



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرو فيلم



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التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



MONA MAGHRABY



Comparative study between restrictive versus liberal intravenous fluid administration in severe sepsis and septic shock; a randomized clinical trial

Thesis

*Submitted for Partial Fulfillment of Master Degree
in Intensive Care medicine*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

لَسْبَدَانِكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

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Dedication

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List of Abbreviations

Abb.	Full term
ACTH.....	Adrenocorticotrophic hormone
AKI.....	Acute kidney injury
ALT.....	Alanine aminotransferases
ARDS.....	Acute respiratory distress syndrome
ARISE.....	Australian Resuscitation in Sepsis Evaluation
CBC	Complete blood count
CI.....	Confidence interval
CI.....	Collapsibility index
CLASSIC	Conservative Versus Liberal Approach to Fluid Therapy of Septic Shock in Intensive Care
CP	Central pressure
CVP.....	Central venous pressure
DIC.....	Disseminated intravascular coagulation
DM.....	Diabetes mellitus
EGDT.....	Early goal-directed therapy
FEAST.....	Fluid Expansion as Supportive Therapy
GGT	Gamma-glutamyl transferase
Hb	Hemoglobin
HCV.....	Hepatitis C virus
HES	Hydroxyethyl starches
HR.....	Heart rate
ICU	Intensive care unit
INR.....	International normalized ratio
IV	Intravenous
IVC.....	Inferior vena cava
LFTs	Liver function tests
LVEF	Left ventricular ejection fraction
MAP.....	Mean arterial pressure

List of Abbreviations Cont...

Abb.	Full term
MODS.....	Multiple organ damage
MP	Microparticles
NF-B	Nuclear factor-B
ProCESS.....	Protocolized Care for Early Septic Shock
ProMISe.....	Protocolised Management in Sepsis
PT/PTT	Prothrombin time/partial thromboplastin time
RBCs.....	Red blood cells
RR.....	Resting respiration
SAFE	Saline versus Albumin Fluid Evaluation
SBP	Systolic blood pressure
SIRS.....	Systemic inflammatory response syndrome
SOAP	Sepsis Occurrence in Acutely Ill Patients
SOFA	Sequential Organ Failure Assessment
SSC	Surviving Sepsis Campaign
SSSP	Simplified Severe Sepsis Protocol
SvO2	Venous oxygen saturation
TAPSE.....	Tricuspid annular plane systolic excursion
TF	Tissue Factor
VASST.....	Vasopressin in Septic Shock Trial
WBCs.....	White blood cells

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INTRODUCTION

Sepsis is one of the most common indications for intensive care unit admission worldwide and the third leading cause of death in the United States. While intravenous fluid administration has been recognized as an important part of sepsis resuscitation for over 15 years, there is growing concern that overly aggressive intravenous fluid resuscitation may be harmful to patients with severe sepsis and septic shock (*Dellinger et al., 2017*).

Definition of sepsis

Systemic inflammatory response syndrome (SIRS) = a response to a variety of severe clinical insult. Temperature $> 38^{\circ}\text{C}$ or $< 36^{\circ}\text{C}$, Heart rate > 90 beats per minute, Respiratory rate > 20 breaths per minute or $\text{PaCO}_2 < 32$ mmHg, White blood cell count $> 12,000/\text{cu mm}$, $< 4,000/\text{cu mm}$, or $> 10\%$ immature (band) form (*Dellinger et al., 2017*).

Sepsis = the systemic response to infection manifested by two or more of the SIRS criteria as a result of infection (*Dellinger et al., 2017*).

Severe sepsis = sepsis associated with organ dysfunction, hypoperfusion, or hypotension. Hypoperfusion and perfusion abnormalities may include, but are not limited to lactic acidosis, oliguria, or an acute alteration in mental status (*Dellinger et al., 2017*).