

REDUCING COMMUNICATION TIME OF CRITICAL RESULTS TO DEPARTMENT OF EMERGENCY MEDICINE (DEM) FOR TIMELY TREATMENT INTERVENTION

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Background

Critical results reporting are essential for patients to receive appropriate and prompt medical treatment level of care.

However, at various times, timely reporting of the critical results to the Department of Emergency Medicine (DEM) is delayed due to lateness of responding to the telephone calls.

Objective

This study aims to improve the relay time of critical results from the laboratory to the primary healthcare provider (nurse/doctor) through the timely provision of interventions and improve patient morbidity/mortality and treatment plan.

Methodology

Discussion sessions with DEM Nursing were held in May and August 2016 to share the statistical data and challenges on reporting of critical results by the laboratory staff.

The meetings resulted with an agreement to have a mobile line instead of the present fixed line to report critical results in September.

A comparison of the reporting efforts (time taken between result verification and reported to DEM) by the mobile line and the previous fixed line was performed.

Results

Each month, 300 – 400 critical results are reported to DEM. (Table 1 and Figure 1)

In July 2016, with the use of a fixed line to report critical results to DEM, 64% were reported within 5 minutes. This went up to 84% by 10 minutes.

Following the availability of a mobile line in September 2016, an improvement to 71% (within 5 min) was achieved but the following month of October showed a drop to 55%. It was apparently attributed to an internal miscommunication amongst DEM nursing staff of the change to a mobile line for critical result reporting.

This improved to 73% in December following more effective announcements. The January and February 2017 data showed an average of 74% reported (within 5 min).

The percent reported within 10 minutes improved to 89 – 91% between December 2016 and February 2017. (Figure 2)

Month	Total No. of Critical Results	Number of Critical Results reported					
		<5 min	5 to <10 min	10 to <15 min	15 to <30 min	30 to <60 min	>60 min
Jul-16	317	204	62	22	23	4	2
Aug-16	336	224	58	26	23	4	1
Sep-16	380	271	57	31	20	1	0
Oct-16	341	187	89	31	26	6	2
Nov-16	346	213	78	33	19	3	0
Dec-16	336	244	59	17	11	5	0
Jan-17	307	226	47	21	13	0	0
Feb-17	337	248	53	18	14	4	0

Table 1: Critical results reported successfully (by time of result verification)

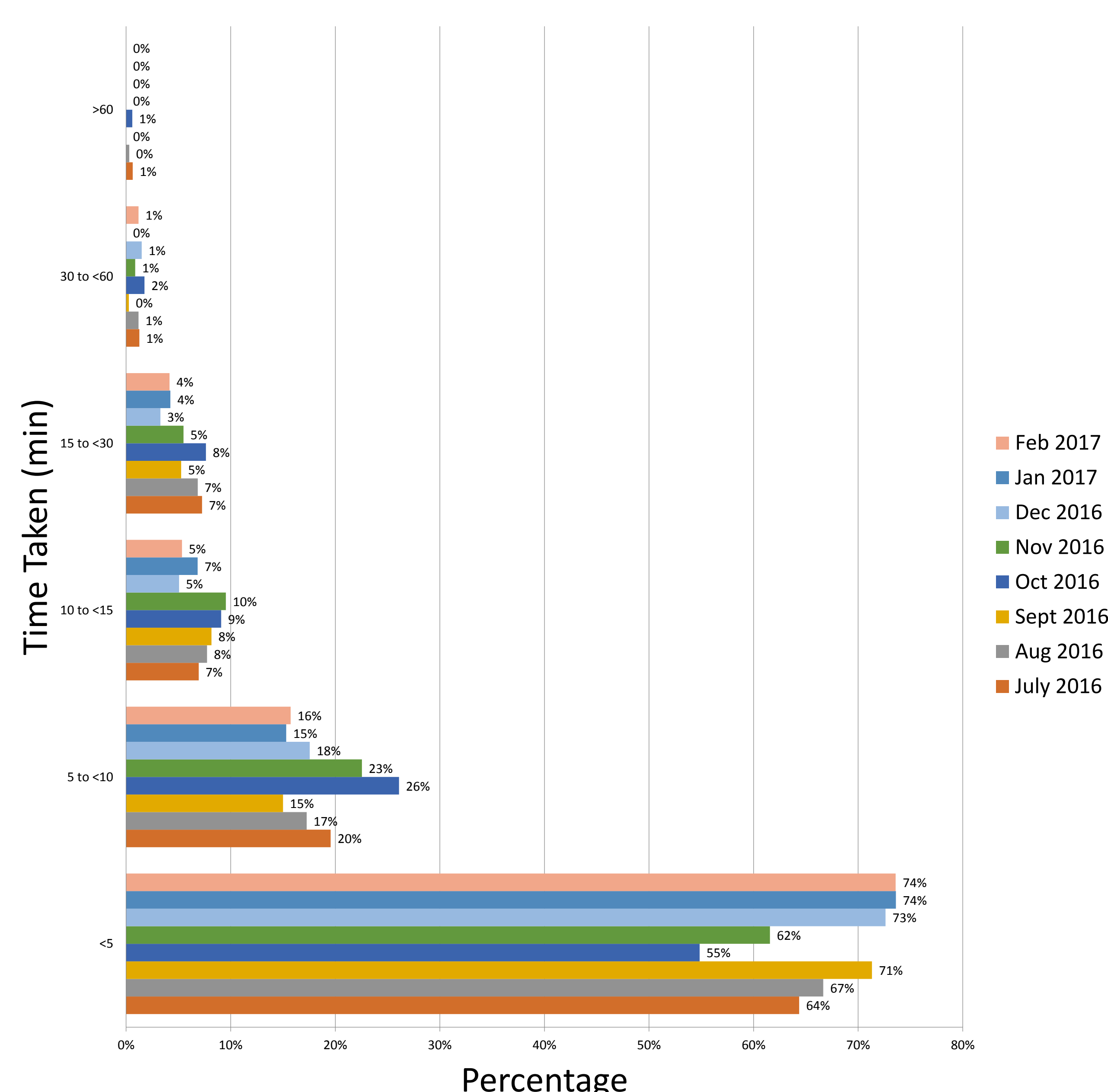


Figure 1: Critical results reported from July 2016 to February 2017

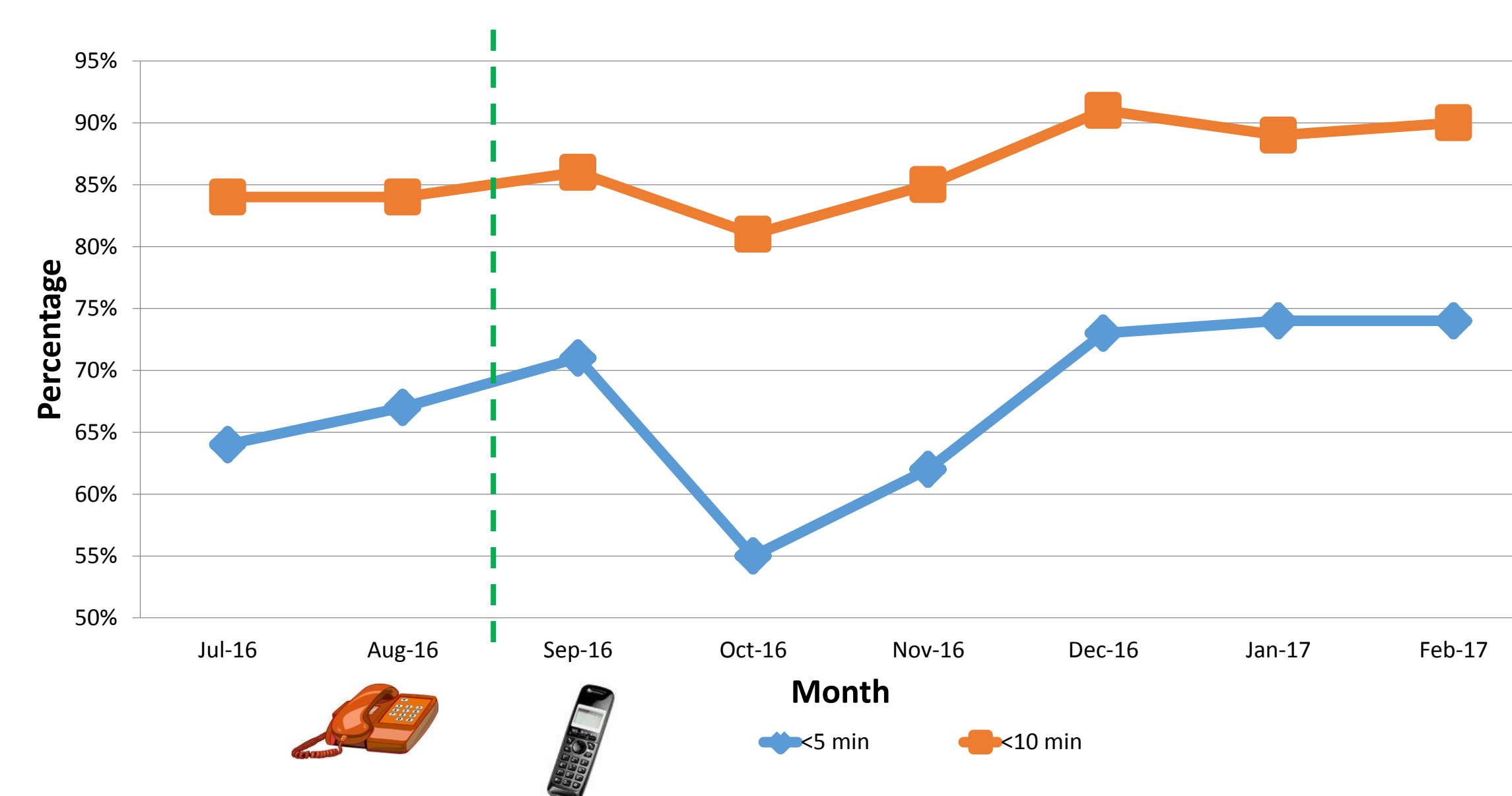


Figure 2: Critical Results reported within 5 minutes and within 10 minutes

Conclusion

Timely communication of critical results to the emergency department improved following the change to a mobile line through discussions and shared process improvement with DEM. The aim is achieved with promising result.

However, continued monitoring and close collaboration will ensure sustained outcome.