**A VIRTUAL PATIENT EDUCATIONAL PROGRAMME TO TEACH COUNSELLING TO CLINICAL PHARMACISTS – DEVELOPMENT AND PROOF OF CONCEPT**

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**Background:** Counselling can positively impact patient care, empower patients to adopt self-management of medicines and increase patient satisfaction[1]. It is important that pharmacists providing drug-specific counselling are suitably trained with knowledge and skills. A virtual patient (VP) tool on the topic of non-vitamin K oral anticoagulants (NOACs) to treat atrial fibrillation has been developed to teach pharmacists NOAC counselling. The VP may be used for continuing professional development.

**Aim:** To develop and show proof of concept of the VP educational tool.

**Methods:** A three-way cyclic development approach was adopted whereby the development team, a steering group, and *Bayer AG* as the client informed VP design, content and aesthetic. The steering group of pharmacists provided data for VP development, exploring the VP concept. Their brief was to advise on the case to ensure it was realistic, clinically accurate and appropriate for use. This included formal and informal evaluation; ethical approval was not required. Feedback areas consisted of a number of VP elements: technological feedback, text (clinical content and style), spoken text, pictures/visual effects, and case feedback. During development, feedback was deliberated by the involved parties to inform design.

**Results:** Positive feedback on the VP concerned the technology and the high-standard of animations. Negative elements concerned international VP use and differences in practice. Feedback suggested that the reviewers liked the VP concept but that delivery on different devices could be improved. Some data supported that the smartphone version was more usable than the computer version but one reviewer was opposed to using a mobile phone for learning. The VP was designed to be available on various devices, in keeping with the intention for the VP to be as accessible as possible.

The VP was reported to be ‘valuable’ and realistic with high-quality animations. The VP’s potential for training newly qualified pharmacists was highlighted. Suggested improvements included the option to print or save a PDF of personalised feedback. This was added as written feedback may allow confirmation of learning and can be used to document continuing professional development.

Increased user feedback was suggested by the reviewers with proposals of incorporating a pass/fail mark. The lack of this was an intentional design feature as there is not necessarily a ‘correct answer’ to the VP. It was hoped that this would empower participants to re-attempt the case and explore alternative pathways, as well as to promote reflection, in keeping with pedagogy rationales of problem-based learning and theories of reflective learning through practice[2].

**Conclusion:** The VP met the needs of the client and their application. Development was effective, in that a VP was created that is clinically accurate, realistic, and useful, from the steering group’s point of view, demonstrating proof of the VP concept. This will inform future VP development and encourage VP use in the pharmacy profession; a large-scale VP evaluation is underway.

**References**

1 Pereira D, Cavaco A. Exploring computer simulation to assess counseling skills amongst pharmacy undergraduates. *Indian J Pharm Educ Res* 2014;**48**:17–26. doi:10.5530/ijper.48.1.4

2 Bearman M, Cesnik B, Liddell M. Random comparison of ‘virtual patient’ models in the context of teaching clinical communication skills. *Med Educ* 2001;**35**:824–32. doi:10.1046/j.1365-2923.2001.00999.x