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ESTABLISHING A SAFE MANAGEMENT MODE FOR STERILIZED ARTICLE TRANSPORTATION IN THE OPERATING ROOM

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INTRODUCTION

This research is expected to use risk management to establish the safety of surgical sterilization items. The management model serves as a benchmark for medical treatment, which in turn improves surgical safety.

METHOD

Between February 2020 and December 2021, the dean led the interdepartmental team to use HFMEA for process management and identified 7 issues, including: the cross-hospital device scheduling process is complicated, prone to mistakes in manual surgical operations and equipment shortage inappropriate transportation and loading tools, manual handling weight and height are not ergonomic, there is no standard operating procedures developed for personnel to follow and inconsistent. The team summarized the problems and proposed four intervention strategies.

The first intervention: Improve the real-time supply of surgical instruments, including: develop a new process for a single contact window; reduce manual calculation errors and time; purchase the equipment needed for surgery according to the development of each surgery; establish a medical emergency logistics vehicle mechanism.

The second intervention: use human engineering to improve the operational safety of medical logistics transport personnel, including modification of medical goods transport equipment, loading process and handling methods.

The third intervention: hold cross-hospital meetings to establish the process of transporting and dispatching surgical sterilization instruments, develop a new process for a single contact window; establish a safe transportation of sterilized article. To prevent loss of sterility during transportation. With AAMI (Association for the Advancement of Medical Instrumentation) ANSI/AAMI ST79:2019 guidelines recommend the use of surgical package carts for delivery principles, while planning the nation's first customer-style operating room package trolleys for human engineering concepts.

The fourth intervention: Develop various standard operating procedures, use flipped classrooms to train unit personnel, and improve staff's awareness, attitude and behavior of sterilized article.

RESULTS

After intervention, the time of Surgery planning package was shortened from 120 minutes to 30 minutes, 75% reduction in operating time, and number of medical care-related infections and surgical site infection has continued to be 0%. On the other hand, the rate of abnormal event of instrument delivery was reduced from 17.60% to 0%, and the rate of device pack integrity was rose from 75.8% to 99.8% (Statistics and results are maintained until October 2022). The survey on cognitive attitude behavior of sterilization products was rose from 82 points to 100 points.

CONCLUSIONS

In Taiwan, there are no relevant laws and regulations for the "operation process of sterilized article delivery". This study not only ensures the quality of surgical sterilized articles transportation, improves the safety of patients, but also introduces human factors to improve medical logistics by constructing an operating room sterilized article transportation safety management mode transport personnel work safety.

REFERENCES

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