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MEDICAL WASTE –RELATED QUALITY IMPROVEMENT ACTIVITIES FOR HEALTHCARE WORKERS IN A HOSPITAL.

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INTRODUCTION

According to the hospital statistics data in 2021, medical waste disposal costs have increased every year.

Hospital medical waste's output by 130 tons from 116 tons since 2020. This medical waste's output is also expected to be increased if it does not manage it.

The hospital staffs have been accepted in their unit's handover without regulation and any instruction related to medical waste for many years.

Therefore, it is absolutely needed enhancing awareness of medical waste regulation and hospital's guidelines based on the latest national measures.

AIM

Due to this project, we were to ensure that there were no disadvantages, such as paying unnecessary fines to health authorities.

METHODS

This project's indicator was awareness related to medical waste.

- Target value was 10 percent rise in previous indicator and later one.
- Questionnaire was conducted only to hospital employees who agreed to the project twice in July and November.
- Statistics method used the Microsoft excel program.
- The fish bone and X-Y matrix were used to analyze the project's cause and to prioritize quality improvement activities.
- Analysis data was divided into 2 categories.
- The first category was staffs. They were doctors, nurses and healthcare workers.
- The main problems were the indifference to treatment medical waste's cost and the lack of hospital ownership by their employees.
- Secondly, the category was system.
- There was lack of instruction related to medical waste regulation and guidelines.
- In addition, there was no insufficient monitoring system related to medical waste management.

RESULTS

The results of this quality improvement were summarized as follows.

First of all, the highest score team was 7th ward and facilities support team to 100 points in 2nd result. The points of pharmaceutical team and facilities support team increased dramatically by 30 points.

The awareness for medical waste regulation and guidelines increased to operation room and nutrition support team 97.4 points and 94.9 points respectively.

On the other hand, 6th ward and intensive care unit and physical therapy team were 75-77 points.

The quality improvement activities have been doing as follows.

Firstly, overall awareness of medical waste was checked through quality improvement activities.

Secondly, medical waste education video was produced and distributed for hospital workers.

Lastly, monitoring system was conducted related to medical waste disposal.

▶ Graph

Table 1 The participation rate for structured questionnaire related to medical waste

Distinction	First questionnaire ratio (%)	Second questionnaire ratio (%)
5th ward	100.0	100.0
6th ward	41.7	100.0
7th ward	79.2	70.8
8th ward	80.6	67.7
An operation room	80.0	100.0
Emergency room	100.0	100.0
Intensive care unit	33.3	53.3
Artificial kidney center	87.5	62.5
Outpatient clinic	79.4	67.6
Facilities support team	100.0	100.0
Pharmaceutical team	100.0	83.3
Nutrition support team	100.0	100.0
Health examination center	100.0	100.0
Physical therapy team	66.7	86.7
Imaging inspection team	70.0	100.0
Diagnostic testing team	100.0	50.0
Infection control team	100	100
Response rate	82.4	83.9
Number(Collected/Distributed)	189/236	189/237

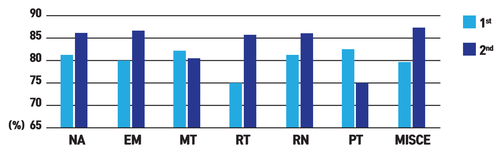
Table 2 Awareness of medical waste respective department

Distinction(Abbreviation)	Questionnaire period 1st	Questionnaire period 2nd	Increase/decline (%)	
5th ward (5W)	84.4	86.5	▲	2.1
6th ward (6W)	85	77.1	▼	7.9
7th ward (7W)	79.4	100	▲	20.6
8th ward (8W)	90.7	81.7	▼	9
An operation room (OR)	91.7	97.4	▲	5.7
Emergency room (ER)	58.3	82.4	▲	24.1
Intensive care unit (ICU)	86.7	77.1	▼	9.6
Artificial kidney center (AK)	89.3	81.7	▼	7.6
Outpatient clinic (OPD)	76.9	83.3	▲	6.4
Facilities support team (FS)	79.5	100	▲	20.5
Pharmaceutical team (PH)	68.3	98.3	▲	30
Nutrition support team (NS)	72.4	94.9	▲	22.5
Health examination center (HE)	85.4	89.6	▲	4.2
Physical therapy team (PT)	83.3	75.0	▼	8.3
Imaging inspection team (II)	75.0	86.7	▲	11.7
Diagnostic testing team (DT)	82.7	81.0	▼	1.7
Infection control team	100	100	-	-
Mean	81.7	87.8	▲6.1%	

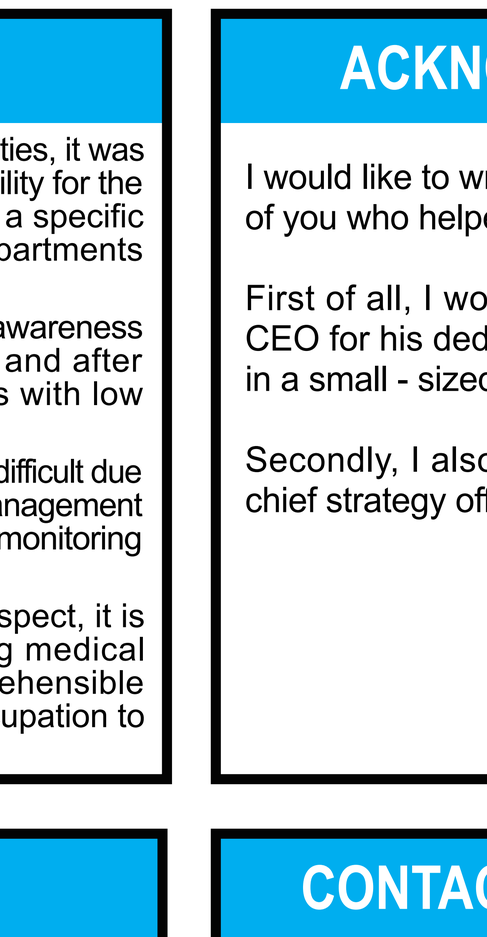
Table 3 Awareness of medical waste a type of occupation

Distinction(Abbreviation)	Questionnaire period 1st	Questionnaire period 2nd	Increase/decline (%)	
Nurse assistant(NA)	81.0	86.8	▲	5.8
Emergency medical technician(EM)	80.0	87.4	▲	7.4
Medical laboratory technologist(MT)	82.4	80.9	▼	1.5
Radiologic technology(RT)	75.0	86.7	▲	11.7
Registered nurse(RN)	81.0	86.9	▲	5.9
Physical therapist(PT)	83.3	75.0	▼	8.3
Miscellaneous(MISCE)	73.3	87.5	▼	14.2

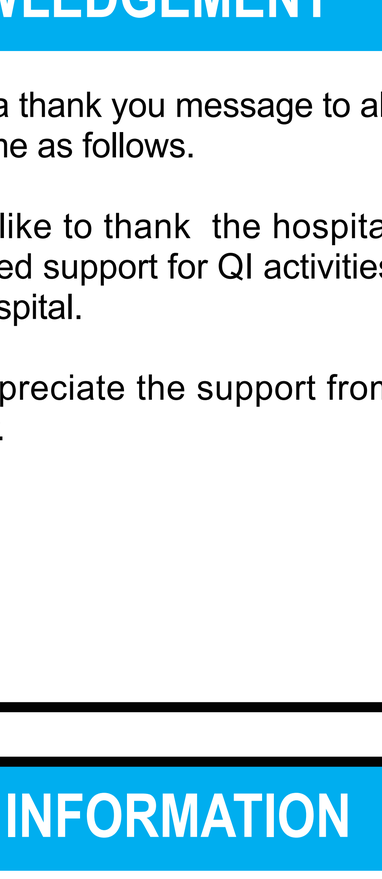
※ miscellaneous : caregiver, the others workers.



▶ Education Video For Medical Waste



▶ Rounding Related to Medical Wate through departmental collaboration.



CONCLUSIONS

Through the above quality improvement activities, it was great opportunity to recognize that responsibility for the disposal of medical waste is not the one of a specific department, but the responsibility of all departments that discard medical waste.

Overall, improvement rate of medical waste awareness was 6.1 percent rise compared to before and after activities, but there were still departments with low awareness.

Until now, an amicable management has been difficult due to the lack of manpower and awareness of management by infection control team, however persistent monitoring has been carried out.

In sum up, because of hospital's specific aspect, it is believed that it has contributed to making medical waste management video which is comprehensible for everyone regardless of the worker's occupation to check their practical work.

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REFERENCES

1. Guidelines related to medical waste in Incheon Baek Hospital, 2021

2. A study of University hospital healthcare worker's relevant factors of medical waste management practices, JuyoungYu,Ajou University, 2010

CONTACT INFORMATION

This QI Activity was supported by Incheon Baek Hopsital.

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