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بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية
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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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**Clinical Predictors of Physiological Deterioration
And Subsequent Cardio-respiratory Arrest
Among Critically Ill Patients**

Thesis

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In partial fulfillment of Master Degree

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توطئة للحصول على درجة الماجستير / الدكتوراه
في طب الحالات الحرجة

clinical Predictors of physiological deterioration and subsequent cardio-respiratory arrest among Critically ill Patients

باللغة العربية : المؤشرات الفسيولوجية لتدهور المريض في وحدة العناية الحرجة

- بناء على موافقة الجامعة بتاريخ ١٤ / ١١ / ٢٠١٠ تم تشكيل لجنة القيد والمناقشة
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بعد فحص الرسالة بواسطة كل عضو منفردا وكتابة تقارير منفردة لكل منهم اتفقت اللجنة
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بكلية الطب - جامعة القاهرة وذلك لمناقشة الطالب في رسالة الماجستير والنتائج
التي توصل اليها وكذلك الأسس العلمية التي قام عليها البحث .
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مقبول الرسالة من حيث الموضوع والمحتوى
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المستحق

بسم الله الرحمن الرحيم

(الْعَفْءُ لِلَّهِ الْعَظِيمِ هَدَانَا لِهَذَا وَمَا كُنَّا لِنَهْتَدِيَ
لَوْلَا أَنْ هَدَانَا اللَّهُ)

صدق الله العظيم

سورة الأعراف - الآية رقم (43)

dedication

*To every member in the critical care medicine field
and to my family.*



Acknowledgment

THE PRAISE TO ALLAH, WHO HAS GUIDED US
TO THIS AND WE COULD NOT TRULY HAVE BEEN
LED ARIGHT IF ALLAH HAD NOT GUIDED US

Any attempt at any level cannot be satisfactorily completed without the support and guidance of ALLAH

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Abstract

Clinical Predictors of Physiological Deterioration And Subsequent Cardio-respiratory Arrest Among Critically Ill Patients

Ahmed farouk, Mohamed Shehata ,Ashraf Hussein, , Hasan Khalid; Head of Department of Critical Care Medicine, Cairo University.

OBJECTIVES: a) To study the ability and the feasibility of Modified Early Warning Score (MEWS) as a screening tool to predict the high risk critically ill patients who may develop cardio-respiratory arrest.

b) To compare between MEWS and the "Simplified Acute Physiology Score II" (SAPS II) regarding the sensitivity, specificity and applicability ease.

METHOD: MEWS and SAPS II-Expanded were applied to 100 newly admitted patients to ICU. MEWS was calculated daily for each patient in the ICU to determination the ScoreMax (90 days as the end point). Receiver operator characteristic (ROC) curve and diagnostic validity test for MEWS & SAPS II were calculated and compared.

RESULTS: the MEWS score max grade of 8 or more was associated with the highest rate of cardio respiratory arrest event (sensitivity 78.9%, specificity 93.5, accuracy 88.00%, area under ROC curve AUC =0.928). For SAPS II-Expanded grade of 50 or more was associated with the highest rate of cardio respiratory arrest event (sensitivity 71.1%, specificity 100%, accuracy 89.00%, AUC =0.872). The mean and SD values of the SBP, RR and AVPU score in the MEWS ScoreMax had a statistically significant difference between the arrested and the non arrested group of patients (p value < 0.05).

CONCLUSION: MEWS score is a useful screening tool to predict the high risk critically ill patients who may develop cardio respiratory arrest event. It has more sensitivity but less specificity than SAPS II and the accuracy of both is almost the same. It is easier, faster, simpler and cheaper than SAPS II therefore it should be recommended in clinical practice.

KEY WORDS: Early, Warning, Score, MEWS, Acute, Physiology, SAPS, predictors, arrest, critical, ICU.

