

IMPLEMENTATION OF URINARY CATHETER CARE AND MANAGEMENT PROGRAM IN HOSPITAL

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INTRODUCTION

The longer the urinary catheter is placed, the more likely it is to cause complications. Catheter-associated urinary tract infection is the most common cause of hospital-acquired infection. For each additional day of catheterization, the patient's risk of acquiring a urinary tract infection increases by 3% to 7%. It might also affect the safety of the patient, such as physical discomfort, limited activity, and negative psychological states. We found that there are still many clinical medical and nurse staff not familiar with the relevant precautions for removing the urinary catheter, the different medical departments also have different understandings and cognitions about the catheter and also there is no clinical standardized protocol to apply and implement. Under such circumstances, the result of removing the catheter may sometimes lead to the patient receiving unnecessary and potentially harmful. Therefore, the establishment of a standardized protocol might help select suitable cases and thus give intervention earlier and safe removal of the tube then avoid unnecessary harm to the patient. Therefore, it is important to establish "process standardization".

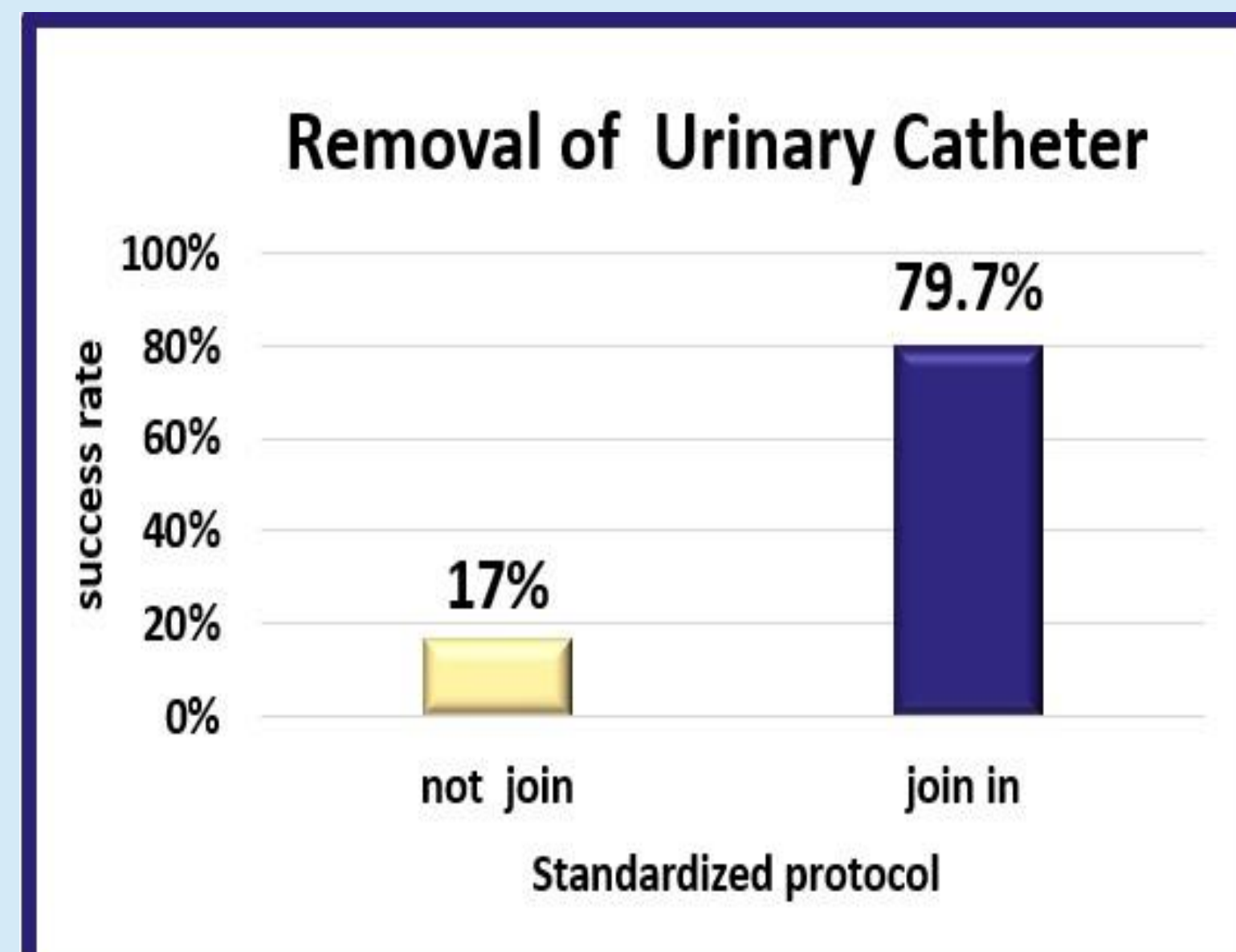
AIM

The establishment of a standardized protocol might help select suitable cases and thus give intervention earlier. The purpose of this study was to assess the feasibility of establishing a standardized protocol for urinary catheter removal training and to promote advanced safe and high-quality care.

RESULTS

- 136 patients were recruited and 118 of them fulfilled the inclusion criteria. As shown in the table and figure below, 79.7% ($p < 0.0001$) of the included patients had successfully removed the urinary catheter. The group of patients who had catheters removed by standard practice had an average of 10.1 ± 7.9 days of catheterization compared to patients who did not have catheters removed by standard practice and had an average of 24.0 ± 13.5 days of catheterization.

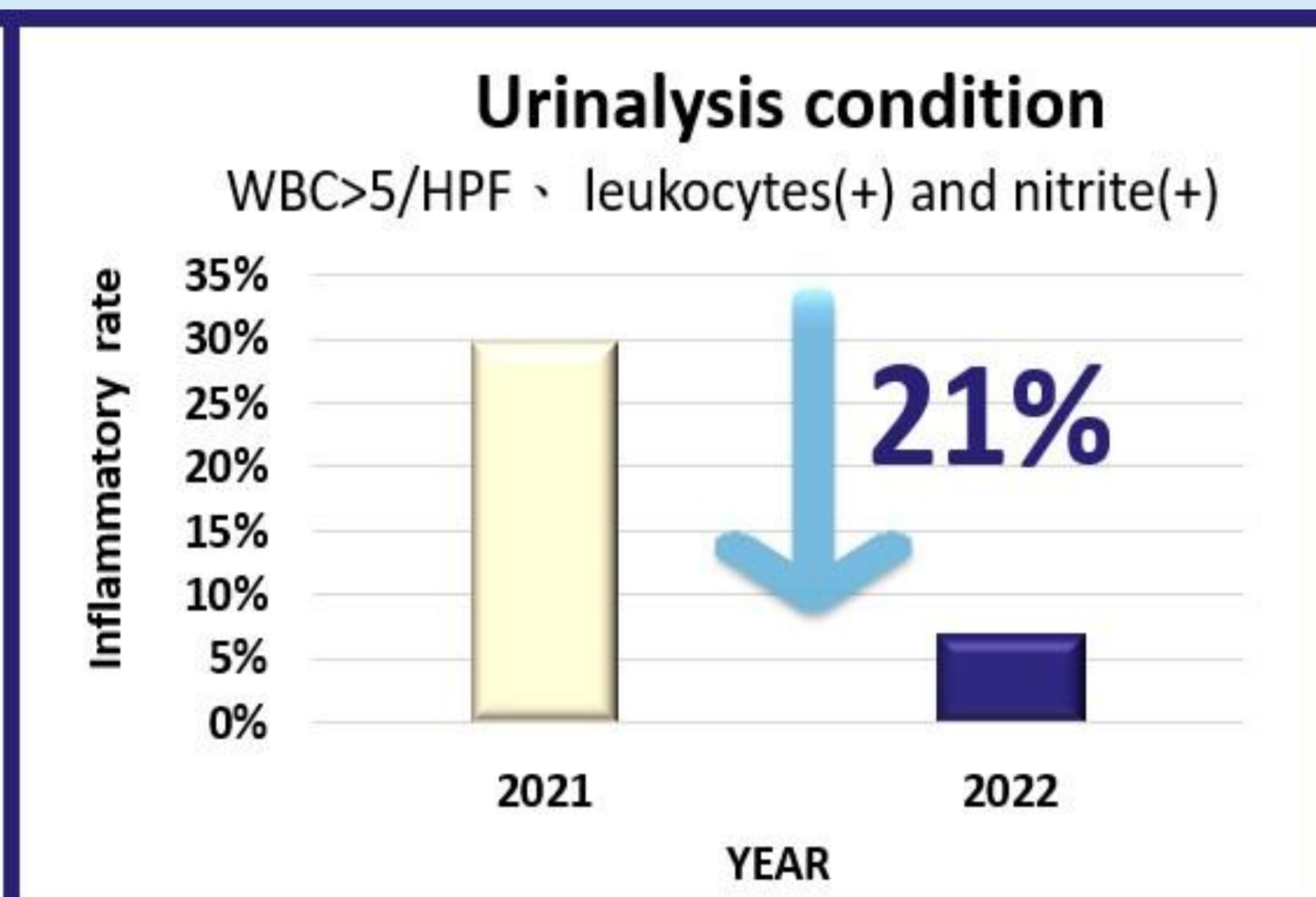
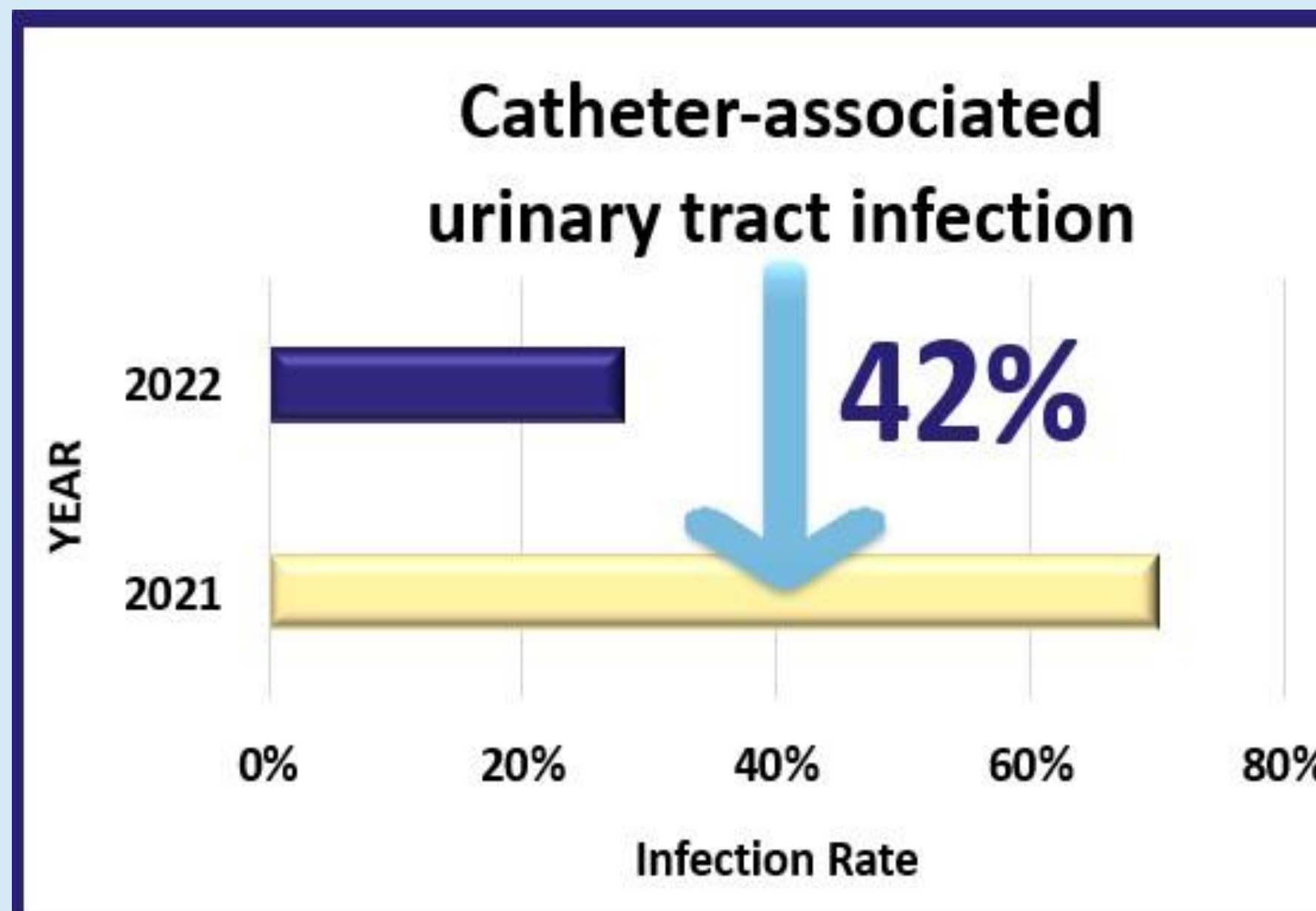
Standardized protocol			
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success rate	16.7%	79.7%	<0.0001
Remove on average days	24.0 $\pm$ 13.5	10.1 $\pm$ 7.9	0.0315



- As shown in the table below, There was no complication after 3 months follow up and none of these patients need to reinsert the urinary catheter or death Catheter-associated.

Safety	
Removal of Urinary Catheter	94
Reinsert the urinary catheter	0
Death Catheter-associated	0

- In order to confirm whether the implementation of standardized procedures has improved the quality of care, we applied to the Center of Infection Control for the statistics of urinary catheter-related urinary tract infections from 2021 to 2022. The figure below shows that the infection rate has dropped significantly.



METHOD

This prospective cohort study recruited hospitalized patients with urinary catheter insertion in the rehabilitation ward of Shuang Ho Hospital from January 2022 to December 2022. Multiple health professionals from several different disciplines were recruited to form a multidisciplinary team in order to establish a standard protocol for the removal of urinary catheters. Interprofessional education was given to the clinical staff to ensure training quality upon evaluating and caring for catheter removal. For those who can cooperate with the instructions, the urinary catheter indwelling time is less than one year, and no acute medical problems, the family members or patients willingness to catheter removal, and are accompanied by caregivers who can observe and record total water intakes and urination status were eligible for the removal of catheters. The primary outcome was the success rate of urinary catheter removal. Secondary outcomes were complications and the reinsertion rate after 3 months of follow-up.

CONCLUSIONS

This standardized protocol of urinary catheters removal has been shown to assist the clinician to screen and remove urinary catheters successfully. In addition, shortening the time of urinary catheter placement allows patients to improve their quality of life, Therefore, the execution of standardized processes is important to advance safe and high-quality care.

REFERENCES

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