

Prevent Kinking of Percutaneous Tubes

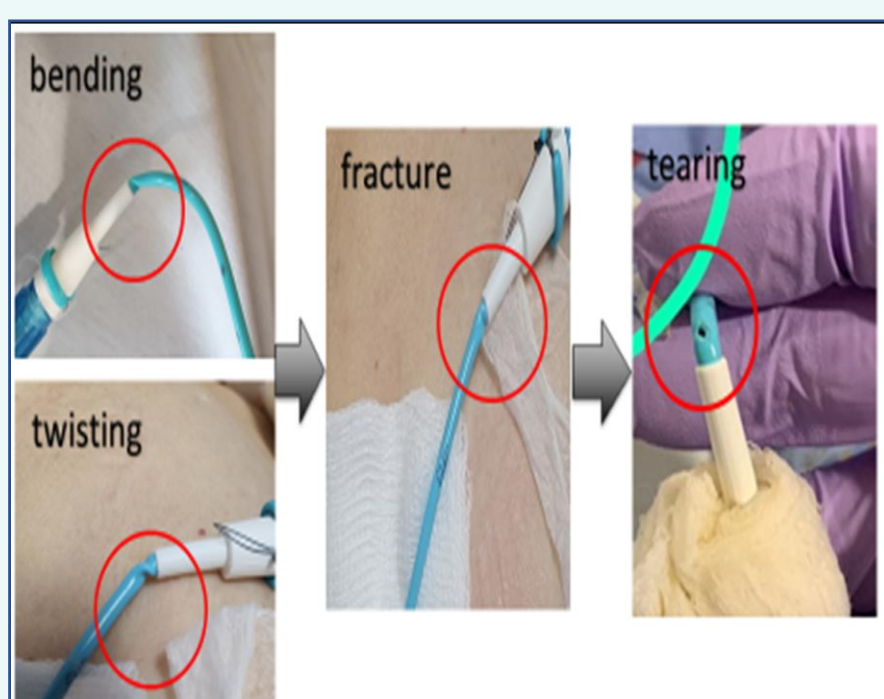
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Problem Statement

Percutaneous Tube (PT) is inserted to drain abscess or collection of fluid such as pus, urine or bile. It was noticed that kinking of the PT is a common issue in surgical wards. These may lead to ineffective patient care and complications such infection or sepsis, reinsertion of PT, unnecessary prolong hospitalization or cost.



Types of kinking encountered



Number of incidences for 3-month period.

Project Aim

Zero occurrence of Percutaneous Tube (PT) kinking in surgical ward within 6-month time.

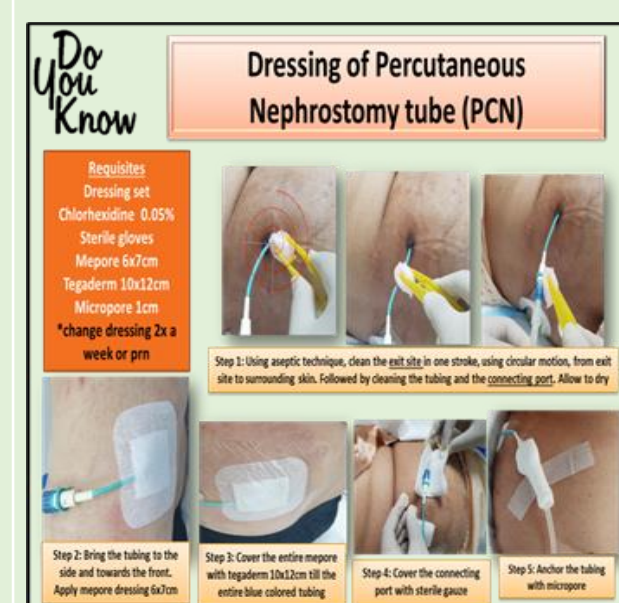
Lessons Learnt

Acquiring data on PT kinking proved to be difficult due to its scattered occurrence across different hospital wards. It was essential to ensure a sustained training program for medical and nursing personnel, as well as patients and their caregivers, in order to secure their active engagement right from the beginning.

Monitoring cases after patients are discharged from the hospital poses a challenge, requiring close and diligent follow-up.

Potential Solutions

Pre-survey to evaluate knowledge of staff in managing PT



- 83.3% (N=60) not confident in managing PT
- Quick reference guide uploaded as a guide

Propose dressing and anchoring technique



- Use of foam dressing with gauze and micropore for anchoring

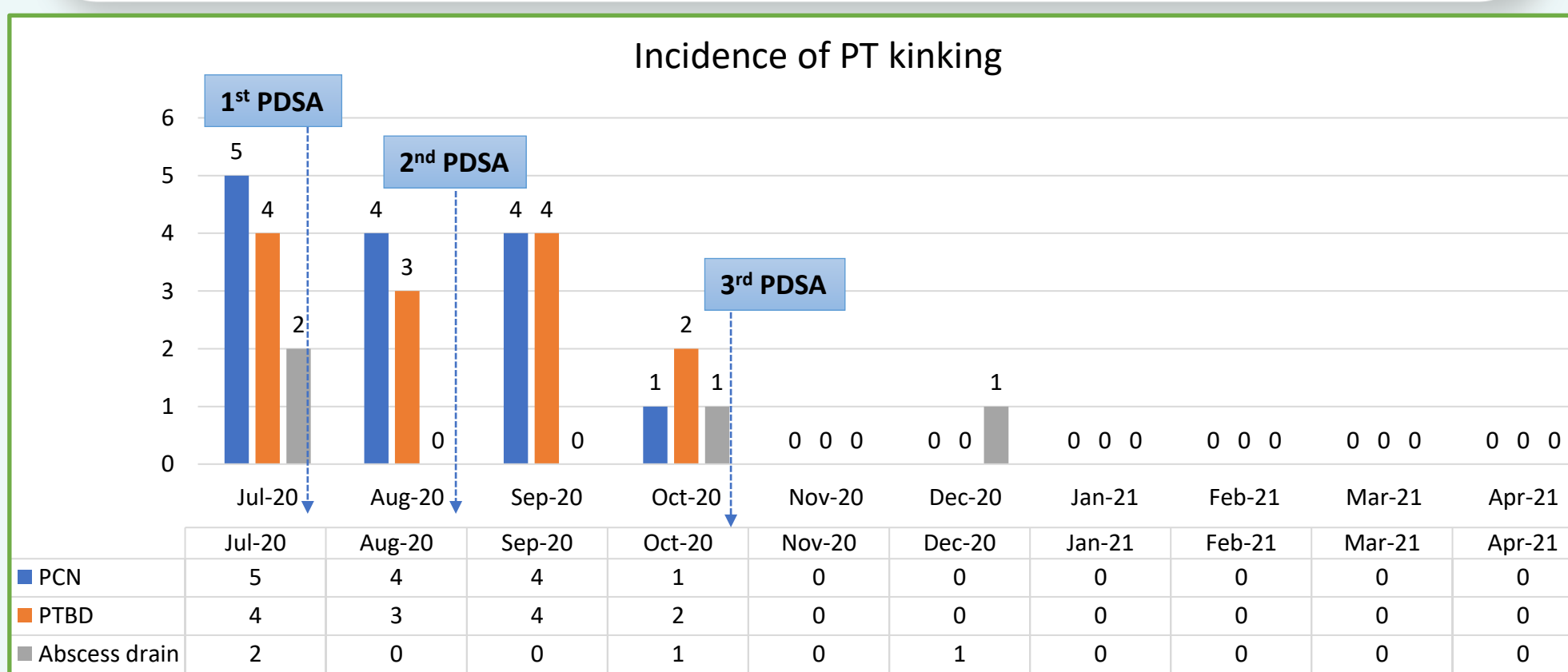
Use of Percutaneous Tube Protector (PTP)

(Thermoplastic Polyetherane or TPU. Does not require sterilization, verified with Infection and Prevention Control (non-critical under Spaulding Classification))



- Protect tube effectively from kinking
- Affordable (\$0.16 each)
- Conform well in PT
- Extremely flexible, durable

Outcomes & Impacts



PTP was effective in stabilising PT to prevent kinking. This initiative of PTP together with proper anchoring and regular staff compliance audits resulted in zero incidence of tube kinking from the month of implementation till to date. The incidence of PTP related tube exit site infection, can be monitored as a follow up study to evaluate the safety and efficacy of PTP. The following potential outcomes for patients were decreased length of stay, need for antibiotics use and re-insertion of PT, and readmissions of patients discharged with PTs.