Policy Document

Clinical Scope of Practice (2022)

Position Statement

AMSA believes that:

1. Division of clinical responsibilities, duties and care between the health professions serve the fundamental role of creating a multi-layered, multi-dimensional healthcare model needed to safely treat the modern patient.
2. The clinical scope of practice of Australia's healthcare practitioners should be in accordance with evidence-based standards of care;
3. The training and education of Australia's healthcare practitioners should be nationally monitored by professional licencing bodies and be both evidence-based and centred around the unique needs of the Australian community;
4. Expanding scope of practice should be evidence-based, and encourage greater interprofessional collaboration, with GPs continuing to be at the centre of coordinating care.
5. Autonomous clinical practice by non-medical practitioners may endanger the comprehensive diagnostic and treatment services provided by medical practitioners in Australia's healthcare system, thus jeopardising the provision of quality patient care;
6. Changes to clinical scope of practice must serve to optimise Australia's healthcare system and should occur in consultation with stakeholders involved with monitoring and contributing to the health workforce;
7. Modifications to clinical scope of practice must not be for the purpose of increasing the prestige or profitability of particular healthcare practitioners;
8. Introducing non-medical practitioner training pathways that require clinical experience may strain the resources used to support medical student placements, and any additions must not increase strain on clinicians and reduce the quality of placements for medical students.

Policy Points

AMSA calls upon:

1. The Australian Federal, State, and Territory Governments to:
    a. Responsibly regulate and accredit all scope of practice for non-medical practitioners where evidence lends itself to upholding provision of high quality care and safety for patients;
    b. Ensure that public health benefits, such as the Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS), reflect the current evidence as to appropriate scope of practice for healthcare practitioners including, but not limited to:
        i. Nurse practitioners;

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ii. Physician assistants;
iii. Midwifery prescribers

c. Monitor and engage in medical workforce modelling, and prudently determine the need for increased scope of practice for non-medical practitioners;
d. Engage in consultation with professional representative bodies to review and monitor practice standards and assess it regularly against the healthcare needs of the Australian public;
e. Clearly and nationally establish the scope of practice of non-medical practitioners under the MBS and PBS, and rectify state to state discrepancies in provider ability;
f. Create national standards regarding non-medical practitioner prescribing in line with evidence-based best practice;
g. Fund research that examines the differences in patient satisfaction and patient outcomes between medical and non-medical providers;
h. Ensure considerations for increased scope of practice for non-medical practitioners be accompanied with appropriate oversight and supervision from medical practitioners.
i. Ensure expanded scope of practice complies with standards defined by the Australian Commission on Safety and Quality in Healthcare.

2. Department of Health and Aged Care:
    a. Investigate the interplay between medical and non-medical practitioners and how this impacts the healthcare setting;
    b. Examine current workforce capacity and the impacts of the inclusion of non-medical practitioners with an advanced scope of practice in healthcare systems;
    c. Assess the ability of non-medical practitioners to meet current healthcare needs of the Australian public and address areas of workforce maldistribution.
3. Australian Health Practitioner Regulation Agency (AHPRA) to:
    a. Create national standards and regulations for new and emerging healthcare practitioners, including but not limited to physician assistants;
    b. Create corresponding boards for new and emerging healthcare professions that participate in the National Registration and Accreditation Scheme and serve their primary purpose of protecting the Australian public.
    c. Clearly define and outline the practice conditions and standards of extended scope of practices for health professions.
    d. Create well-defined training pathways for emerging non-medical practitioners that reflect their scope of practice.
4. Australian Universities to:
    a. Ensure adequate placement opportunities for non-medical practitioners during their studies that:

i. reflect the current standards and scope of practice of the profession;
ii. continue to ensure high quality placement opportunities for medical students to ensure they are adequately prepared for clinical practice;

b. Lead transparent research into patient outcomes from care provided by medical and non-medical practitioners, particularly in regions that the university has made a commitment to serving;
c. Deliver degrees that reflect the current standards and scope of practice of non-medical practitioners.

5. Local area governance of healthcare including, but not limited to, health services, local healthcare districts, and local health networks, to:
    a. Ensure the training of non-medical providers does not impede the training of medical students;
    b. Detail appropriate escalation pathways of care for non-medical practitioners and provide suitable guidelines for conditions of practice and supervisory requirements if applicable;
6. Healthcare employers, including but not limited to hospitals and general practices to:
    a. Ensure the training of non-medical providers and medical students in the same placement locations are of high-quality and encompasses fair allocation of resources;
    b. Provide sufficient supervision to trainees and fully qualified non-medical practitioners who engage in advanced practice;
    c. Employ non-medical practitioners with increased scope of practice not as a replacement for medical practitioners, but as an additional and complementary part of the medical teams that deliver health care;
7. All professional associations and regulatory bodies to:
    a. Consider the importance in division of responsibilities and the importance of such defined boundaries to patient safety and care;
    b. Encourage and promote further education of corresponding non-medical practitioners with an incremental increase in responsibilities appropriate to their level of credentials, education and training;
    c. Ensure the profession's training and professional guidelines are aligned with evidence-based best practice;
    d. Maintain and adhere to rigorous training standards when qualifying corresponding non-medical practitioners for advanced practice;
    e. Acknowledge the importance of medical practitioner supervision;
8. Australian College of Nurse Practitioners to:
    a. Continue to acknowledge that the training and expertise of medical practitioners remain important to the care of patients through practices such as collaborative care agreements;

b. Carefully negotiate scope of practice within the entire workforce in the context of patient need and, acknowledge the difference in medical training that medical practitioners receive and its fundamental importance in supporting quality care;

9. Pharmacy Guild of Australia to:
    a. In the absence of evidence, do not promote independent prescribing initiatives, and ensure that;
        i. Any advocacy for independent prescribing initiatives is in accordance with emerging evidence for improved patient outcomes, with;
        ii. Particular focus on Australia's unique healthcare needs and the views and perspectives of Aboriginal and Torres Strait Islander Peoples;
    b. Ensure that pharmacists offer and administer vaccinations in accordance with their degree of training and education;
    c. Allow all pharmacists, not just pharmacy owners, to have a voice in their involvement in independent prescribing;
10. Pharmaceutical Society of Australia to:
    a. Ensure that pharmacists offer and administer vaccinations in accordance with their degree of training and education;
    b. Be transparent about the training pharmacists receive for expanded scope of practice initiatives such as, but not limited to, the North Queensland Pharmacy Pilot Trial (NQPPT).
11. Australian Society of Physician Assistants to:
    a. Acknowledge that the integration of physician assistants in the Australian healthcare system should not be intended to replace the role of the medical practitioner, but rather supplement and extend the healthcare services of a medical practitioner.

Background

Definitions

Term	Definition (for types of practitioners this focuses on their scope of practice)
Clinical Scope of Practice	The Australian government defines scope of practice as "dependent on the practitioner operating within the bounds of their qualifications, education, training, current experience and competence, and within the capability of the facility or service in which they are working" [1]. In essence, scope of practice is dependent on a person's training and position within the healthcare system, and different "qualifications, education…" give individuals different scopes of practice, i.e. different tasks they can and cannot perform within the healthcare setting. Government documentation has been released which allows

	organisations to define the scope of practice of specific positions within themselves, including medical positions, but these are still bound by the regulations of health services and healthcare registration providers like AHPRA [2].
Non-Medical Practitioners	Within this policy non-medical practitioner is used to refer to all practitioners who are not doctors. This includes, but is not limited to, pharmacists, nurse practitioners, and physicians assistants
Nurse Practitioners	In Australia a nurse practitioner is "a Registered Nurse with the experience, expertise and authority to diagnose and treat people of all ages with a variety of acute or chronic health conditions" [3]. Their scope of practice is defined by their regulatory body, the Australian College of Nurse Practitioners, as the following: "Nurse practitioners possess the legal authority to practice both *independently* and *autonomously* at a level of practice that is beyond that of a registered nurse. It is within a nurse practitioner's ability to assess and diagnose health problems, order and interpret diagnostic investigations, formulate and assess response to treatment plans, prescribe medicines and refer to other health professionals within their individual areas of competence. Nurse practitioners may also admit and discharge consumers from health services, including hospital settings" [4].
Pharmacists	Pharmacists currently do not prescribe in Australia. [5] They can only recommend and provide non-prescription drugs, specifically schedule 2 and 3 - see Appendix 1 for more information on schedules. Pharmacy prescribing is a method of extending scope of practice which has been a matter of much recent debate. The Pharmacy Guild of Australia advocates strongly for it, including prescribing in their definition of pharmacist scope of practice. [6] Whether this is beneficial for Australians remains to be seen.
Physician Assistants	In Australia physician assistants are currently rare, and the literature defining their role is still in progress. In Queensland, a physician assistant's scope of practice is defined by their supervising doctor, who must submit and have this scope of practice approved by a Queensland government committee. Note that "The supervising medical practitioner retains overall responsibility for health care delivery; and at no time will the PA override or substitute for a medical practitioner" [7].
Extended care paramedics	In Australia, extended care paramedics scope of practice is determined by the state in which they live. In general however, their scope is expanded beyond that of a paramedic, encompassing additional diagnostic and screening responsibility, procedures, and access to pharmacological interventions. In order to complete this, they receive additional training. [8]
Midwives	Midwives have access to increased scope of practice, specifically in diagnosis and treatment, via additional post-graduate training. [9]

Advanced practice physiotherapists	Advanced practice physiotherapists work predominantly in hospital emergency departments. They can independently order imaging and non-invasive management for simple fractures and soft-tissue injuries. [10]

The Australian Medical Students' Association (AMSA) is the peak representative body of Australia's 17,000 medical students. The increasing complexity of Australia's healthcare model is changing the defined scopes of practice of all healthcare practitioners, causally affecting medical students both at present and in the future as medical practitioners. As technological advancements and new healthcare issues arise in Australia, it is imperative that the disciplinary responsibilities within the health workforce are reflective of the scope of training and education of each profession [11]. This is to ensure that patient safety is not compromised in an attempt to address healthcare shortages by employing practitioners with insufficient training [12].

Australia's general practitioner-led primary healthcare system recognises the extensive training of non-medical practitioners in specific fields of care through interprofessional collaborative practice [13]. Such collaboration with medical practitioners promotes the benefits of non-medical practitioner expertise and services to the quality and continuity of patient care [14]. Changes to the clinical scope of non-medical practitioners should be reflected in sustainable changes to accreditation and training standards. However, these changes should not subjugate the fundamental role of medical practitioners as diagnosticians, such as through changes to independent prescribing practices [14,15].

The Division of Scope of Practice in Australia

All healthcare practitioners are required to uphold professional licensing standards, which ensure competency and knowledgeability of practitioners and, by extension, quality patient care [16]. These licensing provisions distinguish the clinical scope of practice of all healthcare practitioners, with such provisions being seemingly restrictive to non-medical practitioners. For example, non-medical practitioners such as physician assistants, advanced practice registered nurses (APRNs), and optometrists have argued that these licensed restrictions generate unnecessary barriers to practice that block patient care and limit the efficacy of the healthcare system [17].

With increasing pressure on Australia's health workforce to deliver effective services for a breadth of chronic and complex diseases, non-medical practitioners with extended scopes of practice are increasingly being seen as a viable solution [18]. However, the urgency with which this initiative is being adopted has caused it to be developed in haste and conceptualised as an "on-the-run" approach [19]. However, current evidence suggests that opportunities for significant healthcare workforce innovation and reform, such as broadening scopes of practice, have not progressed in Australia [20].

Divisions in scope of practice are vital in the health workforce. Fundamentally, it preserves the quality of various facets in healthcare, such as training, communication, service provision, and clinical outcomes [19]. While ensuring quality patient care, these defined responsibilities also protect healthcare practitioners by delineating clinical tasks that such practitioners are sufficiently trained to complete [21].

Discussions to expand scope of practice of non-medical practitioners have stemmed from finding cost-effective solutions to health workforce shortages, given that medical practitioners are typically more expensive to employ [22]. However, attempts to introduce formalised training programs and licensure amendments for extended scope of practice have been difficult. In Australia, there are macro-, meso-, and micro-barriers that resist changes to scopes of practice, particularly in the country's general practitioner-led primary healthcare system [23].

Firstly, macro-barriers exist as the legal, regulatory, and economic regulations that are enforced by systems such as the MBS and PBS. These systems have limited access by non-medical practitioners in accessing rebates for certain services and subsidies for specific medications [24]. Additionally, having varying aspects of clinical practice regulated by different levels of government complexifies the determinants regulating scope of practice in Australia; for example, medication access is regulated by the federal government, while prescribing permissions are regulated at the state level - an issue particularly pertinent to the systemic induction of nurse practitioners [23].

Meso-barriers refer to institutional and community issues affecting the expansion of scope of practice. In part, attempts to expand scopes of practice rely on government funding, whether at the State or National level, and thereby are heavily restricted should such institutions be reluctant to commit funding; this is the current trend being seen in Australia [25]. This reluctancy is also observed among patients, with 86% of individuals in a formative survey indicating that they preferred having a medical practitioner as the primary practitioner for the diagnosis and management of their healthcare [26].

These trends are also observable in the micro-barriers, which relate to day-to-day practice of non-medical practitioners. Particularly for relatively niche practitioners within Australia's healthcare system, such as nurse practitioners, support for expanded scope of practice was lacklustre by numerous stakeholders, including other healthcare practitioners and patients [23]. At a practical level, this lack of awareness of disciplines and professional scope within the health workforce makes regulating divisions in scope of practice difficult, risking inappropriate re-delegation of tasks in multi-disciplinary teams [14,27].

Fundamentally, the divisions in scope of practice in Australia's healthcare system are enshrined in multi-system regulations to maximise skill distribution

among healthcare practitioners, thus ensuring quality patient care. While optimising healthcare systems should not be discouraged, particularly in terms of clinical scope of practice, changes need to ensure that sustainability, accountability, profession-wide credibility, and acceptability are addressed [25]. Currently, there is only a small amount of ongoing funding dedicated to alternative healthcare positions; therefore, these positions are not appropriately researched and evaluated prior to implementation, which jeopardises patient safety and is an unsustainable approach to addressing healthcare shortages [19].

Current Non-Medical Practitioners in Australia

Nurse Practitioners

Nurse practitioner (NP) work standards and guidelines are outlined by the Registered Nurse Standards for Practice, Nursing and Midwifery Board of Australia (NMBA) Code of Conduct for Nurses, NP standards for Practice and Safety and Quality Guidelines for NPs [29]. Generally, in their scope of practice, which is determined by their clinical specialty area, NPs can:

- Determine a formal diagnosis;
- Prescribe medications;
- Request and interpret diagnostic pathology;
- Request and interpret diagnostic imaging;
- Refer patients to medical specialists;
- Refer patients to allied health services; and
- Admit patients to healthcare facilities [29].

This scope of practice is highly variable depending on the individual NP's education and clinical experience. Additionally, NPs can choose to work with various degrees of freedom:

1. Autonomously in private practices.
2. In a clinic under supervision from a medical practitioner.
3. In a collaborative care agreement with a medical practitioner.

It should be noted that working autonomously in established private practices still often requires collaborative care agreements in order for the nurse practitioner to be able to provide many MBS and PBS services [29].

Consequently, the scope of practice for nurse practitioners is inherently vaguely defined to allow greater adaptability within a range of environments.

MBS and PBS subsidies are typically limited for many of these practices, depending on state legislation, and access to these requires that the NP have a collaborative agreement with a medical practitioner. However, there have been recommendations to lift this requirement with the intention of increasing primary care accessibility [26]. Additionally, no MBS subsidy is endowed for therapeutic and diagnostic practices, though there has been contention around this, with studies supporting an expansion of MBS services available to an NP -

particularly given that in the Australian context nurse practitioners are highly clinically experienced [29,30].

Physician Assistants

Like the nurse practitioner, physician assistants have a broad scope of practice that is defined by their clinical context. As of 2016, there were 40 Australian-trained physician assistants working in both public and private sectors [31]. In the private sector, not all worked as physician assistants [31]. Physician assistants receive generalist training and theoretically can work in any medical discipline [32]. In Queensland, where PAs were first piloted, they were mostly utilised to increase accessibility and support of chronic disease clinics, emergency departments and general practice and specialists [31]. Their broad scope of practice in Australia may include:

- Performing physical examinations;
- Ordering and interpreting tests and imaging;
- Determining a diagnosis;
- Ordering treatments;
- Formulating management plans;
- Reviewing patients;
- Assisting in surgery;
- Performing minor surgical procedures;
- Referring patients to specialists; and
- Prescribing medications (with restriction) [32,33].

With regards to medicine prescription, PAs do not have PBS Prescriber numbers, and therefore cannot write prescriptions for drugs that will not be directly provided to patients through a hospital imprest system or hospital pharmacy [33].

In practice, PAs do not possess the same level of autonomy as nurse practitioners. In Queensland, PAs required one of three levels of supervision, including:

1. **Direct Clinical Supervision:** The supervising medical practitioner retained some form of direct responsibility for the patient, including potentially being present and directing and observing the physician assistant during procedures [33].
2. **Indirect Clinical Supervision:** The supervising medical practitioner still retains accountability for patient outcomes, but the PA is primarily responsible for the care of each patient without the direct constant supervision of the medical practitioner. This potentially requires the medical practitioner and PA to work in the same facility [33].
3. **Remote Clinical Supervision:** The PA is granted more autonomy, and the medical practitioner can be readily contactable by means other than face-to-face contact. This means that PAs with this level of supervision can work in separate facilities to their medical supervisor [33].

Pharmacists

Pharmacists in Australia have a variety of roles. Regarding patient care, they may be involved in:

- Dispensing prescriptions which requires:
    - Medication reconciliation;
    - Assessment of medication management;
    - Reviewing, monitoring and reporting of medication plan;
    - Adverse drug reaction management;
- Administering vaccinations;
- Compounding medications; and
- Providing information on specific medications [34].

63% of pharmacists work in a community setting, compared to approximately 18% who work in a hospital setting. Consequently, a majority of Australian pharmacists are employed under a "product-oriented remuneration model" which focuses more on the retail side of pharmacy, maximising sales of prescription medications and over the counter (OTC) medications with less focus on patient-centred care [34]. This creates major concerns over financial conflict of interest - pharmacists are financially incentivised to prescribe greater quantities of, and more expensive, medicine.[35]

Although uncommon in Australia, general practice pharmacists also exist and have a range of roles that intersect and further extend the scope of practice of community pharmacists. This includes engaging in patient consultations, advising General Practitioners of certain treatments and therapies, performing disease screening and helping manage common conditions such as asthma and insomnia [36].

Midwives

Midwives are registered by the NMBA, and their scope of practice is defined by the International Confederation of Midwives. [37] This may include:

- Providing pregnant person's support before conception and following birth.
- Promoting normal physiological childbirth, including identifying complications for mother and baby.
- Consulting with and referring to appropriate medical and non-medical care.
- Implementing emergency measures in accordance with guidelines. [37]
- Prescribing medications (though this is reserved for a small number of midwives) [38]

Midwifery prescribing is only granted after meeting six criteria for Medicare eligibility, including further study from a program accredited by the NMBA. Furthermore, midwife prescribing is limited depending on state legislation. For example, in Queensland, midwife prescribers may prescribe Schedule 4, but not Schedule 8 drugs. In contrast, in NSW, South Australia and the Northern Territory, there are no limitations on midwife prescribing. These prescribed

drugs may range from antibiotics to opioids and can be subsidised by the PBS if the midwife has a prescriber number and PBS stationery. Whilst a suggested formulary has been produced, midwives are not restricted to it when prescribing (except for midwives in Western Australia). There is no formal supervision or monitoring required for midwifery prescribing. [38]

Extended Care Paramedics

Extended care paramedics are paramedics who have undertaken additional training to increase their scope of practice. They are found in several ambulance services across Australia. Extended care paramedics respond to emergency calls.

This role has been known under other names, including "General Care Paramedic". Whilst this role exists across many ambulance services, the role often has varying levels of minimal qualifications and scope of practice. [39] However, the general role of an extended care paramedic generally has the following:

- Performing physical examinations
- Extracting patient history
- Administering medications through various routes including IV
- Performing investigations including but not limited to arterial blood gas and urinalysis
- Suturing wounds and associated care
- Splinting and plastering [40]
- Screening of falls and aged care screening
- Referring patients to community-based health services [41]

As with previously discussed non-medical practitioners, the role of extended care paramedics varies depending on the needs of an individual ambulance service's health district. The aim of extended care paramedics is to lighten the burden on local hospitals and better facilitate primary care in specific scenarios, such as falls or simple surgical procedures that may be better undertaken in a home setting as opposed to a hospital. [40]

Advanced Practice Physiotherapists

Advanced practice physiotherapists are physiotherapists with additional qualifications, though distinct to specialist physiotherapists. Advanced practice physiotherapists work in a range of areas within physiotherapy including paediatrics, cardiothoracic surgery, musculoskeletal, neurology, etc. though they predominantly are found in hospital settings. Unlike standard physiotherapists, advanced practice physiotherapists have a greater degree of autonomy and are involved in more high-level decision-making. [42] Their roles and responsibilities vary across their clinical setting, from primary care to the emergency department, but can include:

- Diagnosing patients
- Managing simple fractures, dislocations, spinal pain and other injuries independently

- Referring patients to appropriate medical specialist services [42]
- Prescribing medications (limited by state legislation)
- Providing local anaesthetic injections
- Ordering and interpreting X-rays [43]

The specific scope of practice of advanced practice physiotherapists is not well defined and depends on the needs of the local region.

Competing Interests with Medical Practitioners

Many of the health professions and their associated practices outlined significantly overlap with the traditional responsibilities of a doctor, in particular general practitioners. This includes, but is not limited to diagnosing conditions, prescription of medications, ordering of diagnostic imaging, referral to specialists and allied health and management plans for diseases. The blurring of lines by increasingly converging scopes of practice has presented several challenges when considering legal and financial consequences.

Despite this, in many instances, medical practitioners can still retain primary responsibility for a patient that has received care from a nurse practitioner or physician assistant under the practitioner's supervision or in a collaborative agreement with the practitioner. Along with this (and perhaps stemming from it), there is often a culture of medical practitioners making final decisions for patient healthcare situations [30].

Funding Frameworks for Non-Medical Practitioners in Australia

Nurse Practitioners

The scope of nurse practitioner (NP) remuneration under the Medicare Benefit Scheme (MBS) varies state to state, but is limited and remains low. Practitioners are able to apply for access to the MBS and Prescription Benefit Scheme (PBS) under the Health Legislation Amendment, allowing for NPs and their employers to be remunerated for the limited scope of services provided [44]. Under this same act however, state salaried NPs are not able to prove Medicare rebateable services to public patients in an outpatient setting, with the cost absorbed by either the employer, or more likely, the patient [45]. Thus, MBS Billing can only be utilised in a private setting, after approval from Medicare Australia, limiting NPs to this sector based on financial viability.

The ability to bill depends on each individual state and territory's designation of NP scope of practice, however, it remains limited nationally. Billing for services including motor vehicle injury and workers compensation is severely limited, with few states and territories allowing remuneration. Generally, prescriber scope is at the discretion of state regulatory bodies, with the exception of the Northern Territory, where limitations do not allow NPs to prescribe medications, and Tasmania, where there are no official restrictions of practice, and the ability to prescribe depends on individual context [46].

Additionally, the MBS reimbursement for a consult lasting at least 20 minutes is currently 85% of the scheduled fee, compared to 100% reimbursement for a bulk-billed GP consult lasting less than 20 minutes [45,47,48]. Access to MBS item numbers is also limited, meaning that NP practice is not financially sustainable for both the practitioner and the patient.

Physician Assistants

Physician Assistants (PAs) are not able to apply for a Medicare Provider Number, and are thus barred from accessing the MBS and PBS, limiting them exclusively to private practice settings where the cost of care will be absorbed by either the employer, or the patient. [49,50].

Section 19(2) of the *Health Insurance Act* 1973 (Commonwealth) determines that a Medicare benefit is not payable for services already provided by alternative government resources. [51] However, exemptions are provided in remote and Indigenous communities, due to a lack of General Practitioners and other public health services. Such exemptions do not extend to PAs, strictly limiting practitioners to private practice - often inaccessible to communities where there is a greater need for healthcare providers [50,52]. This renders the function of PAs as a method of alleviating health workforce shortages ineffective under current legislation.

Pharmacists

Pharmacist funding and patient remuneration functions under the PBS as above. A PBS dispensed medication includes:

- A cost to the pharmacist;
- Administration, Handling and Infrastructure fee;
- Dispensing fees; and
- Other entitlements [53].

PBS medications are a group of medications which count towards a patient's Safety Net, and are heavily subsidised. Non-PBS medications incur the same fees to the pharmacist, but come at a greater cost to the patient, as they are not subsidised by the government. If the amount charged for a medication is greater than $47.70 for the patient, it is considered non-PBS [54].

Under the Queensland Urinary Tract Infection (UTI) pilot, the consultation fee with a pharmacist was $19.95 and the cost of medication [55]. This consultation fee is paid directly by the customer. This is contrasted with a bulk-billing GP, where the consultation fee is covered by medicare. In a pharmacy prescribing environment, the patient will be charged twice - for the diagnosis and treatment, whereas in the current bulk-billing general practitioner environment the patient is charged only once.

Extended care paramedics

Due to limited implementation in Australia, there are no standardised established funding models for extended care paramedics as of yet.

Midwife prescribers

Midwives are able to prescribe medications if accredited and endorsed by AHPRA. The midwife is eligible for a PBS prescriber number and prescribes medications in accordance with the legislation of the state or territory they practise in. Drug regulations vary between jurisdictions. [38] Under the MBS, antenatal, intrapartum and postnatal care provided by participating midwives are covered. [56]

Advanced practice physiotherapist

Limited Australian data is available regarding funding frameworks of Advanced Practice Physiotherapists, however, as of currently, they are not registered under the PBS or MBS. This serves as a barrier to practice in acute settings, such as hospitals. [57,58]

Training, Regulation, and Differentiating Factors of Non-Medical Practitioners

Nurse Practitioners

NPs in Australia require a relevant master's degree and a minimum of 3 years full time advanced practice experience (within the last 6 years), which demonstrates that they meet the Nursing and Midwifery Board of Australia National (NMBA) practice standards [59].

To become a NP, the following must be completed:

1. An accredited Bachelor of Nursing.
2. A Graduate Nurse year.
3. Commencement of work within a speciality area of clinical practice.
4. A NMBA approved post-graduate course.
5. 2000 hours (FTE 2 years) in an advanced clinical nursing role.
6. A NMBA approved master's degree.
7. 5000 hours (FTE 3 years) full time in advanced clinical practice.
8. An application to the NMBA for endorsement as an NP [60].

Physician Assistants

In the US, to become a PA, applicants must graduate from an Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) accredited entry-level PA program, which takes 3 years. However, most entry-level PA programs require applicants to have an undergraduate degree. Many PA programs also require prior healthcare experience with hands-on patient care. The majority of students have approximately three years of healthcare experience prior to entering a program [61].

The only institution to offer PA training in Australia is James Cook University (JCU), through their Bachelor of Health Science (Physician Assistant), which takes 3 years to complete. Prerequisites for the degree are a health-related qualification with a minimum of Certificate IV (Australian Qualifications Framework level 4), or another qualification as approved by the College Dean, and a minimum of 2 years full time (or equivalent part time) work experience in a health-related setting [62].

After completing the degree, PAs work as a member of a multidisciplinary team under the supervision of a medical practitioner. Under delegated practice, a PA may specialise depending on their experience, and the scope of clinical practice of the supervising medical practitioner. The activities and other clinical practice elements are defined by the supervising medical practitioner in an Individual Practice Plan, which is then endorsed by the Medical Credentialing Committee. As a PA's competence increases, the level of supervision will change and/or their scope of practice will broaden. Overall responsibility for health care delivery is retained by the supervising medical practitioner; and at no point will the PA override or act as a substitute for a medical practitioner [63].

Pharmacists

Australian pharmacists must: (1) complete an accredited university degree, (2) complete an intern training program and the supervised practice requirements, and (3) pass a registration exam [64].

To prescribe medications, health practitioners must:

- Complete accredited prescribing education and training that is consistent with their scope of practice.
- Register with the national board for their specialty.
- Granted approval under the National Health Act 1953 for prescriptions of PBS or Repatriation Pharmaceutical Benefits Scheme (RPBS) medicines.
- Be approved under legislation and regulation of their relevant state or territory.

Only authorised health practitioners – such as doctors, dentists, optometrists, nurse practitioners and midwife practitioners – can prescribe medicines [65]. Pharmacists can dispense prescription-only medications in Australia, supply Schedule 2 and Schedule 3 medications, and authorise emergency supplies of Schedule 4 medication, but they cannot prescribe Schedule 8 drugs [65,66].

The Queensland UTI prescription pilot allows participating community pharmacists to diagnose and provide appropriate treatment (antibiotics) for uncomplicated UTIs. Pharmacists must complete mandatory online training to participate in the pilot [67,68].

Extended Care Paramedics

Extended Care Paramedics (ECPs) are experienced paramedics that have undergone specialised training in patient assessment, delivery of quality care and coordination of appropriate referral pathways. As of September 2022, ECP training programmes in Australia are not nationally implemented, varying between state and territories depending on their respective ambulance organisations [43]. For example, South Australian Ambulance Service (SAAS) and NSW Ambulance developed in-house training models that prepare prospective ECPs to [8]:

- Perform patient assessments;
- Recognise and manage minor illness and injury presentations;
- Provide definitive care; and
- Refer to community-based health services for a range of presentations.

Alternatively, tertiary institutions are developing graduate training programs in Extended Care Paramedicine, such as is offered by Edith Cowan University - this program requires prospective ECPs to have a degree in Paramedicine and at least five years of clinical experience [69]. The introduction of ECPs aims to improve the management of non-life-threatening presentations in Australia's healthcare system externally from the hospital, thus easing pressure and wait times in areas of high demand, such as the Emergency Department [43].

Midwifery Prescribers

Midwifery Prescribers are a group of non-medical practitioners that are granted prescribing rights under national legislation. These midwives are 'Medicare eligible', meaning that they can access Medicare rebates for midwifery services, in addition to Medicare-funded pathology and radiology services. Applications to become Midwifery Prescribers, and thus become 'Medicare eligible', are managed by AHPRA, wherein the following criteria must be satisfied [38]:

1. Current general registration as a midwife in Australia with no restrictions on practice;
2. Midwifery experience that constitutes the equivalent of three years full-time post initial registration as a midwife;
3. Current competence to provide pregnancy, labour, birth and postnatal care to pregnant people and their infants;
4. Successful completion of an approved professional practice review program for midwives working across the continuum of midwifery care;
5. 20 additional hours per year of continuing professional development relating to the continuum of midwifery care;
6. Successful completion of:
    a. an accredited and approved program of study determined by the Nursing and Midwifery Board of Australia to develop midwives' knowledge and skills in prescribing; or
    b. a program that is substantially equivalent to such an approved program of study, as determined by the Board.

To be considered by AHPRA for Medicare eligibility, prospective Midwifery Prescribers must complete a training program approved by the NMBA [70]. These programs are postgraduate courses of at least one semester's duration and meet the standards and criteria for accreditation approved by the Nursing and Midwifery Board of Australia. These requirements are reflected in curricula that address diagnostic processes, pharmacology, legal and regulatory frameworks, and how to generate inpatient and outpatient prescriptions [71].

Advanced Practice Physiotherapist

In Australia, Advanced Practice Physiotherapists (APPs) primarily specialise in the musculoskeletal field within the healthcare system, independently managing simple fractures and dislocations, spinal pain, and soft tissue injuries [42]. Currently, minimal direct training pathways exist for prospective APPs. Rather, a combination of (1) extensive clinical experience, in both the public and private sector; (2) postgraduate tertiary education, such as a Master of Musculoskeletal Physiotherapy; and (3) additional training programmes offered in-house by healthcare services, such as Queensland Health, is required to undertake work as an APP. However, current advocacy efforts in this field is potentiating clearer training pathways for APPs in the future [72].

Differentiating Factors

There are key differences in the training that non-medical and medical practitioners receive, which assists with dictating their clinical scope of practice. The most salient difference is in the number of pre-clinical and clinical hours required, between non-medical and medical practitioners during training. The hours required for medical practitioners are significantly higher. This reflects the time needed for medical practitioners to gain the necessary knowledge to practice autonomously. The number of hours required to complete training for non-medical practitioners is lower, hence their limited scope of clinical practice.

Patient Outcomes from Non-Medical Practitioners

Nurse Practitioners

NPs have been found to have many potential benefits in a collaborative health care setting - where their patients are also overseen by medical practitioners.

A systematic review found that nurse practitioners reduced costs, increased efficiency and higher accessibility to timely health care. However, it must be noted that their patients were also reviewed by medical practitioners [73].

When supervised by doctors, nurse practitioners working in cardiac care had no statistically significant difference to medical practitioner-only care in several outcome end-point measures, including to 30-day readmission rates for heart failure and length of stay following cardiac surgery [74]. In primary healthcare services in community-based clinics, where nurse practitioners and medical

practitioners practised alongside each other, the evidence suggests similar self-reported patient health outcomes from either provider [75].

Pharmacists

The evidence is currently reasonably clear regarding pharmacist independent prescribing, in that it does not appear to benefit patients.

There is evidence showing pharmacist prescribing can lead to increased death rates of patients [76].

In terms of management of specific conditions, it has been shown that pharmacists are able to manage chronic pain as effectively as general practitioners when independently prescribing - but that their services are much more expensive. Further research is needed to determine if there are any statistically significant benefits. [77,78].

They are also able to correctly prescribe and administer vaccinations within their scope of practice, but through the period of 2016 to 2019 it appears a small but consistent minority give vaccinations that fall outside their scope of practice [79].

The evidence is clear that, as per their current scope of practice, the integration of pharmacists into Australian general practices improved medication safety and increased communication between team members, both of which contribute to positive patient outcomes [36].

Physicians Assistants

The evidence is clear that when supervised by medical practitioners physicians assistants are able to effectively aid in the care of patients.

Physician assistant practice, supervised by physicians, in the United States produced favourable results for patient outcomes, particularly in underserved and rural areas [80]. With proper regulation, similar results may be reproducible in an Australian context. It should be noted that physician assistants cannot possess the same level of autonomy as nurse practitioners, as they must always be under some form of supervision from a medical practitioner.

The evidence shows that collaborative practice between physician assistants and medical practitioners is beneficial for patients - in terms of patient satisfaction, quality and safety of care, and length of stay in hospital [81,82,83]. They were also shown to provide more health education and counselling than medical practitioners [83].

Nurse practitioners were also shown to be on-par with medical practitioners in terms of patient outcomes and quality of care, but were more successful in recommending and referring to smoking cessation counselling [83]. In critical care scenarios, their addition to the clinical team has been found to be

beneficial by both doctors and patients, and caused no differences to mortality or length of stay in ICU, while slightly reducing length of stay in hospital [84].

Unfortunately, much of the available data on patient outcomes is acknowledged as being of poor quality, often being quite tentative or incomplete [36,83,84,85-87]. Furthermore, there is a distinct lack of quality Australian data. Therefore, it is vital that further research is conducted into patient outcome comparisons between medical and non-medical practitioners, ideally in Australian healthcare settings.

Extended Care Paramedics

The evidence appears promising for extending the scope of practice of paramedics. The literature is clear that paramedics are able to safely extend their scope to diagnosis, especially in the areas of airway and ventilation concerns, burns, paediatrics, and obstetric emergencies. [87] In New Zealand they have been shown to reduce loads on emergency departments when able to diagnose and administer treatment for minor issues – decreasing the number of patients brought in by ambulance from 63% to 38%. [88]

A 2013 systematic review found that critical care paramedics (a form of extended care paramedic) perform better than non-physician led care. The evidence is clear that paramedics perform at the same level or just below that of physicians – with two studies finding outcomes to be the same across both groups, and three favouring physician-led care. [89]

While extended care paramedics have been implemented in a number of states, including Queensland, New South Wales, and South Australia, evidence has not yet been collated as to their effectiveness in the Australian context.

Advanced Practice Physiotherapists

Extended scope in practice of physiotherapists has been shown to be effective. Physiotherapists have been shown to effectively perform non-invasive testing and non-invasive treatment that is traditionally performed by medical doctors. [90] In a rural emergency department in Australia, physiotherapists were shown to be able to appropriately order and interpret X-rays related to musculoskeletal concerns, decreasing workload for other healthcare practitioners. [91] Patients are satisfied with the care they receive from extended scope physiotherapists in Australian emergency departments. [92]

Midwives

With additional training and oversight from doctors, in the US midwives have shown they can effectively extend their scope of practice to include colposcopy and level one (screening) ultrasound. [93] In Ireland it was found that with extensive additional training and some physician supervision midwives were able to safely and effectively prescribe a limited range of medicines [94].

However, it was found that in the US that moving from a collaborative to autonomous practice regulatory frameworks did not change the number of midwife-attended births – indicating that autonomous practice did not necessarily increase midwife availability. [95]

Arguments For Increasing Scope of Practice for Non-Medical Practitioners

Non-medical practitioners could help address the healthcare workforce shortage in Australia. The health workforce crisis and the commitment by England's National Health Service (NHS) to make the health system more responsive to the expectations and needs of patients, resulted in two general practices in an underserved urban area employing American trained PAs on a trial basis in 2003. In 2004, an additional 12 PAs were employed in primary and secondary care settings [96]. The data obtained from these trials suggested that concerns about transferring the PA model were ultimately unfounded. PAs had a positive impact on the delivery of better patient-centred health care in the underserved areas, which was a key goal of the modernised NHS policy. The workload of other members of general practice teams in which PAs worked was reduced. Medical practitioner supervision arrangements were successful, and patients appeared satisfied with consulting arrangements [96]. Given the similarities between the NHS and Australia's healthcare system in regards to workforce shortages, there is potential for a similar model to be integrated and utilised in Australia, to support the provision of accessible and universal high-quality healthcare.

Non-medical practitioners can be more cost-effective. There is a large average salary difference between PAs and medical practitioners. Statistical evidence demonstrates that an increased presence of PAs and NPs lowers direct healthcare costs when they work in health care teams with physicians [97]. In clinical practice, the added use of PAs has reduced cost and improved access. According to standard firm optimization models, labour cost savings are expected to be partially passed on to patients. The quantity demanded of healthcare under market equilibrium is expected to increase, as a result of labour cost savings [97]. Given the increased access to timely healthcare that PAs have afforded to USA health consumers, a similar model may stand to benefit the Australian public if implemented with proper regulatory oversight and clinical supervision where deemed necessary.

Non-medical practitioners deliver a comparable standard of practice to medical practitioners. When considering quality of care, accessibility, and cost-effectiveness of employment, the PA was comparable to the medical practitioner in producing similar results in almost every case, according to peer-reviewed published studies that were examined. In a few instances, the utilisation of PAs enhanced the overall quality of care. In most instances, using a PA leads to the same or an improved quality of care. However, the context of these results must be considered. These results have a collaborative model of

care - where PAs are part of a medical team, with a medical practitioner involved in the treatment of each patient. [98]. It follows that non-medical practitioners in Australia may deliver a comparable standard of practice to medical practitioners, when working in healthcare teams.

Non-medical practitioners attain high levels of patient satisfaction. A patient survey demonstrated that patients were highly satisfied by ECPs, with 84.9% of patients rating their experience a 9 or 10 out of 10. Patients were satisfied by the waiting times, care, communication and information they recieved [43]. APPs achieved a similar, or higher level of patient satisfaction [99,100]. Data from Ireland demonstrates that Midwife Prescribers also yielded high levels of patient satisfaction [101]. Unfortunately, there has not been enough research into patient satisfaction regarding Midwife Prescribers in Australia, however from the data available, we can see that non-medical practitioners gain high levels of patient satisfaction.

Non-medical practitioners reduce wait-times before the delivery of care. ECPs reduced the length of time between call and arrival on scene, however for over 60% of cases in the report, wait times could not be calculated because they were not reported [43]. APPs reduced wait times for assessment, and the time patients spent on waiting lists. [101] Therefore, non-medical practitioners reduce the time taken for patients to receive care.

Non-medical practitioners lower the number of patients being admitted to hospitals or in need of a referral to another health care professional. 72.5% of patients seen by an ECP were not required to be transported to a hospital. This was especially favourable to patients of Aboriginal and Torres Strait Islander descent, and patients living in residential aged care facilities [43]. Only 10% of patients seen by APPs were re-referred to a specialist within 12 months of discharge. And of these patients, only 4.8% were re-referred with the same condition that was managed by an APP [102]. This data demonstrates the efficacy of non-medical practitioners in lowering hospital admissions and managing the demand for specialists.

Arguments Against Increasing Scope of Practice of Non-Medical Practitioners

Non-medical practitioners may be more likely to over-investigate or order unnecessary tests in comparison to medical practitioners [98]. The cost/access advantage of favouring increased PAs and other non-medical practitioners would be reduced by the cumulative expenses incurred by defensive diagnostic practices, which include but are not limited to, over-investigating and ordering tests not clinically relevant or indicated [103]. Defensive medicine is costly to the patient. Defensive medicine adds $45 billion to the annual cost of U.S. healthcare according to estimates from 2008, or approximately $53 billion in 2019 U.S. dollars (or 1.2% of 2019 U.S. healthcare costs)[103]. The total annual cost of defensive medicine is approximately one fifth of the estimated annual

savings from increased PA reliance in the U.S., meaning that the cost/access advantages from increased PA reliance would persist, albeit in a reduced capacity [97]. A lower quality of diagnosis and treatment in the healthcare system is also expected, with this increased reliance. Defensive medicine (i.e., ordering more tests) cannot compensate for health worker knowledge at a lesser standard in the areas of diagnosis and treatment, when considering false negative and false positive errors in medical diagnostics [97]. Given the drastic differences in costs of healthcare between the U.S. and Australia, an accurate financial benefit of leaning into increased reliance of PAs and other non-medical practitioners in healthcare is unascertainable.

Non-medical practitioners may be unsuccessful in areas of workforce shortage in the long-term if there are not enough GPs to support them [104]. Data has indicated that non-medical practitioners deliver a comparable standard of practice when working in healthcare teams and under the supervision of medical practitioners [98]. It stands to reason that if medical practitioners and healthcare teams are unavailable to support non-medical practitioners, the standard of care delivered may be lower.

Patients in rural, remote, and Aboriginal and Torres Strait Islander communities should have ongoing access to the same standard of medical care as patients in metropolitan and regional areas [104]. Although non-medical practitioners may increase the accessibility of healthcare in communities which do not have sufficient medical practitioners to meet their needs, the care available should not be of a lesser standard, and patient safety should be the utmost priority.

Medical student and junior doctor training may be impaired if senior health care workers need to dedicate time and resources to teaching non-medical practitioners. If the PA role is accepted for practice in the Australian health system, the need for clinical placements will increase slowly as the number of health workers who decide to seek training and employment as PAs increases. In the short term, placement opportunities for PAs will likely be in general practice and within rural and remote communities. It is likely that placement/employment opportunities will arise in private surgical and other practices if PA specialisation takes place, not only in teaching hospitals [105].The Queensland PA Pilot, conducted between May 2009 and 2010, considered how PAs would fit into the healthcare system in Queensland, and the effect of the increasing number of university places for medical students. While increasing university places for medical students is expected to result in long-term positive workforce impacts, there will be added demands on the health workforce and health system with regard to the provision of education and training for medical students and junior doctors as they move through the training system, in the short-term. This could be exacerbated by the need to train PAs and other non-medical practitioners [106].

Non-medical practitioners may not be more cost-effective in the Australian context, especially new/emerging non-medical roles. Currently, PAs cannot register under AHPRA, and are not recognised under MBS or PBS, meaning patients who see PAs are not eligible for rebates. A clinician who has been given a PBS provider number, must prescribe medications in order for patients to receive the PBS subsidy. The standards for the PA Pilot state that the PA may not complete or sign a prescription that is eligible for PBS reimbursement either through the PBS access scheme (Queensland Health pharmacies) or that will be filled by a private pharmacy. The PA pilot had the following implications:

- Although PAs are able to prescribe and administer drugs within the in-patient hospital setting under Queensland legislation, because they do not have a PBS provider number, any prescription written by them cannot be filled under the PBS. This means that the supervisor must write out the script for the PA whenever a prescription is required.
- Under the legislation, PAs can prescribe drugs for patients in an outpatient or general practice setting. However, the patient would be required to pay the full amount of the medication, rather than receive the subsidy which the PBS provides, unless the prescriptions are written and signed by a doctor with a PBS provider number.

There is a lack of transparency in the training and regulation around new and emerging non-medical practitioners. The training that pharmacists receive to be eligible to participate in the UTI prescription pilot in Queensland is not able to be viewed by those outside of the pilot. The only public information available regarding the training is the learning objectives. These state that after completion of the 1.5 hour online training module, pharmacists should be able to:

- Describe how UTIs are developed, including pathogenesis, microbiology, and the anatomy of the female urinary tract.
- Outline the clinical features of UTIs.
- Formulate the differential diagnosis of UTIs.
- Discuss the treatment of UTIs by antibiotics.
- Discuss the management of UTIs through OTC products.
- Outline how to provide uninterrupted care to the patient [68].

The lack of transparency around the training calls into question the quality of care that is being provided. Additionally, the training pathway for APPs and ECPs is unclear, and differs across states and territories. For Midwife Prescribers, there is no formal process in place to supervise/monitor prescribing, and there is no requirement for a Midwife Prescriber to notify the patient's medical practitioner that they have issued a prescription. The range of drugs that can be prescribed by Midwife Prescribers is determined by state and territory legislation, meaning there are significant variations across Australia [38]. Further regulation is needed concerning the training and regulation of emerging non-medical providers, to ensure that patient safety is maintained.

Furthermore, allowing pharmacists to prescribe removes the clear division between the roles of prescribing and dispensing, creating a conflict of interest.

A model of this can be found in English 'dispensing practices', where they have an in-house dispensary providing medication directly to patients. These practices negotiate lower prices on higher cost drugs, while being reimbursed at a standard rate, thus generating additional income. Doctors in dispensing practices are more likely to prescribe higher cost drugs [107]. This is reminiscent of the position pharmacists participating in the Queensland UTI pilot are in, and provides insight into the conflict of interest that they are experiencing.

Non-medical practitioners may utilise more diagnostic testing, specialty referrals and return visits than medical practitioners do. During evaluation and management (E&M) office visits, non-medical practitioners are associated with more imaging services than medical practitioners for similar patients. Expanding the use of non-medical practitioners may alleviate medical practitioner shortages, however while the increased use of imaging by non-medical practitioners appears modest for individual patients, on a population scale, this increase may have ramifications on care and overall costs [98].

Additional Evidence Regarding Scope of Practice of Non-Medical Practitioners

There is evidence that non-medical practitioners had comparable rates of patient satisfaction to medical practitioners. The acceptance of PAs in the countries where they are operational appears successful, and satisfaction with their care is largely indistinguishable from medical practitioners. A theory highlighted by the analysis suggests that when a patient's needs are met, satisfaction is high regardless of the medical provider [108]. However, another paper presented data that suggested that patient satisfaction scores were higher for medical practitioners in the "Overall Rating of Provider" category, and that medical practitioners also had higher average scores across the 6 domains measured (health promotion and education, provider communication, rating of provider, shared decision-making, stewardship of patient resources, and timely care). Specialty care vs primary care produced more pronounced differences in patient satisfaction [109]. Although non-medical practitioners receive high rates of patient satisfaction, they spend more time with patients, which is a confounding factor.

It is apparent that the reasons for malpractice actions differ between PAs, NPs and medical practitioners. Approximately three quarters of medical malpractice awards for PAs and NPs reflected diagnosis- or treatment-related events, but only about one half of the medical malpractice awards were for medical practitioners, highlighting that PAs and NPs may be most at risk for error during the diagnosis and treatment of a patient. A plaintiff may hold the medical practitioner, as a supervisor, accountable for the actions of their employees, confounding the results [108,110]. From a policy standpoint, the American National Practitioner Data Bank cannot conclusively indicate that integration of PAs and NPs into health care increases or decreases liability. However, these

two types of clinical providers are less likely to be subject to a malpractice action than medical practitioners at the aggregate level - though the context of this information (doctors are often legally responsible for the actions of PAs and NPs) must be considered [103].

Reception of Expanded Scope of Practice Initiatives

The interprofessional collaboration that underpins Australia's healthcare system means that widespread acceptability is essential for workplace and policy reform affecting clinical scope of practice. It is worth noting that position statements collated do not address changes in clinical scope of practice entirely; however, they are reactive statements to scope-of-practice reforms being tentatively considered for Australia's primary healthcare system.

The Australian Medical Association (AMA) has notably opposed alternative healthcare models that substitute the general practitioner-led primary healthcare model currently seen in Australia. Specifically, the AMA states that the training general practitioners receive in providing *"comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern"* is the most extensive among all healthcare practitioners [10]. By extension, the AMA does not condone independent prescribing by non-medical practitioners that is independent of medical practitioners, stating that:

"Only medical practitioners are trained to make a complete diagnosis, monitor the ongoing use of medicines and to understand the risks and benefits inherent in prescribing." [12].

This notion is supported by the Royal Australian College of General Practitioners (RACGP), who are receptive to incorporating advanced non-medical practitioners, such as NPs, within GP-led primary healthcare teams; however, do not support autonomous clinical practice of non-medical practitioners [111]. Similarly to the AMA, the RACGP endorses collaborative care arrangements that are GP-led and acknowledge the extensive training of non-medical practitioners in very specific fields of care [10,111].

In 2019, the Nurse Practitioner Reference Group (NPRG) claimed that Medicare-enforced collaboration with GPs on NPs was an *'impediment to growth of [NPs] in improving access to quality care for all Australians'* [87]. However, the RACGP Expert Committee stated that this would create fragmented siloed services that worsen health outcomes and further dilute funding from front line general practice services. With almost 90% of patients seeing GPs every year, the RACGP stated that funding shouldn't be diverted to other primary care providers; rather, nurse practitioners, and in principle other non-medical practitioners, should continue to work within the GP-led collaborative model that complements their specific expertise [112].

RACGP shared similar sentiments for physician assistants, citing that it is an inequitable solution to the maldistribution of GPs with very lacklustre research on the effect of physician assistants within Australia's GP-led primary healthcare system. Therefore, there is a risk of impeding quality of patient care should physician assistants be introduced without substantial evidence of their benefit within Australia's multidisciplinary primary healthcare team [113].

Recent examples of efforts to expand scope of practice include the NQPPT, which allows pharmacists in North Queensland to prescribe treatments autonomously for 23 conditions as of June 2022. Statements by The Pharmacy Guild of Australia and Queensland Department of Health state that the trials were successful, with the former stating that these pilot trials allow for pharmacists to "demonstrate that [they are] capable, accessible, and well-equipped primary healthcare providers" [114]. However, both the AMA and RACGP have vocally opposed the trial, stating that it is an ineffective solution to workforce issues seen in North Queensland [115].

The AMA acknowledged that pharmacists have an expertise in medications that allows them to identify "potential errors and unintended side effects" over prescriptions; however, the AMA found 240 complications from the Pharmacy Pilot Trials following surveying 1,304 medical practitioners in North Queensland. Complications included sexually transmitted infections, cancers, and pregnancies that were misdiagnosed by North QLD pharmacists, and were inappropriately and dangerously given antibiotics [116]. This concern was corroborated by The Professional Services Review (PSR), which believed the North Queensland Pharmacy Pilot Trials were inconsistent with Commonwealth law [117]. These issues foreground the reason prescribing and dispensing are separated in federal legislation, with challenges to these measures posing dangerous risks to patient outcomes [116].

The National Aboriginal Community Controlled Health Organisation (NACCHO), which is the national peak body representing Aboriginal health and well-being issues, also opposed the NQPPT, stating that it is aimed to indiscriminately increase community pharmacists' scope of practice without consideration for its safety and effectiveness on the community. Dr Dawn Casey, the NACCHO Deputy CEO, stated that the trial affected a large Aboriginal and Torres Strait Islander population; however, the trial did not address the need for culturally-safe, comprehensive healthcare that could increase morbidity and mortality for Aboriginal and Torres Strait Islander communities of Far North Queensland [118].

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Appendix 1 - Drug schedules and prescribing explained

Pharmacists have the ability to prescribe schedule 2 and 3 drugs, but schedule 4 and 8 drugs can only be prescribed by a medical practitioner and dispensed by a pharmacist, [125] with nurse practitioners able to prescribe some schedule 4 drugs pursuant to their state's legislation. [126] PAs cannot prescribe drugs in the outpatient setting. [7]

The Schedules are

Schedule 1	Not currently in use
Schedule 2	Pharmacy Medicine
Schedule 3	Pharmacist Only Medicine
Schedule 4	Prescription Only Medicine OR Prescription Animal Remedy
Schedule 5	Caution
Schedule 6	Poison
Schedule 7	Dangerous Poison
Schedule 8	Controlled Drug
Schedule 9	Prohibited Substance
Schedule 10	Substances of such danger to health as to warrant prohibition of sale, supply and use

Figure 1: Drug schedules in Australia [95]

Policy Details:

Name: Clinical Scope of Practice 2022

Category: E-Medical Workforce

History:

Reviewed Council 3, 2022

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