

## Supplementary Online Content

Hsu HE, Mathew R, Wang R, et al. Health care–associated infections among critically ill children in the US, 2013-2018. *JAMA Pediatr*. Published online October 5, 2020. doi:10.1001/jamapediatrics.2020.3223

**eTable 1.** Sensitivity Analyses for Regression Models to Evaluate Changes in Rates of Device-Associated Central Catheter–Associated Bloodstream Infections per 1,000 Central Catheter-Days Among Patients Cared for in Neonatal Intensive Care Units

**eTable 2.** Sensitivity Analyses for Regression Models to Evaluate Changes in Rates of Device-Associated Central Catheter–Associated Bloodstream Infections per 1,000 Central Catheter-Days Among Patients Cared for in Pediatric Intensive Care Units

**eTable 3.** Sensitivity Analyses for Regression Models to Evaluate Changes in Rates of Device-Associated Catheter-Associated Urinary Tract Infections per 1,000 Indwelling Urinary Catheter Days Over Time Among Patients Cared for in Pediatric Intensive Care Units

**eFigure.** Top Five Pathogens Causing Central Catheter–Associated Bloodstream Infections and Catheter-Associated Urinary Tract Infections Over Time Among Patients Cared for in Pediatric and Neonatal Intensive Care Units

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1. Sensitivity analyses for regression models to evaluate changes in rates of device-associated central catheter-associated bloodstream infections per 1,000 central catheter-days among patients cared for in neonatal intensive care units**

	Yearly Incidence Rate Ratio (95% CI)
<b>Consistent reporters<sup>a</sup> (N = 95)</b>	
Time	0.97 (0.93 – 1.02)
Birthweight ≤1500g <sup>b</sup>	2.25 (1.83 – 2.75)
<b>Adjusted for children’s hospital status (n=131)</b>	
Time	0.99 (0.95 – 1.03)
Birthweight ≤1500g <sup>b</sup>	2.29 (1.94 – 2.71)
<b>Adjusted for NICU bed size (n=131)</b>	
Time	0.99 (0.95 – 1.03)
Birthweight ≤1500g <sup>b</sup>	2.24 (1.87 – 2.68)
<b>Restricted to 2016-2018 time frame (n = 125)</b>	
Time	0.90 (0.79 – 1.03)
Birthweight ≤1500g <sup>b</sup>	2.11 (1.63– 2.72)

<sup>a</sup>Hospitals were designated as consistent reporters if they contributed data in both the first and last year of the study period.

<sup>b</sup>Birthweight >1500g is the reference category.

**eTable 2. Sensitivity analyses for regression models to evaluate changes in rates of device-associated central catheter-associated bloodstream infections per 1,000 central catheter-days among patients cared for in pediatric intensive care units**

	<b>Yearly Incidence Rate Ratio (95% CI)</b>
<b>Consistent reporters<sup>a</sup> (N = 86)</b>	
Time	1.03 (1.00 – 1.08)
<b>Adjusted for children’s hospital status (n = 111)</b>	
Time	1.03 (0.99 – 1.07)
<b>Adjusted for PICU bed size (n=111)</b>	
Time	1.03 (0.99– 1.07)
<b>Restricted to 2016-2018 time frame (n = 108)</b>	
Time	0.92 (0.84– 1.02)

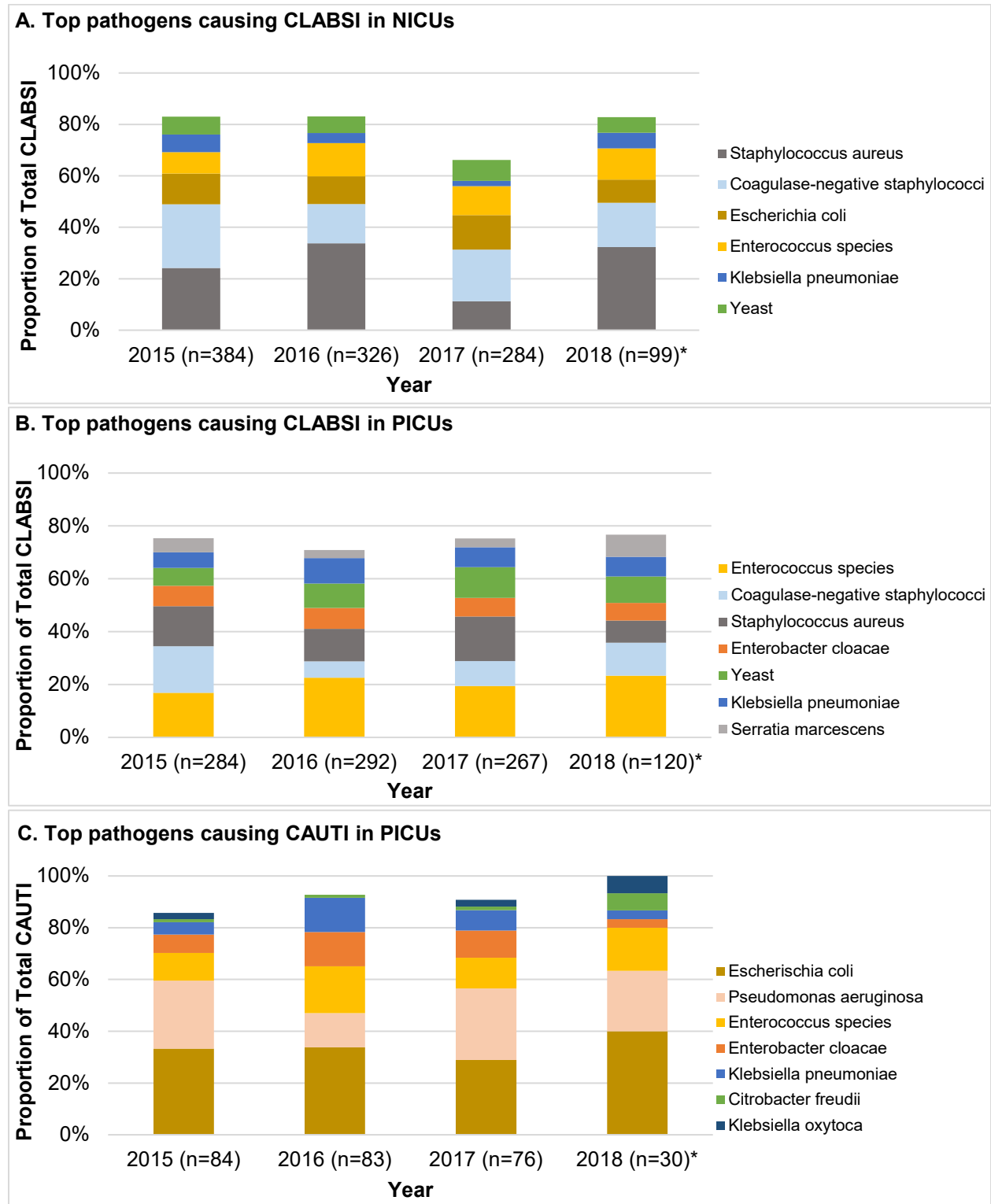
<sup>a</sup>Hospitals were designated as consistent reporters if they contributed data in both the first and last year of the study period.

**eTable 3. Sensitivity analyses for regression models to evaluate changes in rates of device-associated catheter-associated urinary tract infections per 1,000 indwelling urinary catheter-days over time among patients cared for in pediatric intensive care units**

	Yearly Incidence Rate Ratio (95% CI)
<b>Consistent reporters<sup>a</sup> (N = 84)</b>	
Time	0.97 (0.91 – 1.04)
<b>Adjusted for children's hospital status (n=109)</b>	
Time	0.97 (0.91 – 1.03)
<b>Adjusted for PICU bed size (n=109)</b>	
Time	0.96 (0.91 – 1.03)

<sup>a</sup>Hospitals were designated as consistent reporters if they contributed data in both the first and last year of the study period.

**eFigure: Top five pathogens causing central catheter-associated bloodstream infections and catheter-associated urinary tract infections over time among patients cared for in pediatric and neonatal intensive care units**



**eFigure Legend:** Abbreviations: CLABSI: central catheter-associated bloodstream infection; CAUTI: catheter-associated urinary tract infection; NICU: neonatal intensive care unit; PICU: pediatric intensive care unit. Each bar depicts the top 5 most frequent organisms reported as the primary pathogen causing either the reported CLABSI or CAUTI. Organisms were grouped as follows: *Enterobacter cloacae* include cultures with the primary organism identified as *Enterobacter cloacae* or *Enterobacter cloacae* complex; Coagulase-negative staphylococci include cultures with the primary organism identified as coagulase-negative staphylococcus, genus *Micrococcus*, *Micrococcus catarrhalis*, *Staphylococcus epidermidis*, *Staphylococcus capitis*, *Staphylococcus capitis capitis*, *Staphylococcus cohnii*, *Staphylococcus haemolyticus*, *Staphylococcus hominis*, *Staphylococcus hominis hominis*, *Staphylococcus lentus*, *Staphylococcus pasteurii*, *Staphylococcus warneri*; *Enterococcus* species include cultures identified as genus *Enterococcus*, *Enterococcus avium*, *Enterococcus casseliflavus*, *Enterococcus faecalis*, *Enterococcus faecium*, *Enterococcus hirae*, *Enterococcus durans*/*Streptococcus durans*, *Enterococcus gallinarum*/*Streptococcus gallinarum*; Yeast include cultures with the primary organism identified as *Candida*, *Candida albicans*, *Candida dubliniensis*, *Candida glabrata*, *Candida guilliermondii*, *Candida intermedia*, *Candida krusei*, *Candida lusitanae*, *Candida parakrusei* or *parapsilosis*, *Candida pararugosa*, *Candida rugosa*, *Candida tropicalis*, *Candida utilis*, or Yeast. \*The year 2018 only includes data from January 1 through June 30, 2018.