



## **2022 CPE Fall Meeting Research and Ideas Forum (RIF) Presentations**

**Submission Title:** Evaluation of a High Stakes Physician Competency Assessment: Lessons for Assessor Training, Program Accountability, and Continuous Improvement

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This paper was awarded an Honorable Mention for the 2021 Paul Mazmanian Journal of Continuing Education in the Health Professions (JCEHP) Award for Excellence in Research.

**Abstract:**

**Introduction:**

There is a dearth of evidence evaluating post-licensure high-stakes physician competency assessment programs. Our purpose was to contribute to this evidence by evaluating a high-stakes assessment for assessor inter-rater reliability and the relationship between performance on individual assessment components and overall performance. We did so to determine if the assessment tools identify specific competency needs of the assessed physicians and contribute to our understanding of physician dyscompetence more broadly.

**Method:**

Four assessors independently reviewed 102 video-recorded assessments and scored physicians on seven assessment components and overall performance. Inter-rater reliability was measured using intraclass correlation coefficients using a multiple rater, consistency, two-way random effect model. Analysis of variance with least-significant difference post-hoc analyses examined if the mean component scores differed significantly by quartile ranges of overall performance. Linear regression analysis determined the extent to which each component score was associated with overall performance.



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### **Results:**

Intraclass correlation coefficients ranged between 0.756 and 0.876 for all components scored and was highest for overall performance. Regression indicated that individual component scores were positively associated with overall performance. Levels of variation in component scores were significantly different across quartile ranges with higher variability in poorer performers.

### **Discussion:**

High-stake assessments can be conducted reliably and identify performance gaps of potentially dyscompetent physicians. Physicians who performed well tended to do so in all aspects evaluated, whereas those who performed poorly demonstrated areas of strength and weakness. Understanding that dyscompetence rarely means a complete or catastrophic lapse competence is vital to understanding how educational needs change through a physician's career.



## 2022 CPE Fall Meeting Research and Ideas Forum (RIF) Presentations

**Submission Title:** Individual Practice Review: an improved selection criteria

**Authors and Affiliations:**

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**Abstract:**

Introduction/Background: Although most physicians provide excellent care, Medical Regulatory Authorities (MRAs) in Canada and elsewhere routinely attempt to identify potentially underperforming physicians in an effort to protect patient and public safety. In the province of Alberta, the MRA is the College of Physicians & Surgeons of Alberta (CPSA), which regulates approximately 11,500 practicing physicians. Through individualize physician reviews (IPR), the CPSA is able to assess a physician's performance and as a result quality of patient care. The selection process for these programs was generally at random, in the absence of a better selection criteria, which was not ideal considering how costly and time consuming IPR are.

**Approach/Methods:** Physician performance can be understood using the Cambridge Model, which essentially defines performance in medical practice as the sum of (1) physician's competence factors; (2) individual factors; and (3) system factors. Leveraging the data collected by the CPSA, we have developed a metric to quantify a physician's risk based on proxies for performance and individual factors. This metric is then used as a risk score in addition to random selection.

**Challenges/Results:** Ideally, competence and system factors would be included in our risk score, however, due to data restrictions these are currently absent. Future work aims to include factors capturing these components of performance. Despite the shortcomings, our score has proven to be an excellent criterion for assessment selection. The IPR programs are conducted blinded to the selection method (high risk vs random) to ensure fairness in the process. In addition, this allows us to compare results, validate our score, and perhaps more importantly, increase the program efficiency by a nine fold (as measured by the percentage of underperforming physicians that are captured by our high risk selection).

**Discussion/Implications:** For an MRA, being able to identify potentially risky physicians before they are assessed is a way to practice proactive regulation. Our risk score approach is not meant to replace individual, personalized assessments, but it allows us to direct our resources more effectively and efficiently by pre-selecting potentially underperforming physicians.



## **2022 CPE Fall Meeting Research and Ideas Forum (RIF) Presentations**

**Submission Title:** The COVID19 Pandemic: A Mother of Invention for Physician Assessment and Education?

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**Abstract:**

**Introduction/Background:** The Covid-19 pandemic required all of us to make significant changes in how we work, think, and live. At Texas A&M KSTAR (Knowledge, Skills, Training, Assessment, and Research), we significantly adapted our assessments and training programs to continue work during lockdown and beyond. This presentation describes some of the more important changes we made, particularly with standardized patient encounters and communication training.

**Approach/Methods:** This is a descriptive study of how and why we changed KSTAR assessment and education the pandemic. We focus on several areas that required significant effort with good result, and highlight a few other noteworthy items.

**Challenges/Results:** The biggest challenge during this process was the change itself. We found that in most cases, we had to make some trade-offs. In some instances, our new processes (or components of them) served us well and remain in place. We found increased efficiencies and/or cost savings for our program and clients. Our most noteworthy accomplishments were moving standardized patient encounters to the virtual environment, and converting a large communication training initiative (usually done in-person/on-site at facilities) to Microsoft Teams.

**Discussion/Implications:** The changes we underwent were less problematic than feared, and in some ways beneficial. We now have more options and flexibility in how we perform and deliver our assessments and education. In some cases, our tools and processes improved. At worst, we experienced a temporary slow-down as during the pivot phase. Necessity was the mother of invention.