

USING HFMEA TO EVALUATE AND OPTIMIZATION THE MECHANISM OF STOPPING AND RESUMING ANTICOAGULANT ASSOCIATED WITH THE OPERATION AND INVASIVE EXAMINATION

Tsang-Chieh Chen*¹, Jung-Chun Chang¹, Jian-Lin Wang¹, Chien-Hui Hung¹, Yu-Chun Wang¹

¹ Department of Medicine Quality, China Medical University Hospital(TAIWAN)

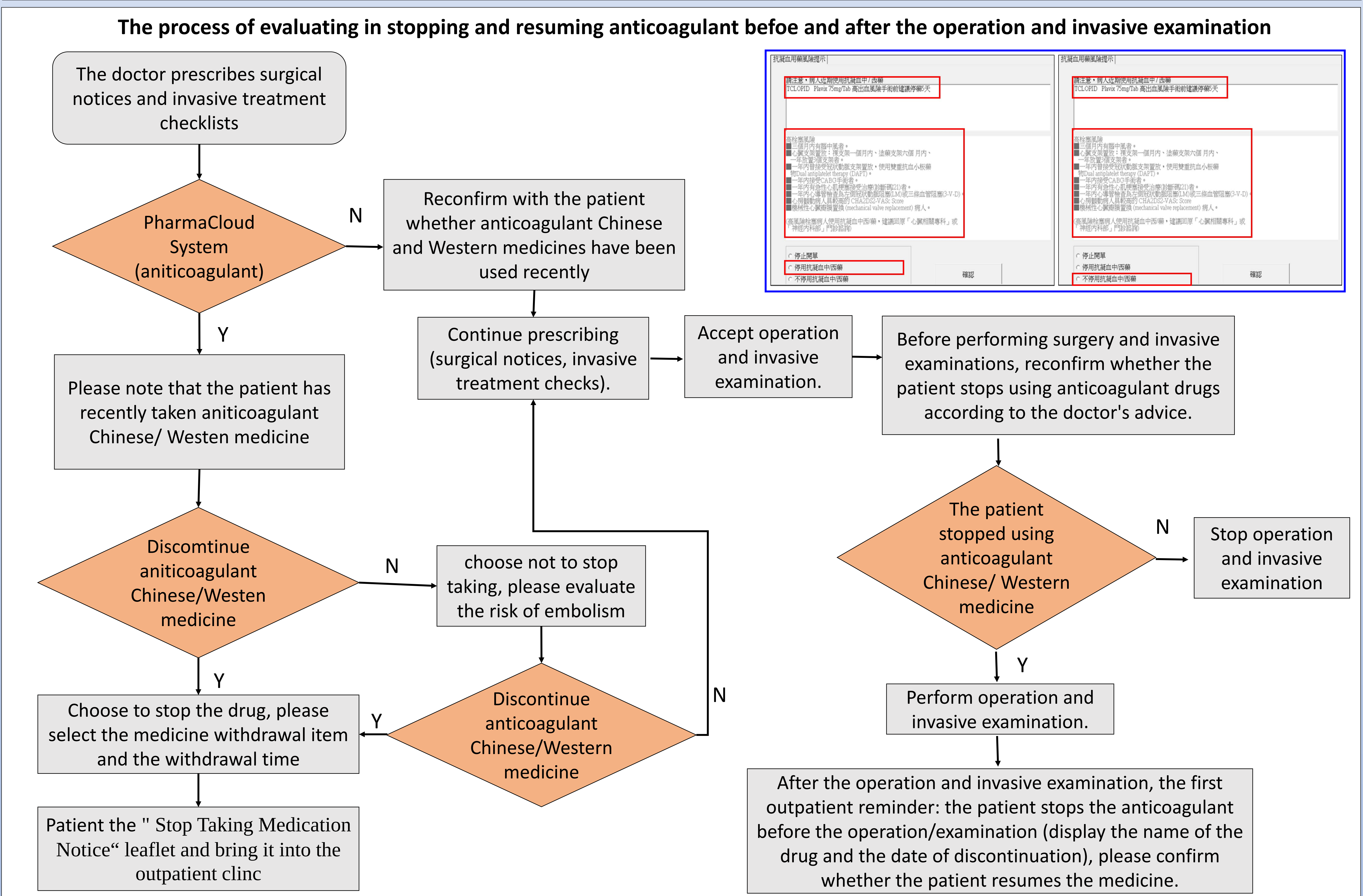
Purpose :

Whether the patient has been fully evaluated for discontinuing and resuming of anticoagulant before and after the operation and invasive examination. And truly to stop and resume the drug. If not, it will result in the treatment delayed -to avoid the risk of bleeding, and then this will affect the safety of patients. Even if not to resume the drug immediately after treatment, it will result in the risk of embolism. There were 3 patient safety incidents related to anticoagulant in our hospital from 2019 to 2020. All three safety incidents have improved. But there are still potential risks. This project uses a proactive approach to reduce the risk in this process. Assist the medical team to assess truly whether to stop the drug before the operation and invasive examination. And so that patients can actually stop taking the drug when it is time to stop it. After the operation and invasive examination, the patient is indeed re-medicated.

Method :

This project uses **Health Failure Mode & Effect Analysis(HFMEA)**. We organized 8 departments including: Surgery, Internal Medicine, Chinese Medicine, Pharmacy, Nursing, Examination Room, Information Room, Medical Quality. And define 9 main processes. After hazard analysis and decision tree analysis, 45 failure causes were obtained, and 5 specific improvement countermeasures were formulated:

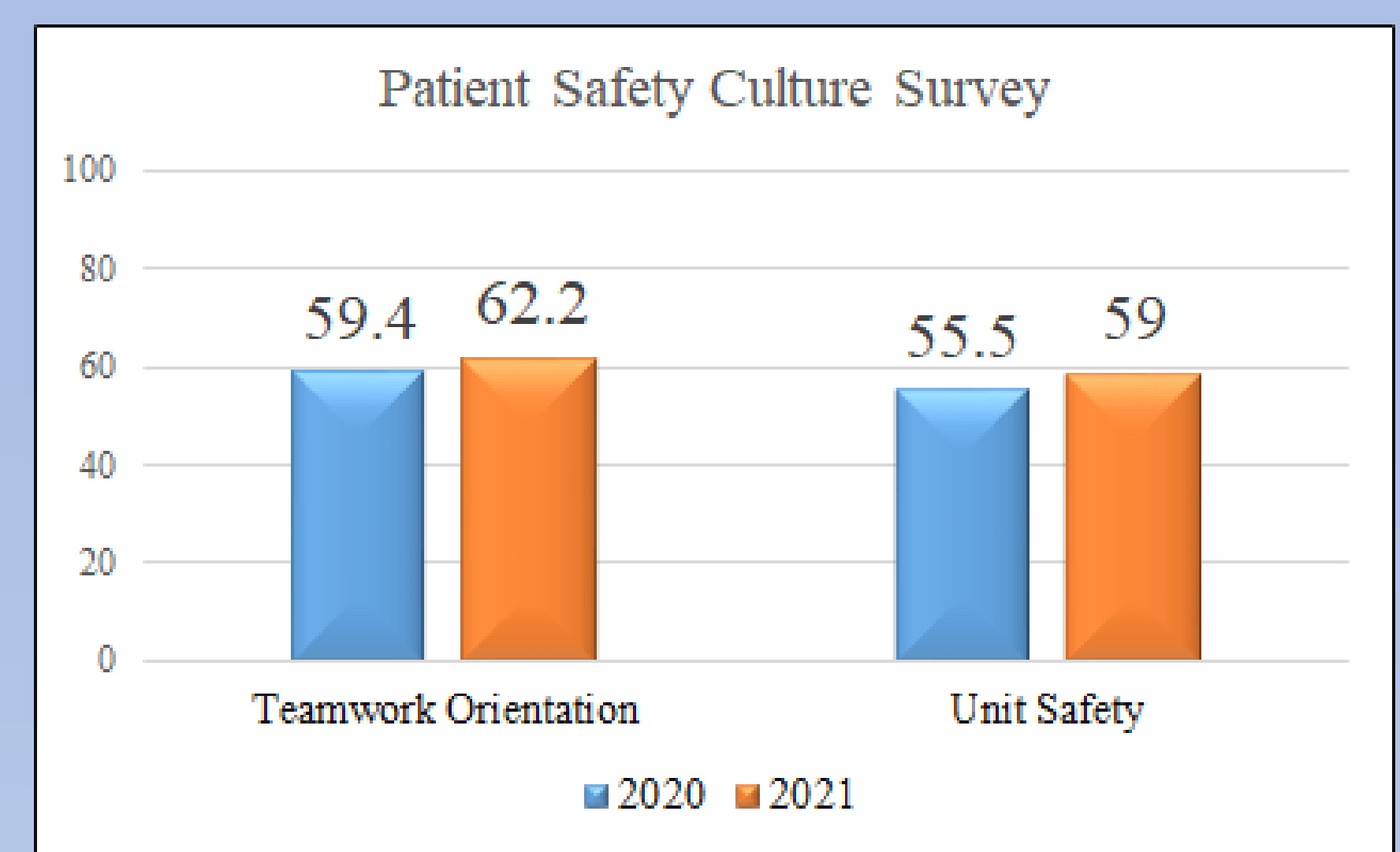
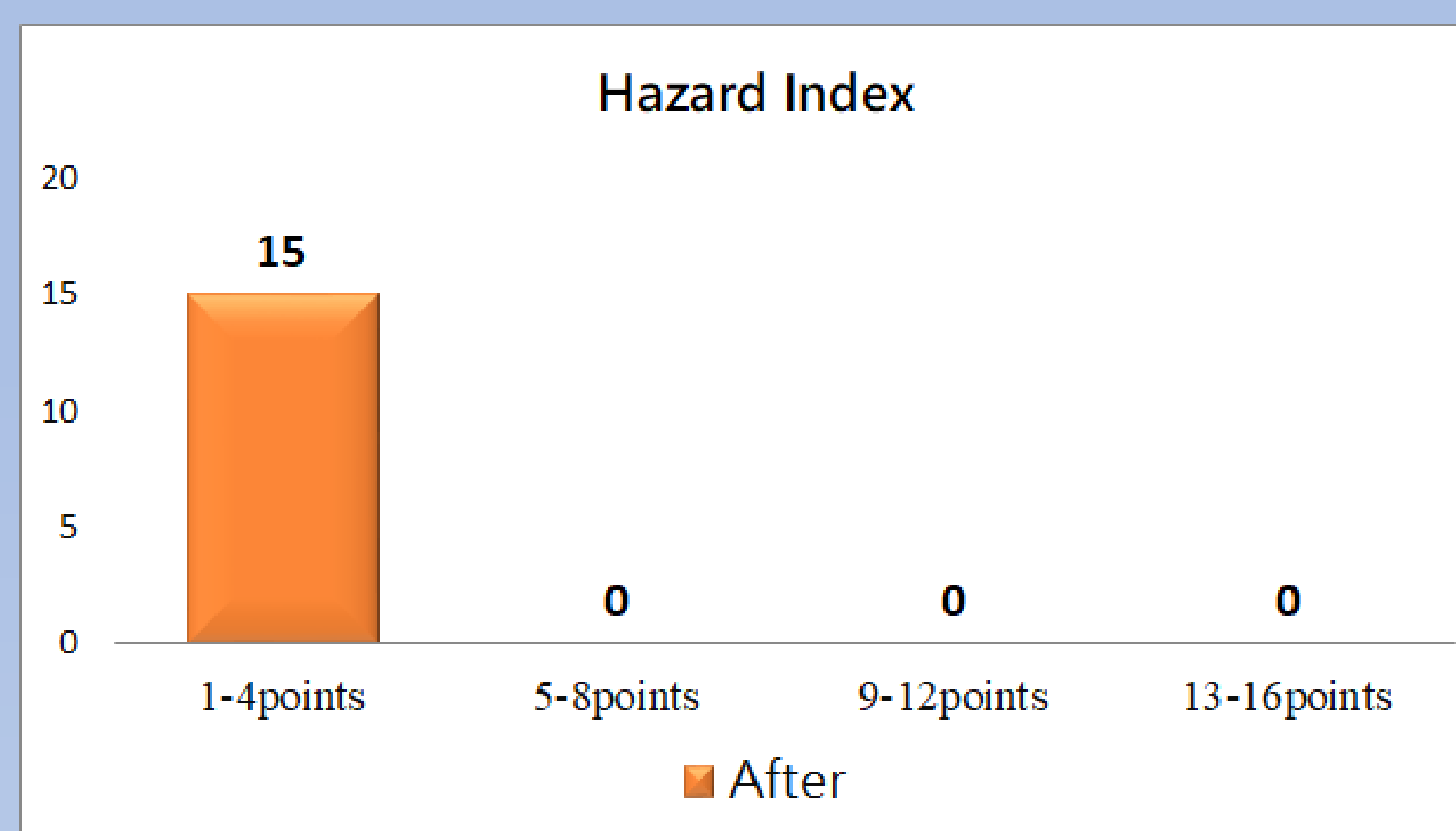
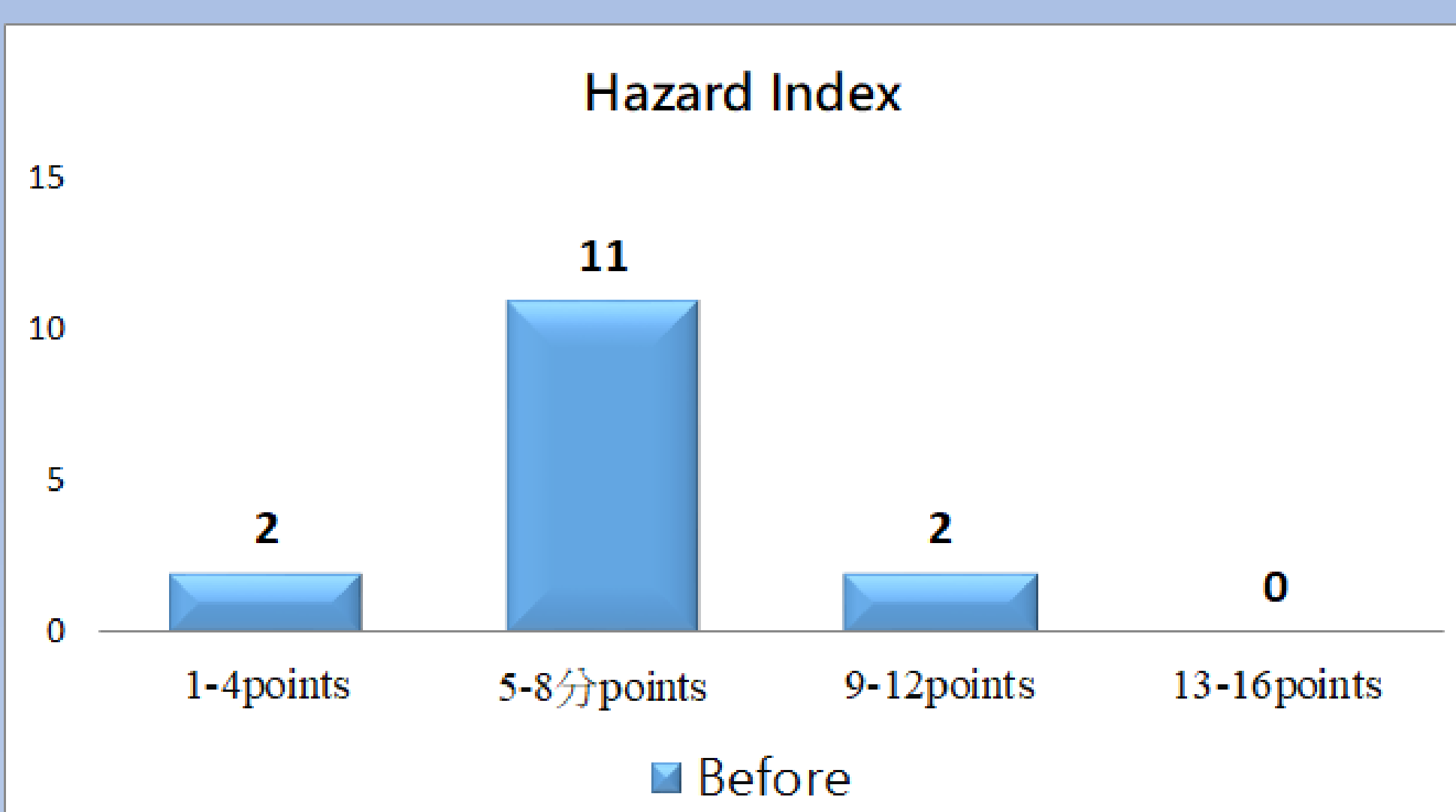
- 1.Inventory the process for discontinuing and resuming of anticoagulant before and after the operation and invasive examination.
- 2.Improve the anticoagulant information system - proactively display the pharmaceutical items used by the patient, and prompt the recommended discontinuation time, and review it every 6 months.
- 3.Build a high embolism and risk assessment of high bleeding reminds mechanisms.
- 4.Provide health and education leaflets for stopping anticoagulant for patients.
- 5.To establish the mechanism of reminding to resume for the anticoagulant.



Results :

After optimizing the management mechanism of anticoagulant, the satisfaction with the "Outpatient Anticoagulant Information Reminder System" reached 83.8%. The list of anticoagulant has been improved, with a total of 8 items of traditional Chinese medicine and 39 items of western medicine.

There were 0 patient safety incidents due to improper use of anticoagulant from March to December 2022.



Conclusions :

It's effective for this project in completing evaluate and optimize the mechanism of stopping and resuming anticoagulant associated with the operation and invasive examination for outpatient. The project still has emergency and hospitalization needed to be completed. This system has been built in the related branches Hospital simultaneously.

