

Project Title

Transformed Catheter Exit-site Care for Hospitalized Peritoneal Dialysis Patients

Project Lead and Members

Project Lead: Dr Htay Htay

Project Members: Dr Marjorie Foo Wai Yin, Dr Elizabeth Oei Ley, Dr Mathini

Jayaballa, Ms Wang Wei, Ms Kok Su Fong, Ms Teo Xin Xin

Organisation(s) Involved

Singapore General Hospital

Healthcare Family Group(s) Involved in this Project

Medical, Nursing

Applicable Specialty or Discipline

Nephrology

Project Period

Start date: Aug 2021

Completed date: Feb 2022

Aims

- To prevent exit-site infection among peritoneal dialysis (PD) patients
- To reduce the manpower on exit site care without compromising care of patient

Background

With growing number of peritoneal dialysis (PD) patients in Singapore, the number of PD patients admitted to hospital has increased. PD nurses have to perform the PD therapy and exit-site care daily for hospitalised PD patients which put a strain on PD nursing manpower. With increasing number of PD patients hospitalised for COVID-19 infection during pandemic, the workload of PD nursing has further increased. In order

to accommodate the increasing number of PD population and care need, the innovative approach to care of PD patients is needed.

In order to reduce the manpower on exit site care without compromising care of patient, the weekly chlorhexidine dressing was introduced for PD patients admitted to hospital. With this initiative, PD nurse can save time spending on each patient for exit site care and can focus on the other area of care such as providing PD therapy and education. During the pandemic, some PD patients with COVID-19 infection were admitted to the isolation ward. The use of weekly dressing also reduced the exposure time between patients and PD nurses minimising risk of infection to the staff.

Methods

The use of weekly chlorhexidine dressing started at the end of August 2021, when there was a surge in admission of PD patients with COVID-19 infection, and also shortage of PD nursing manpower due to high in-patient workload in isolation wards, and some PD nurses were under SHN or QO or infected with COVID-19 infection.

All PD nurses were trained on how to use the weekly chlorhexidine dressing. The chlorhexidine dressing was prescribed for all admitted PD patients unless they had contra-indication to use the chlorhexidine dressing. The contra-indication included patients who had known history of allergy to chlorhexidine, patients who had ongoing exit-site infection or exit-site bleeding or dialysate leak at catheter exit-site or refused by patients.

The department was informed about the initiative for PD patients. The adverse events with the use of the weekly chlorhexidine were monitored closely. PD nurses were advised to report to the team leader if there were any adverse effects with the dressing. The anonymised survey was conducted among PD nurses at about 3 months of implementation, and the responses were positive. The outcomes data from the pilot study were shared with PD nurses.

Results

The use of weekly chlorhexidine dressing for PD catheter exit-site care has resulted in reducing PD nursing time spent in changing dressing by four folds without compromising the patients' care.

In addition, patients also benefited from the change by spending less on dressing change by approximately 2.7 folds.

Lessons Learnt

Innovation and implementation of change can save time and money.

Starting new innovation with a pilot project is important. The findings from the pilot project allows you to predict potential complications and implement the change with guidance. I would have implemented the project early.

Conclusion

The innovation can lead to saving healthcare cost.

Project Category

Care & Process Redesign, Value Based Care, Productivity, Time Saving, Cost Saving, Quality Improvement, Clinical Practice Improvement

Keywords

Peritoneal Dialysis, Chlorhexidine Dressing,

Name and Email of Project Contact Person(s)

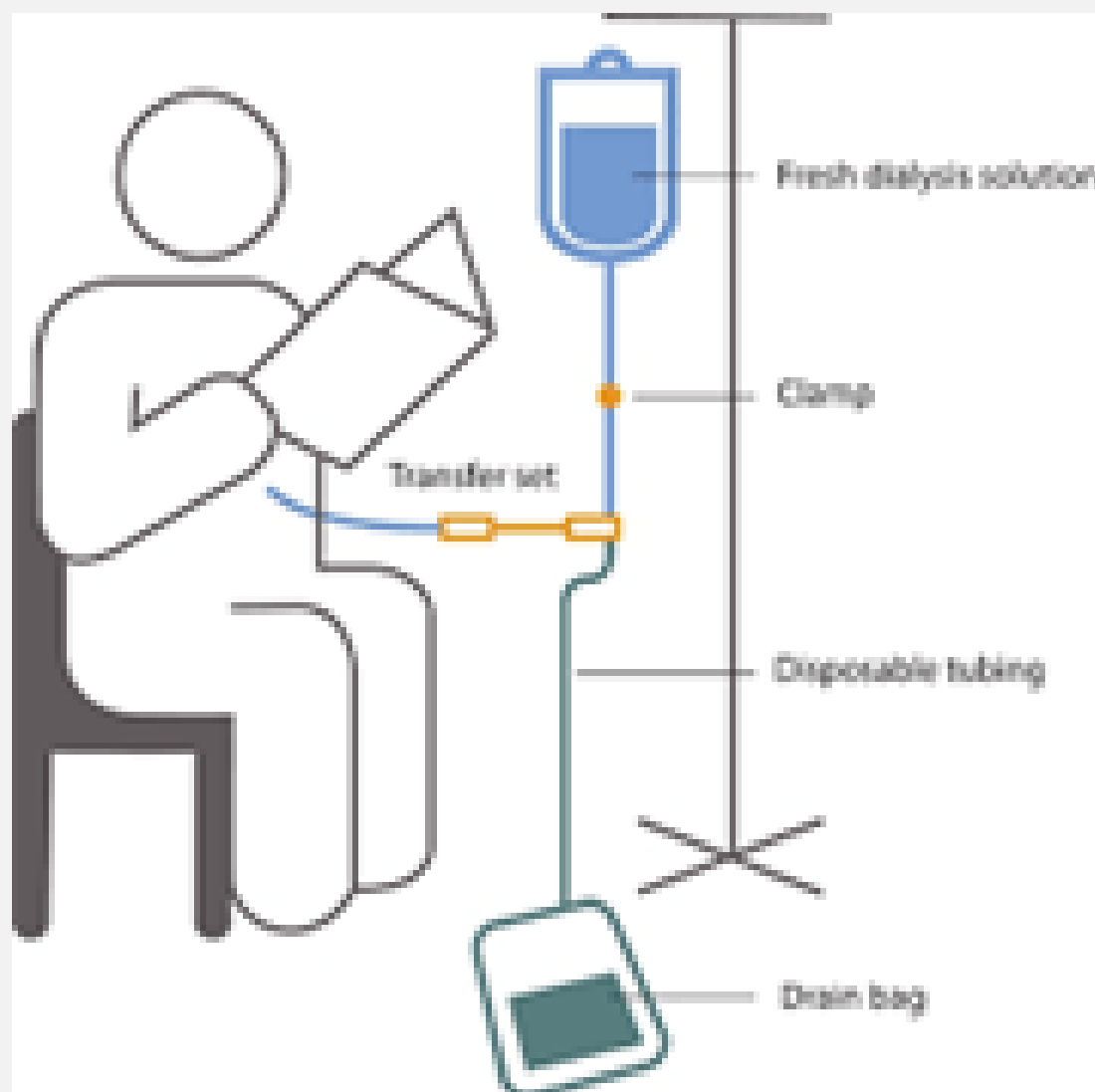
Name: Dr Htay Htay

Email: Htay.htay@singhealth.com.sg

Transformed catheter exit-site care for hospitalized peritoneal dialysis patients

Htay Htay, Wang Wei, Mathini Jayaballa, Kok Su Fong, Elizabeth Oei Ley, Teo Xin Xin, Marjorie Foo Wai Yin
Department of Renal Medicine, Singapore General Hospital, Singapore

Peritoneal dialysis (PD) catheter exit-site care



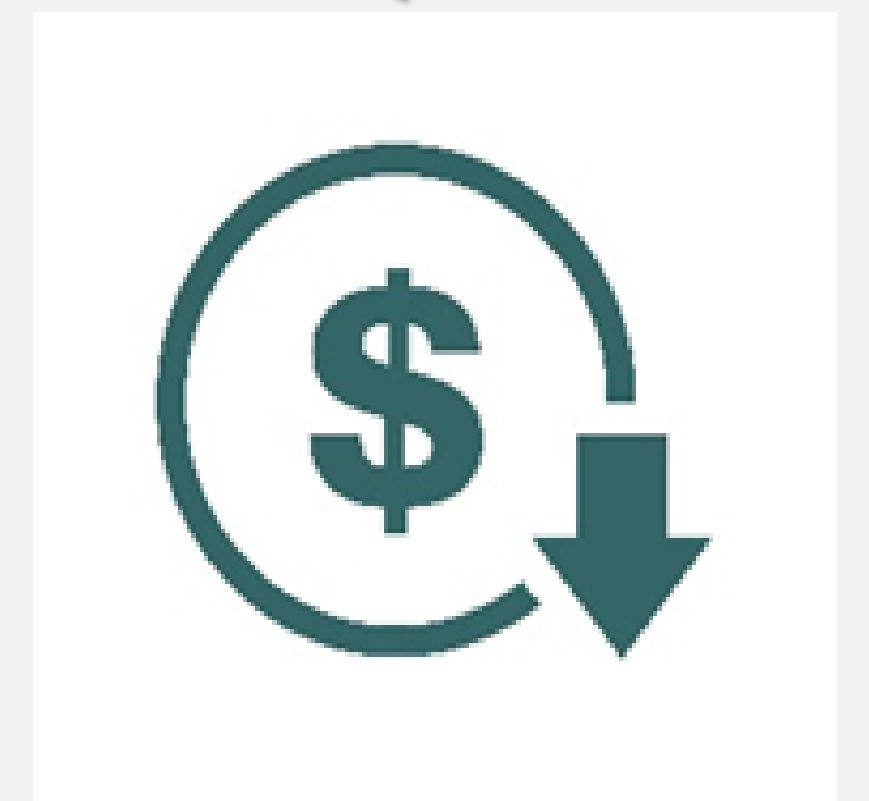
214 hospitalized PD patients
Aug 21 to Feb 22
Length of stay -2103 days

Daily Dressing
Topical Gentamicin cream

Weekly dressing
Chlorhexidine impregnated dressing



Adverse effects
No allergic reaction
No exit-site infection



Number of dressings
546 versus 2103 dressings

Nursing time-saving
136 versus 533 hours

Healthcare cost-saving
S\$ 16,107 versus 43,655

Use of weekly chlorhexidine impregnated dressing instead of daily antibiotics dressing for catheter exit-site in hospitalized PD patients significantly reduced healthcare cost.