National Registry of Emergency Medical Technicians

Update on Adoption of the Paramedic Psychomotor Examination (Phase 1)

In consideration of the National Registry of Emergency Medical Technicians’ (NREMT) continued mission to improve public protection by ensuring that candidates for National Certification are competent patient care providers, the NREMT has completed an initial assessment of the recently adopted Paramedic Psychomotor Examination (Phase 1) focused on integrating multiple facets of out-of-hospital patient care. This document highlights the performance and outcomes of the updated Paramedic Psychomotor Examination.

Over several decades, the scope of care provided by EMS professionals has evolved to match the complexities of the patients they potentially treat during a work shift. The demands placed on EMS professionals to perform multiple integrated skills have increased. It is imperative that they are competent patient care providers who can perform life-saving skills while integrating the key knowledge elements of evidence-based medicine focused on patient outcomes.

Previously, the NREMT’s paramedic psychomotor examination tested candidates’ abilities to perform twelve (12) individual patient care skills. Moving toward the goal of assessing candidates in an environment which better simulates the out-of-hospital setting, the NREMT Board of Directors adopted scenario based examinations focused on team dynamics and patient outcomes. These examinations assess candidates’ abilities in a simulated setting and incorporate essential attributes of team leadership with scene and patient management.

Due to the innovative and unique nature of test development, a significant amount of time and energy was allocated to update the Paramedic Psychomotor Examination. Development of the examination was a lengthy process involving key stakeholders including EMS professionals, educators, program directors, state officials, physicians and medical directors. Steps prior to adoption include piloting scenario based examinations, conducting small-scale assessments, training program directors, and educators, and collecting data from early adoption testing sites. In 2015, in anticipation and preparation for updates to the Paramedic Psychomotor Examination, the NREMT published and distributed the Paramedic Psychomotor Competency Portfolio (PPCP) to paramedic program directors across the nation. Multiple videos explaining the
expectations of the Paramedic Psychomotor Examination were produced and remain available on the NREMT website as resources to the EMS community. In 2016 the NREMT, in association with the National Association of EMS Educators, conducted 22 workshops across the nation; the target audience was program directors and educators. The workshops focused on the development and use of formative and summative Integrated Out-of-Hospital (IOOH) scenarios. The NREMT authored and disseminated numerous publications (including presentations) regarding the use of a portfolio and IOOH scenarios. The Paramedic Psychomotor Examination was successfully launched and adopted once all initial preparations were completed. In 2017 the NREMT, in association with the NAEMSE, will conduct ten (10) workshops focused on the continued development, use, and logistics of IOOH scenarios.

The Paramedic Psychomotor Examination model includes six key abilities in which candidates must demonstrate competency: Patient Assessment-Trauma, Dynamic Cardiology, Static Cardiology, Oral Station A, Oral Station B, and an Integrated Out-of-Hospital (IOOH) Scenario. Five (5) of these skills remain from the previous paramedic psychomotor examinations model, and one (1) addition, the Integrated Out-of-hospital Scenario, includes multiple facets of patient care. The IOOH scenario presents the candidate with either a pediatric, geriatric or adult patient and evaluates his/her ability to manage a call, lead the team, effectively communicate, and maintain professionalism throughout the simulated patient encounter. This is done through a team approach with a trained paramedic partner. Seven (7) previously tested individual skills were removed from the Paramedic Psychomotor Examination; each of the skills now tested requires candidates to verbally and kinesthetically assess, manage, and treat patients.

The initial planning, subsequent pilots, and continued quality improvement efforts have made the adoption of the Paramedic Psychomotor Examination a success. The IOOH scenario is designed to be a complex, holistic assessment of an examinee’s ability to think and act critically. Examinees who have mastered individual skills but who are not yet proficient in integrating those skills may struggle with the IOOH scenario. Recent data reveals that the Integrated Out-of-hospital scenario is performing as expected for the initial roll out. Between August and December 2016, the initial administrations of the exam, with a total of 132 examinees from across the nation, demonstrated an 84.1% (111/132) pass rate on the combined first and second attempts of the IOOH scenario. For comparison, the same group of examinees passed the Static
Cardiology scenario at a rate of 80.3% on the combined first and second attempts. The initial pass rate (first attempt) for the IOOH scenario is 67.4%. Expected first attempt pass rates for new assessments are often lower than the more stable rates that will be established once examinees and programs become familiar with the new scenario format. These rates are expected to increase as examinees and programs adjust to the new assessment. Continued analysis, with a larger sample size, is being conducted as Paramedic Psychomotor Examinations are administered in 2017. Overall, the inclusion the IOOH scenario into the Paramedic Psychomotor Examination has not impacted examinees' pass rates; furthermore, it has improved the real-world applicability of the assessments.

As part of the continued mission of the NREMT to improve public protection and ensure professionals have met standards of practice, the updated Paramedic Psychomotor Examination is an important step to integrate realistic out-of-hospital care to assess candidates’ abilities. The incorporation of the essential attributes of team leadership with scene and patient management make the exam consistent with daily practice and highlight the critical nature of these skills. The NREMT remains dedicated to maintaining the success of the Paramedic Psychomotor Examination and will proactively provide relevant information as adoption continues to be monitored.