Zero Error

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Defining Tomorrow's Medicine

Introduction & Background:

Identifying correct patient and correct labelling specimen are critical to patient's safety. If a specimen is identified or labelled wrongly, it can lead to wrong diagnosis, treatment to the wrong patient, blood transfusion errors and more. It can also have significant consequences in patient care including delay in treatments, requiring additional laboratory tests and increasing healthcare costs which are preventable. From Jan 2020 and June 2021, there were 3 mislabeling errors occurred in the Ward 19.

Objective:

To reduce mislabeling error to zero within 3 months.

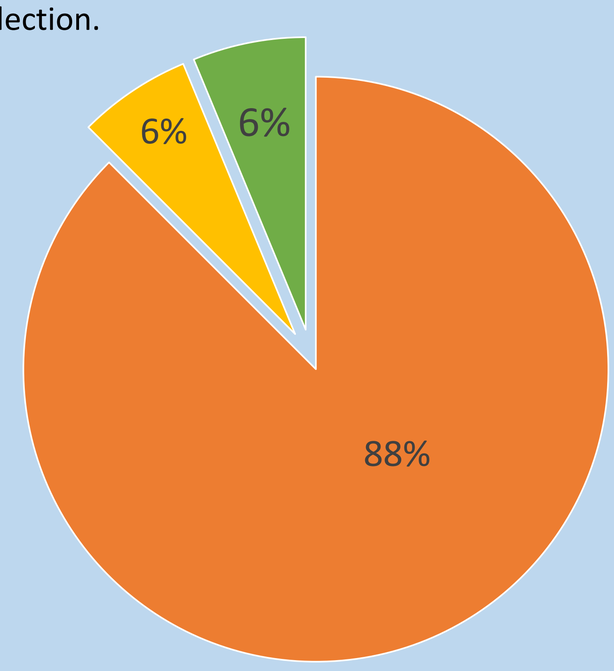
Methods:

Root Cause Analysis for the 3 incidents highlighted the following areas for improvement.

1. Human factors – Knowledge gaps, Fatigue.
2. Visual indicator did not create enough alertness to the staff due to the location where it was placed.

QI initiative:

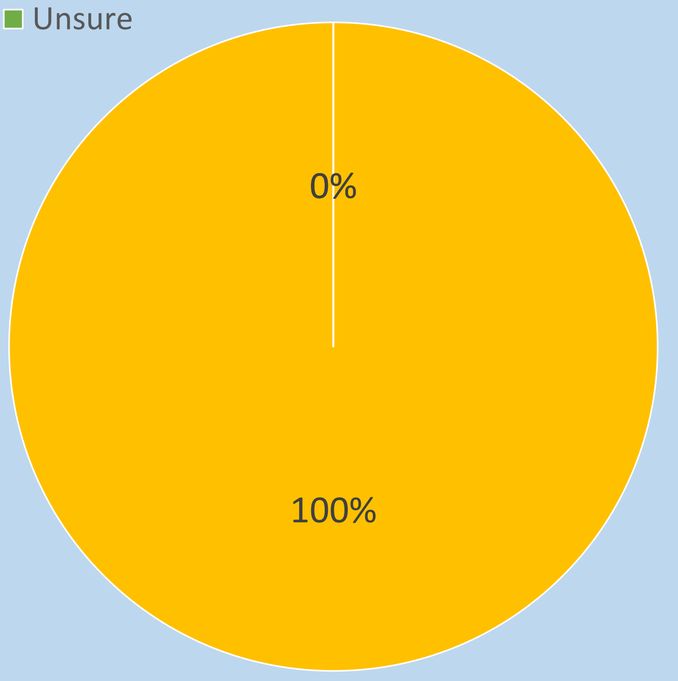
Over a period of 2 weeks, training was conducted to all staff nurses who are involved specimen collection, labelling and despatching using CGH policy on specimen collection.



Prior to training, 32 nurses were asked evaluate their understand of the guide Line on specimen collection.

- 28 nurses was confident
- 2 nurses was somewhat sure on the Guideline
- 2 new nurses were unsure of the Guideline.

After the training, all the 32 nurses Were able to articulate the correct process as per CGH guidelines.



Issues raised regarding current visual indicator:

1. Location of poster does not create awareness.
2. Too many distractions on the indicator.
3. Too many similar poster/reminder/indicators.

New Visual Indicator:

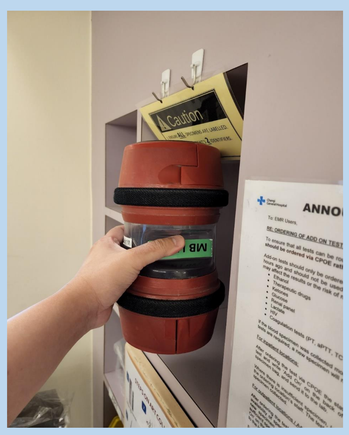
1.Create a new visual indicator and remove unnecessary distraction such as photos and focus on what the important words.

2.Relocate the visual indicator to a more prominent and visible location. Designedly locate for users to have contact with the indicator to create awareness, alertness and prompt the users to read and remind them to check the specimens.

3. To ensure for the users not to miss the indicator, blinking light is added behind the visual indicator. These blinking lights are included to bring focus to the visual reminder.

1.

2.



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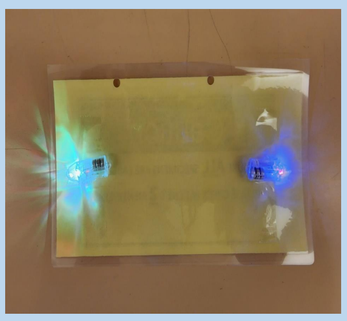
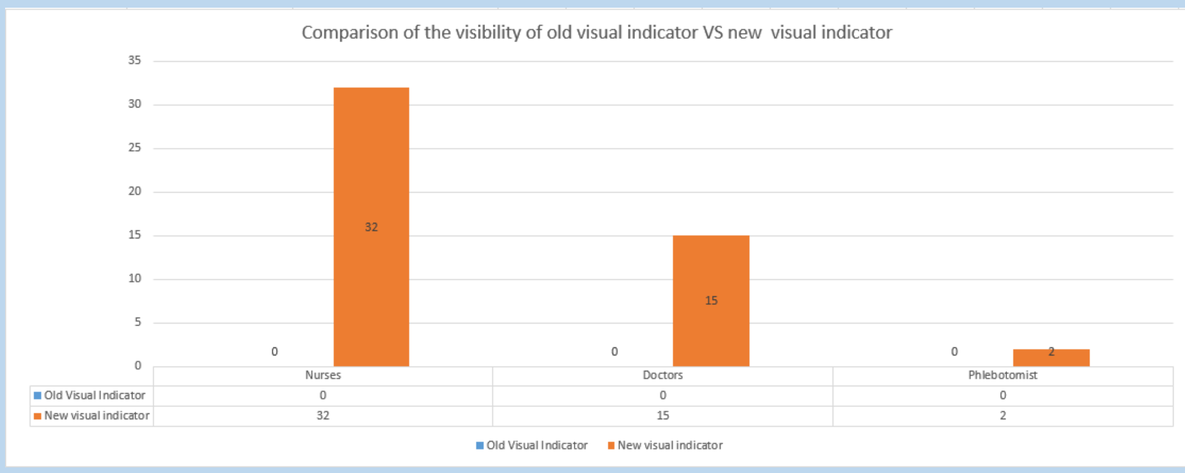


End Product

Post Implementation Survey:

32 nurses, 15 doctors and 2 phlebotomists who were involved in specimen labelling, specimen collection and dispatching participated the post implementation survey.

In the survey, none of the participants reported they notice the visual poster. With the new implementation, all 32 nurses, 15 doctors and 2 phlebotomists reported that they saw the visual indicator as it was eye-catching, the words were very clear and specific, and the location of the indication is unmissable. In addition, the blinking lights was very eye catching during the day and nighttime and that help with those fatigue nurses to see the visual indicator and check their specimens again when they were in doubt.



Results and Conclusion:

Since the implementation of the new visual indicator and re-enforcing on the guidelines on proper labelling and collection of specimens to the staff nurses in the department, there was no incident of mislabeling since July 2021 till now. The collective strategies implemented are effective methods in reducing and preventing the incidence of specimen errors. The quality improvement initiative have helped to reduce the incidence of specimen errors and improved nurses' performance, thereby improving the safety for our patients in Ward 19.

With the successful implementation of this visual reminder and re-training of the nurses in Ward 19, CGH mislabeling workgroup is adopting these initiatives to help to bring down specimen mislabeling errors in the hospital.