Benchmarking the Use of Competency-Based Knowledge Assessments in On-Boarding Training for Medical Information Specialists

Sukhleen (Sheena) Gurai, PharmD, MSEd, Evelyn Hermes-DeSanitis, PharmD, BCPS, Stacey Fung, PharmD

Ernest Mario School of Pharmacy, Rutgers, the State University of New Jersey, Piscataway, NJ; Genetech, Inc. A Member of the Roche Group, South San Francisco, CA

Results

In order to meet the professional and regulatory needs of a pharmaceutical company's medical information department, the development of a core curriculum has provided companies with a basis for the on-boarding training program used to train new-hire medical information specialists (MIS).

While the literature provides benchmarks for training content and methods of execution, there is limited insight on the use of competency-based knowledge assessments to demonstrate knowledge learned during on-boarding and to evaluate job-readiness level.

Competencies are the knowledge, skills, and behaviors that demonstrate superior performance in a given job function.

This study aims to benchmark the use of knowledge assessments and tools to evaluate role-based competency attainment for new-hire medical information specialists (MIS) in the pharmaceutical industry.

Methods

In 2015, an anonymous, web-based survey, approved by Rutgers IRB, was distributed to 20 pharmaceutical and biotechnology companies of various sizes throughout the United States.

Respondents were identified through the soliciting of peers, mentors, and advisors of the principal investigator and met the following criteria:

- Works within the medical information department
- Is aware of the on-boarding training practices for newly-hired medical information specialists
- No other inclusion/exclusion criteria were applied for respondents

Only 1 response per company was obtained.

A 17-question survey was answered:
- Respondent demographics
- Training methods for specific core job functions/skills
- Use of formal knowledge assessments and associated methods/tools to evaluate mastery of core job functions/skills
- Next steps when mastery of core job functions/skills are not exhibited

Endpoints included the reporting of trends based on response metrics.

Results (continued)

Evaluator may introduce own methods
- Single evaluator across trainees
- Identical prompt/question/test
- Several evaluators with same criteria

Evaluator decides own methods
- Individual prompts allowed
- Tools or methods may vary

Performance may be scored
- Yes
- No

Performance of all trainees may be scored
- Yes
- No

Training may be based on core knowledge/skills
- Yes
- No

Trainee's training mentor may evaluate performance
- Yes
- No

Figure 1: Efficacy
Figure 2: Respondent Limitations

Discussion/Limitations

Efficacy of on-boarding training may vary based on the learner and trainer, which prompts the need for formal methods to assess and document attainment of the intended competencies.

Validity of the assessment requires alignment with competencies targeted by the training and accuracy requires the use of objective tools to allow for uniformity across evaluators and trainees. High utilization of performance-based assessments and multiple trainers warrants the use of established tools to determine job-readiness and training efficacy.

Best methods and tools may vary based on competency, functional role, and resource availability, however, the use of objective tools such as rubrics/scoring scales or identical prompts/tools aids in consistent evaluation.

Limitations of this study include:

- Organizational structure varies so inclusion of respondents based on working in the “MI department” may not adequately qualify a respondent familiar with all MI-associated job functions/skills.
- Inconsistent replying to Knowledge assessment responses; some respondents report “knowledge assessment not completed” yet also provide insights on assessment practices and methods.

Conclusions

This study provides benchmarking data on the use of competency-based knowledge assessments in key functional roles for the medical information department, as well as utilized methods/tools specific to each functional role. Evaluating by the industry standard, companies will be able to re-evaluate their current practices and consider introducing competency-based knowledge assessments into on-boarding training in a data-driven manner.

Further research is needed to identify specific competencies that are assessed (and/or required) within each job function so that methods/tools may be appropriately aligned and designed to evaluate their attainment.

Author Contact Information
Sukhleen (Sheena) Gurai, Pharm.D., MSEd
Pharmaceutical Solutions, Fisons, Medical Communications, Milliman, Inc.
1015 Avenue of the Americas, South San Francisco, CA 94080
Garafnet technologies, Inc.
1 DNA Way, San Diego, CA 92121
Garafnet.com

Disclosure

ADD IN QF COOK