

An Initiative to Ensure Profession Preparedness

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Introduction

In Australia, pharmacists have been traditionally involved with vaccine education, advocacy and distribution. An emerging role for pharmacists is the administration of vaccines. As the role of the pharmacist evolves in Australia it is imperative that undergraduate curricula evolve simultaneously to ensure graduate preparedness.

Description

The Pharmacy Board of Australia and the Australian Pharmacy Council have stated that administering vaccines is within an Australian pharmacist's scope of practice. Jurisdictional regulation is changing enabling pharmacist administered vaccinations. It is both timely and essential that a specifically tailored national undergraduate pharmacy vaccination training program and competency is developed and validated, with reference to existing national and international programs, feedback provided by other health disciplines and guidelines that have been published for the profession.

Evaluation

An undergraduate training program needs to be designed after extensive perusal of all current Australian and international immunisation/vaccination/injection training programs for health professions. Additionally the delivery of the training program itself needs to be evaluated by academic staff, other than the developer, and by students.

Future Plans/Work/ Implementation

The Australian undergraduate pharmacists' program for injections skills training and vaccination training which have been developed and validated by established pharmacist vaccinators and academics nationally and internationally may be adopted by pharmacy schools in Australia and overseas. It is intended that the developed and validated training program will be delivered to pharmacy students in 2015 academic year.

Change in Jurisdictional Regulation to Allow Pharmacy Administered Vaccination (PAV)

In Australia, pharmacists have been traditionally involved with vaccine education, advocacy and distribution within governmental departments, research institutions, hospital pharmacy and community pharmacy settings. An emerging role for pharmacists is the administration of vaccines [1]. In December 2013 a case for pharmacist administered vaccinations was published [2] and the Pharmacy Board of Australia announced via a communiqué that vaccination is within the current scope of practice for pharmacists in Australia [3].

In January 2014 the Queensland Pharmaceutical Society of Australia and the Pharmacy Guild of Australia announced the launch of the Queensland Pharmacist Immunisation Pilot (QPIP) [4]. The Queensland Department of Health changed legislation, enabling pharmacists enrolled in QPIP, practicing in approved premises to administer vaccinations after completion of a training program. The

QPIP is adopted from the Canadian post-graduate immunisation training program, *Administering Injections and Immunisations Preparation Course*, produced by the Alberta Pharmacists Association [5].

The full evaluation of the pilot is in progress but with more than 11,000 individuals administered an influenza vaccine under QPIP, it can be assumed the pilot has contributed to better health outcomes for the Queensland community [6]. The QPIP has also been associated with reducing cost to government as consultation with a pharmacist, as compared with a general practitioner consultation, is not subsidized through the Medicare Benefit Scheme but rather paid by the consumer. To date, the QPIP scope has been broadened to administer measles and pertussis vaccines, in addition to the only initial Queensland Department of Health authorised vaccine, influenza [7].

In May 2014, Northern Territory (NT) jurisdictional regulation was amended enabling pharmacists to administer influenza and measles vaccines after completion of an approved training program [8]. To date, an appropriate training program is yet to be approved by the NT Department of Health. Approval and delivery of a pharmacist training program will provide the foundation for this public health service to be rolled out in the Northern Territory. It is anticipated that a training program will be approved in the near future allowing PAVs to commence in the Northern Territory.

Stakeholders Call for Integration of Vaccination Training in Undergraduate Australian Pharmacy Curricula

Despite the broadening of international evidence-based literature, other health professional bodies such as the Australian Medical Association (AMA) and the Australian Practice Nurses Association (APNA) continue to voice their opposition to the introduction of PAVs. The AMA stated in 2013 they will not support legislation changes to allow pharmacist administered vaccinations, unless training becomes integrated at the university curriculum level as a core pharmacist competency. Current statements indicate that the AMA will not support adjunct or post graduate vaccination training for pharmacists [9]. Australian academics teaching into pharmacy programs are also in support of embedding PAV training into Australian pharmacy undergraduate curricula.

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American Undergraduate Vaccination Training Program for Pharmacy Students

Pharmacists have been administering vaccinations in America since 1994 [10]. An increasing number of American pharmacy schools have incorporated vaccination training as part of their curricular requirements [11]. By 2009, 38% of colleges and pharmacy schools had incorporated immunisation education and training as part of their core curricula [12]. Statements and viewpoints, published in the *American Journal of Pharmaceutical Education* since 2009, have called for all pharmacy schools to mandate immunisation education and for universal adoption of an approved and validated undergraduate vaccination training program [12,13]. Such an initiative would ensure all pharmacy graduates have a baseline knowledge and minimal competency in vaccination information and administration upon graduation. Romanelli and Freeman [13] state that an increase in pharmacy student numbers with baseline immunisation administration knowledge will improve immunisation uptake and assist the US health care system to achieve quality health indicators as targeted in Healthy People 2020 initiatives. Turner [14] states there is value in integrating vaccination training for pharmacy students early in the curriculum. The study by Turner [14] identified that introducing the skill of injection in second and third year levels, improved students maturity as they were able to recognize from early in the degree they could play an active role in disease mitigation. The study identified demonstration of competency in the skill of injection was comparable between second year students and third year students taught the same material. The USA experience and literature suggest that, as pharmacists commence administering vaccines in Australia, vaccination uptake may improve and contribute to the reduction of vaccine preventable diseases, particularly in pandemic events [15].

Domestic Undergraduate Vaccination Training Program for Pharmacy Students

In 2010, Charles Sturt University (CSU) integrated vaccination training into in a fourth year undergraduate pharmacy practice unit [16]. The student training program was developed to reflect most components included in the "American Pharmacy-Based Immunization Delivery: A National Certificate Program". The program is identical to that delivered by the Pharmacy Guild of Australia to fully registered practicing pharmacists. Additionally, the module is conducted as a two day seminar followed by competency at the end of fourth year, but relies heavily on assumed knowledge of matters such as immunology and maintenance of cold chains, from material taught elsewhere in the course or self-directed readings. It is not therefore an identifiable module in its entirety but rather a workshop- or seminar-like sessions concluded by a competency assessment, accordingly it is neither validated nor evaluated. In 2013, Griffith University have also integrated a vaccination module into two units in the final year of the Masters of Pharmacy [17]. The Australian Pharmacy Council, responsible for accrediting pharmacy schools and programs has voiced approval to integrate injection and vaccination skills into undergraduate curricula in response to the peak professional bodies calling for the inclusion of vaccination assessed competency. The developed injection skills and vaccination training program is introduced in a series of seven modules implemented through out the course (incorporated into first, third and fourth year). Students theoretical and practical knowledge will be assessed at end of each module and at end of each of the unit the modules are embedded in. This is was designed to ensure knowledge

and skill retention.

Conclusion

In recognition of changing jurisdictional regulations in Australian to allow PAVs, there is value in adequately up skilling pharmacy students to deliver such a patient care service. Such competence will be achieved through the successful completion of an approved national undergraduate pharmacy vaccination training program. Australian researchers have developed and are currently validating a pharmacist administered vaccination program which can be nationally adopted to provide an appropriate integrated learning experience throughout the pharmacy degree years. Such an initiative will contribute to preparedness of the pharmacy profession as jurisdictional regulations are amended to allow pharmacist administered vaccinations in Australia.

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