



“The problem of interest in this study is the challenge of consistent implementation of evidence-based infection prevention practices at the unit level, a challenge broadly characterized as “change implementation failure.” Rangachari et al (2014).

Reference:

Rangachari, P., Madaio, M., Rethemeyer, R.K., Wagner, P., Hall, L., Roy, S. and Rissing, P. (2014) Cumulative impact of periodic top-down communications on infection prevention practices and outcomes in two units. Health Care Management Review. August 12th. .

Cumulative impact of periodic top-down communications on infection prevention practices  
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Abstract:

**BACKGROUND:** The problem of interest in this study is the challenge of consistent implementation of evidence-based infection prevention practices at the unit level, a challenge broadly characterized as “change implementation failure.” The theoretical literature suggests that periodic top-down communications promoting tacit knowledge exchanges across professional subgroups may be effective for enabling change in health care organizations. However, gaps remain in understanding the mechanisms by which top-down communications enable practice change at the unit level. Our study sought to both validate

the theoretical literature and address this gap.

**PURPOSE:** Correspondingly, this study posed two research questions. (1) What is the impact of periodic “top-down” communications on practice change at the unit level? (2) What are the “unit-level” communication dynamics enabling practice changes? Whereas this article focuses on addressing the first question, the second question has been addressed in an earlier Health Care Management Review article (Rangachari et al., 2013).

**METHODS:** A prospective study was conducted in two intensive care units at an academic health center. Both units had low baseline adherence to central line bundle (CLB) and higher-than-expected catheter-related bloodstream infections (CRBSIs). Periodic top-down communication interventions were conducted over 52 weeks to promote CLB adherence in both units. Simultaneously, the study examined (a) unit-level communication dynamics related to CLB through weekly “communication logs,” completed by unit physicians, nurses, and managers, and (b) unit outcomes, that is, CLB adherence and CRBSI rates.

**FINDINGS:** Both units showed increased adherence to CLB and significant, sustained declines in CRBSIs. Results showed that the interventions cumulatively had a significant negative (desired) impact on “catheter days,” that is, central catheter use.

**PRACTICE IMPLICATIONS:** Results help validate the theoretical literature and identify evidence-based management strategies for practice change at the unit level. They suggest that periodic top-down communications have the potential to modify interprofessional knowledge exchanges and enable practice change at the unit level, leading to significantly improved outcomes and reduced costs.

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.



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