

## Non-medical prescribing - implications for physiotherapy education in Australia and New Zealand

As the profession in Australia moves iteratively and carefully towards physiotherapist prescribing of medicines, it is timely to consider the implications of this development on entry-level and postgraduate physiotherapy education in Australia and New Zealand. Although the likely model for Australian physiotherapy prescribing has not yet been decided, a number of educational factors are clear regardless of the model. These are outlined herein.

The Australian Health Professionals Prescribing Pathway (HPPP) (Health Workforce Australia, 2013) project report "sets out five important steps to safe and competent prescribing by health professionals". The first step is the completion by the health professional of education and training that is congruent with the profession's scope of practice and with the individual practitioner's level of competency. A number of facts are known and are based on the safety and quality requirements of the HPPP, the education precedents in other professions where non-medical prescribing has been included (e.g., nurse practitioners and optometrists), and existing curriculum content for preparation of health professional prescribers. Prescribing courses are required to adhere to the national prescribing competency framework, to be accessible, flexible and assessable, and include clinically supervised practice.<sup>2</sup> Moreover, prescribing competencies once developed need to be maintained and enhanced. As noted in the HPPP, it is imperative that education providers are included in the development of physiotherapists' quality use of medicines as part of the profession's scope of practice.

Regardless of the physiotherapy prescribing model that may be enacted in the future, content of non-medical prescribing papers will require the theoretical knowledge and practice components that align with the seven competency domains detailed in the National Prescribing Service (NPS) Better Choices Better Health document (National Prescribing Service Limited, 2012). The NPS knowledge, skills and behaviours competencies are specifically designed to ensure the quality use of medicines by all prescribers. Whilst mapping of Australian physiotherapy curricula (Cardiff, 2016, personal communication) has found that a number of these competencies are already addressed in Australian physiotherapy programmes (thus by equivalence, in New Zealand programmes) three components specific to prescribing are deficient, that is, pharmacology (pharmacokinetics, pharmacodynamics and pharmacogenomics), evidence and quality use of medicines, and specific medicines and prescribing content. That is, the theoretical content and the practice-based content.

For physiotherapy programmes to satisfactorily accommodate content that aligns with the NPS framework, at least two university-level papers (each of the equivalent of 10 hours per week of content, study and assessment) would need to be undertaken by physiotherapists who will prescribe. That is, the equivalent of 50% of a full-time study load for one semester at an accredited higher education institution. Up to 150 hours

of embedded supervised practice is likely to be required during clinical placements.

Clinically supervised practice will likely be one of the greatest hurdles for implementing the HPPP in physiotherapy. Lum, Mitchell and Coombes (2013) describe the twelve core competencies for safe prescribing as part of the four stages of prescribing (information gathering, clinical decision making, communication, and monitoring and review), and enunciate the underpinning elements. Presently, it is understood that development of many if not all of the competencies described by Lum and colleagues can be achieved effectively using simulations, and then observed and assessed in clinical placements. The supervisory burden will be undertaken in existing clinical placement settings. For example, clinical educators could be tasked with asking for, and assessing the responses of students to foundational questions integrated into the existing physiotherapy assessment and treatment scenario, including:

- What medicines is the patient on? (as is already done)
- What kind of potential interactions would such medications have?
- How would you (the student) integrate your knowledge of the patient's medications into your physiotherapy plans?
- What would be your (the student's) possible plans for medicines?

The physical act of writing a prescription could be practised and assessed as a technical process pre-clinically, and subsequently audited in the clinical placement setting in the same way that patient records and referral letters are currently reviewed. The higher level supervision of decision-making regarding possible medicines for prescription could be discussed with and notionally approved in a clinical setting where medical staff are available, or where there is a suitably endorsed physiotherapist.

The communication competency already considered a part of physiotherapy could be expanded to include communication with colleagues about de-/prescribing in the context of the prescribing competencies, requiring the integration of prescribing competencies into usual physiotherapy practice. It is expected that the identification of such competencies in university curricula will be a part of a toolkit being developed in Australia.

In addition to the matters outlined above, is the critical requirement by Australian government health departments for non-medical prescribing to be cost-effective and of benefit to the whole community. This aspect is likely also to be of particular interest to the Physiotherapy Board of New Zealand. Although the ultimate delivery model has not yet been finalised, physiotherapist prescribing is unlikely to become a reality if a number of matters such as safety, regulation and the value to the community cannot be established and subsequently

enacted. Without diminishing the importance of safety and regulation, value to the community is just as important because the costs involved in establishing physiotherapist prescribing would not be efficient or effective if the uptake of prescribing were to be restricted only to a small percentage of physiotherapists as has occurred thus far in the United Kingdom. If Australia were to follow the prescribing model adopted in the UK the most likely model of education would be at the postgraduate level. Given that postgraduate education currently languishes in Australia due to factors such as cost and accessibility, uptake of postgraduate prescribing studies is projected to be relatively low as has been witnessed where trials of physiotherapist prescribing are occurring (e.g., in Queensland's Department of Health). Access, flexibility and supervised practice elements of prescribing courses are likely to be constrained as universities would not see the financial benefits of offering such courses to low numbers of potential students. The result would be mutually conflicting and dependent conditions wherein the number of prescribers could not increase if access to courses were limited, and courses would not be offered if there was not sufficient demand. The final outcome would not satisfy the value-based care test.

The most likely scenario that would fit a value-based imperative scaffolded by safety, quality and regulatory requirements, is that of graduate physiotherapists being prepared for prescribing within scope at entry to practice (summarised in Figure 1). Such a scenario would incorporate (1) theoretical content regarding pharmacology early in an entry-level programme after the study of the basic and enabling sciences for physiotherapy and prescribing; (2) theoretical medicines and prescribing content would follow pharmacology content and precede clinical placements; and, (3) supervised prescribing practice would be integrated as part of physiotherapy clinical placements.

Medicines likely to be the focus of learning at entry-level would be those most likely to be used by the new graduate or early career physiotherapist such as simple analgesics, NSAIDs and bronchodilators. In Australia, different states have different legislative prescribing requirements of registered health practitioners which at the very least will require familiarisation by the physiotherapy learner, and at best may be a driver for harmonisation of such legislation. Finally, inclusion of additional content in entry-level programmes should not occur at the expense of existing physiotherapy content, and would likely require extension in the length of programmes (as has occurred in other professions in Australia such as optometry) thus creating its own obstacles to implementation.

Postgraduate education would be required and would emphasise the fifth step of the HPPP, the maintenance and enhancement of competence to prescribe. Postgraduate education would focus on medicines required for advanced and extended level physiotherapy practice (such as muscle relaxants and opioids) where required for the individual's scope of practice and for the care of more complex clients/patients. Furthermore, the education and upskilling of already registered physiotherapists who have not undertaken the entry-level education pathway and who wish to prescribe medicines would occur by offering access to existing entry-level courses preferably designed to allow access to some degree of on-line learning, and subsequently to the postgraduate education for those working at a more advanced level (Figure 1).

Additional work remains in order to establish the value-based case for physiotherapist prescribing as well as ensuring that all of the steps of the HPPP are in place in preparation for enacting physiotherapist prescribing. Some would argue that the most significant potential role for physiotherapist prescribers would

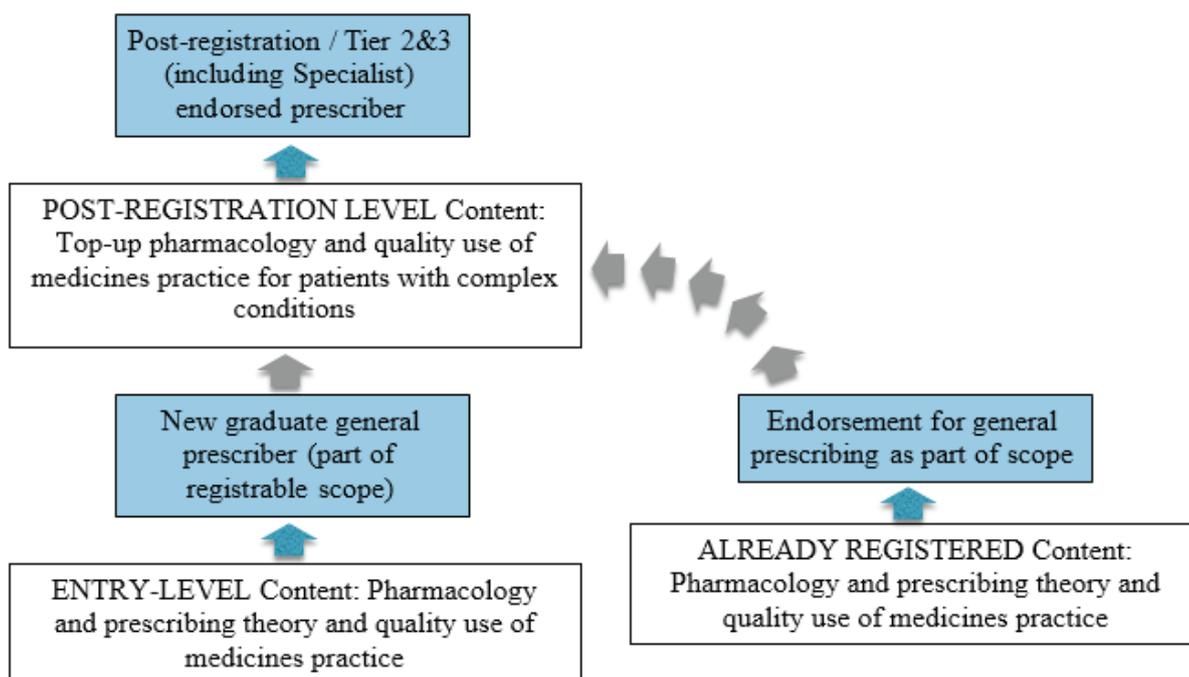


Figure 1: Proposed physiotherapy prescriber education pathway

be for de-prescribing especially in the context of an immobile and/or isolated, chronically-diseased ageing population where poly-pharmacy exists. This editorial does not intend to make a case either for or against such a role but makes the observation that prescribing literacy and competency is imperative for both prescribing and de-prescribing.

The inclusion of the higher education sector in planning curricula that meet the profession's needs as well as the broader healthcare and regulatory requirements is vital. As Australia moves towards physiotherapist prescribing, the profession does so with the knowledge that numerous other matters are being discussed and developed nationally such as a tool for assessment of health professional competence to prescribe, development of new accreditation standards for prescribing education, and a potential inter-professional approach to prescribing curricula. Each of these elements has implications either for Trans-Tasman agreements currently in place or for future use if non-medical prescribing becomes a part of New Zealand physiotherapy practice. Thus the close Trans-Tasman ties enjoyed by our profession will continue to remain relevant and important.

Associate Professor Liisa Laakso, BPhy, PhD, GCMgmt (QH)  
Menzies Health Institute Queensland, School of Allied Health  
Sciences, Griffith University.  
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#### ADDRESS FOR CORRESPONDENCE

Assoc Prof Liisa Laakso, Menzies Health Institute Queensland,  
School of Allied Health Sciences, Griffith University,  
Gold Coast, Australia, 4222. Telephone: +61 7 5552 9122.  
Email: l.laakso@griffith.edu.au

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