National Quality Improvement Conference



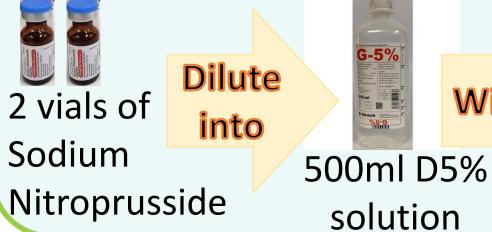
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Problem Statement

- Dilution- 2 vials of Sodium Nitroprusside (50mg/vial) into 500mls of D5% solution
- Only 50mls will be used for patient, the remaining 450mls will be discarded/wasted
- In 2021, usage of Sodium Nitroprusside vials **= 496 vials**
- Each vial costs \$72, total cost was \$35,712









10mg in 50mls syringe

Project Aim

To reduce the number of vials used in the preparation of Sodium Nitroprusside for Cardiothoracic Surgeries in the Operating Theatre from a median of 8 vials/week to 4 vials/week within the next 6 months

Lessons Learnt

Changing in Practice	Time for teaching
 Ensure staffs understand the reason for new practice Video recorded for new practice shared in work group chat to allow easy accessibility Face to face teaching and return demonstration required 	 Utilize overlap shift timing to allow adequate time for teaching Video sharing improved understanding on new practice

Potential Solutions Effective Save Time **Implement** Use only one $\frac{1}{2}$ $\stackrel{\wedge}{\boxtimes}$ ampoule Source for Change in 50ml D5% Conduct face to face teaching Make a video for learning Conduct E-learning Meets Criteria Moderately Meets Criteria Most Meets Criteria Least

Final solutions selected

Vials Uased

To reduce number of vials used in preparation of

> Use only one ampoule

New dilution format available in all Cardiac

Create a video for learning

Video posted in group chat

Conduct face to face teaching for Staff

Daily teaching session conducted

Outcomes & Impacts

Number of Sodium Nitroprusside vials used (Sept 2021 to 1 Apr 2022)

PDSA 1:Obtain approval and review steps

PDSA 2: Teaching conducted

Number of vials used from Jan 2022 to Mar 2022 =40 vials (first quarter).

Estimated number of vials used for 2022 = 160 vials (\$11,520) Total number of vials saved: 496 vials -160 vials = 336 vials (68%)

We have met our objectives of reducing usage of Sodium Nitroprusside vials by more than 50%.

Total cost savings: \$35,712 (2021)-\$11,520 (2022) = **\$24,192**