

Use process procedures to improve the safety and efficiency of pathological specimen transmission

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INTRODUCTION

Pathological tissue specimens are the basis for diagnosis and treatment of patient diseases, and there is no room for error. If patient specimens are lost or mistaken, it may cause major medical negligence or even lead to medical disputes, which is an important health safety issue. The endoscopy and ultrasound room collects more than 1,000 pathological tissue specimens and cytological examination specimens every month. The staff has to process about 38 pathological specimens and register them every day. They are always nervous and afraid. If the environment and movement lines are not good, it will not only take time but also cause physical injury to the personnel.

AIM

The purpose of this case is to improve the pathological specimen transmission line in this center to maintain personnel safety and improve the efficiency of pathological specimen operations.

RESULTS

1. The time it takes to transport pathological specimens for inspection and collection is reduced from 150 seconds per person before the improvement to 18 seconds per person after the improvement, a decrease of 88%.
2. The distance that personnel move from the patient's bedside to the pathology cabinet is reduced from 945cm before the intervention to 315cm after the intervention, shortening the movement line by 67%.
3. The number of injuries caused by people being hit by doors dropped from 3 cases/month before improvement to 0 cases/month after improvement.

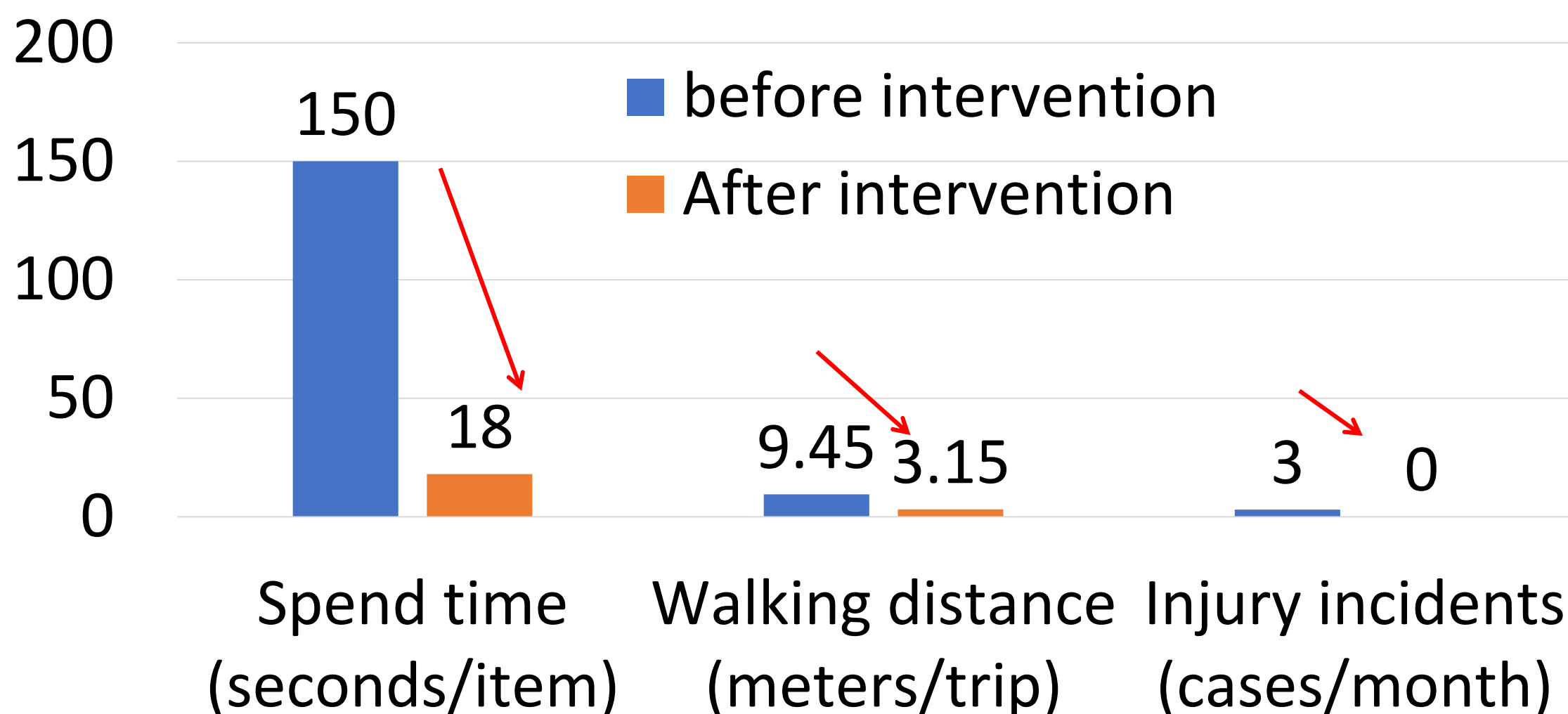
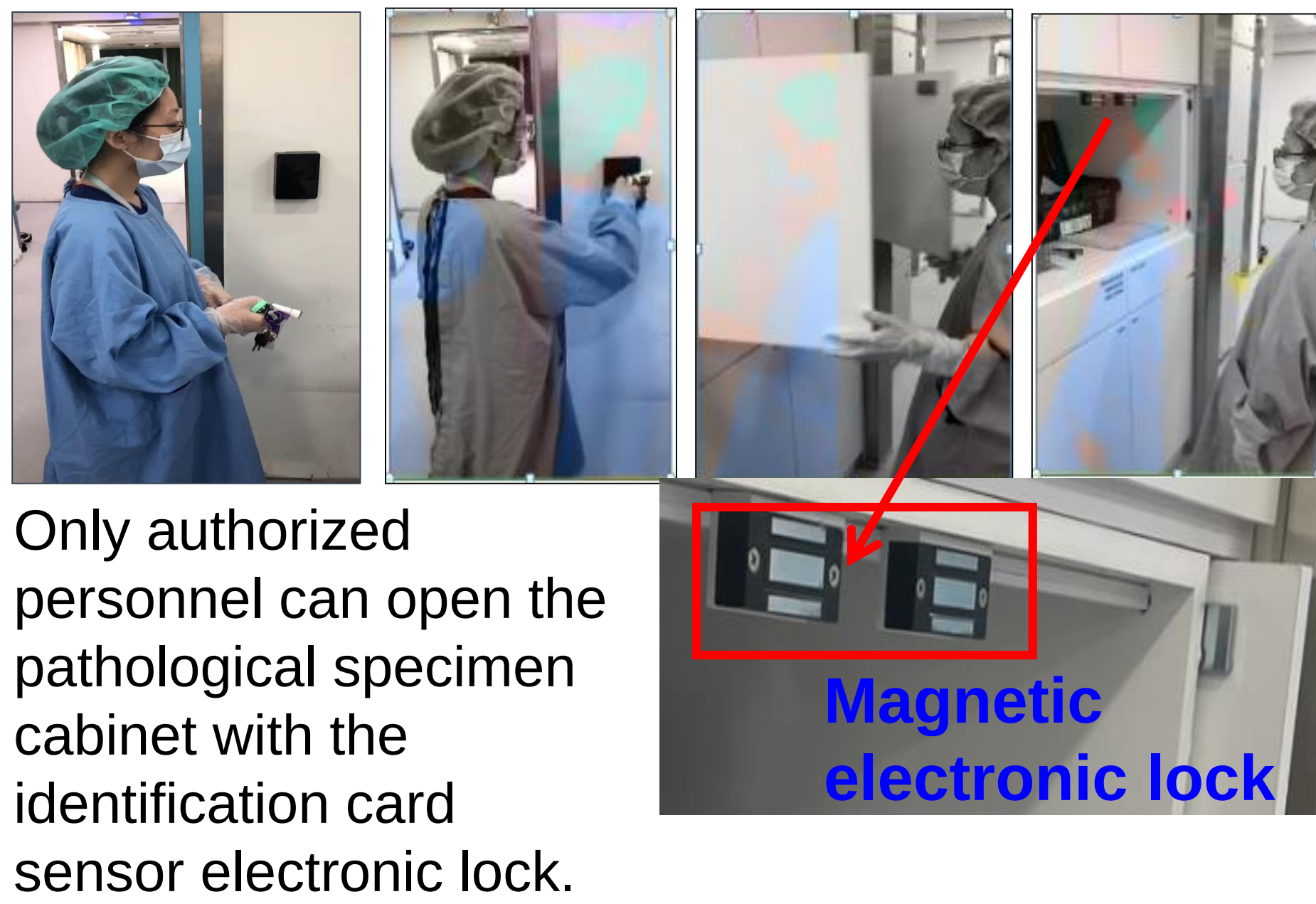


Figure 1 Compare the improvement results in time spent, walking distance and injury events before and after intervention



pathology specimen cabinet



METHOD

Through process analysis, we can identify the waste of actions in the process. The reason is that the current location of the pathology specimen cabinet is inappropriate: personnel must pass through to transport the pathology specimens from the patient's bedside to the pathology specimen cabinet. The distance between the two doors of the chest ultrasound room is about 945 centimeters. On the way, you have to bend to the drawer of the consultation counter to get the key to the pathology cabinet. Only when you reach the pathology cabinet can you open the cabinet and put in the pathology specimens. The average round trip takes about 150 seconds. During the operation of the pathology cabinet for specimen login and verification, the door of the left chest ultrasound room may open at any time. If the personnel does not pay attention or cannot dodge quickly, they will be hit by the door, about 3 times a month. One of the employees was knocked unconscious and went to the outpatient clinic for medical treatment and reported occupational injuries, which was endangering employee safety.

The intervention includes:

1. Move the pathology cabinet to the endoscope counter area, remove obstacles, and place it nearby.
2. Redo the pathological examination cabinet to the magnetic electronic lock, and delete the key-finding action.
3. Set the personnel identification card authority sensor electronic lock to open, using technology to simplify actions and authority control.

CONCLUSIONS

Using process procedures to find out the reasons for wasteful movements and specific data, we successfully obtained NT\$870,000 in project funds for reconstruction. We are grateful to the hospital for its employee-focused funding support. After the improvement of the movement line, personnel can save 5016 seconds/day and reduce the walking distance by 23940 cm/day, reducing physical fatigue. The psychological risk of being hit by the door has been eliminated, and pathological specimen registration and verification operations can be performed with peace of mind.

ACKNOWLEDGEMENT

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