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# *Risk Stratification and ICU Scoring Correlated To Quality of Care in the Critically Ill Patient*

*Essay*

*Submitted for Partial Fulfillment of Master degree in intensive care*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا  
عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم

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**Abd Elhameed Ahmed Mohamed Abd ElHaleem**

## *Dedication*

*This work is dedicated to the individuals who  
have given meaning to my life;*

*To my father, the spirit of grandfather and  
grandmother who, gave me everything and took nothing.*

*To my mother, who helped me in every step of my life*

*To my wife, who encouraged me to complete this work*

*To my brothers, who supported me in my life*

*To my beautiful baby, maram, who made my days to*

*shine*

*To my family and all my friends*

*Abd Elhameed Ahmed*



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# **Introduction & Aim of The Work**

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# **Chapter 1**



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## **Pathophysiology and assessment of critically ill patient**

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# Chapter 2



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## Scoring for ICU admission

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# **Chapter 3**



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## **Impact of scoring systems on quality of care**

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# Summary

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# References

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# Summary in Arabic

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تقييم المخاطر ومقاييس الرعاية المركزية وعلاقتها بكفاءة خدمة مرضى  
ضحايا الحوادث الحرجة

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# Abbreviations

<b>%</b>	Percent
<b>ACC</b>	American College of Cardiology
<b>ACS</b>	Acute Coronary Syndrome
<b>AHA</b>	American Heart Association
<b>AIDS</b>	Acquired immunodeficiency syndrome
<b>AIS</b>	Abbreviated Injury Scale
<b>AKI</b>	Acute kidney injury
<b>AKIN</b>	Acute Kidney Injury Network
<b>ALF</b>	Acute liver failure
<b>ALT</b>	Alanine transaminase
<b>AMI</b>	Acute myocardial infarction
<b>APACHE</b>	Acute Physiology and Chronic Health Evaluation
<b>APS</b>	Acute Physiology Score
<b>ARDS</b>	Acute respiratory distress syndrome
<b>AST</b>	Aspartate transaminase
<b>ATP</b>	Adenosine triphosphate
<b>b/m</b>	Beat per minute
<b>BPS</b>	Behavioral pain scales
<b>BSA</b>	Body surface area
<b>BUN</b>	Blood urea nitrogen
<b>CAM-ICU</b>	Confusion Assessment Method for the Intensive Care Unit
<b>CAP</b>	Community-acquired pneumonia
<b>CCI</b>	Chronic critical illness
<b>CLF</b>	Chronic liver failure
<b>COPD</b>	Chronic obstructive pulmonary disease
<b>CPAP</b>	Continuous positive airway pressure
<b>CPOT</b>	Critical-Care Pain Observation Tool
<b>CRAMS score</b>	Circulation, Respiration, Abdomen/ thorax, Motor and Speech score
<b>CRH</b>	Corticotropin-releasing hormone

<b>CT</b>	Computed Tomography
<b>DIC</b>	Disseminated Intravascular Coagulation
<b>DVT</b>	Deep-Vein Thrombosis
<b>Euro SCORE</b>	European System for Cardiac Operative Risk Evaluation score
<b>FEV1</b>	Forced expiratory volume in 1second
<b>FiO<sub>2</sub></b>	Fraction of inspired oxygen
<b>FOUR Score</b>	Full Outline of Un Responsiveness score
<b>GBS</b>	Glasgow Blatchford Score
<b>GCS</b>	Glasgow Coma Score
<b>GH</b>	Growth hormone
<b>GRACE</b>	Global Registry of Acute Coronary Events
<b>GUSTO</b>	Global Utilization of Streptokinase and tPA for Occluded Coronary Arteries
<b>HCO<sub>3</sub></b>	Bicarbonate
<b>HCT</b>	Hematocrit
<b>HE</b>	Hepatic Encephalopathy
<b>HF</b>	Heart failure
<b>HR</b>	Heart rate
<b>ICDSC</b>	Intensive Care Delirium Screening Checklist
<b>ICNARC</b>	Intensive Care National Audit & Research Centre
<b>ICP</b>	Intracranial pressure
<b>ICU</b>	Intensive Care Unit
<b>IFN-γ</b>	Interferon gamma
<b>IL-1</b>	Interleukin-1
<b>IRVS score</b>	Intensive Respiratory or Vasopressor Support score
<b>ISS</b>	Injury Severity Score
<b>ISTH</b>	International Society on Thrombosis and Haemostasis
<b>KCC</b>	King's College Criteria
<b>LBBB</b>	Left bundle branch block
<b>LODS</b>	Logistic Organ Dysfunction System
<b>LOS</b>	Length of stay
<b>M mol/L</b>	Milli mole per Liter