Introduction
Acute bacterial meningitis is a pediatric emergency with high mortality and morbidity. A high index of suspicion is needed for a timely diagnosis and treatment. Often, diagnosis of bacterial meningitis is difficult after some days. Determination of some inflammatory mediators, such as procalcitonin in serum and cerebrospinal fluid (CSF), may aid in differential diagnosis. The aim of this study is to find the value of procalcitonin in meningitis. Methods
This research is a case control cross-sectional study in all children with clinically suspected meningitis referred to pediatric emergency room. According to the clinical findings and results of cerebrospinal fluid analysis, our patients were classified into two groups: bacterial meningitis and aseptic meningitis. For all cases of meningitis, serum and cerebrospinal fluid analysis and culture were done, and serum and cerebrospinal fluid procalcitonin was measured. Finally, the results compared groups. Data were analyzed by SPSS software.

Results
There is no significant difference between the two groups, in age, sex, and symptoms. Serum and cerebrospinal fluid procalcitonin, leukocytosis (>15,000), PMN pleocytosis of cerebrospinal fluid, and also sugar and protein in cerebrospinal fluid were significantly higher in bacterial meningitis. Serum and cerebrospinal fluid procalcitonin levels in control group were less than 0.5 ng/ml and >2 ng/ml in bacterial meningitis and only one child (8.33%) in aseptic meningitis (Herpes meningoencephalitis) had serum procalcitonin more than 2 ng/ml. Serum and cerebrospinal fluid procalcitonin level could be used as a useful diagnostic marker in meningitis. It is more sensitive to bacterial meningitis with procalcitonin measurement. Finally, the results compared groups. Data were analyzed by SPSS software.

Conclusion
Serum and cerebrospinal fluid procalcitonin levels in control group were less than 0.5 ng/ml and >2 ng/ml in bacterial meningitis and only one child (8.33%) in aseptic meningitis (Herpes meningoencephalitis) had serum procalcitonin more than 2 ng/ml. Serum and cerebrospinal fluid procalcitonin levels in control group were less than 0.5 ng/ml and >2 ng/ml in bacterial meningitis and only one child (8.33%) in aseptic meningitis (Herpes meningoencephalitis) had serum procalcitonin more than 2 ng/ml. Serum and cerebrospinal fluid procalcitonin levels in control group were less than 0.5 ng/ml and >2 ng/ml in bacterial meningitis and only one child (8.33%) in aseptic meningitis (Herpes meningoencephalitis) had serum procalcitonin more than 2 ng/ml. Serum and cerebrospinal fluid procalcitonin levels in control group were less than 0.5 ng/ml and >2 ng/ml in bacterial meningitis and only one child (8.33%) in aseptic meningitis (Herpes meningoencephalitis) had serum procalcitonin more than 2 ng/ml.

Methods
Retrospective cross-sectional study of children aged 0–16 years with invasive NTS over a 5-year period (January 2006–December 2011). Invasive NTS disease was defined as NTS species identified from normally sterile extra-intestinal sites such as blood and cerebrospinal fluid cultures.

Results
There were 51 cases of which 22 (43.1%) were female and 29 (56.9%) were male. The median age at presentation was 15 months. 45 (88.2%) patients were under 4 years and the youngest was 13 days old.

Fever and/or diarrhoea were most common presenting complaints. All had temperature > 38°C and 40 (78.4%) had diarrhoea with 9 (17.6%) having bloody stools.

Mean initial total white cell count and C-reactive protein were 12.8 × 10^9/L and 64.2 mg/L respectively with Group D and B Salmonella species as the major isolates in 21 (41.2%) and 17 (33.3%). Group C accounted for 7 (13.7%) while Group G/other non-typhoidal ones contributed 6 (11.8%). Meningitis was confirmed in 3 (5.9%). One child (1.9%) died of drug-related fulminant liver failure and there were no readmissions. Antibiotic resistance was noted in 16 (31.3%).

Conclusion
There should be a high index of suspicion for NTS bacteremia in younger age group (<4 years old) who present with fever and bloody diarrhea. Initial inflammatory markers are not indicators of severity. Antimicrobial resistance in NTS in Singapore is low but needs vigilance.

Poster abstracts

PO-0187

VALUE OF SERUM PROCALCITONIN LEVEL IN DIFFERENTIATION OF VIRAL AND BACTERIAL MENINGITIS IN CHILDREN ADMITTED EMERGENCY ROOM

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Introduction
Non-typhoidal salmonellosis (NTS) can cause invasive disease in special groups of children. Increasing antimicrobial resistance and limited epidemiological data pose major limitations to therapy. This study aims to analyse the disease characteristics in Singapore children.

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PO-0188

WITHDRAWN

PO-0189

FIVE YEAR STUDY ON EPIDEMIOLOGY, CLINICAL CHARACTERISTICS AND RISK FACTORS OF INVASIVE NON-TYPHOID SALMONELLOSID IN SINGAPORE

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