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Report of Use of the Prescribing Safety Assessment in MPharm Students and Preregistration Pharmacists 2016: Summary of Findings

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1 Background

The Prescribing Safety Assessment[1] was piloted in 2011/12 as a means of formatively assessing the prescribing abilities of final year medical students in response to concerns about prescribing competences in junior doctors. This was extended to all medical schools in 2014 with some using it summatively. From August 2016, passing the PSA will be necessary for successful completion of foundation medicine year 1. Those who do not pass the assessment in the final year of their medical degree are given the opportunity to resit the assessment during foundation year 1, with remedial support.
HEE is actively supporting the clinical development of pharmacists' roles in a range of settings including general practice, urgent care and emergency departments. Increasing clinical confidence at the point of registration further supports this; the GPhC has recently revised its registration examination to focus on clinical decision making and previous discussions in the Modernising Pharmacy Careers programme [3] debated whether pharmacists should be prescribers or at least have the underpinning knowledge required to prescribe at the point of registration. This project helps us to understand the current baseline knowledge of MPharm students and preregistration pharmacists in relation to knowledge of prescribing. Although we would not expect them to prescribe medicines, we do expect them to be developing their skills in proactively reviewing medicines which would be supported by the knowledge of prescribing safety tested in the Prescribing Safety Assessment.

To support this, the HEE Education Reform team facilitated undertook a small scale pilot in 2015 to:-

- Look at the acceptability and usability of the PSA in pharmacy students and trainees
- Consider the logistics and practicalities of administering the PSA for pharmacy students and trainees
- Provide an early insight into how students and trainees perform in the PSA

The results of this pilot showed :-

Both MPharm students and preregistration pharmacists performed well in the assessment . Preregistration pharmacists scored more highly (mean 86% compared with MPharm 73%). The domains in which pharmacy students and trainees fared best were calculations, providing information and adverse drug reactions. They performed least well in therapeutic drug monitoring and data interpretation. The numbers taking the assessment were notably small (43 MPharm and 46 prereg) and therefore it was impossible to determine whether these results demonstrated a positive skew towards the most capable or enthusiastic trainees that were self selecting. The assessment was well accepted by Universities, students and trainees.

As a result a decision was made to expand the pilot to a second phase – in this phase the PSA would be expanded to a further school of pharmacy and preregistration pharmacist intake plus it would be taken by full cohorts of students and trainees rather than a small self selecting subgroup.

2. Process

The four participating Universities were:-

- Bradford
- Keele
- Manchester
- Sunderland

Assessments were run between April 25th and May 19th on 4 dates; dates were agreed by the PSA team and Universities with the aim being to limit the numbers of dates used. As in 2015, the assessment was shortened to one hour as opposed to the normal 2 hour examination that medical students undertake. It did however still reflect the same domains that are assessed.

Each University invited current year 4 students and local preregistration pharmacists to take part. The list of student and trainee names to take the assessment was provided to the PSA team in advance who provided individual log in details for the assessment.
Students were able to provide feedback on their experience online immediately after the assessment and whilst still logged onto the PSA system. Universities were provided with a standard feedback form

3. Results

236 preregistration pharmacists and 397 MPharm students undertook the assessment. The breakdown by school is shown in Table 1.

Table 1: Breakdown of participants by School of Pharmacy

School of Pharmacy	No of preregistration pharmacists	No of MPharm students	Total
Bradford	67	23	90
Keele	46	75	121
Manchester	70	111	181
Sunderland	53	188	241
Total	**236**	**397**	**633**

3.1 Performance

MPharm students
The range of marks was 13-96%, mean 73%. This was similar to 2015 results where the mean score was 74% (range 43-98%).

The pass mark was 75%. The percentages of students passing by school were (in no particular order) 60,49, 43 and 39%.

There are 8 domains in the assessment. Overall students performed best in the calculations and providing information questions and least well in data interpretation . They performed much better in the TDM (Therapeutic drug monitoring) section this year compared with in 2015.

Preregistration pharmacists
Trainees were predominantly from a hospital background (209/236). The range of marks was 43-98%, mean 85.4%. This is similar to 2015 (mean 85.6%, range 71-93%).

The pass mark was 75%. The percentages of students passing by school (in no particular order) were

- Hospital (n=209) : 80, 85, 97 and 100
- Community (n=27): 100 and 96

Trainees performed best in the calculations, providing information, management and review stations and least well in data interpretation.

3.2 Feedback from students and trainees

Feedback was very positive in terms of preparation, layout and timing of the assessment. Some students felt they needed more time but this was balanced with those that felt there was adequate. This may reflect a lack of familiarity with resources particularly the electronic BNF. Some students were unfamiliar with hospital prescribing charts.

There were particular comments about questions relating to fluids and doxycycline prescribing. This feedback was considered and addressed within the relevant mark schemes; there was some similarity with medical trainees on these specific points. Some students and trainees would have liked access to mock tests throughout the year. There was a theme that preregistration pharmacists found it to be useful GPhC exam revision and would recommend it. MPharm students were also positive but a number commented that exam periods should be avoided.

3.3 Feedback from HEI Lead Co-ordinators

Feedback from University staff was very positive. Support from the PSA team was excellent in terms of pre assessment preparation, administration of the assessment on the day and post assessment provision of results.

Some Universities had minor IT challenges for example registering preregistration trainees with University logins. No issues had any impact on the successful running of the assessment.

One university reported very low MPharm attendance and 2 others noted disengagement from some MPharm students who subsequently left the assessment early. This is in contrast to the smaller self selecting group of students in the previous year who were more enthusiastic.

Organisers stated that scheduling the assessment so that it was co hosted alongside a preregistration pharmacist study day increased the number of preregistration pharmacists attending substantially. However it was also noted that one community pharmacist employer was unable to send trainees due to a clash of dates and therefore even earlier notice of assessment dates would be advantageous moving forward. Earlier access to past papers to support student preparation was also requested.

4. Discussion

The percentage of trainees passing was greater for preregistration pharmacists compared with MPharm students. There was also variability across MPharm programmes and this may reflect differences in either curricula or student body which was not considered as part of this project. Universities commented about the lack of engagement and enthusiasm in MPharm students compared with preregistration pharmacists and this may have impacted further upon the differential results. In contrast the preregistration pharmacists performed well in the

assessment and commented that the assessment supported them with revision for the GPhC registration examination. In addition they would recommend it to other preregistration pharmacists.

Students and preregistration pharmacist trainees performed best in the calculations and information provision domains of the assessment. This is not surprising given the emphasis on this in both MPharm and preregistration programmes. They performed least well in the data interpretation domain however as the PSA in this pilot is an abridged version, results may be impacted by individual test items and relatively small cohorts. Further testing with larger cohorts is required to be able to draw any firm conclusions about variation across domains and to inform future discussion about curriculum and assessment design for these trainees.

5. Next Steps

The nest steps will be to investigate whether there is any correlation between performance in the PSA in the preregistration year and GPhC registration assessment. If so, it may be that the PSA forms part of a wider base of assessments used at the 39 week preregistration appraisal to determine whether a trainee should be signed off as competent and entered for the regulatory registration examination. This would sit alongside the current HEE pilot of an ARCP [4] equivalent competence assessment pilot in a small cohort of preregistration pharmacists.

Based on the results and feedback to date, it is recommended that the PSA is offered and tested further in the preregistration pharmacist training year to determine whether it can support the 39 week appraisal. There is limited use in community pharmacy to date and it would be helpful to gain further experience and feedback with this sector of trainees. Feedback from Universities highlighted that the PSA results can be used to inform curriculum development, particularly the detailed feedback about performance in individual domains. With that in mind, the PSA should continue to be offered to MPharm programmes as a formative supplementary assessment. However in order to ensure value for money, Universities using the assessment should ensure a high level of student engagement to ensure the assessment is completed and marks reflect student ability.

6. References

1. http://www.bps.ac.uk/details/aboutPage/884559/Prescribing_Skills_Assessment_-_FAQs.html?cat=bps12cb1c1816e
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3. https://www.hee.nhs.uk/sites/default/files/documents/Pharmacist-Prescriber-Training-Report-for-MPC.pdf
4. http://www.rcgp.org.uk/training-exams/mrcgp-workplace-based-assessment-wpba/arcp-for-workplace-based-assessment.aspx

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