Pilot Interim Assessment During the Advanced Practice Year

J.D. Currie, Pharm.D., B.A. Sorofman, Ph.D., C.M. Catney, Pharm.D., M.A. S.J. Johnson, M.S.
The University of Iowa College of Pharmacy, Iowa City, Iowa

Background

All fourth year students in the advanced practice experience year are assessed and graded during individual rotations; however, monitoring practice skill development and providing feedback and stimulus for self-reflection for a class cohort is often difficult.

Examples:
- Variable nature of opportunities to perform some skills consistently throughout rotation year
- Variable assessment methods or criteria used by preceptors to assess skill with reliability and validity
- Identification of specific skill deficiency difficult using current assessment methods
- Variable student access to preceptor comments for students’ use in self-correction

We piloted a strategy to overcome this difficulty: a mandatory day-long session to administer skills assessments and to provide feedback.

Logistics

- Iowa Students take 9 5-week Advanced Practice Experiences during the final professional year. As a class cohort the students do not meet between the last exam of the third year and the week before graduation at the end of the fourth.
- The date of Assessment Day was chosen to coincide with optional placement and interview days. Students devoted the entire day to assessment and educational activities.
- Students rotated through different activity sets for one-half day (~36 per group per activity)
- Pre-NAPLEX exam took 90 minutes. Knowledge & Attitude Self-evaluation took 30 minutes and the Skills assessment took ~15 minutes per student.
- 7 faculty and 4 staff were needed to administer all three assessments simultaneously, the majority to assess skills where faculty simulated patients and rated performance.
- Students met as group for information sessions before and after the three assessments and took official graduation pictures after the Knowledge & Attitudes assessment.
- At day’s end, students reviewed their Pre-NAPLEX scores and skill assessment results and received compiled evaluations, class means, and feedback from rotations completed during the first four rotation cycles
- Assessment tools were externally validated, literature based, or mirrored tools used in professional practice laboratory

Results

Providing both assessment and educational information during the one day period was accomplished. With the exception of students who experienced a spontaneous discontinuation of the pre-NAPLEX examination, all were able to complete the three distinct evaluations in a reasonably timely fashion. Feedback, the last session of the day, was eagerly awaited and well received.

Findings Related to Assessment

Pre-NAPLEX: 100% practiced the exam process. Exam ceiling effects (all pass, narrow range of single overall score) require us to rethink use.

Assessment of practice skills:
- 49% of students received 5/5 pts on BP/Pulse measurement
- 89% of students received at least 4/5 pts on BP measurement
- 81% of students received 5/5 pts on examination skills
- 87% of students received at least 4/5 pts on examination skills
- 74% of metered dose inhaler steps judged ‘excellent’

Validity of limited skill set assessment will be reexamined.

Student self-assessment: Accomplished in October and May. Indicated sense of professionalism increases over time (ave. 4.33 to 4.63; 5 point scale). All assessments were positive, more so at end of APEs than midway about pre-APE preparation for problem-solving, disease management and communication and less so at the end of APEs on knowledge of professional responsibility and the basic skills of drug information, physical exams and patient record organization. Ceiling effect will be reevaluated.

Objective

- Gain experience using the Pre-NAPLEX exam as a programmatic assessment tool & have students practice licensure exam readiness.
- Complete controlled assessment of practice skills:
  - measurement of vital signs
  - demonstration of oral inhaler technique
  - SOAP note writing
  - drug therapy problem identification & classification
- Complete student self-assessments at 2 program points using the Professionalism Scale created by Dana Hammer and Iowa self-assessment tools that measure rotation preparation & clinical skills
- Hold informational sessions about graduation, licensure, and career planning
- Complete student assessment of rotation year

Conclusions

Mid year assessment logistically manageable and will be retained.

Pre-NAPLEX provides a service to students and demonstrates organizational care for students’ transition into practice.

The data obtained will enable further refinement of our assessment strategies.

Mid-APE assessment provides data for analyzing transitions in knowledge and skill acquisition over the 12 month program.

Future: Measure the impact of feedback on subsequent performance & examine the impact of informational sessions on student planning.