

ASSESSMENT OF THE PREDICTIVE VALUE OF EUROSCORE IN THE PATIENTS OF CTVS DEPARTMENT.

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INTRODUCTION

- CTVS stands for Cardio Thoracic Vascular Surgery.
- CTVS is the field involved in surgical treatment of organs inside the thorax (the chest)—generally treatment of conditions of the heart.
- EuroSCORE stands for European System for Cardiac Operative Risk Evaluation.
- The system was developed by the study of more than 20,000 consecutive patients across 128 hospitals in Eight European countries

- EuroSCORE has been used by several other institutions in the world.
- It's validity as an universal risk analyser has been checked by many institutions.
- In the Indian context, very few studies have been carried out till date.
- The validity and accuracy of this tool is yet to be applied to Indian diaspora.
- The CTVS Unit of EHCC consists of 26 beds in total and one nursing station.
- A patient may undergo surgery by elective in nature or urgent in nature.

- Patient brought on emergency basis first goes to CTVS ICU where they are stabilised first.
- Depending upon the condition if patient is stable enough to undergo a by pass surgery they are further treated.
- If not, they are medically managed and discharged after being scheduled for later dates.
- For each patient the data were collected according to EuroSCORE checklist of all the parameters.
- The collected data were filled in on an online EuroSCORE calculator and the results were obtained accordingly.

RESEARCH QUESTION

- What is the validity of EuroSCORE model in the patients undergoing CABG and heart procedures at Eternal Heart Care Center ?

OBJECTIVES

- To assess the predictive value of EuroSCORE in the patients of CTVS department in Eternal Heart Care Centre.
- To identify the difference between gross mortality and pre-operative mortality rate predicted by EuroSCORE.

METHODOLOGY

- **STUDY DESIGN** – Descriptive Study.
- **SAMPLE TECHNIQUE**- Purposive sampling.
- **SETTING** – Eternal Heart Care Center, Jaipur.
- **DURATION** - 3 months, 6th February 2017 to 5th march 2017.
- **SAMPLE SIZE** – 150 patients of CTVS Department, Eternal Heart Care Center.
- **SAMPLE AREA** – CTVS unit, 3rd floor.
- **Inclusion criteria** – All IPD patients of CTVS department.
- **Exclusion criteria** – All the Patients other than that of CTVS department

DATA COLLECTION PROCEDURE –

- A checklist of 17 parameters. Broadly classified under Patient related factors, Cardiac related factors and Operation related factors.
- Patient related factors - Age, Sex, Chronic pulmonary disease, Extracardiac arteriopathy, Neurological dysfunction, Any previous cardiac surgery, Serum creatinine, Active endocarditis, Any Critical Pre-Operative State.
- Cardiac Related Factors - Unstable angina. Stable angina, LV Dysfunction, Recent MI (Myocardial Infarction), Pulmonary Hypertension.
- Operation Related Factors - Whether the patient was on urgent or emergency basis. Or it was elective surgery. Any procedure other than isolated CABG, Surgery conducted on thoracic aorta

DATA COLLECTING TECHNIQUE

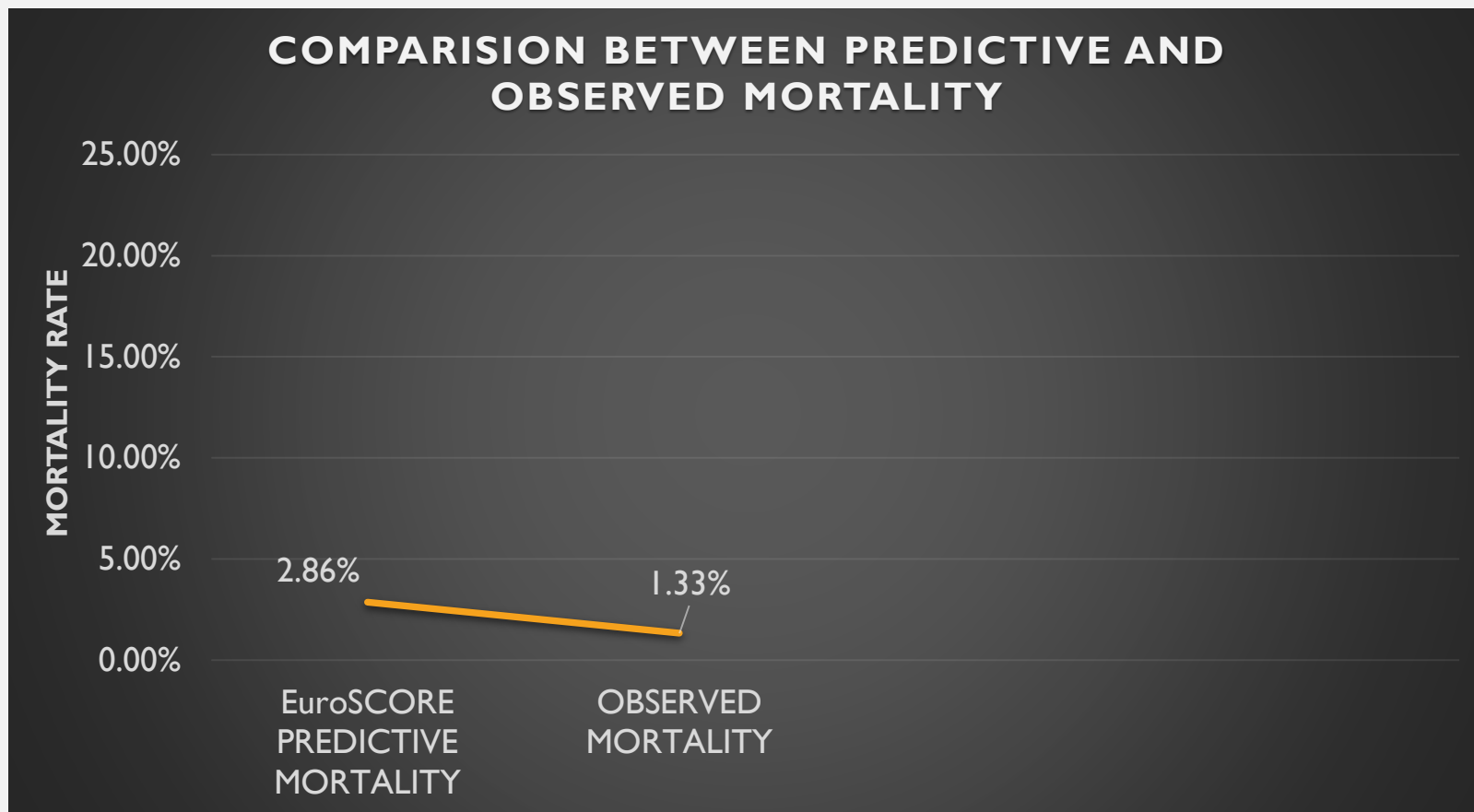
Primary data –

- The data was collected according to the set parameters by direct observation.
- Day to day observations.

Secondary Data –

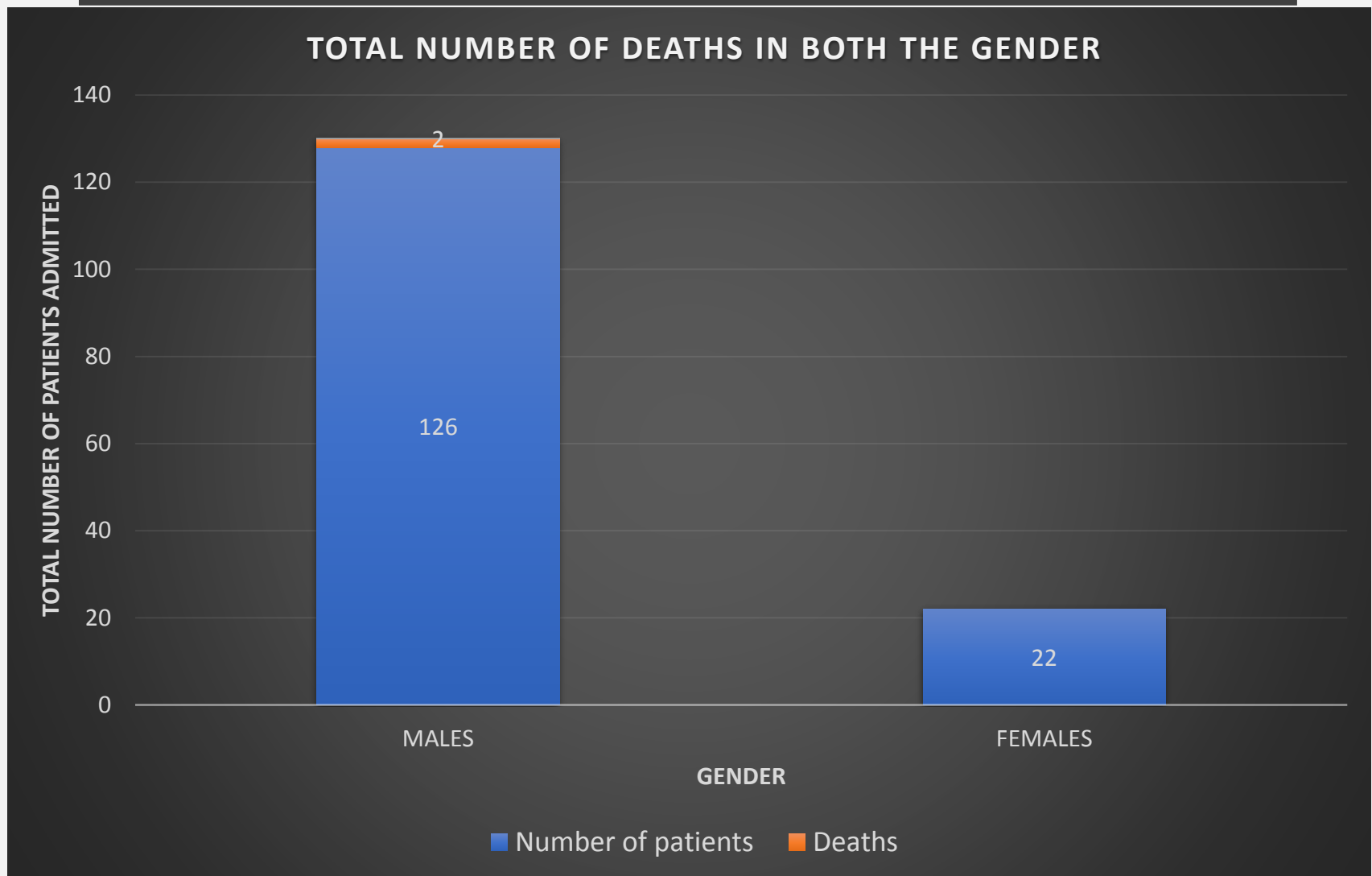
- Auditing patient records.
- Hospital Information System.

RESULTS



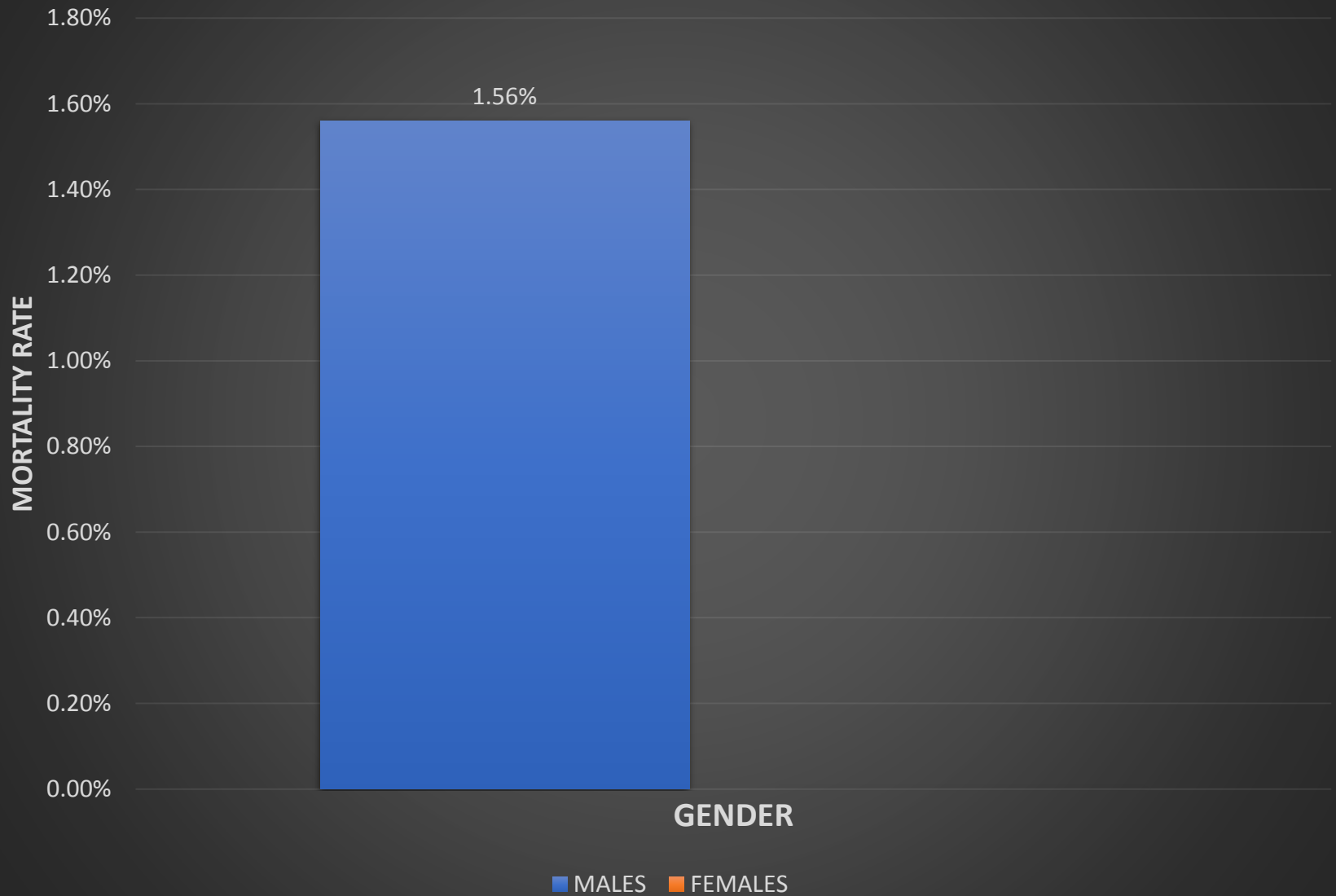
- For 150 patients a mean calculated mortality of 2.86 % was obtained from EuroSCORE.
- The observed mortality is 1.3%.

TOTAL NUMBER OF DEATHS IN BOTH THE GENDER



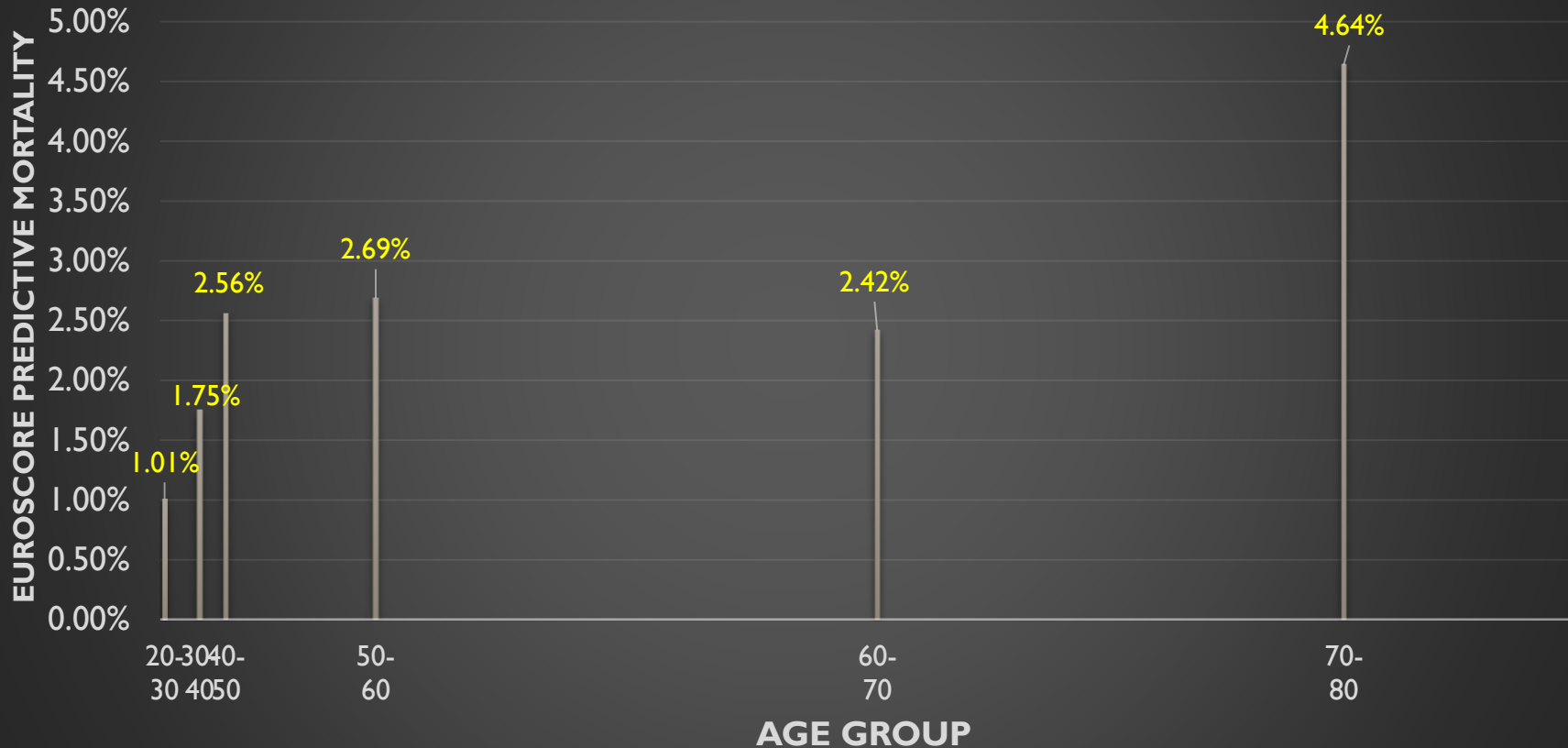
A total of 150 patients were admitted during the study period. Out of which 128 were male patients and 22 were female. A total death of 2 was observed and that belonged to gender male. None of the females died. This suggests a gender predilection to the increase in incidences and mortality in the gender male.

MORTALITY RATE IN MALES AND FEMALES



- A mortality rate of 1.56% is recorded in males.
- Total observed mortality is of 1.33%.
- No mortality was seen in females during this period of study.

EuroSCORE MORTALITY RATES IN VARIOUS AGE GROUPS



- The age group 50-60 witnessed maximum number of patients that is 55.
- The age group 70-80 records highest mean predictive mortality. This age group has highest number of patients in the high risk group that is 6. (High risk group being patients with EuroSCORE greater than 6)

LIMITATION OF THE STUDY

- Duration of the study.
- Geographical population.
- One Hospital.
- Includes only patients undergoing CABG procedure.
- Cost constraint.

CONCLUSION

- The EuroSCORE model's predictive ability has overestimated the mortality rate in this study.
- The model did not yield the right prediction rate.
- In the performed study the EuroSCORE predictive mortality rate is higher than that of the Hospital mortality rate. This is suggestive of the good quality practice in the organisation.

SUGGESTION

- Since prediction of EuroSCORE sometimes overestimates or underestimates the risk, so the care to be provided should be regardless the EuroSCORE's estimation.
- There are other risk factors which should also be added to the parameters of EuroSCORE according to one's own modification or prevalence in the sample/population.
- The model can also be used for other operative procedures with modifications regarding their own risk parameters. For example in PCI (Percutaneous Coronary Interventions.) and other surgical procedures.

*Thank
you*

