

A NATIONAL JOB ANALYSIS STUDY of RESPIRATORY THERAPISTS

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Executive Summary

The National Board for Respiratory Care (NBRC) conducted this study in 2017 to identify (1) prevalent conditions among patients who receive care from respiratory therapists in the United States and (2) critical tasks associated with this care. Study results will influence examination content for the ongoing Certified Respiratory Therapist (CRT) and Registered Respiratory Therapist (RRT) credentialing programs. Both multiple-choice and patient-management (simulation) examinations will be affected by results of this study.

Members of the job analysis Advisory Committee supervised the study while making decisions affecting data gathering and results evaluations. Advisory Committee members came from regions across the country and various practice settings representing NBRC examination programs and stakeholders outside the NBRC.

The survey study was conducted in phases including development, distribution, response evaluations, and decision-making about examination content. The Advisory Committee reviewed task statements from the previous study and created new tasks representing potential examination content. There were 252 tasks, each presented in a survey item to job incumbents. Survey items were added to collect background information about respondents.

The Advisory Committee developed sampling plans for survey distribution after consulting with in-house psychometric staff. After pilot testing the survey, the response window was opened. While notifications were ultimately sent to 58,797 potential respondents, those individuals were able to share notifications with other respiratory therapists. Potential respondents were required to register before accessing the survey; 6,877 of them registered. Reminders were sent a few weeks later, after which the response window closed. A volunteer sample of 4,462 chose to provide usable responses in time for the analysis, which was 7.8% of those originally solicited and 64.9% of those who registered.

Survey responses were summarized for the Advisory Committee, which used 14 exclusion rules by which tasks were classified as critical or not critical. There were 235 tasks classified as critical by this process.

Therapist Multiple-Choice Examination

Test scores from this examination have been sufficiently reliable so the Advisory Committee decided to retain the count of 140 multiple-choice items on each test form. The Advisory Committee made decisions about distributing these items by content domains, cognitive levels, patient populations, and medical ethics within test specifications tables. These specifications will be followed without exception when assembling forms of the examination starting in January of 2020.

Clinical Simulation Examination

Specifications for this examination were organized around descriptions of patients who presented with similar pathologies in each group. After evaluating survey results about the prevalence of patients' conditions when cared for by respiratory therapists, the Advisory Committee made decisions about the distribution of the 20 examination problems across 17 patient groups. The intent was to follow these specifications without exception when assembling forms of the examination starting in January 2020.

Each patient management problem contains 4, 5, or 6 sections along the critical pathway while excluding sections labeled as alternate and minimum passing level. At least 4 options are offered in each section. Some sections prompt candidates to gather information while other sections prompt candidates to make decisions. Options are associated with scores of -3, -2, -1, 0, 1, 2, or 3 depending on the Examination Committee's agreement about the degree to which respiratory patient care is positively or negatively affected.

The Advisory Committee decided to permit the incorporation of medical ethics into some options starting in 2020. However, the Advisory Committee stopped short of creating a set of test specifications organized around ethics because such specifications cannot be implemented in 2020 while continuing to release results to candidates on the day they test.