



**Singapore Healthcare
Management 2019**

“Enhancements done in the Results Acknowledgment System to ensure Patient Safety”



**Singapore
General Hospital**
SingHealth

Swati Prakash, Patient Safety and Clinical Standards
Tun Tun Kyaw, Patient Safety and Clinical Standards
Dr Ho Le Onn, Patient Safety and Clinical Standards

INTRODUCTION

The Results Acknowledgment Module in Singapore General Hospital (SGH) is an application in the Sunrise Clinical Manager (SCM) which was implemented in 2013 for electronic results acknowledgment. It manages all normal and abnormal laboratory, radiological and neuro-diagnostic test results which need to be reviewed and acknowledged.



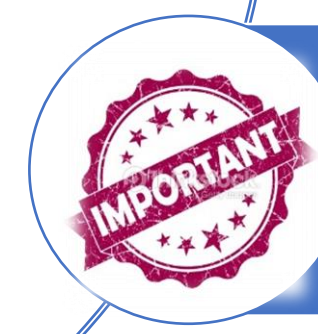
Why is there a need to acknowledge results?



For clinical decision making and appropriate and timely interventions.



Missed or delayed diagnosis and compromise patient care, if not reviewed.



For completion of the review process and close the investigative loop.

PROBLEM

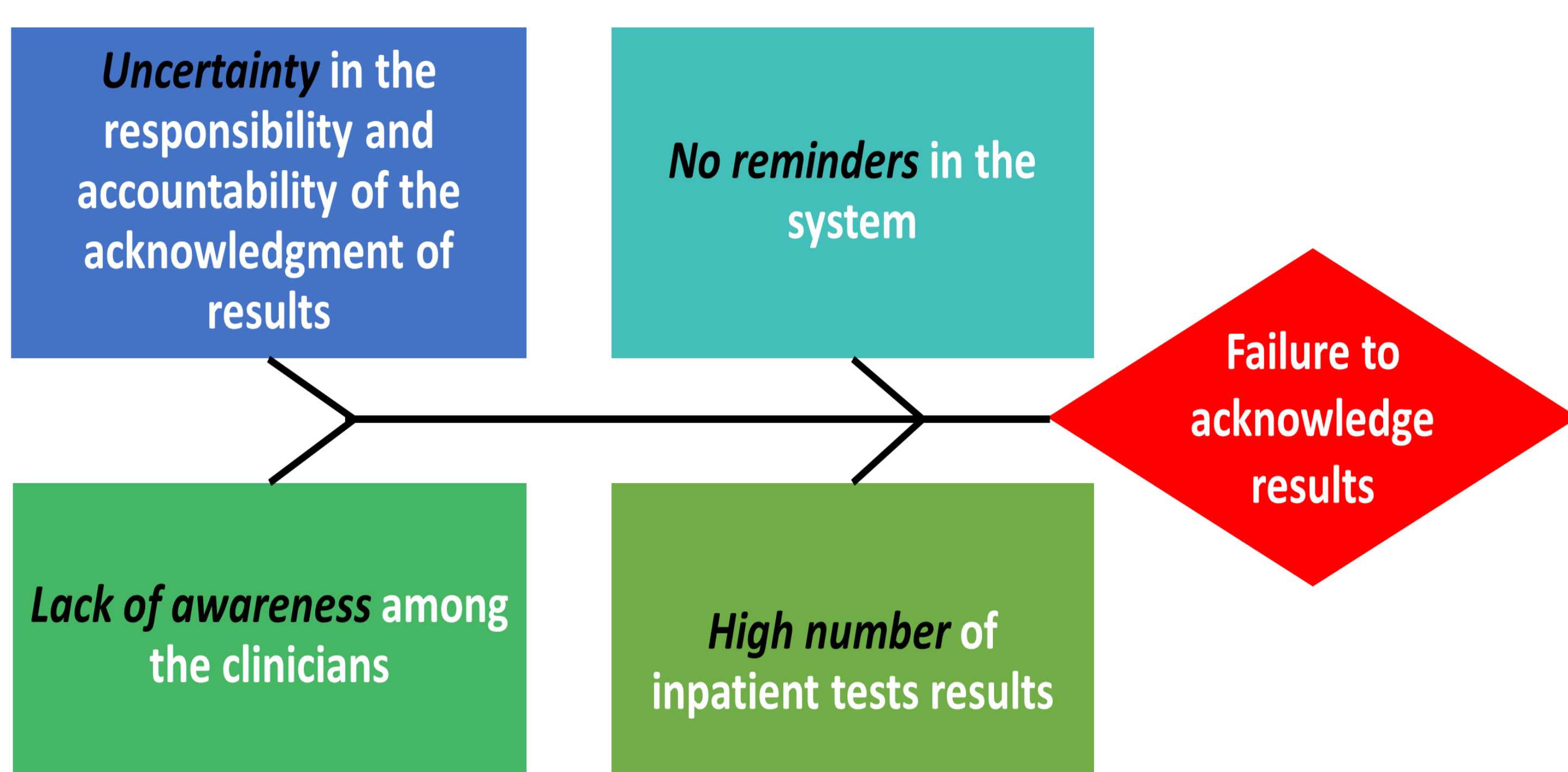
Patient Safety and Clinical Standards Unit (PSCSU), identified few cases of missed abnormal results, leading to severe adverse outcome for the patients. The Risk Assessment tool was applied and though the likelihood was uncommon, consequence was major, and it was identified as a serious patient safety issue. This highlighted that the current SGH Results Acknowledgment System was not adequate enough to mitigate this risk, hence triggering to review the system.

Severity Assessment Code Matrix					
	Extreme	Major	Moderate	Minor	Insignificant
Frequent (almost certain)	1	1	2	3	3
Probable (likely)	1	1	2	3	3
Occasional (possible)	1	2	2	3	4
Uncommon (unlikely)	1	2	3	4	4
Rare	2	3	3	4	4



METHODOLOGY

PSCSU did review of the system with key stakeholder engagement. The processes were assessed and feedback was taken from the users to recognize the issues and concerns. After multiple brainstorming sessions the root causes for failure to acknowledge results were identified and solutions were explored. Approvals from the senior management was sought and solutions were implemented in March 2018.

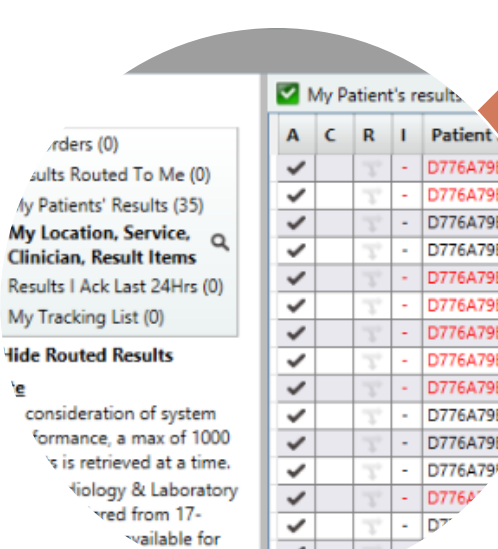


INTERVENTION



Policy Changes

Ordering doctor is accountable to review and acknowledge results.



Enhancement in the RAM to open up every-time on logging into SCM, when there are unacknowledged results. This serves as a system reminder.



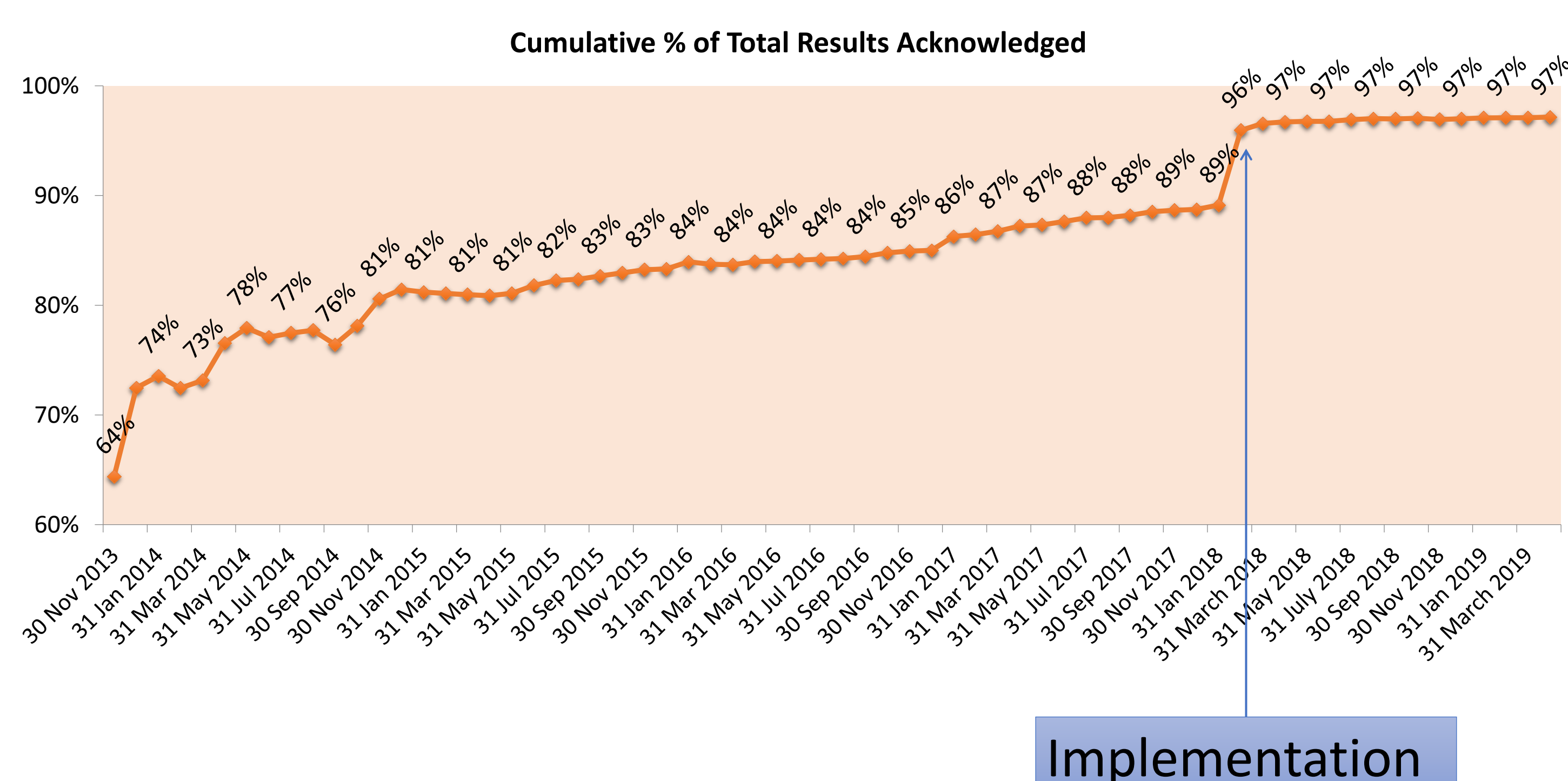
Mandatory Acknowledgment of inpatient results before discharge summary finalization.



Communication and Education of the module by ongoing departmental roadshows, junior doctor orientation and posters.

RESULTS

PSCSU analyses the unacknowledged data monthly to be reported to the Head of the departments for their notification and if needed, action. An increase in the cumulative percentage of Total Results Acknowledged in SGH, from 89% to 96%, was noted, mitigating risk of missed abnormal results and enhancing patient safety.



Implementation

CONCLUSION

Singapore General Hospital (SGH) performs a very high number of tests annually for patient management. Test Results if not timely reviewed and acknowledged, may lead to missed or delayed diagnosis, compromising patient care. Multiple causes were identified which led to low compliance to the electronic acknowledgment of the results. Enhancements done in Results Acknowledgment System showed an improvement in the rates of the acknowledgment. It not only improves operational efficiency but also mitigates this risk, ensuring Patient Safety.