

Factors Affecting the Outcomes of Patients with Ischemic Heart Disease at Intensive Care Units

Thesis

*Submitted for Partial Fulfillment of the Requirements of
the Master Degree Medical Surgical Nursing
(Critical Care Nursing)*

By

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ABSTRACT

Ischemic heart disease is the leading cause of mortality worldwide, in both high- and low-income countries, according to the latest data of the World Health Organization in a report updated in 2015, the death rate from ischemic heart disease worldwide amounted to 12.8%. **Aim:** This study aimed to assess factors affecting the outcomes of patients with ischemic heart disease at intensive care units. **Design:** A descriptive design was used. **Setting:** The study was carried out at the intensive care units at As-salam International Hospital, Maadi. **Subjects:** A convenient sample of all the available staff nurses (n =100 nurses) and a purposive sample of 400 patients with ischemic heart disease. **Data collection tools:** (1) Patient Interview Questionnaire, (2) Nurses' Interview Questionnaire, (3) Nurses' Practice Observational Checklist (4) Patients' Outcomes Assessment Sheet. **Results & Conclusion:** Many factors affecting patients' outcomes, patients related factors (demographic and medical data, knowledge with satisfactory level of 85.25%, self reported practice regarding IHD and their management with satisfactory level of 82.75%), psychological and beliefs related factors with the mean of 275.75 ± 102.357 and 339.57 ± 60.43 respectively, health care system and medical team related factors with the mean of 318.75 ± 70.25 and 371.91 ± 18.58 respectively, nurses knowledge and practice regarding care of patient with ischemic heart disease patients related factors with the satisfactory level of 83% and 91.6% respectively. Also, the study finding related patients outcomes revealed 88.8% of patients had length of stay in intensive care units 1-5 days, modified early warning score was 18% of low score, 64% of median score and 18% of high score, while 82% of the studied patients suffered complications, 3.75% of them had readmission within the first 6 months after discharge and 1.25% of them suffered mortality. **Recommendation:** Conducting further studies for studying other factors affecting outcomes of patients with ischemic heart disease, conducting educational and in service training programs for nurses and using of the modified early warning score tool to improve nurses' performance regarding caring for critically ill patients and ischemic heart disease and quality of patients' life.

Key words: Factors affecting the outcomes, Patient, Ischemic heart disease, Intensive care units.

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List of Abbreviations

Abbreviations	Meaning
ABG	Arterial Blood Gases
ACE	Angiotensin Converting Enzyme
ACS	Acute Coronary Syndrome
AMI	Acute Myocardial Infarction
ANA	American Nursing Association
AP	Arterial Pressure
b/min	Beat per Minute
ASSIH	As-salam International Hospital
BMI	Body Mass Index
BP	Blood Pressure
br/min	Breath per Minute
BSN	Bachelor Science of Nursing
C°	Celsius Centigrade
CABG	Coronary Artery Bypass Graft
CAD	Coronary Artery Disease
CHAMP	Cardiac Hospitalization Atherosclerosis Manangment Program
CHD	Cornonary Heart Disease
CK	Creatine Kinase
CK-MB	Creatine Kinase Myocardial Band
CO	Cardiac Output
CO2	Carbon dioxide

<i>Abbreviations</i>	<i>Meaning</i>
CPR	Cardio Pulmonary Resuscitation
CRP	C-reactive Protein or Cross Reactive Protein
CRT	Capillary Refill Time
CVD	Cardio Vascular Disease
CVP	Central Venous Pressure
DES	Drug Eluting Stent
DKA	Diabetic Keto Acidosis
DM	Diabetes Mellitus
DVT	Deep Venous Thrombosis
ECG	Electro Cardio Graphy
HbA1C	Glycosylated Hemoglobin
HCT	Hematocrit
HDL	High Density Lipoprotein
HDL-C	High Density Lipoprotein-Cholesterol
HF	Heart Failure
HII	Hypotension Induced Ischemia
HRRP	Hospital Readmission and Reduction Program
HTN	Hypertension
ICA	Intra Coronary Atherectomy
ICS	Intra Coronary Stent
ICU	Intensive Care Unit
IHD	Ischemic Heart Disease

<i>Abbreviations</i>	<i>Meaning</i>
IM	Intra-Mascular
INR	International Normalized Ratio
JCI	Joint Commission International
JCIA	Joint Commission International Accreditation
LA	Left Atrium
LDL	Low Density Lipoprotein
LOS	Length of Stay
LP	Lipo Protein
LV	Left Ventricle
LVH	Left Ventricular Hypertrophy
MAP	Mean Arterial Pressure
MCQ	Multiple Choice Question
MEWS	Modified Early Warning Score
MI	Myocardial Infarction
ML/HR	Millimeter per Hour
MMHG	Millimeter of Mercury
NSTEMI	Non ST Elevated Myocardial Infarction
Pa CO₂	Partial Pressure of Carbon Dioxide
Pa O₂	Partial Pressure of Oxygen in Arterial Blood
PCI	Percutaneous Coronary Intervention
PTCA	Percutaneous Transluminal Coronary Angiography
PTT	Partial Thromboplastin Time

<i>Abbreviations</i>	<i>Meaning</i>
RBCs	Red Blood Cells.
SCA	Sudden Cardiac Arrest
SES	Socio Economic Status.
SpO2	Peripheral Capillary Oxygen Saturation
SPSS	Statistical Package for the Social Science
STEMI	ST Elevated Myocarical Infarction
US	United States
WBCs	White Blood Cells/ Corpuscles
WHO	World Health Organization

Introduction

All over the world, cardiovascular disease (CVD) represents a first cause of death. Among CVDs, ischemic heart disease (IHD) and its different clinical manifestations stand out in prominence. The IHD is a group of disease arises from narrowing of coronary arteries over times, it is primary effect is decreasing to complete loss of oxygen and nutrient to myocardial tissues. It encompasses partial loss of myocardial blood and ischemia to complete blockage of coronary artery blood flow, without collateral circulation **(Thomas, 2010)**.

There are many risk factors of IHD; they can be divided into non-modifiable risk factors: hereditary predisposition and family history, low birth weight, age, gender and race. Modifiable risk factors which divided into modifiable medical risk factors; hypertension (HTN), diabetes mellitus (DM) and hyperlipidemia as well as personally modifiable risk factors such as overweight or obesity, smoking and sedentary lifestyles in addition to excessive alcohol intake and stress. All of these can trigger the development of IHD, if patients already have atherosclerosis and become acutely stressed may experience chest pain due to vasocontraction of the heart arteries, result in reducing the blood flow **(Ruth, 2013)**.