

School of Biomedical Informatics

Health Science Center at Houston

Introduction

Acute myocardial infarction (AMI) patients are challenging to identify in the EHR from a Quality perspective

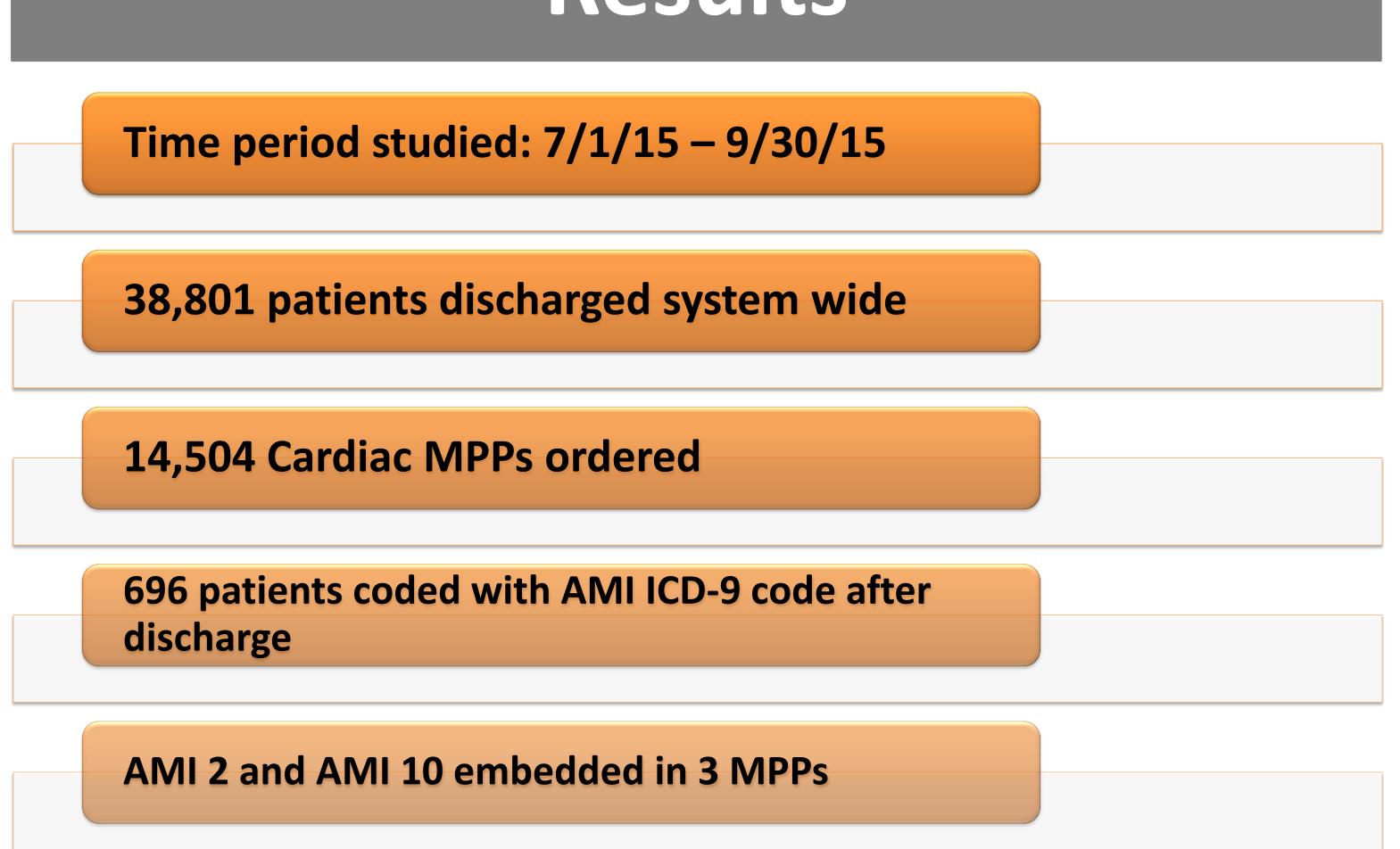
•How do you correctly identify and categorize AMI patients in the EHR when they are admitted to the hospital?

•Did the embedded quality measure in 3 of the 52 Cardiac MPPs (Medical Power Plans) accurately identify these patients?

Methods		
Report #	Description	Origin
Report 1	Patient encounters discharged 7/1/15 to 9/30/15	Quality
	with an AMI ICD-9 code	
Report 2	Patient encounters with MPP 1, MPP 2, MPP 14	Medical
	ordered 7/1/15 to 9/30/15	Informatics
Report 3	Merged Report for data analysis	Reports # 1 and # 2
Report 4	Patient encounters with MPP 1, MPP 2, MPP 14	Medical
	discharged 7/1/15 to 9/30/15	Informatics
Report 5	Patient encounters with MPP 1, MPP 2, MPP 14	Medical
	filtered by AMI quality measure selected	Informatics
Report 6	Patient encounters with MPP 1, MPP 2, MPP 14	Medical
	discharged 7/1/15 to 9/30/15 filtered by AMI	Informatics
	quality measure selected	
Report 7	Merged report for data analysis	Reports # 1 and # 6
Report 8	Patient encounters with all 52 Cardiac MPPs	Medical
	discharged 7/1/15 to 9/30/15	Informatics
Report 9	Merged report for final data analysis	Reports # 7 and #8
Report 10	Patient encounters with MPP 8, MPP13, MPP 24,	Medical
	MPP 38, and non-cardiac MPP 53 (ED STEMI)	Informatics
Report 11	Merged report for final data analysis	Reports # 9 and
		#10

Identifying Acute MI patients via the use of an embedded EHR quality measure

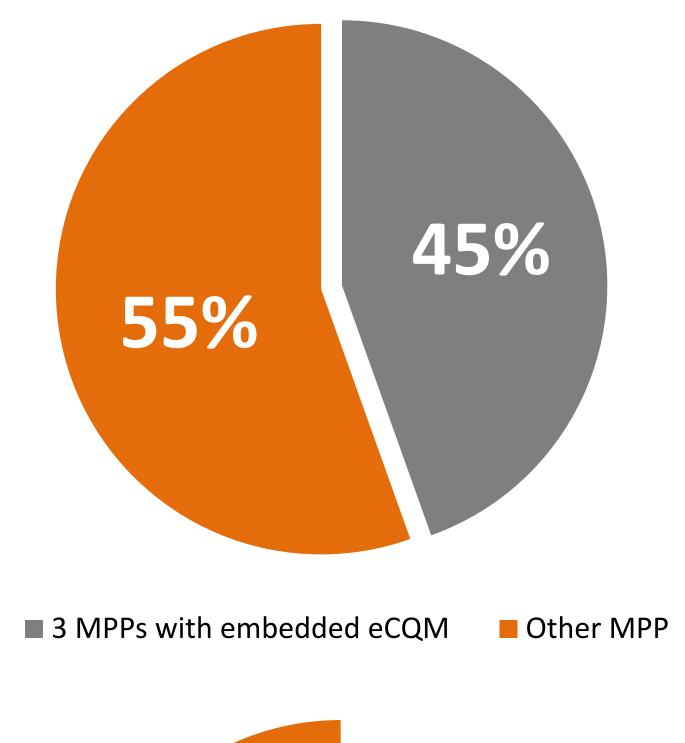
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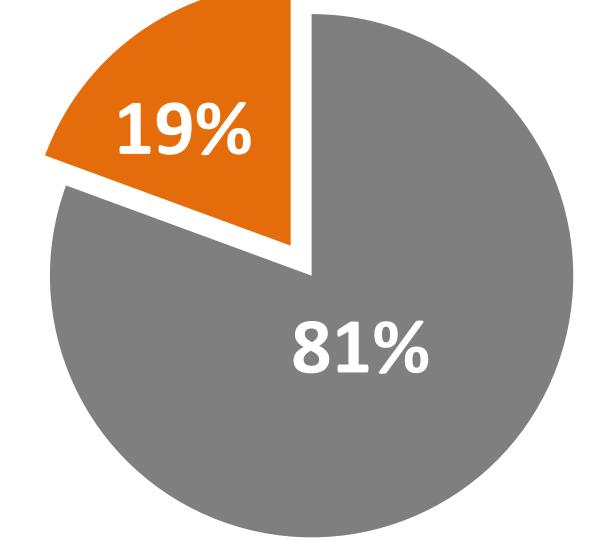


Embedding the quality measure in 3 MPPs only captured 45% of patients discharged with an AMI ICD-9 code

Embedding the quality measure in 8 total MPPs (7 cardiac and one ED) would have captured 81% of patients discharged with an AMI ICD-9 code

Results





 Identify if the correct MPPs are being used within the EHR to capture a specific population •Collaborate with clinicians to make changes to MPPs as needed Does embedding a quality measure ensure it will be used? •Do all patients with a certain MPP need the embedded quality measure?

Acknowledgements

This Masters level practicum project was completed during the Fall 2015 semester at a hospital system in the Greater Houston area. Thank you to the Medical Informatics and Quality departments at that facility.

Discussion

Analysis of Clinician Medical Power Plan usage in the EHR is an important first step in determining where to embed electronic quality measures

References

Available upon request