



Cancer patients are considered the most at risk of the consequences of catheter occlusion. Therefore, nursing interventions that can effectively reduce the occlusion of peripherally inserted central catheter (PICC) lines must be identified to ensure a smooth treatment” Pan et al (2019).

Abstract

BACKGROUND: Cancer patients are considered the most at risk of the consequences of catheter occlusion. Therefore, nursing interventions that can effectively reduce the occlusion of peripherally inserted central catheter (PICC) lines must be identified to ensure a smooth treatment.

OBJECTIVE: This study aimed to evaluate nursing interventions to minimize PICC line occlusion and make recommended measures for preventing or decreasing occlusion and abnormal extubation.

METHODS: Studies about PICC occlusion that were published up to January 2017 were searched and screened in PubMed, Web of Science, Science Direct (Elsevier), EMBASE, Cochrane Library, and Chinese databases CNKI and Wanfang. Two independent reviewers screened the literature in accordance with the inclusion and exclusion criteria, assessed the quality of the included studies, and extracted the data. Further meta-analysis was performed

using RevMan 5.3.

RESULTS: Thirteen trials were included. Meta-analysis revealed that education for nurses (relative risk, 0.31; 95% confidence interval, 0.19-0.51; $P < .00001$) was significantly associated with PICC occlusion, whereas PICC type (relative risk, 0.60; 95% confidence interval, 0.32-1.15; $P = .12$) was not significantly associated with PICC occlusion. The solution to washing pipes and the PICC insertion techniques were descriptively analyzed to reach statistical significance. **CONCLUSION:** This study determined the correlation of PICC occlusion with the nurses' knowledge and skills, PICC types, flushing liquid and methods, and insertion techniques. **IMPLICATIONS FOR PRACTICE:** The findings of this study can serve as a guide for clinical work and for developing targeted measures to reduce occlusion.

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Reference:

Pan, M., Meng, A., Yin, R., Zhi, X., Du, S., Shi, R., Zhu, P., Cheng, F., Sun, M., Li, C. and Fang, H. (2019) Nursing Interventions to Reduce Peripherally Inserted Central Catheter Occlusion for Cancer Patients: A Systematic Review of Literature. *Cancer Nursing*. 42(6), p.E49-E58. doi: 10.1097/NCC.0000000000000664.

