect Immunofluorescence and Weil-Felix Reaction.

**Methods:** Epidemiologic View - We have analyzed the distribution in years, seasons and group ages of rickettsiose Causative agents. Rickettsia were classified based on pathogen and clinical presentation.

**Results:** Epidemiologie -The number of cases with Rickettsia varies from 6–84 yearly with a prevalence in months June-September. The incidence was consist with peaks every 4–5 years. The more affected group ages were 20–40 years old, but 14–70 years old were affected as well.

**Causative Agents:** Exantematike Typhos (Murine Typho) 142 cases. Mediterran Butunose Fever 50 cases. Q Fever 10 cases.

**Conclusions:**

- Rickettsioses are yearly diseases.
- In Albania there are 3 causative group of Rickettsie: Murine Typho, Mediterran Butunose Fever, Q Fever.
- The most common our is the Typho Murine 70.3% (142 cases).

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**100 Years of Trachoma in the State of Sao Paulo, Brazil**E.J.A. Luna<sup>1,\*</sup>, N.H. Medina<sup>2</sup>, M.A. Mauricio<sup>2</sup><sup>1</sup> Instituto de Medicina Tropical USP, Sao Paulo, Brazil<sup>2</sup> Sao Paulo State Health Department, Sao Paulo, Brazil

Trachoma was introduced in the State of Sao Paulo with the immigrants from Mediterranean countries, in late XIX century. It soon reached high prevalence rates in the whole State. In 1907 the State government organized the first "Trachoma Campaign". The aim of the present study was to recover the "epidemiologic history" of trachoma in Sao Paulo, as its recognition as a public health problem turns a century old.

A descriptive study on the trends of trachoma occurrence was undertaken. Data on trachoma occurrence were gathered from all identified sources. The main source was the archive of Sao Paulo State Health Department. There was no systematic data collection in the early years of the program. From 1938 until 1976 the State Trachoma Institute maintained a routine information system. From 1983 on, data were obtained from the State's epidemiologic surveillance system, and published studies.

Peak incidence rate was in 1951. Incidence rates gradually decreased from 429 per 100,000 in 1951 to 25 in

1967. In 1976 trachoma was considered eradicated in the State, and the control program was interrupted. In 1983 cases of chronic conjunctivitis in children started being reported again, and subsequent studies showed trachoma had never been truly eradicated. State's trachoma control program was re-established, and in the past twenty years several studies have redesigned its distribution in the State.

From hyperendemic prevalence levels in the first half of the century, trachoma rates gradually decreased in Sao Paulo. Prevalence survey among schoolchildren detected a rate of 4.4% in 2002. Endemic trachoma is still found in most municipalities of the State, in some of them reaching as high as 10% prevalence among children, threshold for the recommendation of mass treatment. This neglected disease remains as a public health problem in the State, especially among the poorer segments of the population.

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#### Study of Severe Community-Acquired Pneumonia in Adults - Etiology, Prognosis, and Antibiotic Therapy

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**Objective:** A retrospective study of 128 patients with severe community-acquired pneumonia was carried out to determine the causative agents, the impact foreknowledge of the etiology has on the outcome, the value of clinical and radiologic criteria in predicting the evolution, and the efficacy of empirical therapy.

**Method:** From the beginning of 1999 until 2006, we studied 128 patients who required hospitalization for severe community acquired pneumonia. The clinical criteria for admission to the study were respiratory failure (PaO<sub>2</sub> < 60 mmHg), septic shock, extrapulmonary septic complications, radiographic evidence of more than one affected lobe, cavitation, or an initial pleural effusion greater than the occupation of the lateral costophrenic angle.

**Result:** The study group included 84 men and 44 women (mean age: 70.2 ± 12.3 yr), and 67.2 % suffered from a concurrent debilitating disease. The cause of pneumonia was diagnosed in 61 cases, and the most common pathogens were *Streptococcus pneumoniae* (36.1%), *Mycoplasma pneumoniae* (14.8%), Methicillin-resistant *Staphylococcus aureus* (9.8%), *Haemophilus influenzae* (8.2%), *Chlamydia psittaci* (6.6%), Legionella pneumonia (4.9%), and the other gram-negative bacilli. (19.7%). The fact that fungal infections were present in six patients and *Pneumocystis carinii* in two are worthy of note. The overall death rate was 32.8%. A fatal outcome was related to the age of the patient ( $p < 0.05$ ), the presence of debilitating disease ( $p < 0.05$ ), and septic shock ( $p < 0.0001$ ). Diagnosis of the causative agents did not aid in increasing the survival rate, but it did allow for better patient management. Most of the patient (75%) initiated on treatment with Ampicillin Sodium plus New Quinolone (Levofloxacin Hydrate) recovered, but only 66.4% of the

subjects commenced on treatment with other therapeutics survived.

**Conclusions:** Gram-negative bacillary pneumonia was a frequent finding among the patients who did not recover, making empirical treatment with Betamipron plus New Quinolone most advisable for severe cases of community-acquired pneumonia.

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#### A Four-Year Prospective Observational Study of Bacteremias and Fungemias in a Large, Tertiary Care Hospital of Northern Italy

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**Background:** A prospective microbiological surveillance study of bacteremias is ongoing at our Hospital since the year 2004.

**Materials and Methods:** The temporal trend of microbial isolates from blood cultures of inpatients hospitalized during the last four calendar years (2004 to 2007), was evaluated according to the main bacterial and fungal isolates. The same pathogens cultured more than once from the same patient within one month, have been considered only once.

**Results:** Of 4,606 overall episodes, Staphylococcal epidermidis remained the leading organism (983 cases: 21.3%), but a dramatic drop in its frequency occurred during the observation time (from 26.1% of cases in 2004, to 14.3% in 2007;  $p < .0001$ ). The second cause of bacteremia was *Escherichia coli* (463 episodes: 10.1%), followed by *Staphylococcus aureus* (327 cases: 7.1%), *Enterococcus faecalis* (245 episodes: 5.3%), *Pseudomonas aeruginosa* (170 cases: 3.7%), *Klebsiella spp.* (123 episodes: 2.7%), and *Enterococcus faecium* (117 cases: 2.5%). Significant time-based modifications occurred only for *Pseudomonas aeruginosa* (temporal increase:  $p < .02$ ), *Klebsiella spp.* (temporal increase:  $p < .001$ ), and *Enterococcus faecium* (temporal increase:  $p < .05$ ). Among fungi, *Candida albicans* was the most represented organism, with 104 episodes (2.3%), without changes in its frequency in the 2004–2007 period.

**Conclusions:** A prospective microbiological monitoring is expected to significantly add to the awareness of local epidemiological figures and antimicrobial sensitivity profile of hospital infections, including bacteremias, which are responsible for considerable morbidity and mortality rates among inpatients. Although the main ethiological agents of inpatient bacteremias are still represented by coagulase-negative Staphylococci, these microorganisms significantly declined during the four-year study period, thus confirming a positive trend toward a progressively reduced incidence of contaminated blood cultures. On the other hand, an appreciable increased frequency occurred over time for *Pseudomonas Klebsiella*, and *Enterococcus spp.* A major, persisting role as agents of hospital bacteremic episodes