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Modification of Transport Station to Improve Handling of Requisites in ENT Clinic

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Introduction

In the ENT clinic, multiple procedures are performed and require a substantial set of instruments. Nurses will need to prepare the requisites with the case notes to transport over to the expanded clinic. Nurse experienced difficulties in arranging case notes and requisites due to inadequate working space. As the current trolley setup is inadequate to transport all the requisites and case notes to the mentioned locations, more manpower was needed. Hence, team members decided to brainstorm methods to improve these situations.

Methodology

A workflow process of time record was conducted to study the time taken for nurses to prepare for ENT procedures.

For Scenario 1:

STEP	CURRENT PRACTICE	MANPOWER Needed	TIME ALLOTTED
A	Preparation of extension ENT services	1	120 seconds
B	Preparation of requisites.	1	180 seconds
C	Another staff has to help with the remaining requisites	1	60 seconds
D	Transport requisites to extension service location.	2	300 x 2= 600 seconds
E	Continue to assist the doctor.	1	300 seconds
F	After all the patients are seen, requisites will be returned back to the clinic. Additional staff to help with the other requisites	2	300 x 2= 600 seconds
			1860 seconds

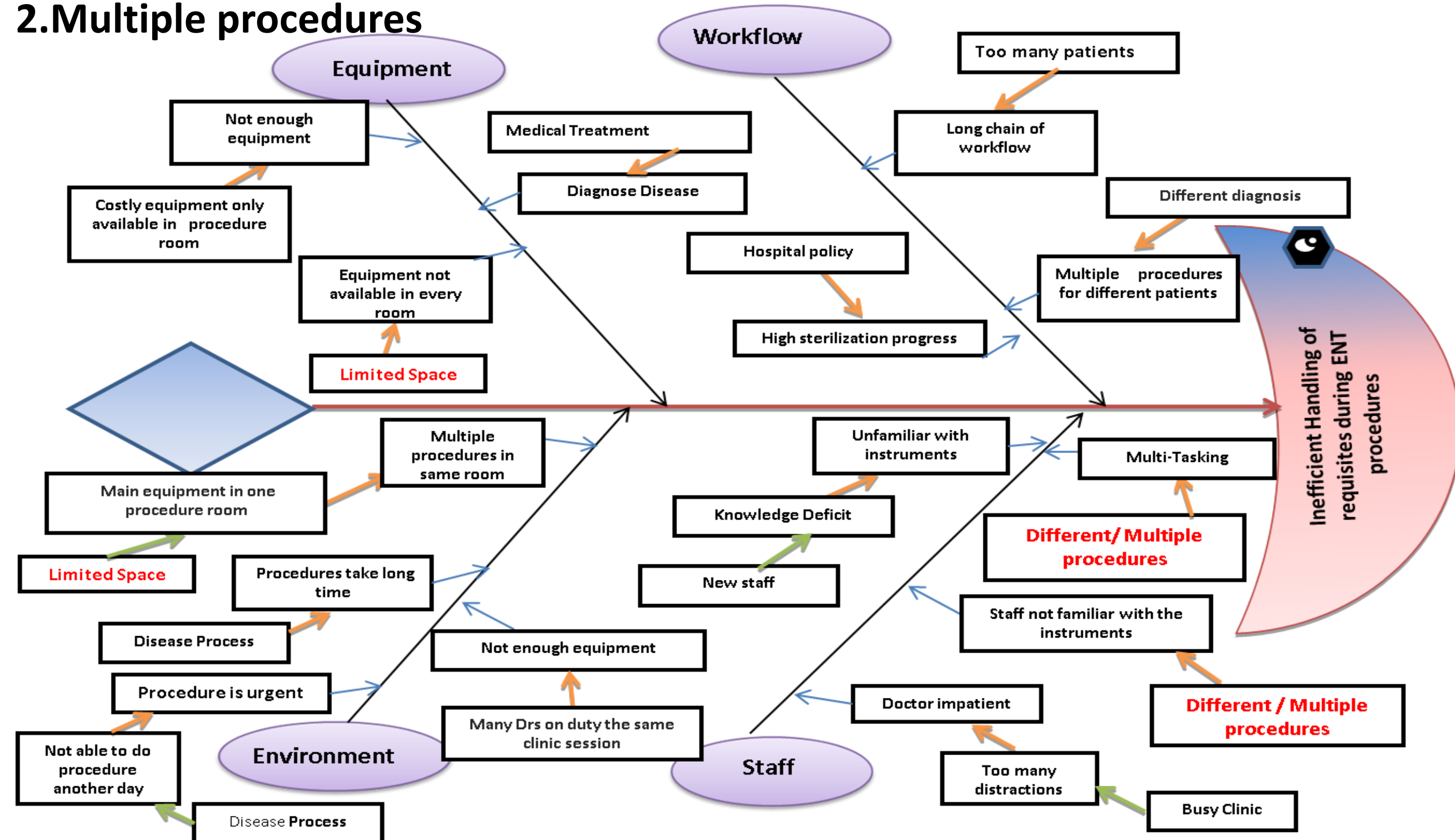
For Scenario 2:

STEP	CURRENT PRACTICE	NUMBER OF MANPOWER	TIME ALLOTTED
A	Preparation of extension ENT services	1	120 seconds
B	Preparation of requisites.	1	120 seconds
C	Arranging/organizing requisites at the working station.	1	180 seconds
D	Request another staff as circulating nurse to pass instruments.	2	300x2=600 seconds
			1020 seconds

We used a Relations Diagram to analyse what led to inappropriate or poor handling of requisites during ENT procedures.

Root causes identified:

1. Inadequate Space
2. Multiple procedures



The Matrix with 5 selection criteria to select the final solutions was used, ratings scale from 1 to 5. The five criteria shown below:

Brainstormed solution to solve the root causes	Manpower Saving	Time Saving	Improved Service	Effectiveness	Cost Saving	Total
Resign of expanded clinic and work station	5	3	1	3	2	13
Delivery of case notes to expanded clinic	1	1	3	5	5	15
Modify current transport trolley	5	5	1	5	5	21

Possible Solutions	Advantages	Disadvantages
Resign of expanded clinic and work station	Flexibility to design according to the need of expanded clinic.	Renovation is required. Costly to the organization.
Delivery of case notes to expanded clinic	Prior delivery of case notes Reorganise the workflow order	Limited for case note only. No reduction of staff required.
Modify current transport trolley	Instruments and case notes are neatly organized. Patient's information are secured. Instruments and case notes can be transported at the same time. Sufficient space for case notes.	Cost for the modification of transport trolley

Results

With the mobile transport work station, it improved the handling of requisites during ENT procedure. The number of manpower required is reduced. After implementation, handling of requisites easier for nurses especially transporting these requisites to the expanded clinic. Furthermore, patients' confidentiality will be better handled with a closed transport station instead of an open one.

Scenario 1:

- ✓ 1860 - 1200 = 660 seconds/ 11 minutes saving per day
- ✓ In a year, a total of 11 minutes x 300*days= 3300 minutes or 55 hours.

Scenario 2:

- ✓ 1020 - 540 = 480 seconds/8 minutes saving per day.
- ✓ An average of 5 procedures performed per day.
- ✓ In a year, a total of 8 minutes x 5 x 300*days = 12000 minutes/ 200hours

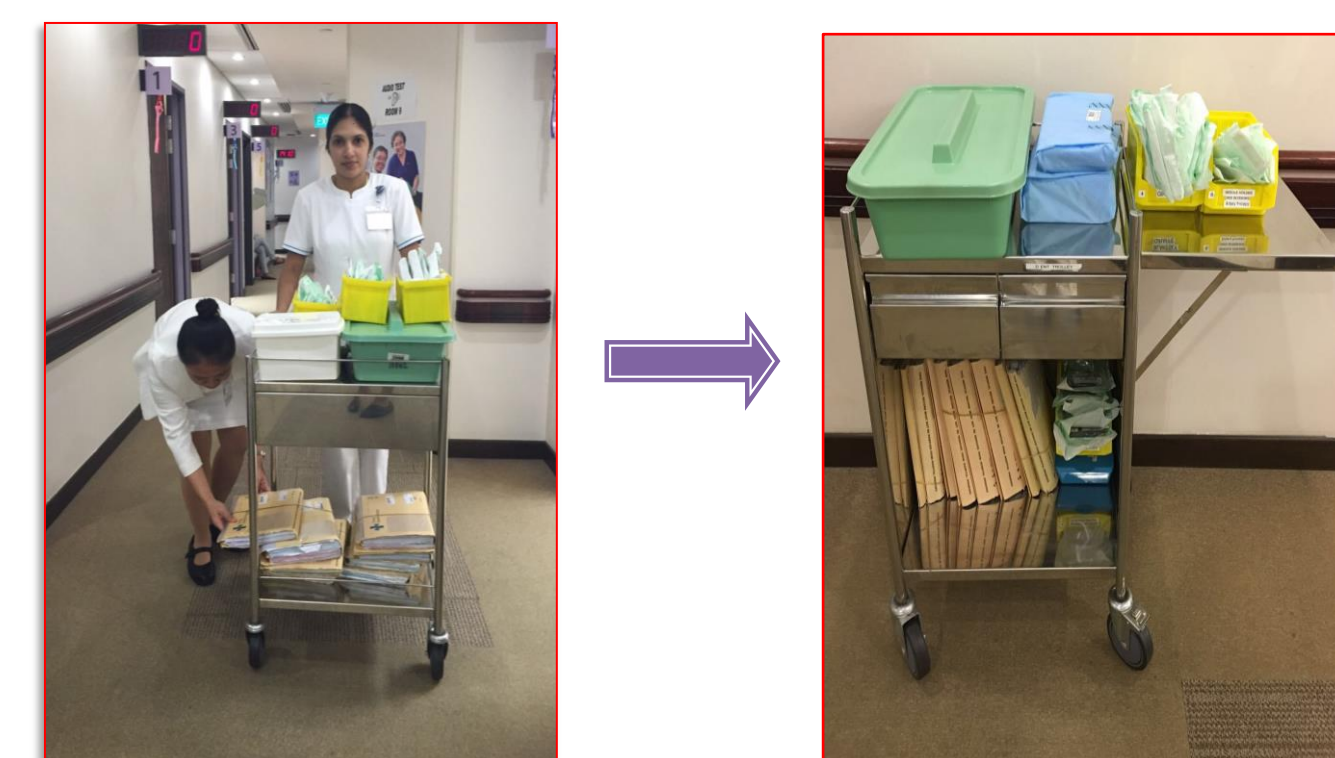
Total Man hours Saving: 255hours per year
An Enrolled Nurse's average wages per hour is \$10

* Clinic operates on weekdays

Total Saving Per Year : 255 hours x \$10 per hours = **\$2550**

Conclusion

In conclusion, the modified mobile transport station implemented improved nurses' overall workflow. Time was saved which could be converted to providing better quality of care for our patients. This leads to increase patient's satisfaction that in turned also increased staff morale. Furthermore, the hospital achieved monetary savings by improvising on existing resources. The hospital values and recognizes the contribution of every staff and adopts a culture of innovation and lifelong learning.



The cost of \$360 to modify the existing trolley subsequent to a savings of \$2550 per year.