

Table 2: Labs and Imaging in 182 study participants

	Obtained	Mean	Range
CBC	119 (65%)	WBC 13.4k	6.98 – 27k
CRP	19 (10%)	1.3	0.08 – 8.0
ESR	9 (5%)	33.6	4 – 98
	Obtained	Positive	Negative
Urinalysis	65 (36%)	8 (12%)	57 (88%)
Urine Culture	70 (38%)	0	70 (100%)
Wound Culture	95 (52%)	72 (76%)	23 (24%)
Blood Culture	114 (63%)	4 (4%)	110 (96%)
CSF WBC	43 (24%)	2 (5%)*	41 (95%)
CSF Culture	50 (27%)	0	50 (100%)
HSV Studies	30 (16%)	1 (3%)	29 (97%)
Ultrasound	29 (16%)	27 (93%)	2 (7%)
CR	3 (2%)	1 (33%)	2 (67%)

*Positive defined as CSF WBC count >22 cells/mm3

Table 3: Disposition per age and infection type

	Discharged home	Admitted
All (n=182)*	80 (44%)	101 (55%)
0-28 days of age (n=120)*	54 (45%)	65 (54%)
29-60 days of age (n=62)	26 (42%)	36 (58%)
Superficial infection† (n=61)	44 (72%)	17 (28%)
Cellulitis/Scalded skin (n=44)	11 (25%)	33 (75%)
Abscess/Paronychia (n=64)*	25 (39%)	38 (59%)
Periorbital cellulitis (n=13)	0	13 (100%)

* 1 patient left AMA

† Superficial infection includes impetigo or pustulosis

Disclosures. All authors: No reported disclosures.

1526. Epidemiology of and Risk Factors for Nontyphoidal *Salmonella* Bacteremia in Children: A 20-Year Retrospective Cohort

Tara L. Greenhow, MD; Kaiser Permanente Northern California, San Francisco, California

Session: 160. Pediatric Bacterial Diseases: Epidemiology

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Background. Nontyphoidal *Salmonella* (NTS) infections are the most common culture-confirmed foodborne illness in the United States. One to five percent of enteric infections due to NTS result in bloodstream infection (BSI). Host risk factors for NTS BSI include extremes of age and chronic or immunosuppressing conditions.

Methods. This was a retrospective review of the electronic health records (EHRs) of all blood cultures collected from January 1, 1999 to December 31, 2018 at Kaiser Permanente Northern California (KPNC) positive for *Salmonella* spp. The speciation and group of all *Salmonella* spp. were extracted from the microbiology records. Using KPNC population data, the incidence rate of NTS BSI by age and year of infection was calculated. Using a test for trend, the trend in rates of NTS BSI was determined. Risk factors for complicated NTS BSI using clinical and laboratory data were calculated.

Results. From 1999 to 2018, there were 212 cases of NTS BSI and 104 cases of *Salmonella typhi* and *paratyphi* BSI. The average number of cases per year was 10.6 (range 3–25). There were 14,952,802 evaluable children over the 20 years, with an average of 747,640 per year. The incident rate of NTS bacteremia was 1.4 per 100,000 children per year. The trend to increasing cases was not statistically significant (Figure 1). The distribution of NTS BSI cases were 114 (54%) Group B, 33 (15.5%) Group C, 31 (14.5%) Group D, 19 (9%) Groups E or G and 15 (7%) other/nonspecified. The predominant NTS pathogen was *Salmonella heidelberg* occurring in 37 (17.5%) cases. Forty-five percent of children were female. (Table 1) Forty-two percent of children were less than 3 years old with a steady rate after age 3. Two (0.9%) children had an underlying immunodeficiency, three (1.4%) additional with a malignancy and 16 (7.5%) with underlying non-immunosuppressing comorbidities.

Conclusion. Despite improvements in food safety, the rates of NTS bacteremia have not decreased over the last two decades. The rate of NTS was 1.4 per 100,000 children per year with the highest proportion in children less than 3 years. Two percent had underlying immunosuppressing comorbidities. Although only 10% had underlying comorbidities, this was substantially higher than the population at KPNC.

Figure 1: NTS BSI rate per 100,000 children per year

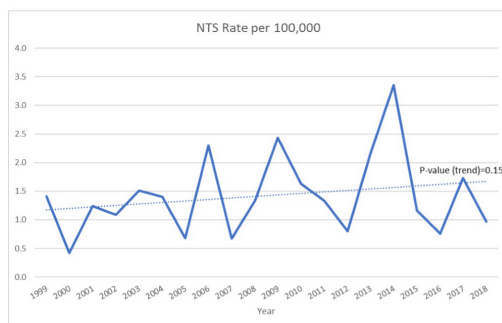


Table 1: Demographics of children with NTS BSI

NTS bacteremia	Total n=212 (%)
Gender	
Female	97 (46)
Age	
< 12 months	46 (22)
12-35 months	43 (20)
3 – 7 years	46 (22)
8 – 12 years	37 (17)
13 – 17 years	40 (19)
Location of culture	
Outpatient	138 (65)
ED	63 (30)
Inpatient	11 (5)
Comorbidities	
Immunocompromised (not malignancy)	2 (1)
Malignancy	3 (1.5)
Other comorbidities	16 (7.5)

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1527. Clinical Variables Associated with Vancomycin Resistance in Children with Bacteremia Due to *Enterococcus* spp.

Carla Jimena. Voto; Soledad Mussini; Moira Taicz; Ana Paula Arias; Guadalupe Perez; Vanesa Reijtmann; Alejandra Mastroianni; Maria Ines Sorman; Eva Garcia; Maria Teresa Rosanova; Rosa Bologna; Hospital de Pediatria Juan P. Garrahan, Capital Federal, Ciudad Autonoma de Buenos Aires, Argentina

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Background. *Enterococcus* spp. (E) is an important cause of nosocomial bacteremia. The emergence of vancomycin-resistant E in the nosocomial setting conditions the empirical treatment and limits therapeutic options.

Methods. A retrospective cohort study of children ≥ 1 month with E bacteremia in a reference pediatric hospital was performed. Study period January 1, 2016–December 31, 2018. Outcome: to describe clinical and epidemiological characteristics of children with bacteremia due to *Enterococcus* spp. resistant to vancomycin (VRE) vs. sensitive (VSE). Identify variables associated with VRE. STATA 13 was used.

Results. N = 82 patients. Median age was 37.6 months (IQR 2–48), 45 patients (54.9%) were male; 76 patients (92.7%) had underlying disease (intestinal failure (21.9%), heart disease (17.1%), preterm births (12.2%), hematological disease (10.9%), and liver failure (7.3%); 16 patients (19.5%) received immunosuppressive therapy. Sixty bacteremia (73.2%) were by *E. faecalis* and 22 (26.8%) by *E. faecium*. Vancomycin resistance was documented in 13 patients (15.8%), all of which were *E. faecium*. In the bivariate analysis, patients with VRE bacteremia were significantly older in months than those with VSE bacteremia [75.4 (IQR 6–151) vs. 30.5 (IQR 2–33), $P < 0.02$]; had more frequency of previous colonization with VRE [n : 8 (61.5%) vs. n : 4 (5.8%) $P < 0.001$], hematological disease [n : 5 (38.5%) vs. n : 5 (5.8%), $P = 0.01$], liver failure [n : 3 (23.1%) vs. n : 3 (4.4%), $P = 0.02$] and immunosuppressive therapy [n : 6 (46.2%) vs. n : 10 (14.5%) $P = 0.008$]. Patients with VRE bacteremia had a lower median white blood cell count [7040 (IQR 2150–10250) vs. 14474 (IQR 6160–17090), $P < 0.03$]. Mortality in P with VRE was 15.4% (n : 2) and 4.3% in P with VSE (n : 3), $P = 0.1$. No statistically significant differences were found according to history of surgery, previous hospitalization, antibiotic therapy in the last 3 months or clinical presentation. In the multivariate model, predictors of VRE bacteremia adjusted for the rest of the significant variables were hematological disease OR 11.1 (95% CI 2.3–53.8) $P = 0.003$, and liver failure OR 7.7 (95% CI 1.2–50.4), $P = 0.03$.

Conclusion. In this cohort of children with enterococcal bacteremia, hematological disease and liver failure were predictive variables of VRE bacteremia.

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1528. Rates of Peripheral Blood Culture Contamination in an Urban Children's Hospital

Derek Tam, MD, MPH; Kyle Hengel, MD; Aparna Arun, MD, FAAP; Maimonides Children's Hospital, Brooklyn, New York

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Background. Positive peripheral blood culture results are essential in guiding antimicrobial therapy in patients with bacteremia. However, false-positive results may frequently pose diagnostic issues in interpreting the test. These results can lead to increased costs and patient harm through the administration of unnecessary antibiotics and prolongation of hospital stay. The maximum acceptable contamination rate for peripheral blood cultures as suggested by the College of American Pathologists is 3%.