

Commission for Certification in Geriatric Pharmacy

Summary of Cut Score Report

Introduction

The Commission for Certification in Geriatric Pharmacy, with advice and assistance from Applied Measurement Professionals, conducted a cut score study for the Certified Geriatric Pharmacist examination in September 2008, following the most recent practice analysis study.

The purpose of this study was to determine a passing point (cut score) for the Commission for Certification in Geriatric Pharmacy (CCGP) Certified Geriatric Pharmacist (CCGP) examination. In determining the passing point, a minimum standard to pass the examination was developed, which examinees must achieve to obtain certification status. This requires that a decision must be made to classify examinees into one of two mutually exclusive categories (certified or not certified).

As with any professional practice standard setting process, some type of judgment is required. However, it is essential that the judgments involved in determining the passing point be made by qualified experts who are well informed regarding the intended use of the examination and possess the requisite knowledge and experience in the content domain to know what level of competence should be reasonably expected. Additionally, the judgments should be rendered in a meaningful way that takes into account the format and purpose of the test.

This determination must be made with recognition of the effects of potential error on classification decisions and the negative consequences of possible misclassification for examinees and the public. This report describes the methods and results of a passing point procedure—attributed to Angoff (1971)—and documents the appropriateness of the predetermined pass/fail cutoff point for the examination.

The underlying philosophy of the Angoff procedure is that the standard set should be related to item difficulty, specifically the difficulty of the items relative to what is expected of the examinees. Therefore, this procedure requires judges to render an expected performance rating for each test item. The purpose of the CCGP certification examination is to determine who is minimally qualified and who is not, or alternatively, who meets certification requirements and who does not. The passing point is the determining value in the certified vs. not certified decision.

Methodology

The Angoff technique was recommended by Applied Measurement Professionals, Inc. (AMP) and selected by CCGP as the procedure for estimating the pass/fail cutoff score. The underlying philosophy of the Angoff technique is that the standard set should be

related to item difficulty, specifically the difficulty expected of borderline candidates. Therefore, this technique requires judges to render an expected performance rating for each test item. There are several steps required to complete the Angoff technique; the procedures used to complete these steps are as follows.

1. Selection of the Judges. The judges serving on the passing point study panel included members of the Examination Development Committee (EDC), all of whom are subject matter experts. They were selected to provide for an appropriate balance on potentially relevant characteristics, such as area of special expertise and geographical distribution. All EDC members are familiar with the examination content. See Appendix A for a listing of the judges.

2. Defining the Competence Criterion. The committee participated in discussion regarding the definition of a minimally competent practitioner (MCP), that is, an individual who would be able to demonstrate just enough knowledge to pass the CCGP examination. In general, a minimally competent practitioner has enough knowledge to practice safely and competently. The minimally competent practitioner is sometimes defined as a “borderline expert,” which refers to the fact that he or she may be able to practice safely and competently, but he or she may not demonstrate complete mastery in his or her practice. A discussion of the general characteristics was initiated. After developing several general characteristics the EDC reviewed the entire Detailed Content Outline and identified tasks that may be problematic for the MCP.

3. Rating Procedure Training. During a meeting of the EDC in July 2008, the purpose and procedures for the passing score study were discussed. The training process included a detailed group discussion of the first several items. For each of these items, the judges provided an independent rating and announced their ratings. Judges discussed the factors that were considered in determining the ratings, in particular, those factors that were associated with relatively high or low ratings. After discussion, the judges provided their final ratings. The rating requested for the Angoff technique is the percentage of minimally competent practitioners expected to respond correctly to that item. Ratings for each item could therefore range from zero to 100, although the judges were advised that candidates rarely perform below chance level (25 percent correct in this case) or at a level of perfection (100 percent correct).

4. Rendering the Ratings. The judges were instructed to provide an answer and a rating for each item, then review the answer key and revise their ratings, as necessary, in light of the appropriateness of their responses. For example, the judges were specifically advised to consider the possibility that their ratings might be too high on items that they answered incorrectly when the initial ratings were provided. All judgments were made independently; however, following completion of the initial ratings, the judges shared and discussed their ratings, which led to some minor modifications to the judges' ratings.

Final determination of the passing point for the CCGP examination was conducted following a review of a preliminary item analysis. The judges discussed the results of this study in the light of initial examinee results and considered whether adjustments were

appropriate, for example, by application of one of the confidence interval estimates or in consideration of statistical parameters (e.g., mean p value) associated with the forms. A cut score was then determined for the initial version (form) of the examination. For subsequent forms of the examination, a process of statistical equating was used to ensure consistency in the cut score determination.

Appendix A – Panel of Experts

Dianne E. Tobias, PharmD, CGP
Sandra T. Bollinger, PharmD, FASCP, CDE, CGP
Michael R. Brodeur, PharmD, FASCP, CGP
Robin L. Cooke, BS, PharmD, FASCP, CGP
Greg D'Amour, PharmD, RPh, PhC, CGP
Sally S. Ebsary, RPh, BScPhm, MA, CGP
Chad M. Graue, PharmD, FASCP, CGP
Sharon Kennedy-Norris, PharmD, CGP, CACP
Monica Mathys, PharmD, BCPP, CGP
Terrence E. O'Shea, PharmD, FASCP, CGP

Davis, CA
Sikeston, MO
Albany, NY
Charlotte, NC
Truth or Consequences, NM
Kitchener, ON
Springfield, IL
Huntington, WV
Dallas, TX
Englewood, OH