

The Imperial Virtual Patient Application

developed by Imperial College London

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The Virtual Patient Application (VPA) tool developed by the Faculty of Medicine, provides a user-friendly interface and the necessary tools to generate virtual patient cases and share them with partner organisations using common learning standards.



Virtual Patient Application



Virtual Patient Application – Exported view

A virtual patient is a set of data that describes an individual as a patient. A virtual patient case is divided into different sections: Medical history, Physical examination, Clinical history, Differential diagnosis, Investigations, Working diagnosis, Management plan, Follow-up and Case summary. The ability to add additional headings or substitute those not required is a

feature of the application. The application allows the introduction of quizzes at any point throughout the case.

The virtual patient cases support the delivery of traditional learning, introducing problem-based scenarios or substitute those not required is a linear or a branching approach.

EDUCATIONAL APPROACHES

Virtual patients can be used in different educational settings, for example:

- the virtual patient cases support the delivery of traditional learning introducing problem-based scenarios focused on hospital or general practice
- the virtual patients cases can be embedded in the delivery of clinical teaching. The learner may be acting independently, or under the guidance of a tutor or instructor, or in a collaborative setting with their peers
- the learner may use a scenario to explore personal/professional aspects of the patient-doctor relationship, addressing communication and ethical issues, thus promoting reflective thinking
- repositories of scenarios may collectively address broad issues of health care, which can be incorporated into clinical teaching settings as relevant.

TECHNICAL SPECIFICATIONS

Cases can be exported as HTML or SCORM shareable content objects, making them interoperable with different learning platforms, such as Blackboard and Moodle.

International partners will access the application in their own languages using simple development and deployment tools that make the virtual patients easily transferable.

The Virtual Patient Application runs on Windows XP.

INTERNATIONAL COLLABORATIONS

A large number of partners from all round the world, including **Portugal, Italy, Chile, Poland, Turkey, Taiwan, South Korea and Croatia** are currently collaborating or in the process of signing collaboration agreements. The collaboration involves the translations of the

tool, creating new shareable cases as well as exploring new ways of embedding virtual patient cases in their curriculum, looking for evidence of effectiveness in enhancing clinical reasoning skills at undergraduate level.



Imperial Virtual Patients Collaborators



Virtual Patients repository

A sharable online virtual patients repository has been setup in Moodle. This is the main point of contact for all partners, from which cases can be uploaded and accessed for local use.

DEVELOPING VIRTUAL PATIENT CASES IN THE SCHOOL OF MEDICINE

Currently some 120 paper-based cases are being reviewed and converted into virtual cases using this application. The 2008-9 curriculum already has some cases embedded as required activities, with the others being used as supporting materials for courses. Cases are being graded with three levels of difficulty (Easy, Medium and Hard).

CONCLUSIONS

The capability of a common standard conformant application across partners, which is available in their own language, provides an effective mechanism to author and share virtual patients that can be deployed on different virtual learning environments (VLEs). Partners have already identified a series of novel implementations for cases in their curriculum.

Cases they generate will provide our students access to some scenarios not typical in this country, thus increasing their appreciation of international health issues. This poster provides examples of the virtual patient application and the deployment of virtual patients on the VLE Moodle.