



National Center for Competency Testing

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ECG Technician Job Analysis **EXECUTIVE SUMMARY**

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A job analysis was performed in 2019 for the National Center for Competency Testing's (NCCT) National Certified ECG Technician (NCET) examination. The purpose of the job analysis is to describe the job activities of the ECG technician in sufficient detail to provide a basis for the development of a professional, job-related certification examination.

National Center for Competency Testing (NCCT) facilitated the selection of a Job Analysis Committee (JAC) to conduct the activities necessary to identify the responsibilities of a Certified ECG Technician (NCET), and to develop the detailed test plan. The diversity of this group was reflective of the ECG technician's job. All JAC members demonstrated expertise in the duties and activities associated with this profession.

The study involved the development of a job analysis survey, distribution of the survey to current ECG technicians, and an analysis of the responses. The detailed test plan for the Certified ECG Technician was developed on the basis of these data. The JAC was responsible for the following six tasks:

- 1 Developing a definition of the ECG technician
- 2 Identifying tasks for the survey instrument
- 3 Determining an appropriate rating scale
- 4 Determining the relevant demographic variables of interest
- 5 Integrating the definitions, tasks, rating scale, and demographics into a survey instrument
- 6 Developing the detailed test plan based on the data from the survey

The 2,038 recipients of the survey were current NCET credential holders who had certified at least six months before the survey was mailed. Of these, 149 individuals submitted usable responses in time for analysis. Of those who responded, 98% of the group indicated that the survey instrument either adequately or completely addressed the important elements of an ECG technician's job. Additionally, the respondents' ratings displayed a high level of inter-rater reliability (0.97) for the survey.

After the survey data were analyzed, the results were reviewed with the JAC and decision rules were established. These rules were used to determine which tasks were appropriate for assessment and therefore inclusion in the final detailed test plan. Application of the decision rules resulted in the retention of all of the original 45 tasks and 18 knowledge statements. A review of the respondents' comments did not result in the addition of any tasks. The JAC determined that each multiple-choice test will be comprised of 125 scored items and 25 un-scored pretest items. The resulting detailed test plan for NCCT's NCET will be used as the basis for the examination until the next job analysis study is conducted. NCCT's Board of Testing reviewed the new test plan on January 30th, 2020 and unanimously approved of its use for future test forms.