

The Feasibility of Using the Early Warning Score as Adjunct Escalation Protocol for Coronavirus Screening in the Emergency Department: An Observational Study

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Abstract

Aim: To investigate the predictive ability of the Early Warning Score in assessing Covid-19 patients as an adjunct screening protocol in the emergency department.

Method: This cross sectional observational study conducted in the period between October-December 2020. A retrospective observation on patients' specific parameters retrieved from 800 adult patients through the electronic records system at Prince Hamza Hospital. Patients' data included those admitted to the emergency department (ED) as suspected and confirmed COVID-19 cases. Data included physiological parameters used in the Early Warning Score for Covid-19.

Results: Of 800 included patients, 63% of them had a confirmed Covid-19 positive testing while the remaining have been suspected cases. The Majority of the sample have negative chronic illnesses such as DM, HTN, COPD...etc. The assessment of EWS showed that patients with confirmed Covid-19 testing had significantly higher EWS than suspected Covid-19 testing patients ($r=47$, $p<0.001$). Factors such as diabetes and older age were determinants for the sensitivity of EWS against Covid-19 results.

Conclusion: EWS was a useful supportive screening tool for Covid-19 preliminary assessment and prognosis.

Key words: COVID-19; Early Warning Score; Emergency Department.