Score Big for Decreasing Mortality: ICD Risk Score Model

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Journal of Patient-Centered Research and Reviews (JPCRR) is a peer-reviewed scientific journal whose mission is to communicate clinical and bench research findings, with the goal of improving the quality of human health, the care of the individual patient, and the care of populations.
included nongender-based (<15 ml/beat), gender-based (<15 ml/beat for males and <10 ml/beat for females) and < 80% of \( \text{O}_2 \) pulse based on five different definitions of predicted \( \text{VO}_2 \max \). The optimal cutoff obtained was then used to create the composite criterion. For the purpose of evaluating this composite criterion, the study population was recategorized as: noncardiac group \((n=18)\), normal patients according to the composite criterion; or cardiac group \((n=13)\), abnormal patients according to the composite criterion. Patients who were normal by only one component of the composite criterion were categorized as borderline \((n=23)\).

Data were analyzed against the comprehensive CPX test by first excluding the borderline patients and then by including them with either the cardiac or noncardiac group.

**Results:** The 6-variable algorithm performed well against comprehensive CPX test in discriminating cardiac from noncardiac causes of dyspnea, with 94% sensitivity, 92% specificity, 84% positive predictive value (PPV), 97% negative predictive value (NPV) and 93% accuracy. The results remained consistent for gender and referral source. \( \text{O}_2 \) pulse, as defined by Wasserman, had the highest accuracy, specificity and PPV and therefore was used to define the composite criterion. The composite criterion had an accuracy of 87%, PPV of 77%, NPV of 94%, sensitivity of 91% and specificity of 85%, when borderline patients were excluded. Including borderline patients in the cardiac group \((n=36)\) improved sensitivity (94%) and maintained NPV (94%) but greatly decreased specificity (46%), PPV (44%) and accuracy (61%), whereas including these patients in the noncardiac group \((n=41)\) improved specificity (92%) and maintained similar PPV (77%) and accuracy (81%) but decreased sensitivity (59%) and NPV (83%).

**Conclusion:** This is the first study to validate a diagnostic algorithm for patients undergoing CPX testing as well as demonstrate that a simplified 6-variable algorithm applied by a cardiologist without prior CPX experience is quite accurate to evaluate the optimal \( \text{O}_2 \) pulse value at peak stress for discrimination of cardiac and noncardiac causes, and to provide the operating test characteristics for the common clinical practice of using composite criterion to diagnose cardiac versus noncardiac causes of dyspnea.

### Geographic Distribution of Infant Death During Birth Hospitalization and Maternal Group B Streptococcus Colonization: Eastern Wisconsin

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**Background:** Neonatal death rate in the United States is 4/1,000 live births; infant death rate is 6/1,000. Group B *Streptococcus* (GBS) may be transmitted from a colonized mother (rates vary from 15% to 35%) to the newborn during a vaginal delivery, and may contribute to neonatal death.