Background and aim Osteomyelitis is an inflammation of the bone that is usually due to bacterial infection. There are limited data on osteoarticular infections in the state of Qatar. The objectives of this study were to describe the demographic, clinical presentation and microbiological culture result of acute osteomyelitis in children

Methods Aretrospective and descriptive study was conducted at main tertiary hospital. Children hospitalised in our paediatric department with acute osteomyelitis from January 2000 to December 2013 were included.

Results The study comprised 79 patients. Mean age of presentation was (5.7) years and (62%) were male. (91%) had acute osteomyelitis whereas (9%) were classified as chronic. most common bones affected were Femur (39.2%), Tibia (15.2%) followed by Foot (11.4%) and iliac bone (10.1%). Fever higher than 38° on admission was found in (65.8%), joint pain (60.8%) and limping (45.6%). Tenderness on examination was present in (82.3%) followed by joint swelling (59.5%) and restricted joint movement (55.7%). Nearly (69%) of Blood culture were negative. the most causative organisms were methicillin-susceptible Staphylococcus aureus (9.1%), methicillin-resistant Staphylococcus aureus (9.1%) and Strep Pyognes in (3.9%).

Conclusion Our study confirmed that Microbiology screening tends to be negative but, if positive, Staphylococcus species is likely to be isolated. the metaphysis of long bones lower femur and upper tibiaprone to osteomyelitis. Mono-therapy for bone infection might be beneficial to start initially.

PO-0216 COMMUNITY ACQUIRED PNEUMONIA IN CHILDREN REVIEW ARTICLE

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Community acquired pneumonia (CAP) remains a major cause of childhood morbidity and mortality worldwide. There is still discrepancy in the definition, clinical diagnosis, identification of the causative pathogen, and treatment of CAP.

Having a high index of suspicion, using basic clinical skills in history and examination, and good knowledge of local prevalence of the microorganism and its resistance can guide the clinician to reach the most probable etiologic diagnosis of CAP to then treat it accordingly; avoiding under treatment (with risk of complications) and overtreatment (with risk of emergence of antibiotic resistance).

In this article, different aspects of paediatric CAP in developing and developed countries are reviewed; with some focus on comparing guidelines for CAP's management. The difference between guidelines is shown, with a need to have local (national) guidelines considering the prevalence of the etiologic organisms and its antibiotic susceptibility to avoid the emergence of resistance.

PO-0217 WITHDRAWN

PO-0218 AUDIT OF EARLY MANAGEMENT OF CASES OF SEPTIC ARTHRITIS IN CHILDREN

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Introduction Septic arthritis can occur at any site of the body, but commonly occur in the lower limbs, especially knee and hip joints. It may arise from direct inoculation or spread from contiguous disease, but the most common method is haematogenous spread. We audited cases of septic arthritis in children as it can have serious consequences if mismanaged.

Objectives We looked at the management of children presenting with suspected septic arthritis.

Method All children who had a discharge code of septic arthritis between 1/01/07 and 29/04/13 were included. A standard proforma was used for data collection which recorded details of symptoms, signs, investigations and treatment

Results 39 patients were coded as septic arthritis. On closer look 11 patients were wrongly coded which left with 28 patients to audit.

100% had full joint examinations and an orthopaedic review. 100% had appropriate blood tests including blood culture. 26 patients (93%) had a joint aspiration out of which 12(46%) had an aspirate before giving antibiotics. *Staph aureus- 5* (18%) was the most coomon bacteria isolated from the joint aspirate followed by *Group A beta-haemolytic strep* 2 (7%), *Group B Beta haemolytic strep* 2 (7%), Coliform bacilli- 2 (7%), *Strep mitis and coagulase negative staph- 1 (4%)* and *Strep pneumonia- 1 (4%)*.

100% had appropriate empirical antibiotics. The duration of antibiotics was variable but included a combination of intravenous and oral antibiotics.

Conclusion The audit highlighted the areas for improvement:

Urgent orthopaediac review in all cases

Joint aspirate ideally before giving antibiotics

A stand-alone guideline for children with septic arthritis.

PO-0219 WITHDRAWN

PO-0220 CLOSTRIDIUM DIFFICILE IN A TERTIARY PAEDIATRIC HOSPITAL

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Background An increase in paediatric *Clostridium difficile* (CD) infection incidence has been reported. Yet, its epidemiology and treatment schedules are not certain. We aim to describe the CD incidence, clinical presentation, treatment and outcomes in a children tertiary hospital.

Methods Data from *Clostridium difficile* identified cases by enzyme immunoassay (EIA), during 2010 and 2013, in Hospital Dona Estefânia (Portugal).

Results Eleven cases were identified, 73% during 2013. Three children less than 12 months old were excluded (probable colonisation). A median age of 8,7 years was observed, with a highest incidence between children older than 10 years. Six of the cases were not hospitalised. In 62%, the only symptom was diarrhoea. Among the eight cases, five (62%) received multiple antibiotics before the CD detection, three (37%) had a gastrointestinal disease and three (37%) had recently undergone surgery. Six children (75%) received treatment with metronidazol and no complications or deaths were reported. Recurrence was observed in two cases, with one child having three subsequent CD infection episodes.

Conclusions In our study, the majority of children was not hospitalised, which is in agreement with the recent epidemiologic trends in *Clostridium difficile* infection. Antibiotic exposure remains the most common and modifiable risk factor, emphasising the importance of searching CD in this group of children.

PO-0221 EARLY DIAGNOSIS OF SEVERE ISRAELI SPOTTED FEVER

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Introduction Israeli spotted fever (ISF) is caused by *Rickettsia conorii* Israeli spotted fever strain. In Portugal, it was first described in 1999.

Case report A twelve year old adolescent girl was admitted during summer with fever, macular rash (including palms and plants), mild headache, vomits and intense myalgia for three days. She had daily contact with dogs and lived in a rural area in the south of Portugal, but had no history of tick bites or eschar. Within 12 h she was in septic shock with multiorgan dysfunction (hypotension, obnubilation, leukopenia, thrombocytopenia, coagulopathy, respiratory distress, acute renal failure, hepatic dysfunction, hyperbilirubinemia and polyserositis) and was transferred to the intensive unit care. Empirical treatment with doxycicline, ceftriaxone, flucloxacillin and clyndamicyn was initiated. Rickettsial infection was confirmed by serology (over fourfold title increase by indirect immunofluorescence, four weeks after the acute illness – IgM >1024; IgG >4096) and by PCR. Sequencing confirmed the infection caused by *R. conorii* Israeli spotted fever strain. The adolescent evolved favourably with no sequelae.

Discussion Severe cases of Israeli spotted fever have been increasingly reported, mostly in adults. In children, it is usually a mild disease. The mechanism by which ISF strain causes more severe illness remains to be determined. The patient's epidemiology and typical rash facilitated the early clinical diagnosis and prompt empirical treatment, which was probably crucial. The absence of an inoculation eschar should not delay the diagnosis.

PO-0222 THE PATHOGENIC EFFECTS OF GARDNERELLA VAGINALIS ON THE A549 HUMAN ALVEOLAR EPITHELIAL CELL LINE

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Background *Gardnerella vaginalis* is one of the commonest organisms that causes bacterial vaginosis, which is also implicated as a risk factor of preterm birth. This bacterium is also considered the second commonest cause of intrauterine inflammation (chorioamnionitis). Although it creates the characteristic "clue cells" when infecting the vaginal epithelium, the evidence of its pathogenicity on other epithelial surfaces is lacking.

Aim To study the pathogenic changes on the human respiratory tract epithelium as the basis for the understanding of *Gardnerella vaginalis*-induced fetal lung inflammation, which may occur in preterm intrauterine infection.

Methods A549®ATCC Human alveolar basal epithelial cell line was grown over an average period of 48–72 h before exposure to *Gardnerella vaginalis* serotype ATCC® 14018™. The multiplicity of infection (MOI) of 100 was used to infect the cell line over a period of 4h. Adherence, apoptosis and cytotoxicity changes were studied using immunofluorescence and light microscopy. Comparisons were also made to *E.coli* and GBS, the common pathogens causing neonatal sepsis.

Results *Gardnerella vaginalis* showed similar adherence to *E. coli*. It has moderate cytotoxicity when compared to GBS. At 4h, co-culturing *Gardnerella vaginalis* with A549 cell line consistently exhibited the presence of apoptosis in more than 50% of the cells as shown using the TUNEL assay. Cytotoxicity was confirmed morphologically with cellular features of pyknosis and elevated LDH in culture supernatant.

Conclusions *Gardnerella vaginalis* exerts some characteristic changes of infection on respiratory epithelium with signs of cytotoxicity, suggesting that the fetal lung could be similarly affected when this bacterium causes intrauterine infection.

PO-0224 ROTAVIRUS GASTROENTERITIS AND NOSOCOMIAL ROTAVIRUS GASTROENTERITIS AMONG CHILDREN AGED UNDER 5 YEARS IN UNITED ARAB EMIRATES: EPIDEMIOLOGY, CLINICAL PROFILE, DEMOGRAPHIC CHARACTERISTICS AND SEVERITY

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Introduction Rotavirus is a leading worldwide cause of acute gastroenteritis (AGE) in young children. This study done to estimate the burden of overall acute gastroenteritis, Rotavirus gastroenteritis (RVGE) and nosocomial RVGE in hospitalised children younger than 5 years of age, and to assess the age and seasonal distribution; duration of hospitalisation and additional hospitalisation associated with hospital-acquired RVGE.

Material and methods A cross-sectional, hospital based study was carried out among hospitalised children with acute gastroenteritis of age <5 years between 2011 and 2012. Demographic profile, clinical characteristics, prior hospitalisation were analysed using SPSS version 20 software. Chi-square test and t-test were used to compare variables.

Results Total Paediatric Admissions (<5 yrs excluding newborn): 2783

RVGE as well as Nosocomial RVGE peaks were observed in the months of January, February and April. The other AGE was noted to peak around May and November months. Nosocomial RVGE increases the duration of hospital stay 6 days vs 2 days.

Conclusion RVGE is highly contagious, and the efficiency of existing prevention measures (such as handwashing, isolation and cohorting) is variable because of numerous barriers to implementation. Prevention of RV infection by mass vaccination could

Abstract PO-0224 Table 1

	AGE	RVGE	Nosocomial RVGE
Total number	970	240	27
Male: Female (%)	56:44	55:45	68:32
Mean age	23.9(15.2)	23.2(14.6)	18(12)
Nationality (most common)	EGYPT (18%)	EGYPT (22%)	EGYPT (28%)