

Prospective evaluation of a pediatric early warning scoring system among children attending pediatric intermediate care unit

Rania S Abdel-Magid* and Naglaa Abdel-Monaem

Al Azhar University, Egypt

Background: Pediatric Early Warning Scores (PEWS) provides an objective assessment tool that help medical staff to detect the child's clinical deterioration that may decrease the morbidity and mortality of children who need intensive care.

Objective: The purpose of study was to evaluate PEWS for detecting clinical deterioration among pediatric intermediate care unit.

Methods: This retrospective, descriptive comparative study at Al-Zahraa University Hospital, over 12 months period on 201 children aged one month to 18 years old who admitted to pediatrics intermediate care unit that fulfill the guidelines criteria of pediatric intermediate care unit according to Jaimovich et al.2004. PEWS scores, Parshuram et al.2011, were measured on admission and prior to referral to PICU, wards or discharge home.

Patients were classified into:

Group1: patients who were discharged home or transferred to ward and **Group2:** patients who were transferred to PICU.

Results: We reported that group1 included 105(52.2%) males, 96(47.7%) females with mean age 2.16 ± 2.75 years and mean BMI 16.53 ± 3.86 kg/m²; while group 2 included 6(60%) males, 9(40%) females with mean age 2.4 ± 2.6 years and mean BMI 15.86 ± 6.05 kg/m². Respiratory diseases were the most clinical causes of admission in both studied groups with (42.5%) and (46.7%) respectively, followed by renal, cardiovascular, gastrointestinal and neurological diseases among group 2. Previous history of PICU admission and low weight centile were statistically higher in group 2 as

risk factors. Mean length of stay before admission to PICU was 2.2 ± 1.7 days as 46.67% of patients transferred to PICU within first 24 hours of admission, while the mean before referred to ward or discharged home was 3.42 ± 1.18 days. On admission, PEWS scores were statistically higher for the group2 with mean score 3.8 ± 2.65 versus 2.05 ± 1.69 in group 1. Mean PEWS scores were statistically higher in group 2 on time transferred to PICU (8.33 ± 2.66) versus group 1 on time word referral or discharged home patients (0.71 ± 0.79). The ROC curve showed PEWS cutoff point ≥ 4 with sensitivity 93.33% and specificity 98.92%.

Conclusion: The bedside PEWS can in pediatric intermediate care unit can discriminate between patients requiring routine ward-based care and sicker children who subsequently need immediate medical intervention or PICU transfer.

Speaker Biography

Rania Salah Abdel-Magid is pediatrics and neonatal specialist with 12 years' experience at a Teaching Hospital, Pediatrics teacher at Teaching hospital Nursing Institute with 2 years' experience, Pediatrics clinical nutrition specialist and Egyptian Society of Pediatrics Member, Cairo, Egypt. She completed master degree in Pediatrics at Al Azhar University and is studying doctorate now. She completed NICU Scholarship at China and Pediatrics clinical nutrition diploma at National Training Institute. She trained 15 junior residents on NRP. She shared in updating neonatal protocol in teaching hospital. She was a speaker at one of conferences of Hunan's Children Hospital in China. She wrote medical articles published on some Arabian medical websites. She was honored by NICU Head at Teaching Hospital as a pediatrician role model. She was honored by a charitable organization for her voluntary activities, examining and treating over 50 poor children. TV is interviewed her as one of most promising pediatricians.

s.ronna@rocketmail.com

Received Date: December 25, 2021; **Accepted Date:** December 27, 2021; **Published Date:** April 26, 2022