Developing Digital Educational Tools for Medical Students: An Interview with Dr. Stan Bardal on the UBC Formulary App

UBCMJ Staff

Dr. Stan Bardal, UBC MD Undergraduate Program Affiliated Senior Instructor and Pharmacogenetics researcher, described the development of a pharmacological Formulary App for UBC medical students and his thoughts on digital medicine in an interview.

The UBC Formulary App will contain information on 150 "Must See, Must Know" drug classes to guide student learning throughout the four-year medical curriculum. Expanding on UBC Undergraduate Medical Education Associate Dean Dr. DeWitt's idea of having a checklist for students to track required drug classes as they encounter them, Dr. Bardal has developed the App as an educational resource that "eventually will include anything you'd want to know about a drug," from mechanism of action to

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cost and coverage (S. Bardal, personal communication, October 10, 2013).

In response to the expectation that students "will be wandering around on the wards looking for some kind of drug guidance and tapping their phones," the Formulary App will serve as a portable pharmacology resource for UBC medical students during their studies and clinical encounters (S. Bardal, personal communication, October 10, 2013).

With a Teaching and Learning Enhancement Fund grant, Dr. Bardal has designed the App, and UBC VFMP 2016's Matthew Toom has developed the IT aspects, including the ability to input further information and update the Formulary. The App will be released for Android devices on January 14, and for Apple devices the same date if there are no delays.

Prior to undertaking the development of the Formulary App, Dr. Bardal had already been involved in initiatives to integrate digital educational components into the UBC medical curriculum. Virtual Patients, a decision-tree computer program, allows students to choose pharmacological therapeutic managements for patients' chronic conditions. "It gives students an idea of what happens when you make bad prescribing decisions before go[ing] on the wards" (S. Bardal, personal communication, October 10, 2013).

Beyond enhancing medical education, Dr. Bardal views digital medicine as "tremendously useful for both health care providers (HCPs) and patients." He suggests that the development of devices for patients to monitor their health—from blood glucose to cardiovascular distress indicators—will be increasingly digitally integrated with their HCPs' records. Digital medical devices can also empower and inform patients to more closely monitor and take better care of their own health. Moreover, the "harmonization of [electronic] health records" (EHRs) into a common digital platform accessible by various HCPs combined with the integration of PharmaNet, the provincial database for prescription drugs, would significantly improve future patient care (S. Bardal, personal communication, October 10, 2013).

Regarding the impact of device use on HCP-patient interactions, Dr. Bardal lightheartedly advised students and HCPs: "Don't forget to look at your patient! [….] It's not very confidence-inspiring for the patient if the diagnosis is coming off the iPhone, so don't forget there's a patient in the room, too. They're a lot more complicated than a device, so that's the tricky part!" (S. Bardal, personal communication, October 10, 2013).

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