

Conclusion: Delayed recognition by healthcare workers, higher weight, vital sign abnormalities, hepatomegaly, neurological symptoms, leukocytosis, neutrophilia, and lack of dextrose in intravenous solutions were associated with mortality in children with DF. These findings have implications for optimizing the diagnosis and management of severe pediatric dengue infection.

Disclosures. All Authors: No reported disclosures

1406. Comparison of Clinical Presentations and Burden of Respiratory Syncytial Virus in Infants Across Three Distinct Healthcare Settings

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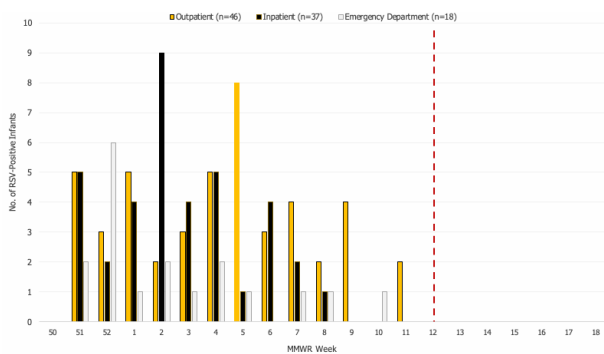
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Background. Respiratory syncytial virus (RSV) accounts for the majority of lower respiratory tract illnesses in hospitalized infants. In the U.S., RSV hospitalizations are well characterized; yet, emergency department (ED) and outpatient (OP) visits are underrecognized. We evaluated the burden of RSV across three distinct healthcare settings during one respiratory season.

Methods. From 12/16/19-4/30/20, we conducted a prospective RSV surveillance study among Davidson County, TN infants under one year who presented to an inpatient (IP), ED, or one of four OP clinics with either fever or any upper respiratory (i.e., cough, earache, nasal congestion, rhinorrhea, sore throat) and/or lower respiratory [i.e., wheezing, crackles, rales, diminished breath sounds, shortness of breath (SOB)] symptoms. Demographic and illness history were collected during parental/guardian interviews, followed by medical chart abstraction. Nasal swabs were collected and tested for RSV using Luminex[®] NxTAG RPP. Due to the COVID-19 pandemic, on 3/16/20 enrollment at three of the four OP clinics ceased.

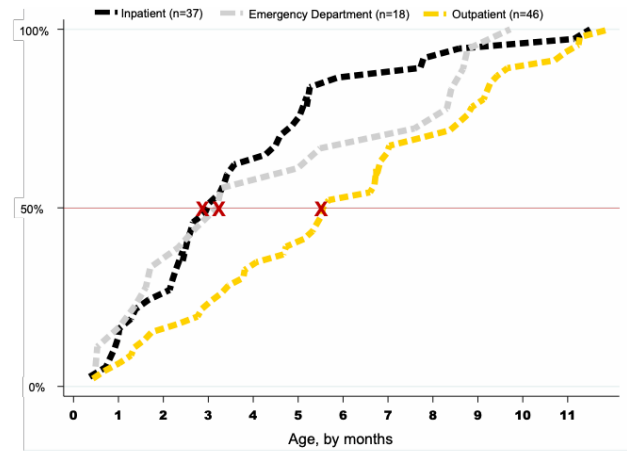
Results. A total of 627 infants were screened, of whom 473 (75%) were confirmed eligible, 364 (77%) enrolled, 361 (99%) were tested for RSV of which 101 (28%) were RSV+ (IP=37, ED=18, OP=46) (Figure 1). Compared to RSV-negative subjects, RSV+ subjects were younger (6.6 vs. 4.9 months, p< 0.001), 56% were male and 48% white. By setting, infants in the OP setting were older than those seen in the IP and ED [(p=0.002), Figure 2]. Compared to infants in the OP setting, hospitalized infants were more likely to present with SOB and rhonchi/rales, but less likely to have only upper respiratory symptoms (Figure 3) and be African American (p=0.046). Infants in the IP setting had a higher proportion of clinical RSV diagnostic testing (73%) compared to the ED (39%) and OP (28%) settings (p< 0.001).

Figure 1. Davidson County Infants with RSV by MMWR Week and Healthcare Setting (n=101)



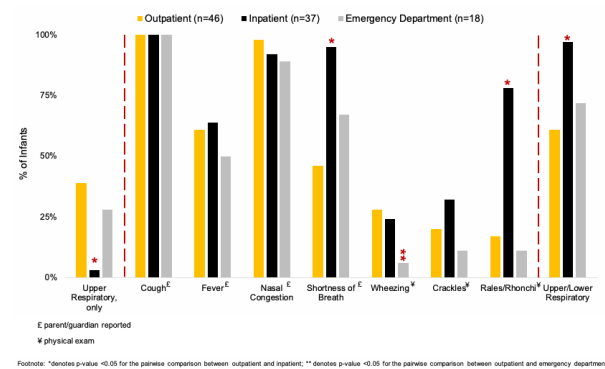
Footnote: Dashed line denotes the Morbidity and Mortality Weekly Report (MMWR) week in which study enrollment was halted in outpatient settings due to COVID-19.

Figure 2. Cumulative Enrollment of Davidson County Infants with RSV by Age in Months and Healthcare Setting (n=101)



Note: X denotes median age in each setting (Inpatient=3.0 months; Emergency Department=3.2 months; Outpatient=5.6 months)

Figure 3. Proportion of Davidson County Infants with RSV Showing each Clinical Symptom, by Healthcare Setting



Footnote: *denotes p-value < 0.05 for the pairwise comparison between outpatient and inpatient; **denotes p-value < 0.05 for the pairwise comparison between outpatient and emergency department

Conclusion. Two-thirds of RSV+ infants sought care from either an OP or ED setting, with nearly all hospitalized infants presenting with both upper and lower respiratory symptoms. The underutilization of diagnostic testing in the OP settings may underestimate the true burden of RSV. Future studies are essential to document the true prevalence of RSV in order to assess the need and impact of new interventions (e.g., immunizations, antivirals).

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1407. Cytomegalovirus (CMV) infection in the first year of life in a cohort of infants in rural Guatemala

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