



Intravenous literature: Wirtschafter, D.D., Padilla, G., Suh, O., Wan, K., Trupp, D. and Fayard, E.E.S. (2011) Antibiotic use for presumed neonatally acquired infections far exceeds that for central line-associated blood stream infections: an exploratory critique. *Journal of Perinatology*. 31, p.514-518.

Abstract:

Objective: To assess antibiotic use as a complementary neonatal intensive care unit (NICU) infection measure to the central line-associated blood stream infection (CLABSI) rate.

Study Design: Patient days (PDs), line days, antibiotic (AB) use, CLABSI and other proven infections were analyzed in consecutive admissions to two NICUs over 3 and 6 months, respectively, from 1 January 2008 until discharge. An antibiotic course (AC) consisted of one or more uninterrupted antibiotic days (AD), classified as perinatal or neonatal, if started 3 d or 4 d post birth and as rule-out sepsis or presumed infection (PI) if treated 4 d or 5d, respectively. Events were expressed per 1000 PD and aggregated by conventional treatment categories and by clinical perception of infection certainty: possible, presumed or proven.

Result: The cohort included 754 patients, 18-345 PD, 6637 line days, 718 AC and 4553 AD. Of total antibiotic use, neonatal use constituted 39.2% of ACs, and 29.0% of ADs, When analyzed per 1000 PD, antibiotic use to treat PIs vs CLABSIs, was either 14 fold (CI 6.6-0) higher for ACs (5.40 vs 0.38/1000 PD, P

Conclusion: CLABSI rates, present a lower limit of NICU-acquired infections, whereas antibiotic-use measures, about 10-fold higher, may estimate an upper limit of that burden. Antibiotic-use metrics should be evaluated further for their ability to broaden NICU infection assessment and to guide prevention and antibiotic stewardship efforts.

