Nurse independent prescribing: opportunities and challenges

Abstract

The Nursing and Midwifery Council states that nurses should be able to demonstrate competence in prescribing practice at the point of registration, to be 'prescribing ready'. The aim is to increase and accelerate the number of qualified nurse independent prescribers resulting in improved access to pharmacological treatments for service users. However, while this presents opportunities there are also challenges of integrating prescribing readiness into nurse education and accessing suitable mentors in practice. This article details how prescribing readiness has been addressed in preregistration nurse education and explores the current supervision and scope of nurse prescribing within clinical practice. It also raises questions of whether these changes are sufficient to meet the needs of contemporary healthcare and how best to support professional development of nurse independent prescribers beyond initial training.

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Manuscript

When the Nursing and Midwifery Council (NMC) published its current UK standards of proficiency for registered nurses in 2018 (NMC 2018), there was much discussion concerning the expectation that at the point of registration newly qualified nurses would be 'prescribing ready' , a conceptual term coined within the nursing literature to describe this proficiency (Harrold (2018); Duncan and Johnstone (2018a); Duncan and Johnstone (2018b); Prydderch (2019)). This speculation centred on the definition of prescribing ready and what implications there would be for higher education institutions and practice-learning environments to support the readiness of nursing students. Duncan and Johnstone (2018a) emphasised that as part of being prescribing ready, undergraduate nursing students now had to demonstrate competence in service-user consultation, health assessment and diagnosis, in addition to the existing pharmacology, medicines optimisation and drug numeracy skills required. Similarly, Prydderch (2019) raised concerns about how higher

education institutions could integrate prescriber readiness into the existing undergraduate nursing curriculum, given the already congested university timetable.

The previous requirement for a nurse to complete three years post registration experience before commencing a stand-alone prescribing qualification was also reduced to one-year in the NMC standards for prescribing practice (NMC 2023a~~).~~ While this reduced timeframe could expediate patients' access to pharmacotherapies, Halpin et al (2017) warned that robust clinical supervision was required to support recently registered nurses who may already be challenged by the demands of autonomous practice. The NMC rationalised shortening the pre-prescribing training period by stating that a nurse's readiness to prescribe should be determined by whether they could demonstrate the necessary skills, knowledge and experience, rather than whether they fulfilled a preset amount of experience.

To become a prescriber in the UK a NMC registered nurse or midwife must undertake an approved prescribing programme. The NMC annotates a prescribing qualification as either V100, V150 or V300 depending on the academic programme completed. NMC annotation code V100 is for a community practitioner nurse/ midwife prescriber undertaking the qualification as part of a district nurse or specialist community programme. V150 is a stand-alone programme for community nurses and the V300 annotation is a stand-alone programme to become a nurse or midwife independent prescriber. A V100/V150 programme can be accessed at any point but applicants for V300 programmes must be 1-year minimum post NMC registration. Prescribing programmes for V300 nurse independent prescribers must provide 78 hours of taught study with 90 hours learning in practice. Prescribing students must successfully achieve a numeracy assessment with 100% pass grade; pharmacology exam minimum 80% pass grade and complete a portfolio of evidence at master' level study (NMC 2023b). V300 nurse independent prescribers also become a supplementary prescriber as part of their programme of study.

In an overview of nurse prescribing in the UK, Courtenay (2018) welcomed the NMC's proposals to fast-track prescribing training but warned that despite up to 50% of nurse prescribing trainees being educated to master's level, as well as working as clinical specialists with a minimum three years' post-qualification experience, many still found the prescribing programme in place at that time challenging. Courtenay (2018) emphasised that it would be important for any nurse undertaking an accelerated prescribing qualification to have the necessary experience to ensure safe and autonomous prescribing. Another potential obstacle to fast-track prescribing training identified for both undergraduate nursing students and post-registration prescribing trainees was

the limited number of experienced nurse independent prescribers within the clinical setting available to support practice based learning and act as positive role models (Bowskill et al 2014). Similarly, fast-track prescribing training could result in increased numbers of prescribing applications from nurses with any experience of autonomous clinical practice. Stewart et al (2017) emphasised that a period of experience can enable nursing students to develop their interpersonal skills by interacting with patients, while developing therapeutic relationships may result in more informed and appropriate prescribing. Therefore, fast-track prescribing training could result in increased numbers of applicants finding what is an already challenging prescribing programme a 'step too soon', thereby negatively affecting their confidence, increasing non-completion rates and also wasting finite teaching resources.

Despite these initial reservations, progression has been made in the last six years towards integrating 'prescribing readiness' into the undergraduate curriculum, albeit with both challenges and opportunities emerging. This article explores how the NMC preregistration standards (NMC 2018) have been addressed within higher education institutes preregistration nursing and the practice learning environment. The author also examines the current landscape of nurse independent prescribing.

Non-medical and nurse independent prescribing – historic context

The UK is considered to have one of the most liberal independent prescribing rights legislations for healthcare professionals (Maier 2019). Discussions on extending prescribing rights beyond medical and dental practitioners to 'non-medical' healthcare professionals were initially raised in 1978 with the proposal that community nurses could practise more efficiently if they had authority to independently prescribe wound care products. Subsequently, statutory legislation led to the introduction of a limited nurse formulary for community practitioners, which gradually became an extended nurse formulary for nurses and midwives beyond those only practicing in the community (Gould and Bain 2022)

Since that initial inception of nurse prescribing, significant advances have been made with current legislation extending prescribing rights to nurse, midwife and some allied health professionals with minimal restrictions on their prescribing authority in relation to some controlled substances (Graham-Clarke et al 2019). Current V300 nurse independent prescribers have the authority to prescribe any medicines from the British National Formulary (BNF), including most controlled drugs, within their own level of professional competence, and have autonomy for clinical decision making for a whole patient care episode including assessment and diagnosis (British National Formulary 2024). V300 nurse independent prescribers are responsible and legally accountable for their

prescribing decisions and must act within their own scope of practice and within the relevant legislation of their professional registration (NMC 2023a).

Table 1 shows the independent and supplementary prescribing authority of the various non-medical prescribers.

Table 1. Independent and supplementary prescribing authority of the various non-medical prescribers

Professional registration	Prescribing qualification	Prescribing authority
» Registered nurse » Registered midwife » Pharmacist	» Independent prescriber and » Supplementary prescriber	» Prescribe any medicine for any medical condition* » Prescribe unlicenced medicines » Prescribe, administer and direct administration of Schedule 2, 3, 4 and 5 controlled drugs†
» Physiotherapist » Paramedic » Podiatrist	» Independent prescriber and » Supplementary prescriber	» Prescribe any medicine for any medical condition* » Prescribe 'off-label' medicines » Restricted list of controlled drugs
» Optometrist	» Independent prescriber	» Prescribe any licenced medicine for ocular conditions affecting the eye or tissues surrounding the eye ‡
» Dietician	» Supplementary prescriber	» Any medicine as part of a clinical management plan that details which medicines the supplementary prescriber can prescribe and under which circumstances

*Within recognised area of expertise and competence † With the exception of those controlled drugs used for treating addiction ‡ With the exception of controlled drugs or medicines for parenteral administration

(Adapted from British National Formulary 2004)

Initially, some medics and patient groups expressed reservations about the safety of nurse prescribing (Latter et al 2012). However, evidence has since demonstrated that non-medical prescribing has improved patients' clinical outcomes without adversely affecting their safety (Weeks et al 2016). It is also cost effective (Noblet et al 2018), provides improved access and greater flexibility to appointments, thereby increasing continuity of care (Cope et al 2016) and means that the patient can receive a complete package of care from a single healthcare professional (Graham-Clarke et al 2019).

Preregistration education

The NMC requires nurse educators in higher education institutions, together with practice educators, to provide nursing students with field-specific pharmacology, medicines optimisation and health assessment content as part of the preregistration nursing curriculum (NMC 2018). This aligns with the NMC's prescribing standards, where applicants must evidence that they are capable of safe and effective practice in health assessment, diagnostics and care management, and planning and evaluating care (NMC 2023a).

Health assessment, diagnosis and management

To be deemed prescribing ready, nurses must be competent to conduct a holistic health assessment and develop appropriate patient management plans at the point of registration. The NMC (2018) stipulates that nurses need to demonstrate an applied understanding of the physiology of whole-body systems including the respiratory, cardiovascular, circulatory, neurological, skin and musculoskeletal systems. They also require diagnostic skills such as chest auscultation and interpretation, as well as an understanding of social and behavioural sciences.

Holistic assessment is a pre-requisite for any prescribing decision and a nurse independent prescriber assumes the responsibility for undertaking a consultation with patients who have **a** diagnosed or an undiagnosed condition (British National Formulary 2024).

While the nurse's knowledge of physiology is imperative for any health assessment, for it to be fully holistic the nurse must engage in a process of shared decision-making with the patient. This involves the nurse establishing the patient's treatment preferences and supporting their decisions by explaining the options in a language or form they understand (Elwyn et al 2017). A prescribing consultation is a complex process, and determining the optimal treatment depends on the nurse accurately recording and interpreting the patient's medical and drug history, as well as ascertaining their expectations of management such as curative, maintenance of long-term conditions or indeed palliative of life limiting conditions. A person-centred approach during a prescribing consultation enables an understanding of how the patient perceives their condition and how relevant potential management options may be in relation to the impact of the illness on their daily life (Davis et al. 2013). Exploring the contextual and cultural impact of patient's beliefs on their behaviours will influence the choice of treatment and increase the chances of concordance (Mitchell and Pearce, 2021). A holistic assessment conducted with mutual respect and understanding is more likely to result in a shared prescribing decision which is acceptable to both parties.

Pharmacology education

The preregistration nursing curriculum, which is field specific and focused on a particular patient group (adult, children, learning disability and mental health) should prepare nursing students to apply their knowledge of pharmacology in clinical practice. Pharmacology encompasses a knowledge of individual medicines but also an understanding of pharmacodynamics and pharmacokinetics. Pharmacodynamics explore how a drug exerts an affect through interaction with physiological functions to block, decrease or enhance existing bodily processes and regulation.

Pharmacokinetics focus on how the body processes drugs in relation to their absorption, distribution, metabolism and excretion. Understanding of these processes helps the nurse to determine the drug dosage, frequency and route of administration (Peate and Hill 2021).

Within the preregistration curriculum, pharmacology content is taught within biosciences as a means of reducing medication errors. However, nursing students have reported that pharmacology concepts can be challenging to understand, and they can feel overwhelmed by both the content and depth of knowledge required (Khan and Hood 2018). Reynolds et al (2022) reported that nursing students often do not see a link between the bioscience taught in their courses and their clinical role, with this disconnect impeding student satisfaction and interest in the subject. This is supported by Afseth and Paterson (2017), who noted that prescribing students found pharmacology to be an area of weakness and required support to contextualise generic pharmacological principles both in the workplace and within academic theoretical sessions. Similarly, McIntosh et al (2016) explored the views of qualified non-medical prescribers and found that inadequate pharmacology knowledge was an area that limited their prescribing confidence and restricted their prescribing decisions to familiar medicines.

To counter this, Walls (2019) proposed embedding applied pharmacology into preregistration education using technology-enhanced learning such as online modules with multimedia animation, case-study vignettes and automatic response quizzes. In addition to this online learning, Walls suggested that knowledge and understanding could be reinforced with face-to-face sessions, with group discussion promoting active learning. This approach has the additional advantage of supporting nurses' technological skills, which are increasingly required for remote consultations and prescribing. Gill et al (2019) supported this approach in their systematic review of strategies for teaching pharmacology to nursing students, which found that technology enhanced online learning, and that simulation using authentic scenarios and integrated approaches to education were most beneficial for knowledge retention and student satisfaction. Gill et al (2019) also found that traditional lectures, 'flipped' classroom approaches whereby pre-learning material was distributed and followed by group discussion and problem-based activities were the least popular or effective strategies for student learning.

Given the effectiveness and approval of digital learning strategies, the rapid introduction of fully online and technology-enhanced learning strategies may have advantages for undergraduate education in respect of nursing students' prescribing readiness.

Practice learning environment

Nursing is a practice-based profession. Therefore, the theory underpinning prescribing which is taught in higher education institutions should be consolidated through applied learning within the clinical environment. McLellan et al (2012) described the skill of prescribing as a 'socially situated concept', where learners experience uncertainty within the clinical environment and must adapt to various contextual factors, expectations and competing priorities**.** Situations such as requests for an antibiotic prescription which contravenes antimicrobial stewardship, but refusal may impact on patient/prescriber relationship. Additionally, time pressures may result in rushed consultations and the uncertainty of how to deal with these situations builds the prescribers experiential knowledge and in turn supports them to develop future coping strategies**.**

Jack et al (2017) discussed the dual role of nursing students as both a 'learner' within the university and a 'worker' in the healthcare setting, which can cause challenges when trying to assimilate theoretical and situated learning into one coherent experience. This emphasises the importance for nursing students of having experienced supervisors in both education and practice settings to support learning. However, Gould and Bain (2022) pointed out that some nurse educationalist are now required to ensure nursing students achieve a level of competence in prescribing which many educationalists themselves do not possess. This emphasises the challenge of having a limited number of nurse prescribers in higher education institutes and practice to support the development of nursing students and offer authentic learning opportunities.

Current landscape of nurse independent prescribing

Workforce development such as Scottish government (20217) transforming roles agenda on nurse professional and career development (Scot Government 2017) has led to a growth of nurse independent prescribers in specialist and advanced roles within primary care and acute services (MacVicar and Paterson 2023). Despite this, nurse independent prescribers are estimated to comprise only around 13% of the nursing workforce. While there is a defined role and concentration of prescribers in certain specialities, such as neonatology due to their long standing and well-developed advanced practitioner role, there are very few within some other clinical areas or fields of practice (Hyde et al 2020). Midwifery is particularly poorly represented (Fontein-Kuipers et al 2019), while mental health prescribers are mainly located within community mental health teams and drug and alcohol treatment services (Fernandez 2023). This has obvious implications for ensuring that nursing students are prescribing ready across all fields of nursing and midwifery.

Meeting the challenge

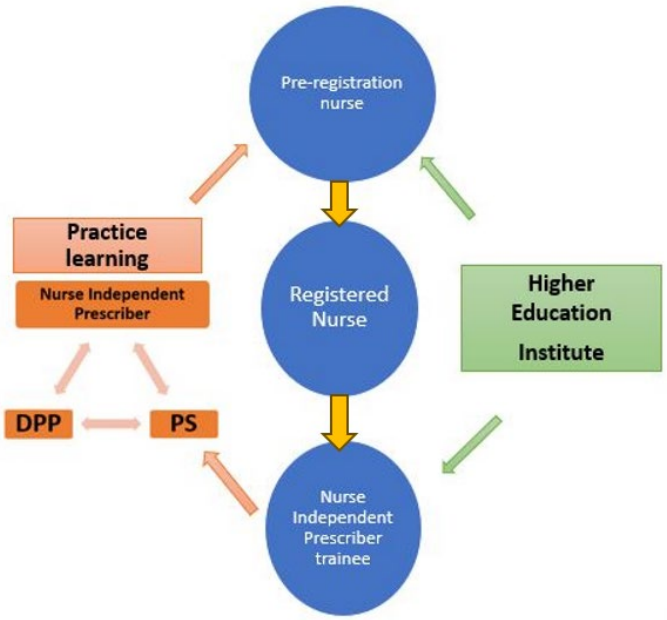
It is imperative that there are sufficient qualified nurse prescribers to act as role models and mentors to adequately prepare nursing students to be prescribing ready. A positive learning experience is crucial for nursing students if they are to successfully complete their university programme. One approach to ensuring that nursing students are able to effectively integrate the knowledge, skills and attitudes required for practice is through role modelling, such as spending time shadowing experienced nurse independent prescribers (Jack et al 2017). The Royal College of Nursing (RCN) recommends that undergraduate students should be supported to achieve prescribing-ready status by practice supervisors who themselves are adequately experienced and who also have contemporaneous prescribing knowledge and can therefore ensure that prescribing decisions are safe and clinically appropriate (RCN 2018).

It was recognised that increasing the critical mass of nurse prescribers in a timely manner would involve more than simply preparing undergraduate nursing students to be prescribing ready. Therefore, as well as the fast-track prescriber training discussed above an initiative was introduced to enable existing experienced nurse independent prescribers to assume the role of a 'designated prescribing practitioner' (DPP) (RPS 2019). This increased the number of mentors within clinical practice who could support and assess nurse independent prescriber trainees to complete their prescribing course. The designated prescribing practitioner role replaced the previous designated medical practitioner mentor, which was the preserve of medics or dentists. The advent of the DPP role has therefore opened the way for experienced non-medical independent prescribers to assume this mentoring responsibility, which enables nurses, midwives and allied health professional to act as the DPP.

The NMC also adopted the Royal Pharmaceutical Society (RPS) (2021) competency framework for prescribers as a means of assessing trainee independent prescribers. This generic framework sets out 'the demonstrable knowledge, skills, characteristics, qualities and behaviours for a safe and effective prescribing role. Its implementation and maintenance are important in informing and improving practice, development, standard of care and safety (for both the prescriber and patient)' (RPS 2021). The framework also acts as a self-assessment tool for qualified nurse independent prescribers to determine whether they have the competence and experience to supervise prescribing students in practice as either the designated prescribing practitioner or practice supervisor. The framework can provide a 'scaffold' around nurse independent prescribing education to enable the nursing profession to evidence their suitability to supervise the next generation of nurse prescribers.

Figure 1demonstrates the nurse independent prescriber journey and the relationship between the HEI and the practice learning environment in supporting their development

Figure 1. **Nurse independent prescriber journey**



Key: DPP: designated prescribing practitioner. PS: practice supervisor

In the author's opinion, preparing undergraduate nurses to be confident and skilled in prescribing practice at the point of registration was a forward-thinking step by the NMC. Including pharmacology and health assessment in undergraduate nurse education should increase the numbers of registered nurse prescribers available to deliver holistic nursing care. Whether this in turn leads to increased numbers of independent prescribers, however, remains to be seen. Likewise, reducing the length of experience required by nurses before they undertake a prescribing qualification, and enabling nurse independent prescribers to assume the designated prescribing practitioner role are both initiatives that will require further research to evaluate their effect on patient outcomes, service delivery and professional development.

Conclusion

For nurses, being prescribing ready entails more than an understanding of pharmacology and prescribing practice – independent nurse prescribers also have to make difficult choices, for

example around appropriate dosages and routes of administration, or whether to recommend alternative medicines. They also must assess whether a drug will interact with the patient's existing medicines and consider a patient's comorbidities or genetic profile. It is therefore imperative that new nurse prescribers feel prepared for this responsibility and meet the NMC's expected standards of competence. The challenge for nurses and nursing students is to show that they have the necessary skills, knowledge and experience required to demonstrate that they are prescribing ready.

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