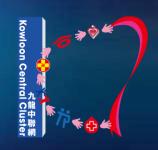
# WISER Project in Streamlining Delivery Process of 3-Litre NS Irrigation Fluid

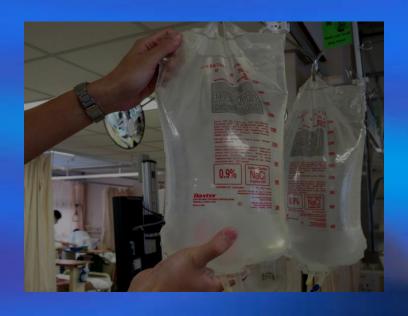
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# Background

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



 Commonly used in postoperative 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



4

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



Unpacked cartons by ward staff



Trolley placed at cubicle for easy reached

Transferred 3L NS onto trolleys

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

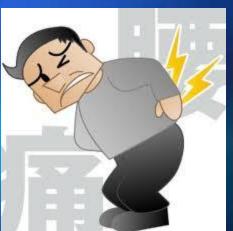


### **Problems Identified**

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



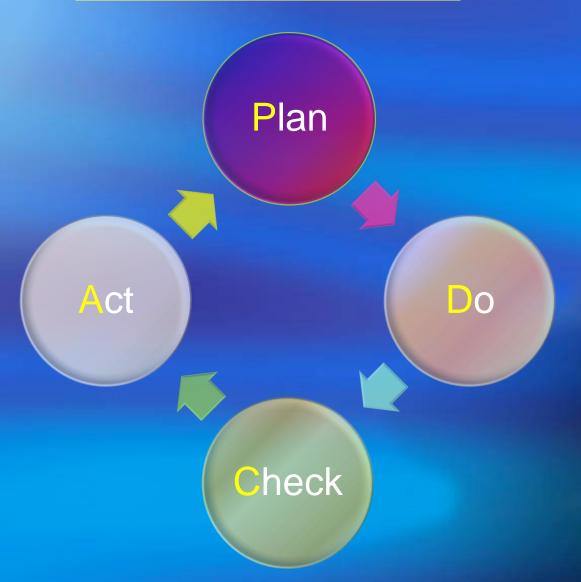
Poor environment hygiene

# ??? Any Improvement





# P-D-C-A Cycle



### 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







Transferred 3L NS onto trolleys

# Revised Logistics

Supporting staff in Pharmacy Department prefilled 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







## Revised Logistics

- new and improved
- 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 and disposed the gettrucks being the lobby



### **Revised Logistics**



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 tailormade trolley in cart-to-cart basis

Cartons being directly disposed from Pharmacy Department for Recycling

# Comparative for two logistics

#### **Previous logistic**

Request 3LNS from ward staff by Auto-dispatch System

 Four central supporting staffs collected boxes of 3L NS from Pharmacy Department and transferred to ward with the use of pallet truck

• Ward staffs prepare sufficient space to store up boxes of 3LNS

•Ward staffs remove 3 LNS bags from boxes onto dressing trolleys

•Ward staffs tie up carton boxes and dispose in a garbage truck placed outside the lobby at the same floor

 Central supporting staffs transfer the garbage trucks to a designated area far away from ward and wait for collection by re-cycling 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 tailormade 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

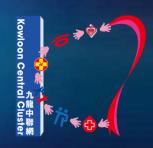
 Small project with change in logistic flow to gain big return with increase in staff satisfaction

# Acknowledgement

### Special Thanks to:

- Administrative Services Department
- Pharmacy Department
- Surgical Ward Staffs





# Thank You



