



COMPREHENSIVELY IMPROVE THE IDENTIFICATION OF THE COLLECTION CONTAINER AND THE OPTIMIZATION OF SPECIMEN LABEL THROUGH THE TEAM RESOURCE INTEGRATION

P124

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Objectives

Nursing staff reported the problem of specimen collection through the patient safety reporting system from July to August 2020. However, the abnormal collection may cause patients repeated examinations, waste medical costs, affect clinical diagnosis decision-making and seriously affect patient safety. With the hospital leadership supporting, the Medical Quality Department convened interdepartmental teams such as the Nursing, Laboratory Medicine, Pathology and Information Department to carry out systematic improvements across the hospital.

Methods

An interdepartmental team hold meetings to review strategies and actions. A comprehensive inventory of the current status of specimen collection, team members use fishbone diagram analysis to confirm the root causes are as follows:

- 1.82 types of inspection containers in the hospital, and the different naming methods of the same specimen containers lead to too many types, which increases the risk of wrong selection.
- 2.The information path of the container for sampling is lengthy. It takes 4 steps to query the required specimen container. The query path is complicated and difficult to identify. The sampling data covers too much information and lacks individuality.
- 3.The format and content of the specimen label stickers are messy and inconsistent.

Based on the above root causes, team members draw up strategies and actions for improvement, especially strengthening information assistance functions:

- 1.The names of the original 82 items of specimen containers were consolidated and refined into 45 items to reduce confusion.
- 2.Optimizing the "Barcode Printing System for Test Collection Containers", from the original screen that required 4 steps to query the required collection container, it is optimized to a fast one-time link, and provided in graphics concise identification for nursing staff. (Figure 1)
- 3.Format the content of the specimen label, including a) the name and birthday are presented in separate rows and columns, so as to avoid being truncated due to character restrictions and affecting the integrity of patient identification. b) Clear unnecessary note fields to reduce noise interference. c) Consistent labeling of inspection and pathological specimens. (Figure 2)
- 4."Number of wrong test containers" and "Bad specimen collection rate" indicators are set, and analyzes the causes of abnormalities for continuous review.

Figure 1

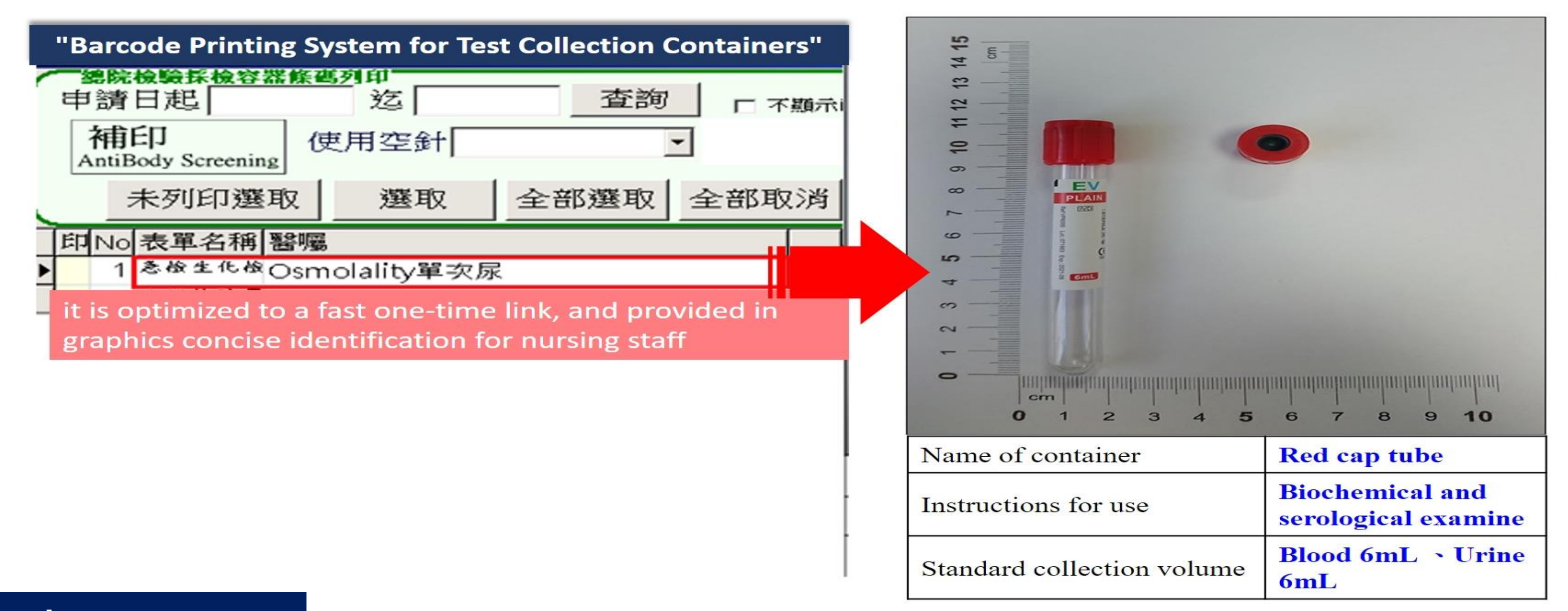
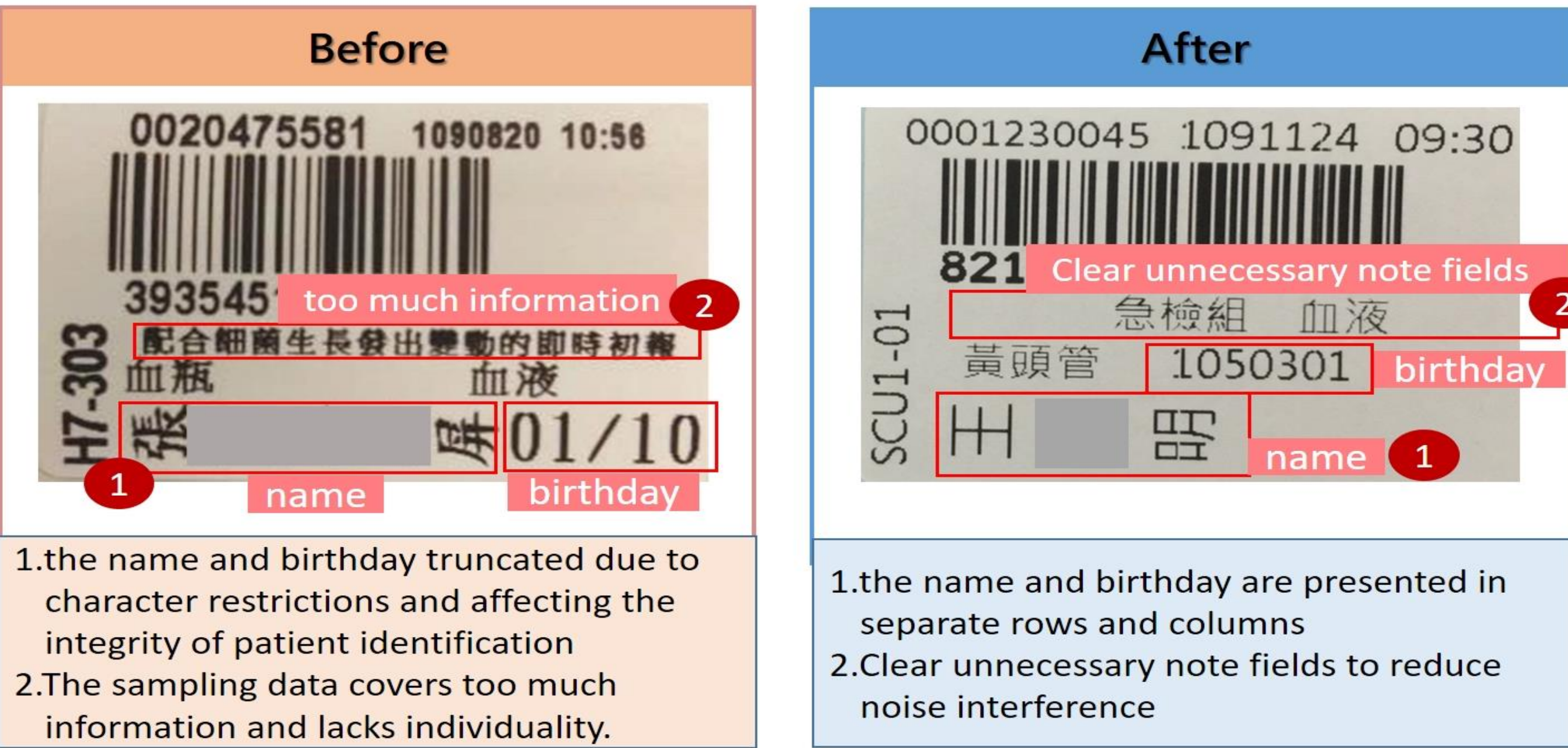


Figure 2



Results

After the team improved systematically, the monitoring indicator "number of wrong test containers" dropped from 58.8 cases/month in 2019 improve to 43.9 cases/month in 2021 (25.3% progress); the "bad specimen collection rate" has dropped from 2.6‰ in 2019 improve to 2.0‰ in 2021 (23.1% progress).

Conclusion

Through the Top-down and Bottoms-up promotion mode, the project team enhances the interactive communication between clinical staff and management. In addition to improving the quality of hospital examination, it also promotes cross-departmental horizontal communication, and establishes the safety culture.

