

National Quality Improvement Conference

Improving the Code Blue Emergency Response in DDII*

*DDII - Department of Diagnostic Imaging and Intervention

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Problem Statement

A competency survey showed that DDII staff are only 74% competent in code blue emergency response.

100% competency among the DDII staff in response to the Code Blue emergency is the desired Code Blue emergency outcome.

This QI project spanned a 10-month period and progress monitored using a Gantt chart.

Gantt Chart Task/Month	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Design Survey Questionnaire	█										
Pre-Data Collection and Analysis	█	█									
Brainstorm and Design Solution		█									
Implement Solution			█	█	█	█	█	█			
Post-Data Collection and Analysis								█	█		
Conclusion and Plans Moving Forward										█	█

Potential Solutions

DDII staff readiness for a code blue activation was recorded prior to the refresher course and at 3 months following the refresher course using competency questionnaire surveys.

Root Causes	Solution
Code Blue emergency response only covered during new staff induction	Refresher Course for all DDII Staff (inclusive of Nurses, Radiographers, Sonographers and PSA):
Code Blue does not happen often and not all, or many staff are involved in the emergency response	
Non-clinical staff's nature of work does not involve handling of emergency equipment	➤ Code Blue emergency activation and workflow process
Non-clinical staff's nature of work does not require knowledge in clinical situation assessment/response and patient assessment	➤ Location of emergency equipment used during Code Blue emergency response
	➤ Basic knowledge of clinical situation assessment/response and patient assessment during Code Blue emergency response

The team will conduct yearly Code Blue Emergency Response competency survey to all DDII staff. Those who do not achieve satisfactory results (<80%) will need to attend the code blue emergency response refresher course.

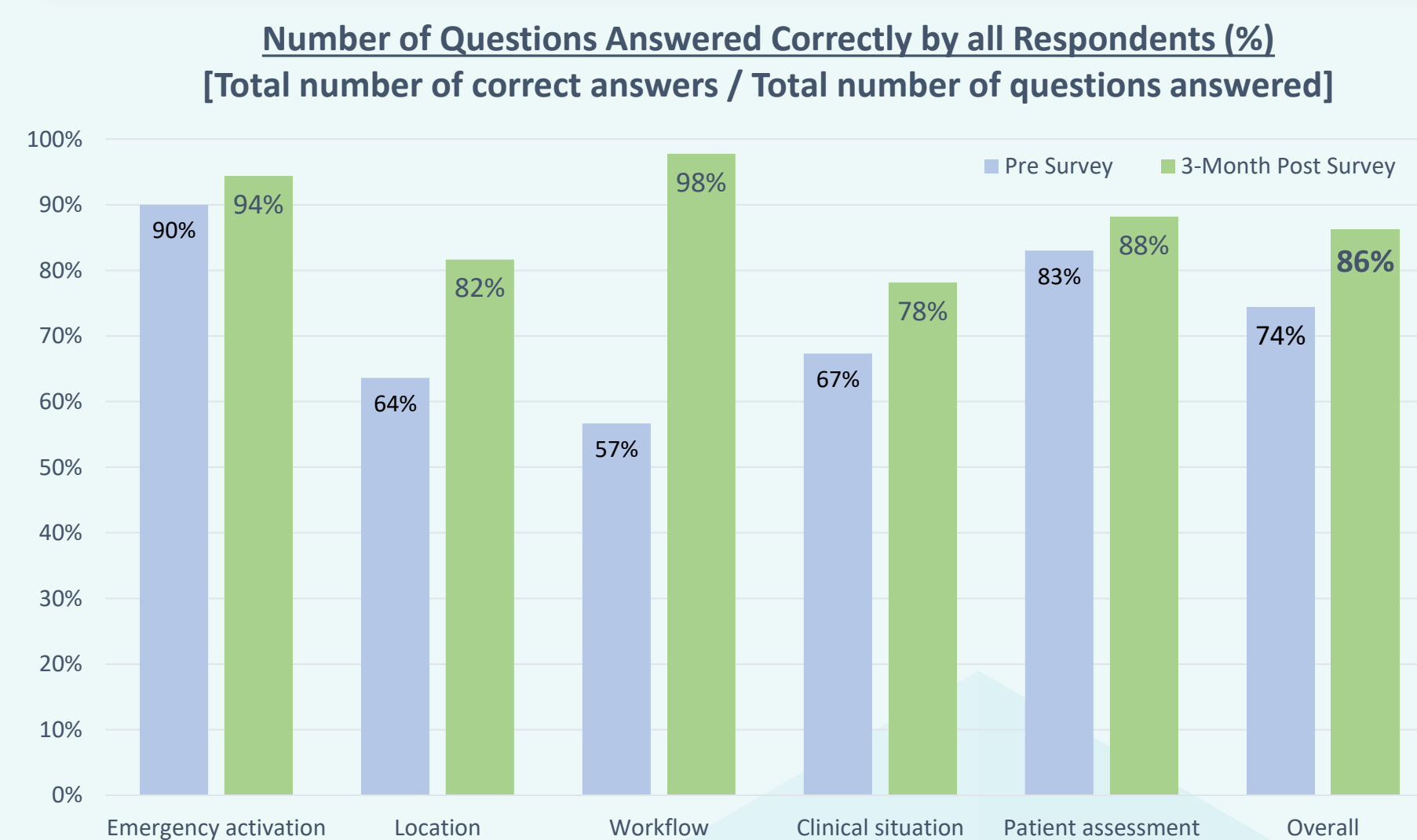
Project Aim

To evaluate staff readiness to attend to the emergency code situation, and assess their ability to locate the various medical equipment within DDII.

To Improve the overall competency among DDII staff in response to Code Blue emergency

DDII staff involved in this study includes 44 patient service associates, 20 staff nurses, 86 radiographers and sonographers.

Outcomes & Impacts



DDII staff involved in this study has shown an improvement of obtaining correct answers in the competency survey, from 74% to 86%, which is statistically significant ($p < 0.05$).

Future recommendation may include conducting mock code blue exercises across all modalities in DDII annually. Existing emergency code blue response exercises will continue to be included in the new staff induction program.

Lessons Learnt

Challenges	Mitigation Strategies
Refresher courses of 2 sessions a week cannot be conducted as planned due to staff work constraints	Conduct on Friday only for some weeks. Arrange extra sessions on Wednesday lunch hours for some weeks.
Non-adherence to the planned course dates due to constantly changing workload/roster of both Trainer and Participant	Liaise with the various team leaders of staff who will schedule their staff as participants to the course dates instead
Venue/Timing not ideal on some course dates	Change to alternative place and timing to accommodate participants on a course date-by-date basis
Unable to maximize the attendance on some course dates	Continue to conduct training on these course dates as it is assessed to be easier to arrange another date for those that cannot attend on their allocated dates rather than to cancel the training on dates with low attendance and then arrange training for all again (can attend + cannot attend)