to 28 days of admission or until death or PICU discharge. Viral DNAemia was defined by qPCR detection of EBV, CMV, HSV, adenosimovirus, TTV, HHV-6, and/or parvovirus B19. CMV, EBV, HSV and HHV6 serologies (IgG) were performed on one sample from each subject. Infection status was defined as uninfected (serologically negative without detectable DNAemia), acute infection (serologically negative with DNAemia),reactivated infection (serologically positive with DNAemia), or latent infection (serologically positive without DNAemia).

Results. Of 401 pediatric patients with severe sepsis, 55% were male, 39% previously healthy, and 27% immunocompromised. 44 subjects (11%) died in the PICU, 56% of subjects had documented infection(s) on enrollment (63% bacterial, 30% viral, and 2% fungal). Viral DNAemia, excluding TTV, was detected in 57% of immuno-compromised patients and 44% of non-immuno-compromised patients. Among patients with viral DNAemia, detection was due to reactivation in 91% of subjects (68% EBV DNAemia, 32% with CMV and 70% of subjects with HSV and HHV-6). After adjusting for age, PRISM, previously healthy and immunesuppressed status, higher mortality was observed in patients with viral DNAemia due to CMV (OR 3.29 [1.46,7.21], p<0.005), adenosimovirus (3.55 [1.45,8.38] p=0.006), and HHV-6 (2.59 [1.11,6.43] p=0.025). DNAemia with multiple viruses, excluding TTV, during ICU admission was also independently associated with increased mortality in both immunocompromised (OR 5.51 [1.61,22.6] p=0.001) and non-immuno-compromised subjects (OR 3.93 [1.36,11.5] p=0.015). Seropositivity was common (HSV 33%, CMV 42%, HHV-6 39%). We identified 19 cases with positive DNAemia with the BSI isolate from 19 cases (6 Staphylococcus aureus, 3 Streptococcus agalactiae, 3 Staphylococcus epidermidis, 2 Staphylococcus saprophyticus, and 2 Enterococcus faecalis). The median age for BSI was 16.4 months (IQR 3.6-41.3). 10/19 infants had positive RNA from the BSI isolate (6 Staphylococcus aureus, 3 Streptococcus agalactiae, 1 Staphylococcus saprophyticus, 1 Staphylococcus epidermidis). The median age for BSI was 16.4 months (IQR 3.6-41.3). 10/19 infants had positive RNA from the BSI isolate (6 Staphylococcus aureus, 3 Streptococcus agalactiae, 1 Staphylococcus saprophyticus, 1 Staphylococcus epidermidis). 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