

Improving the Chest Pain Patient Arrival to ECG Completion Time in a Sports Complex Medical Center

Project Team: Robert Robinson, BSN, RN : email: rr403@Verizon.net Mobile 201 921 3415

Chair: Barbara Niedz PhD, RN, CPHQ, Team Member: Christopher Robertson, DNP, RN, NES-BC

me.
utes.
(American College of Cardiology/American Heart
door to ECG time to meet ACC/AHA guidelines.
ski et al., 2020).
Maliszewski et al., 2020).
o prevent death or complications in patients.
most prevalent and is associated with adverse

usion, poor quality care.
he best intervention for a patient.
ent safety measure.
events associated with ACS.

Results

Demographics

Characteristic	n (%)	M (SD)
Age-2018		47.04 (22.42)
Age-2019		47.20 (21.30)
Age-2022		52.43 (17.24)
CC onset to Arrival Time (Minutes)-Pre		3.34 (6.84)
CC onset to Arrival Time (Minutes)-Post		3.68 (6.25)
Door to ECG time (Minutes)-2018		12.16 (3.16)
Door to ECG time (Minutes)-2019		12.40 (3.77)
Door to ECG time (Minutes)-2022		8.58 (2.43)
Volume-2018		2.16 (0.987)
Volume-2019		2.56 (1.121)
Volume-2022		2.42 (1.458)
Gender:		
Male	60 (60.6%)	
Female	39 (39.4%)	
Transportation (Pre):		
Transported	26 (52.0%)	
Not Transported	24 (48.0%)	
Transportation (Post):		
Transported	23 (46.0%)	
Not Transported	27 (54.0%)	
Chief Complain:		
Cardiac	41 (41.0%)	
Near syncope	21 (21.0%)	
Syncope	16 (16.0%)	
Neurological	11 (11.0%)	
Respiratory	9 (9.0%)	
Diabetic Emergency	2 (2.0%)	

Statistical Analysis

- Mann-Whitney U test showed a significant decrease in the door to ECG time (p < 0.001) and 2019 and 2022.

Outcome	Year
Door to ECG (2018 and 2019)	2018 2019
Door to ECG (2019 and 2022)	2019 2022
Door to ECG (2018 and 2022)	2018 2022

Discussion

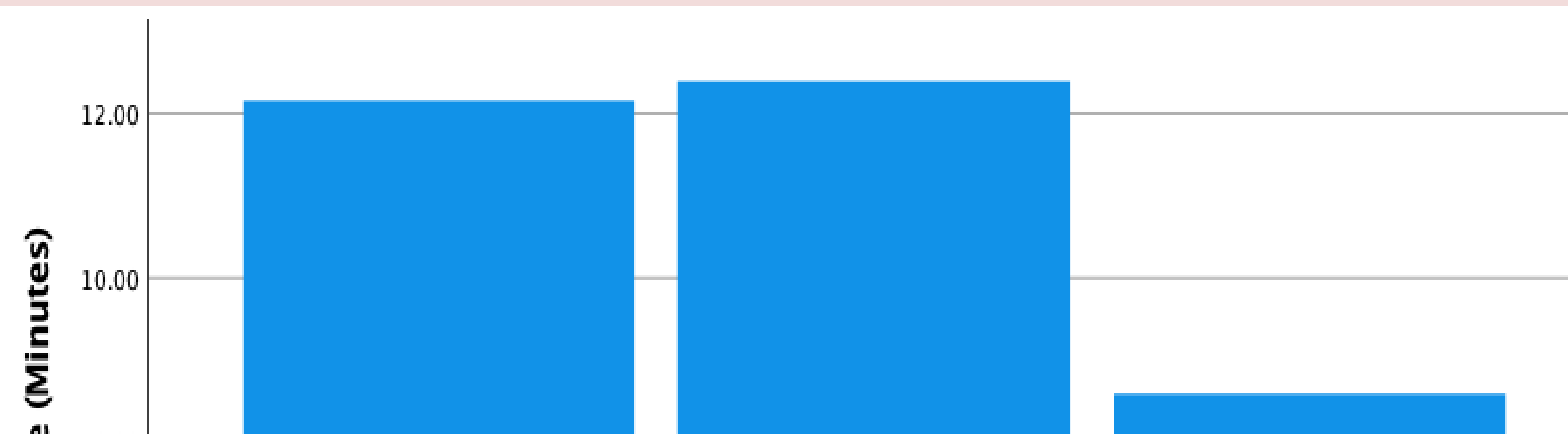
- The door to ECG time decreased significantly with the implementation of having the RN be the first to arrive at the medical unit.
- The intervention which involved the RN being the first to arrive was effective in decreasing the door to ECG time.

Implications

- Clinical Practice:** Improved workflow design would lead to a new workflow. Also, the time to ECG completion can be reduced and reached the target.
- Health care policy:** A new policy of incorporating the intervention into the current workflow.
- Quality and Safety:** While decreasing the door to ECG time, the quality and safety of patients will improve and reduce adverse events such as death and also queuing.
- Education:** The staff was educated on the new workflow and agreed that continuation of the intervention is necessary.

Outcome Measures

- Average door to ECG in 2018, 2019, and 2022 are 12.16, 12.4, and 8.58 respectively



New Workflow

