Effects of Chlorhexidine Dressing in Preventing Exit Site Infection Among Peritoneal Dialysis Patients

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Introduction

Dialysis significantly impacts healthcare budgets, particularly hemodialysis (HD), which is costlier than peritoneal dialysis (PD) yet remains the dominant method in Malaysia. Increasing the proportion of patients on PD can reduce costs. However, preventing PD- related infections remains a challenge, highlighting the need for better prevention and treatment. For instance, PD-associated Non-Tuberculous Mycobacterium (NTM) infection, though rare, causes high morbidity and prolonged antimicrobial use

Methodology

A single-center observational study conducted at Hospital Sultanah Aminah, Johor Bahru. Patients who developed ESI from April 2022–April 2023 (Povidone group) were compared with those from May 2023–May 2024 (Chlorhexidine group).

Results

The mean age of the participants was 56.4 (SD=17.62) years old. The majority was female (53.7%,n=43), while Malays constitute about (60%,n = 48) . Among them, CAPD patients were 85%, n=68, while APD constitutes 15% ,n = 12 with a PD vintage of 12.5 months and assisted was 68.8%, n= 55.The incidence of ESI were 0.19 episode per patient years in the povidone group,whereas 0.12 episode per patient years in the chlorhexidine group with a P value of 0.06 . There was about 0.02 episode per patient years of gram negative in chlorhexidine group as compared to povidone group with 0.08 episode per patient years ,significant P value of <0.001. The NTM rate was 0.03 episode per patient years in the povidone group and 0.01 episode per patient years in chlorhexidine group with P value of 0.268.

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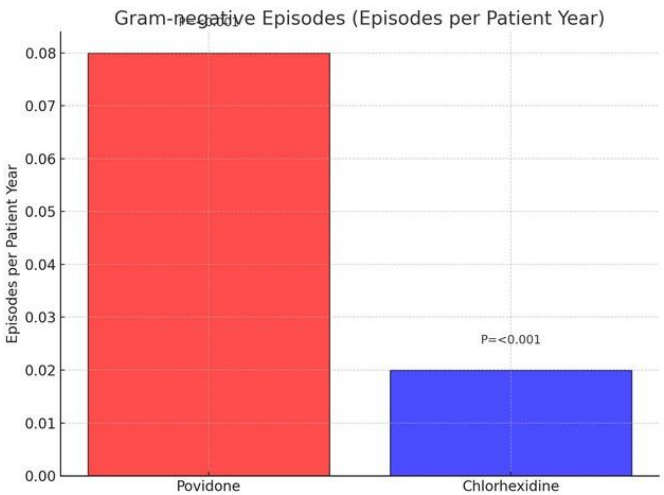

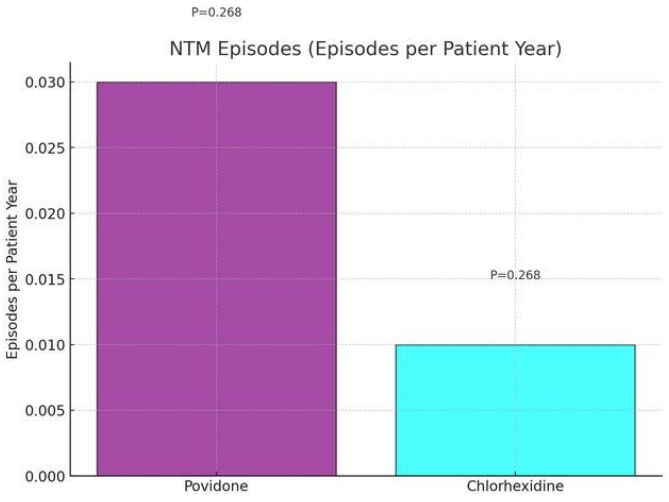

Conclusion

Chlorhexidine dressing reduced ESI rates and significantly decreased gram-negative bacterial infections compared to povidone. Additionally, chlorhexidine offers substantial economic benefits, making it a preferred choice for PD exit site care.