Abstract on DNP Project on the Prevention of Central line Associated Blood Stream Infection in the Neonatal Intensive Care Unit

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Abstract

Central line associated blood stream infection (CLABSI) is common in the neonatal intensive care unit and is associated with significant morbidity and mortality. The objectives of this project are to implement guidelines to decrease the use of peripherally inserted central catheter (PICC), and continue the use of CLABSI bundles. The project started from June to July 2017. The project design was to implement new guidelines to decrease PICC access and duration of use based on achieved feeding volumes: change intravenous (IV) medications to oral form once 80 ml/k/day was achieved and to discontinue PICC line once 120 ml/kg/day was achieved. Thirty-four PICCs were placed. Compliance with the new guidelines improved from 50% to 83% for discontinuing PICC at 120 ml/k/d of feeds (p=0.038), and from 7% to 64% for changing IV medication to oral form at 80 ml/k/d of feeds (p=0.007). The average line days decreased from 15.6 days to 14 days (p=0.917). Compliance with the use of the bundles improved from 87% to 100 %. The CLABSI rate was maintained at zero. The use of the new guidelines improved significantly with decreased PICC line days and access, improved use of bundles and low CLABSI rates.

Keywords: CLABSI, CLABSI bundles, compliance