WISER Project
in
Streamlining Delivery Process of 3-Litre NS Irrigation Fluid

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Continuous bladder irrigation with normal saline is one of the treatment plans preventing clot retention for management of hematuria.

Commonly used in post-operative care of urology problems (TURP/TURBT).
Background

- Daily consumption of 3-Litre Normal Saline Irrigation Fluid is around 70 bags in 30 cartons, depends on numbers of operation and case load.
Requested 3L NS from ward staff by Auto-dispatch System
4 central supporting staff collected boxes of 3L NS from Pharmacy Department and transferred to ward by pallet truck.
Ward staff prepared sufficient space to store up bulk stock of 3L NS at treatment room
Previous Logistics

Ward staff unpacked 3L NS from boxes & transferred onto trolleys for patient use at bedside

Unpacked cartons by ward staff

Transferred 3L NS onto trolleys

Trolley placed at cubicle for easy reached
Ward staff tidied up all the cartons and disposed them into garbage trucks being placed outside the lobby.
Central supporting staff transferred the garbage trucks for a distance for re-cycle
Problems Identified

- Consumed 4 supporting staff to deliver 30 cartons of 3L weight 270kg
- High possibility of staff injury with sprain injury and muscle fatigue
Problems Identified

- Consumed 1 supporting staff in ward to unpack cartons for 72 minutes

- Occupied bulky of cartons and garbage in treatment room

- Poor environment hygiene
Any Improvement
P-D-C-A Cycle

Plan

Act

Do

Check
Objectives

- To streamline the process of delivery
- To reduce potential risk of staff injury
- To improve spacing of treatment room
- To comply with infection control with better environment hygiene
- To promote staff satisfaction
Planning

- Design a tailor-made trolley for transport which could be handled by 1 staff and could hold 24 bags of 3L NS weight 72 kg
Planning

- Collaborative support from Pharmacy Department and Central Delivery Services
- Departmental budgetary support to purchase new trolleys
- Re-design the unpacking process
Ward staff unpacked 3L NS from boxes & transferred onto trolleys for patient use.

Unpacked cartons by ward staff

Trolley placed at cubicle for easy reached

Transferred 3L NS onto trolleys
Revised Logistics

Supporting staff in Pharmacy Department pre-filled the 3 tailor-made trolleys in their own time or work schedule
Previous Logistics = Revised Logistics

Requested 3L NS from ward staff by Auto-dispatch System
Previous Logistics

4 central supporting staff collected boxes of 3L NS from Pharmacy Department and transferred to ward by pallet truck
Revised Logistics

- 3 trolleys with 72 packs 3L NS stored in ward area
- 3 trolleys stored in Pharmacy Department for pre-filled
- One central supporting staff transports 3L NS Irrigation fluid with the use of one tailor-made trolley in cart-to-cart concept

- Empty trolley would be returned to Pharmacy Department for re-fill
Ward staff tidied up all the cartons and disposed them into garbage trucks being placed outside the lobby.
Central supporting staff transferred the garbage trucks for re-cycle
Supporting staff in Pharmacy Dept. pre-filled the 3 tailor–made trolley in their own time or work schedule

Request of 3L NS Irrigation fluid from ward staff with the use of Auto-dispatch System

One central supporting staff transports 3L NS Irrigation fluid with the use of one tailor-made trolley in cart-to-cart basis

Cartons being directly disposed from Pharmacy Department for Recycling
Comparative for two logistics

**Previous logistic**

1. Request 3L NS from ward staff by Auto-dispatch System
2. Four central supporting staffs collected boxes of 3L NS from Pharmacy Department and transferred to ward with the use of pallet truck
3. Ward staffs prepare sufficient space to store up boxes of 3L NS
4. Ward staffs remove 3L NS bags from boxes onto dressing trolleys
5. Ward staffs tie up carton boxes and dispose in a garbage truck placed outside the lobby at the same floor
6. Central supporting staffs transfer the garbage truck to a designated area far away from ward and wait for collection by recycling company

**Revised Logistic**

- Supporting staff in Pharmacy Dept. pre-filled the 3 tailor-made trolley in their own time or work schedule
- Request of 3L NS Irrigation fluid from ward staff with the use of Auto-dispatch System
- One central supporting staff transports 3L NS Irrigation fluid with the use of one tailor-made trolley in one-for-one basis
- Cartons being directly disposed from Pharmacy Department for Recycling
Evaluation

- Save man-hours in delivery process for 102 minutes

- Tailor-made trolley for transport 24 packs which could be managed by 1 supporting staff

- Minimize traffic jams during transportation as small size trolley being used
Evaluation

- Spare manpower in ward to support ward duties instead of unpacking cartons
- ↓ chances of injury on duty
- ↑ spacing of treatment room
- ↑ staff morale
Evaluation

- Application of lean management
  - Streamlines 6 steps to 3 steps logistics
  - 4 messengers to 1 messenger
  - Reduce risk factors

- Right people doing Right job at Right time at Right place
Conclusion

The project could not only reduce the occupational hazards and increase staff satisfaction, but also the benefits outweigh the cost of sick leave and expenditure related to cross infection, ward hygiene, intangible staff morale, and ultimately patient benefit.
Conclusion

- The significance of multi-departmental team collaboration in enhancing the success and smooth implementation of the project is also well demonstrated.

- Small project with change in logistic flow to gain big return with increase in staff satisfaction.
Acknowledgement

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- Administrative Services Department
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Thank You