



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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**Muscle wasting assessed by ultrasound
versus scoring systems as early predictor of
outcomes of intensive care unit stay in
critically ill patients**

Thesis

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in Intensive Care*

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قَالَ

سَبَّحَانَكَ لَا إِلَهَ إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

Abb.	Full term
λ	Wave length
ABG	Arterial blood gases
APACHE II	Acute Physiology and Chronic Health Evaluation
CKD	Chronic kidney disease
CIM	Critical illness myopathy
CINM	Critical illness neuromyopathy
CIP	Critical illness polyneuropathy
CMAP	Compound muscle action potential
CNS	Central nervous system
COPD	Chronic Obstructive Pulmonary disease
CSA	Cross-sectional area
CT	Computed tomography
CVS	Cerebrovascular strokes
DD	Diaphragmatic dysfunction
DE	Diaphragmatic excursion
DFI	Diabetic foot infection
DM	Diabetes mellitus
DMVD	Duration of mechanical ventilation in days
DMVP	Duration of mechanical ventilation in percent
DTF	Diaphragmatic thickness fraction
EEDT	Diaphragmatic thickness in end-expiration
EIDT	Diaphragmatic thickness in end-inspiration
Fig	Figure
FiO₂	Fraction of inspired oxygen
GCS	Glasgow Coma Scale
GIT	Gastrointestinal hemorrhage
H&N	Head and neck
HCO₃	Mean arterial bicarbonate concentration
HI	Hypoxemia index
HR	Heart rate

List of Abbreviations Cont...

Abb.	Full term
ICU	Intensive care unit
ICUAW	Intensive care unit acquired weakness
K	Potassium
LODS	Logistic Organ Dysfunction Score
MODS	Multiple Organ Dysfunction Score
MPM	Mortality Probability Model
MR	Magnetic resonance
MV	Mechanical ventilation
Na⁺	Sodium
NPV	Negative predictive value
O₂	Oxygen
PaCO₂	Partial pressure of carbon dioxide
PaO₂	Partial pressure of oxygen
PMV	Prolonged mechanical ventilation
PPV	Positive predictive value
QMT	Quadriceps muscle thickness
RFCSA	Rectus femoris cross sectional area
ROC	Receiver operating characteristic
SBT	Spontaneous breath trial
SOFA	Sequential Organ Failure Assessment
Temp	Temperature
US	Ultrasound
UTI	Urinary tract infection
VAFP	Vasoactive agent free period
VAP	Ventilator acquired pneumonia
VI	Vastus intermedius muscle
WBC	White blood cells
WHO	World Health Organization

INTRODUCTION

Although there was an increase in the severity index of critical illnesses from the last century to the new one, the mortality had relatively decreased 35% from 1988 to 2012 with increase in discharge to other health care facilities instead of home.

Disease specific mortality decrease was mostly noticed in cases of decompensated heart failure followed by community acquired pneumonia, subarachnoid hemorrhage (*Zimmerman et al., 2006*).

This increases the need for efficient mortality prediction tools.

Mortality prediction scores are abundant they are either disease-specific (e.g., CURB score for pneumonia) or general (e.g., APACHE score), yet physician estimates might be more sensitive than the mortality prediction scores.

Available scores are numerous, the most famous are:

1. APACHE II (Acute Physiology and Chronic Health Evaluation) score presented in 1985 and being used till now (*Salluh and Soares, 2014*).
2. SOFA (Sequential Organ Failure Assessment (*Sawicka et al., 2014*).
3. SAPS II (Simplified Acute Physiology Score).