P 11 An Overview of Thrombolysed cases of ST elevation Myocardial Infarctions (STEMI's) at Princes Town District Health Facility, for the period 2017 to 2018

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Introduction

Coronary Heart Disease Deaths in Trinidad and Tobago reached 2,436 or **21.41% of total deaths** (WHO data, 2017)

Percutaneous coronary intervention (PCI) is the gold standard but not available at local public hospitals/ district health facilities.

Thrombolysis with Metalyse (tenecteplase) is used.

- Focused History and Physical examination
- ***ECG STAT***

Definitions –

Door to ECG – length of time from arrival to getting an ECG (in minutes)

Door to Needle – length of time from arrival to administration of thrombolysis (in minutes)

American Heart Association (AHA) - 2013 Guidelines
Target for door to ECG is 10 minutes or less
Aim for thrombolysis in 30 minutes or less

Objective

*This study focuses on a district health facility in Princes Town (PT DHF), South Trinidad to **evaluate door to ECG** and **door to needle time (thrombolysis)** in 2017 and 2018 and comparing trends for the two years while identifying some common risk factors associated with STEMI*

An analysis of these results is important:

To reduce delays to early rapid reperfusion therapy

By improving the door to ECG and door to needle/thrombolysis times

Improve patient outcomes.

Methods

Period – January 2017 to December 2018

Inclusion / Exclusion Criteria -

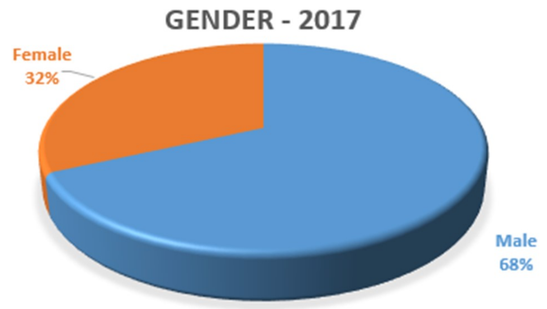
List of cases of all thrombolysed patients was taken from the **Metalyse record book**

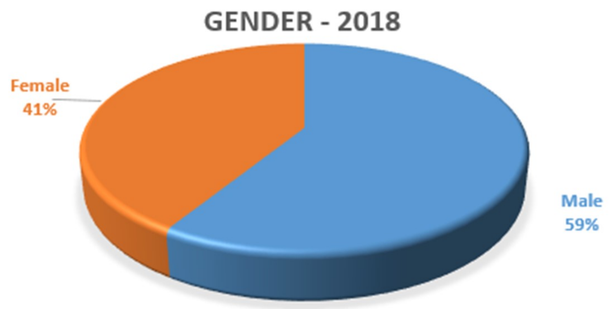
Door to ECG
Door to Needle
Patient demographics
Risk factors

Results

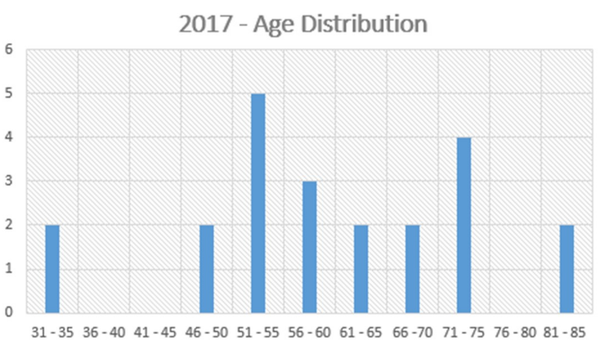
Year	Hypertension	Diabetes	Smoker	History of Heart Disease
2017	54.5 %	50%	50%	31.8%
2018	29.4%	23.5%	47.1%	23.5%

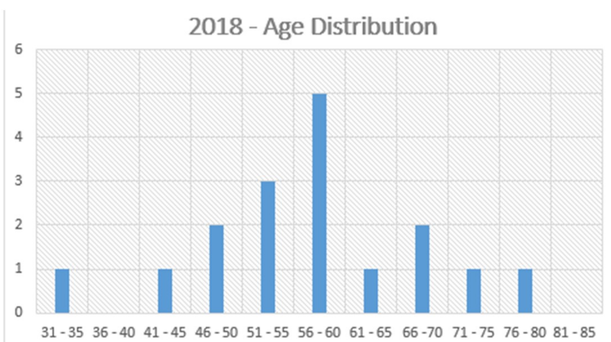
Table – Risk Factor Profile



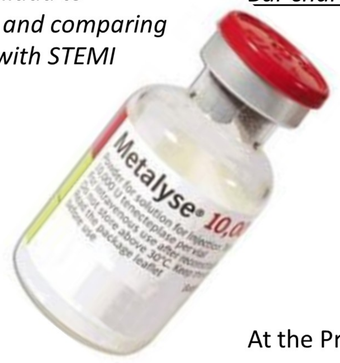


Pie Charts – Gender Distribution





Bar charts – Age Distribution



In 2017 (22 cases)

- 15 cases had an ECG in 10 minutes or less,
- 3 cases had thrombolysis in 30 minutes or less.

In 2018 (17 cases)

- 13 cases had an ECG in 10 minutes or less,
- 1 case had thrombolysis in 30 minutes or less.

Conclusion

At the Princes Town District Health Facility, patients were receiving ECGs in less than 10 minutes from arrival to the department (based on mean and median door to ECG times; thus meeting the AHA Guidelines). Approximately 10% of cases were thrombolysed in 30 minutes or less for the period January 2017 to December 2018.

Of note, patients in their 30's were having STEMIs; 61.5% of all cases were 60 years old or less. Patients of all ages with and without cardiovascular risk factors who present with chest pain or an angina equivalent must be fast tracked for an ECG to allow rapid treatment.

References

1. **2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines.** J Am Coll Cardiol. 2013 Jan 29;61(4):e78-140.
2. Varachhia S, Debie R, Ramrattan C, Sampath-Varachhia S, Ramlakhan S. **ST elevation myocardial infarctions (STEMIs) at a rural emergency department - 4 year experience in South Trinidad**. Presented at the Faculty of Medical Sciences - Faculty Research Day - 9 November 2017.