

Although peripherally inserted central catheters (PICCs) are often used in adults hospitalized with pneumonia, patterns related to PICC use in this context are unknown” Chopra et al (2016).

Abstract:

BACKGROUND: Although peripherally inserted central catheters (PICCs) are often used in adults hospitalized with pneumonia, patterns related to PICC use in this context are unknown.

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METHODS: Premier’s inpatient database was used to identify patients hospitalized with pneumonia between July 1, 2007 and November 30, 2011. PICC placement was identified via billing codes. Generalized estimating equations were used to identify factors associated with PICC placement. Hospital risk-standardized rates of PICC insertion were estimated using hierarchical generalized linear models.

RESULTS: There were 545,250 patients (median age: 71 years; range: 57-82 years) included. A total of 41,849 (7.7%) patients received a PICC during hospitalization (median receipt: hospital day 4). PICC recipients were younger (median age: 69 years), had higher levels of comorbidity (Gagne score median: 4 vs 2) and were more often diagnosed with healthcare-associated pneumonia (43.1% vs 29.9%) than those who did not receive PICCs. The 3 patient variables most associated with PICC receipt included weight loss (odds ratio : 2.03, 95% confidence interval : 1.97-2.10), sepsis on admission (OR: 1.80, 95%CI: 1.75-1.85), and intensive care unit status on hospital day 1 or 2 (OR: 1.70, 95%CI: 1.64-1.75). Compared to internal medicine, admission by geriatricians and critical care physicians was associated with PICC placement (OR: 1.81, 95% CI: 1.62-2.03 and OR: 1.14, 95% CI: 1.05-1.24, respectively). Risk-standardized rates of PICC utilization varied from 0.3% to 41.7%. Nearly 70% of the variability in PICC use could not be explained by available data.

CONCLUSIONS: In adults hospitalized with pneumonia, PICC use appears directed towards those with severe illness and varies substantially between hospitals.

Reference:

Chopra, V., Priya, A., Pekow, P.S., Thompson, R., Flanders, S.A. and Lindenauer, P.K. (2016) Variation in prevalence and patterns of peripherally inserted central catheter use in adults hospitalized with pneumonia. *Journal of Hospital Medicine*. April 19th. .

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