“Blood cultures are often obtained as part of the evaluation of infants with fever and these infants are typically observed until their cultures are determined to have no growth. However, the time to positivity of blood culture results in this population is not known.” Biondi et al (2014).

Reference:

Blood culture time to positivity in febrile infants with bacteria http://ctt.ec/HpdL5+ @ivteam #ivteam

Click To Tweet

Abstract:

IMPORTANCE: Blood cultures are often obtained as part of the evaluation of infants with fever and these infants are typically observed until their cultures are determined to have no growth. However, the time to positivity of blood culture results in this population is not known.

OBJECTIVE: To determine the time to positivity of blood culture results in febrile infants
admitted to a general inpatient unit.

**DESIGN, SETTING, AND PARTICIPANTS:** Multicenter, retrospective, cross-sectional evaluation of blood culture time to positivity. Data were collected by community and academic hospital systems associated with the Pediatric Research in Inpatient Settings Network. The study included febrile infants 90 days of age or younger with bacteremia and without surgical histories outside of an intensive care unit.

**EXPOSURES:** Blood culture growing pathogenic bacteria.

**MAIN OUTCOMES AND MEASURES:** Time to positivity and proportion of positive blood culture results that become positive more than 24 hours after placement in the analyzer.

**RESULTS:** A total of 392 pathogenic blood cultures were included from 17 hospital systems across the United States. The mean (SD) time to positivity was 15.41 (8.30) hours. By 24 hours, 91% (95% CI, 88-93) had turned positive. By 36 and 48 hours, 96% (95% CI, 95-98) and 99% (95% CI, 97-100) had become positive, respectively.

**CONCLUSIONS AND RELEVANCE:** Most pathogens in febrile, bacteremic infants 90 days of age or younger hospitalized on a general inpatient unit will be identified within 24 hours of collection. These data suggest that inpatient observation of febrile infants for more than 24 hours may be unnecessary in most infants.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).

**Guide for intravenous chemotherapy and associated vascular access devices from Macmillan.**

**CancerUK IV chemotherapy information.**