Feasibility of Expanding Prescriptive Authority Within Physical Therapist Scope of Practice

In 2022, the House of Delegates referred to the Board of Directors RC 17-22 and its pending amendment, which reads:

> CHARGE: FEASIBILITY OF EXPANDING PRESCRIPTIVE AUTHORITY WITHIN PHYSICAL THERAPIST SCOPE OF PRACTICE. That the American Physical Therapy Association evaluate the feasibility of expanding prescriptive authority within physical therapist scope of practice.
>
> ADOPT: EXPANDING PRESCRIPTIVE AUTHORITY WITHIN PHYSICAL THERAPIST SCOPE OF PRACTICE (Proposed Amendment) The American Physical Therapy Association supports expanding prescriptive authority for durable medical equipment, prosthetics, orthotics, and supplies within physical therapist scope of practice.

A special report went to the House of Delegates in 2023 outlining the steps taken so far to address the charge and how additional time and research was needed to evaluate the feasibility of prescriptive authority. In consultation with the Board-appointed Scientific and Practice Affairs Committee and the Public Policy and Advocacy Committee, a framework for the analysis of expanded scope of practice was developed. A diverse task force was then appointed to provide additional expertise in the review and analysis of identified information and to generate a final report on the feasibility of expanding prescriptive authority within physical therapist scope of practice. Following a peer-review process and any necessary modifications, a special report will be submitted to the 2025 House of Delegates.

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Introduction

Although this report is titled “Feasibility of Expanding Prescriptive Authority Within Physical Therapist Scope of Practice,” the task force acknowledges that in some cases any potential changes to stated scope of practice may not truly “expand” prescriptive authority, but instead will provide clarification of current authority. Investigation of the feasibility of ordering different types of studies, equipment, and interventions, such as medication, within physical therapist scope of practice included inquiries into why and how these changes might take place as well as potential barriers and facilitators. Different areas of potential privileging were also investigated individually, but in some cases the resultant reports were duplicative. In those situations, the reports are aggregated. However, specific additional details and the conclusions reached pertaining to the individual areas of prescriptive authority are described in separate sections of this report.

Rationale for Change

A review of related literature, as well as conversations with PTs employed by the federal government in civil service, members of the uniformed services, and international physiotherapists, has provided the following insight regarding the rationale for potential changes to physical therapist scope of practice.

Societal Need

Rising health care costs have increasingly become a heavy financial weight on the nation. Since 2000, the price of medical services, insurance, medication, and equipment has increased by 114.3% (Rakshit, 2023). The global economy has been outpaced by health care costs, with 10% of the global GDP being relegated to health care. The World Health Organization has voiced concerns regarding the increased cost of receiving quality health care.

Another significant concern is that despite this large expenditure, people in some areas of our country today struggle to access high-quality and timely health care (Owsley, 2020; Office of Disease Prevention and Health Promotion, 2024). To compound this problem, health care workforce data predicts increased shortages and continued maldistribution of physicians. Even with the assistance of nurse practitioners and physician associates, physician shortages are predicted to be over 124,000 by 2036 (Pic, 2024). By 2030, there will be an estimated shortage of over 18 million health care workers (Boniol, 2022). As members of a doctoring profession, physical therapists are called to advocate for improved access to care in the U.S. as a key component to ending the health disparities that currently exist in the nation.

These growing problems require attention and thoughtful innovation in how we deliver health care in the United States. A maldistribution of U.S. primary care physicians was present before the COVID-19 pandemic. According to The Journal of Rural Health 2020, innovative reforms are urgently needed to avert a rural workforce crisis in the future (Gamelas, 2020). According to the National Hospital Ambulatory Medical Care Survey, patients in outpatient care may see a physician, a physician assistant, or a nurse practitioner either alone or in combined-provider visits. Before the COVID-19 pandemic, between 2016 and 2011, nurse practitioner and physician assistant involvement with the evaluation team in visits to outpatient care increased dramatically (Workforce Data, 2023). According to JAMA, the future focus on addressing perceived physician shortages and maldistribution should be on process improvement with open access scheduling and using nonphysician practitioners to enhance access to care in rural areas (Emanual, 2017).

Timely access to high-quality health care has a positive impact on patient outcomes and overall health care costs (McWilliam, 2007). Physical therapists are well-positioned to help fill gaps due to provider shortages and to foster cost and time efficiencies in various settings and specialty areas. Ordering and interpreting diagnostic studies is a direct vehicle to facilitating accurate and timely differential diagnosis for all body systems, as listed

in the CAPTE Standards and Required Elements, 7A (CAPTE, 2024, p40-41). These prescriptive rights facilitate timely and appropriate physician referral, as indicated in the patient management model for entry-level clinicians. Furthermore, equipping physical therapists with the ability to provide tools and interventions that are relevant to their area of practice can be a cost-effective approach that also ensures patients receive care that meets their service and satisfaction expectations. Where already implemented, expansion to the scope of physical therapist practice has been recognized as beneficial to the health care system (Clark, 2022; Brismée, 2018).

Evolution of Practice

Physical therapists in the U.S. military have held advanced practice privileges as physician-extenders since the 1970s. At that time, the U.S. Army faced a shortage of orthopedic surgeons and a growing number of patients with musculoskeletal injuries. As a solution, PTs were afforded the opportunity and privileges to serve as primary musculoskeletal evaluators. To support this role, physical therapists who met specific regulations were granted advanced privileges to refer patients to specialty providers, place patients on work limitations or modified duty status, order advanced imaging, prescribe select medications, and order laboratory studies (Benson, 1995).

More recently, PTs in the military have been practicing with significant autonomy and direct access since 1985 (Moore, 2005). Examples of privileges granted to PTs who are "credentialed with clinical privileges" within the Department of Defense include referral to other clinics on or off the federal medical facility, initiating duty-limiting restrictions, ordering diagnostic laboratory and radiographic/MRI studies (to be interpreted by a radiologist, physician, or orthopedist), prescribing medication (limited to NSAIDS, anti-inflammatories, and muscle relaxants), and performing and interpreting electromyographic/nerve conduction diagnostic studies (McGill, 2013). Based on a consistent pattern of quality care, safety, and fiscal responsibility with direct access physical therapy, a recent report to the Committee on Armed Services of the U.S. House of Representatives reinforces that PTs should continue to be utilized in direct access roles across the Defense Health Agency enterprise (US DOD memo, 2023).

As doctrinal guidance documents have not been recently updated, each service's consultant to the Surgeon General has published interim guidance for their respective branch of service regarding PT licensure and scope of practice standards, according to internal DOD documents. In addition, the Federal Section of the American Physical Therapy Association developed a Recommended Scope of Practice for Federally Employed Physical Therapists in conjunction with APTA policies and positions (Federal APTA, 2021). These memos encourage DOD PTs to practice at the top of their licenses within their defined scope of practice. The memos further describe the advanced clinical privileges that fall within this extended scope of practice, to include ordering diagnostic imaging, laboratory studies, and specific policy-approved medications.

Another example of autonomous expanded practice by physical therapists in the U.S. is the Federal Bureau of Prisons. Within the bureau are civilian PTs and PTs who are active-duty officers in the U.S. Public Health Service Commissioned Corps. In 2011, the bureau recognized the advancement of education, training, and professional autonomy of PTs and occupational therapists, as well as the cost savings and improved health care outcomes that result from expanded clinical function (Kendig, 2011). As a result, a memorandum, "Practice Agreement Process for Physical and Occupational Therapists," expanded clinical functions following guidelines that parallel mid-level practitioners, such as nurse practitioners and physician assistants. These expanded functions are authorized at the institution level for therapists who seek privileges to perform them and meet specified additional training and certification. These privileges include prescribing dexamethasone sodium phosphate for iontophoresis; ordering orthopedic X-rays, MRIs, EMG/NCVs, and bone scans; and ordering the following laboratory studies: sed rate, CBC with differential, C-reactive protein, and swab wound culture.

Outside of the United States, an advanced practice physiotherapist, or APP, role has been developed and promoted as a way to meet the needs of health care systems, particularly those with a shortage of physicians (Taiwah, 2021). With a policy statement adopted in May 2019 and reaffirmed in May 2023, World

Physiotherapy supports the development of the APP globally, highlighting improved outcomes for patients and clients. It follows that their strategic plan includes support for local advocacy efforts related to advanced and expanded scopes of practice.

As part of the APP policy statement, World Physiotherapy says the following about the APP role: “Certain components of advanced practice, for example the use of injection techniques, the ordering of imaging or the prescription of medicines, may have previously only been performed by other professions and to be adopted into the practice of physiotherapists may require changes in regulation and/or legislation” (World Physiotherapy, 2023). The organization further states: “World Physiotherapy supports the right of member organizations to make national policies that permit advanced physiotherapy practice, where such activity is considered by them to benefit the public, health care delivery and the profession by promoting high standards of physiotherapy.”

A 2023 international framework of APP competencies and capabilities, developed from a scoping review of published studies and government guidelines and a qualitative study of clinical expert APPs, includes the following relevant competency: “Plans, performs and educates the patient about appropriate therapeutic interventions (e.g., medications, therapeutic injections, or arterial blood gasses) based on the patient’s condition and clinician’s level of expertise within their predefined and authorized additional scope of practice” (Tawiah, 2023, 2024).

The United Kingdom was one of the first regions outside of the U.S. military to develop an APP role. The first recorded use of expanded roles for physiotherapists in the U.K. was in 1986 (Byles, 1989). This was in response to an increase in the caseload of physicians working in the country’s National Health Service for patients with MSK disorders. The U.K. model evolved to develop post-licensure competencies and credentialing for what was called an extended scope physiotherapist, or ESP (Kersten, 2007; Taiwah, 2021). The extended scope included injection therapy, ordering imaging and blood tests, listing for surgery, and eventually prescribing pharmaceutical medicines. The term extended scope physiotherapist was replaced with advanced practice physiotherapist in 2008.

From a global survey conducted in 2018, 14 member institutions of World Physiotherapy indicated that they had formal APP roles within their country: Australia, Canada, Hong Kong, Ireland, Israel, Jordan, New Zealand, Norway, Peru, Switzerland, Taiwan, Trinidad and Tobago, the United Kingdom, and the United States (Tawiah, 2021). The scope of APPs varies between and even within countries but often involves requesting diagnostic imaging (including MRI, ultrasound, and X-rays), ordering blood tests, performing soft tissue and intra-articular injections (including ultrasound-guided), independently prescribing (including de-prescribing) medication to support patient care, using diagnostic ultrasound as a diagnostic tool, and orthopedic triage (Tawiah, 2021). APP roles began in hospital-based orthopedic clinics and have extended to community-based clinics, primary care, the emergency department, and other specialties including cardiorespiratory, neurology, pediatrics, geriatrics, rheumatology, chronic pain, and pelvic health (Tawiah, 2021; World Physiotherapy 2023).

Evidence-Based Practice

The majority of the evidence collected suggests that an extended scope for physical therapists may be as beneficial as, or in some cases more beneficial than, usual care by physicians for patients with musculoskeletal disorders. The outcomes considered were diagnostic accuracy, treatment effectiveness, use of health care resources, economic costs, and patient satisfaction. However, it should be noted that pertinent articles were mostly focused on the entirety of the care (including communicating diagnoses, triaging for surgery or surgical opinion, and ordering diagnostic imaging). The primary articles that helped corroborate this description are summarized below.

A systematic review of systematic reviews in 2021 evaluated the efficacy of advanced practitioner physiotherapists compared with orthopedic surgeons or physicians. The article was not focused on any single country and did not provide a list of countries from which the studies were performed. The publication found 13 systematic reviews from 2000 to 2020 that met the inclusion criteria. The role for APPs included communicating diagnoses, triaging for surgery or surgical opinion, ordering diagnostic imaging or laboratory tests, and prescribing/injecting medications. APPs had high agreement with orthopedic surgeons for diagnostic accuracy, appropriate triage, treatment decisions, and improved patient treatment outcomes and access to care. Access to care included waiting times for initial consultation, number of referrals to an orthopedic surgeon, and waiting times in various musculoskeletal settings. Regarding specifically ordering labs, the article states: “APPs have been reported to be safe, less expensive, and to have excellent agreement with and similar patient outcomes to orthopedic surgeons.” The article continues: “APPs also tended to provide more education, prescribe less medication and injections, and order fewer investigations compared to standard care” (Vedanayagam, 2021).

Multiple studies have found military PTs to be safe and resourceful in utilizing advanced privileges (Mabry, 2022). Utilizing physical therapists in a direct access role has led to a reduction in overall health care utilization including ordering medications and laboratory studies (Szymanek 2022). Regarding safety, military physical therapists were found to have a similar safety profile to primary care physicians (Mabry 2020). In a review of 472,013 physical therapy encounters (half of which were direct access visits) a study found no instances of reported adverse events, negative licensing actions, or litigation related to physical therapist care rendered (Moore 2005).

Inherent in these additional clinical privileges are the implicit associated responsibilities of informing the patient of test results, medication reconciliation, facilitating a referral to an appropriate health care provider when indicated, and helping the patient find a pertinent provider if needed. A stark difference between the advanced practice models described above and health care across the U.S. is that a third of Americans do not have an identified primary care provider overseeing their care (NACHC, 2023). In the states that permit physical therapists to order imaging studies, some practice acts formally describe the accompanying responsibilities.

Another consideration is the potential resultant changes to professional liability coverage. This evidence and associated assumptions are detailed within the sections covering each separate investigation.

Finally, qualitative evidence exists detailing barriers and facilitators others have experienced when attempting to implement advanced practice physiotherapy (Pellekooren, 2022; ShahAli, 2023). If APTA and/or its components choose to move forward with potential changes to scope of practice, these factors should be investigated and proactively addressed.

Education and Competency Requirements

Entry-Level Versus Advanced Practice

To explore the distinction between entry-level and advanced practice, scope of practice documents from various countries (Australia, Alberta, Scotland, British Columbia, South Africa, United Kingdom, Canada, Nova Scotia, British Columbia), the U.S. military, the American Academy of Physician Associates, the American Pharmacists Association, and the American Association of Nurse Practitioners were obtained and reviewed. In addition, information was obtained from World Physiotherapy staff and from the APTA task force currently formulating a definition of advanced practice.

The American Physical Therapy Association currently has no specific definition of advanced physical therapist practice and, per the task force referenced above, is working to develop one.

World Physiotherapy has no specific definition of advanced practice physiotherapy. However, in their 2023 policy statement, they provide common themes leading to the following description.

Advanced physiotherapy practice:

- Includes a higher level of practice, functions, responsibilities, activities and capabilities and autonomy.
- May be associated with a particular occupational title.
- Requires a combination of advanced and distinctly increased clinical and analytical skills, knowledge, clinical reasoning, attitudes and experience.
- Applies advanced level skills and knowledge to influence service improvement and achieve improved patient outcomes and experience, as well as the provision of clinical leadership.
- Results in the responsibility for the delivery of care to patients/clients commonly with complex needs or problems safely and competently and to manage risk.
- Is practised by a small, but growing, proportion of the profession who are recognised as being experts by members of the profession, patients and other healthcare professionals. The manner of that recognition varies across jurisdictions.

Literature Review

Tawiah et al (2023) discuss development of a framework for advanced practice physiotherapy. Their draft framework consists of seven domains, the first of which is Clinical Expert Practitioner. The competencies in this domain include “Apply the use of diagnostic investigations based on jurisdictional provisions (X-ray, MRI, Ultrasound Scan, laboratory investigations)” and “Apply the appropriate use of therapeutic medications, including therapeutic injections, prescribing and de-prescribing based on jurisdictional provisions.” Potential themes developed from the Clinical Expert Practitioner domain include in-depth clinical skills, years of clinical experience, and managing complex cases (Tawiah 2023). The authors also note, “Our findings align with previously published studies and reports which suggest that physiotherapists, similar to nurses, need a minimum of 5 years of clinical experience before transition into advanced practice roles” AND “This is similar to a previously published report that indicates completion of a research-based master’s degree is one of the requirements for becoming an advanced practice physiotherapist” (Chartered Society of Physiotherapy, 2016).

Bastiaens et al (2021) completed an exploratory qualitative, multi-step review of Dutch health care professionals regarding extended scope of practice for Dutch physiotherapists. The final framework included goals, roles, and tasks. The task category included ordering diagnostic imaging; it also included prescribing paracetamol and NSAIDs and giving injections, although these were labeled “Optional with extensive training.” While ordering laboratory tests and requesting blood tests were present in the initial framework, it was not included in the final framework.

U.S. Military

The privileges afforded to DOD PTs are officially listed and described in medical military doctrine across all services. Army Regulation 40-68 (last updated 2009) is the Army’s manual in establishing policies, procedures, and responsibilities for privileged providers. It separates PT privileges into two categories. Category 1 privileges describe core practice activities such as the right to evaluate, treat, and execute prevention/health promotion efforts. Category 1 privileges are awarded as the baseline privileges for all PTs. Category 2 privileges are awarded to PTs who demonstrate appropriate education and training. Category 2 privileges include the right to order advanced imaging, manage work limitations, place specialty referrals, and prescribe select medications (AR 40-68). Laboratory studies are not explicitly listed as a PT Category 1 or 2 privilege in AR 40-68; however, internal review of the credentialling application includes lab studies with other Category 1 privileges. The Air Force published similar guidance in Air Force Instruction 44-119 (last updated 2011). The manual states that all Air Force PTs are expected to earn supplemental privileges within four years of joining the Air Force, thus allowing them to order medications, diagnostic imaging, and laboratory studies. Such therapists are designated Advanced Clinical Specialists. The Navy

describes PT privileging in Bureau of Medicine and Surgery Instruction 6010.30 (last updated 2015). The manual outlines core and non-core privileges. Advanced imaging and diagnostic laboratory studies are considered core privileges. Medication prescription is classified as a non-core privilege and requires completion of additional education.

Table 1. Department of Defense Responsibilities

Branch	Privilege: Order Imaging Studies	Privilege: Order Laboratory Studies	Privilege: Prescribe Medication (designated formulary)
Army	Category 2 / Additional	Category 1 / Core	Category 2 / Additional
Air Force	Advanced / Supplemental privilege	Advanced / Supplemental privilege	Advanced / Supplemental privilege
Navy	Core	Core	Non-Core

Standards

Guide to Physical Therapist Practice

APTA's Guide to Physical Therapist Practice clearly includes prescription of DMEPOS within physical therapist scope of practice. It lists adaptive and assistive technology as a procedural intervention. This is defined as: "Includes the prescription, application and, as appropriate, fabrication or modification of splinting, bracing, seating and positioning technologies; aids for locomotion; orthotic devices; prosthetic devices; robotics; sensors; and other adaptive technologies to improve functioning."

The Guide also describes the role of physical therapists in ordering appropriate tests, including imaging. Chapter 4, Physical Therapist Practice: Diagnosis, Prognosis, Intervention, and Outcomes, specifically states:

> Physical therapists establish a diagnosis to make appropriate management decisions for an individual and determine the most appropriate intervention strategy. "When indicated, physical therapists order appropriate tests, including but not limited to imaging and other studies, that are performed and interpreted by other health professionals. Physical therapists may also perform or interpret selected imaging or other studies."

However, within the Guide, there are no specific definitions or standards of practice that exist for ordering laboratory tests or medications within the Guide. A definition of, and/or standards of practice for, the new task/skill exists in the U.S. military. Using the military's definition, with their permission, may facilitate the development of these standards.

The Commission on Accreditation in Physical Therapy Education

To ensure entry-level competency education is provided for all DPT students, CAPTE has developed the Standards and Required Elements for Accreditation of Physical Therapist Education Programs (CAPTE Standards, 2024). Within the CAPTE Standards, Standard 7 states the following: "The curriculum includes content, learning experiences, and student testing and evaluation processes designed to prepares students to achieve educational outcomes required for initial practice in physical therapy, and for lifelong learning necessary for functioning with an ever-changing health care environment." CAPTE requires that all DPT

programs assess and determine entry-level knowledge, skills, and abilities of students during their didactic and clinical education (CAPTE 1C).

To expand prescriptive authority within entry-level physical therapist scope of practice, the CAPTE Standards would need to be updated to include relevant language on the expected knowledge, skills, and abilities of DPT students to demonstrate competency with appropriate new skills and tasks. Appropriate model language may be available in the U.S. military education standards and training protocols. Similarly, it may be valuable to compare entry-level DPT education with the two-week COL Douglas Kersey Neuromusculoskeletal Evaluation Course, Pharmacology and Lab Tests, or similar post-graduate certification course. DPT programs will have to consider innovative educational strategies to promote learning and practice while avoiding unnecessary increases in students' cognitive demand.

Faculty Expectations

Within DPT education, CAPTE requires that all core and associated faculty members, including the program director and clinical education coordinator, have contemporary expertise in their assigned teaching areas and demonstrate their effectiveness in teaching and student evaluation (CAPTE Standard 4D). If additional skills are to be included with DPT education, CAPTE requires that faculty (core or associated) be able to demonstrate contemporary expertise in the assigned teaching areas.

Education and Competence

U.S. Licensure Examination

Across all jurisdictions within the United States, DPT graduates must pass the National Physical Therapy Examination to be licensed as physical therapists. The Federation of State Boards of Physical Therapy administers the NPTE, which is designed to assess entry-level competence of the physical therapist after graduation (FSBPT, 2024). Currently, the NPTE includes questions pertaining to laboratory values and pharmacology; however, the questions do not assess physical therapists' knowledge and ability to order laboratory tests or prescribe medication. Recently, FSBPT has implemented case scenarios with subsequent questions that are designed to better reflect clinical practice and decision making (FSBPT, 2024). These scenario-style questions may present an opportunity to formally assess NPTE exam takers' clinical decision-making regarding laboratory testing. To promote public safety and ensure competent physical therapist practice, should PTs be granted authority to order labs and prescribe certain medications, additional exam questions that assess physical therapists' knowledge and ability in those areas would be needed.

U.S. Military

Each military service describes a general plan of supervision for quality assurance and safety monitoring of these advanced clinical privileges. Each individual provider is part of the ongoing peer-review process, which reviews their practice for core and supplemental privileging practices, to include laboratory study utilization and medication prescription. An internal Navy guidance memo provides a useful example of recommendations regarding initial and renewal of supplemental privileging actions, although local credentialling authorities establish final policy. To demonstrate clinical competency for medication prescription privileging, the memo recommends 15 supervised cases for initial privileging and 10 peer-reviewed cases for renewal of privileges after two years.

U.S. Bureau of Prisons

A Bureau of Prisons memorandum specifies a list of appropriate certifications and/or training courses specific to each area of expanded privilege.

Per the memorandum, one requirement indicates “competence will be shown through verification of specialty certifications and/or training requirements along with standardized medical record review for each specific clinical specialty.” If a therapist seeks expanded clinical functions, then a practice agreement form is submitted to the local credentialing authority for approval based on qualifications, knowledge, skills, and experience through credentialing documentation.

U.S. Specialty Certification

The descriptions of specialty practice for all 10 areas of physical therapist board certification were reviewed and are available in Appendix 1. None of the DSPs include language specifying knowledge or skills pertaining to ordering laboratory studies or prescribing any type of medication. However, all include descriptions of general knowledge and skills regarding devices and equipment, laboratory values, diagnostic imaging, and pharmacology. Several DSPs (Neurology, Oncology, Pediatrics, Sports, Women’s Health) specifically list “Prescription, application and, as appropriate, fabrication of devices and equipment … ” as an intervention.

If CAPTE Standards will be updated to include prescriptive authority for laboratory tests and/or medication prescription for entry-level physical therapists, no direct change to American Board of Physical Therapy Specialties standards and DSPs would be required. However, specialty-specific laboratory tests and/or medications that may not be relevant to other specialties could be incorporated into the relevant DSPs in this scenario.

If prescriptive authority for laboratory tests and/or medication prescription will not become entry-level skills and responsibilities, utilizing specialization through residency training and/or board certification could be a viable alternative for expansion of prescriptive authority in these areas. In that case, each DSP would need to be updated to include general and specialty-specific language for laboratory values and medications. Utilizing the specialty pathway to expansion of prescriptive authority would more closely mirror the medical education model, under which residency (specialty) training is a requirement for independent practice, and it would facilitate standardization of relevant training requirements, as well as ensure ongoing competence via the Maintenance of Specialist Certification process.

U.S. Other/Advanced

With any new privilege or prescriptive authority deemed to be within physical therapist scope of practice, opportunities to achieve competency in that set of knowledge, skills and abilities must be made available for physical therapists who may not have learned this in school This can be in multiple forms and platforms. The task force supports the development of more continuing education opportunities, scholarly activities, and written materials for licensed PTs to expand the current knowledge, skills, and abilities to meet the requirements of advancing clinical practice. These can be modeled after existing military and international practices. Conversations about this authority should begin at local, regional, state, and national meetings to increase awareness among practicing physical therapists.

International

It is important to note that the APP scopes of practice vary by country, and all require post entry-level education and recommended years of clinical experience. Regarding educational requirements for APP, World Physiotherapy states: (World Physiotherapy, 2023):

> Advanced practice requires additional education and training, significant professional experience and competency development. It also involves collaborative work with other health professionals, research, knowledge translation and leadership in service delivery.

Currently, there is no globally defined educational pathway nor is there a globally agreed definition of advanced physiotherapy practice competencies. World Physiotherapy wishes to harmonise and co-ordinate the development of advanced physiotherapy practice through the development of consistent descriptions and guidelines regarding competencies, as well as the sharing of developments globally.

Recommended Next Steps

1. Ensure that the Guide to Physical Therapist Practice includes language that supports desired change(s) to scope of practice as part of differential diagnosis and/or physical therapist interventions.
2. Determine the competencies necessary for physical therapists to perform the desired new skill/task.
3. Determine the gap between existing entry-level curriculum and competencies necessary to perform the new skill/task competently and safely.
4. Develop educational materials for faculty and educational institutions to ensure consistency in education about the new skill/task.
5. Develop educational materials for state boards and/or in conjunction with academies.
6. Develop educational materials/programs for current physical therapists who may be missing knowledge, skills and/or abilities.
7. Get conversations about the new skill/task started via presentations at national, state, and local meetings as well as academy meetings. Articles in key journals will also stimulate conversation.
8. Provide information for academies and sections with specialty certification to include competencies within their DSPs.

Legislative and Regulatory Considerations

Information related to state practice acts, laws, and regulations outside physical therapy and further details about the political landscape will be shared with respect to each individual privilege or potential privilege investigated and reported.

Model Practice Act

The current edition of the Model Practice Act for Physical Therapy (7th edition) states that "practice of physical therapy" means:

a. Examining, evaluating and testing patients/clients with mechanical, physiological and developmental impairments, functional limitations, and disabilities or other health and movement-related conditions in order to determine a diagnosis, prognosis and plan of treatment intervention, and to assess the ongoing effects of intervention."

The term "testing" is further defined as "standard methods and techniques used to gather data about the patient/client, including but not limited to imaging, electrodiagnostic and electrophysiologic tests and measures."

The current edition of the Model Practice Act does not contain language that recognizes the ability of PTs to prescribe medications.

Examples From Other Professions

Previous struggles for prescriptive authority by these professions can inform physical therapists' efforts.

Psychiatrists Versus Psychologists

In New Mexico in 2002, psychologists attempted to gain prescriptive authority in the context of improving access to care in rural settings. This came at a time when the state legislature and governor were advocating for mental health care in the rural community. Psychiatry opposed this and ultimately advocated for an amendment to approve training for those allowed to have prescriptive authority. The governor was a proponent of the psychologists' proposal, viewing it as removing a layer of bureaucracy from the process of getting medications to patients in rural areas.

In Louisiana in 2004, psychologists attempted to gain prescriptive authority. Seeing a window open with a shortage of psychiatrists, more psychiatrists opting out of Medicare and Medicaid, and rising health care costs, the psychologists found allies in the senate president (a medical doctor) and the house speaker. Using the recent policy in New Mexico as a template, the Senate president and House speaker (both Democrats) sponsored a bill. The narrative used by psychologists was that it would boost mental health care while providing cost savings. Also, it would ensure greater coordination of care between the physicians and psychologists since it requires consultation/agreement on the course of treatment. Psychiatry opposed it, saying it was hasty and that the Senate president suspended normal rules.

In Illinois in 2014, psychologists were granted prescriptive authority, but with psychiatrists negotiating stricter rules. Their prescriptive authority was limited to patients older than 17 and younger than 65, not pregnant, and not disabled. As well, in addition to consulting with physicians, psychologists require more stringent training.

Takeaways from these examples include the following:

> **Framing.** Consider framing in the context of increasing access in rural areas and cost savings in reducing visits to physicians for more basic medications.
>
> **Training.** Demonstrate the training (or extra training) that will be required for physical therapists to have this authority.
>
> **Other Disciplines.** in any efforts to gain prescriptive authority, consider other professions and our partnerships and/or past interactions with them. A cost/benefit analysis should be performed with these relationships in mind.

Physician Associates (PAs) (call with Stephanie Radix from AAPA on 4/23/24)

On April 23, 2024, the task force met with a representative from the American Association of Physician Associates (formerly known as physician assistants). As PAs sought prescriptive authority in several states, physicians were not amenable to delegating this task to them. However, AAPA emphasized patient need. With this frame in mind, PAs have asked patients to tell their stories.

They have attempted partnering in two states with nurses. This can create challenges at times with other organizations having similar but separate agendas.

Takeaways from this include the following:

> **Independence of PTs.** Use our autonomy in our favor. Unlike PAs, physical therapists do not work under the direction and supervision of physicians; they practice independently. This sets us apart from PAs in their attempts in this arena.
>
> **Patient involvement.** Have patients tell their stories. Demonstrate patient need. This view of demonstrating patient need is supported by FSBPT, which recommends the need to establish the "why" for making the change. Answering the "why" can inform future competencies. FSBPT's mission: To protect the public by providing service and leadership that promote safe and competent physical therapy practice.

Political Landscape

Allies

Coalitions. While there is no known evidence of allies in this area, it is recommended to consult with health professionals who have worked with APTA previously (AOTA, ASHA, etc), to explore the potential for forming coalitions.

Patient advocacy groups. Patient advocacy groups should be consulted on how this may benefit their constituents, and what coalitions may be formed. As noted with prescriptive authority, it must be emphasized that this is for the purpose of providing quality care to the patient (safe, efficient, effective, timely, patient-centered, and equitable). Of these factors, safety needs to be emphasized the most.

Policymakers. It would be worthwhile to determine which politicians have been advocates for our profession previously. Also, do any policymakers have a health care background?

Opponents

Chiropractors. One group to consider are chiropractors, who have opposed efforts by physical therapists in gaining direct access and manipulation.

Other external providers. Other groups that might oppose these efforts are those who have varying levels of prescriptive authority. This includes, but is not limited, to the AMA and certain specialists within this group (orthopedics, infectious disease, psychiatrists, etc), optometrists, nursing, doctors of osteopathy, and pharmacists (Hilts, 2003).

Internal opposition. Internally, fellow PTs and PTAs may not support and may actively work against the effort to gain prescriptive authority. A climate assessment should be taken to better understand what levels of support and opposition will come from within the profession.

Other Considerations

Problem/potential frame. With the high incidence of musculoskeletal pain, and physical therapists being a first point of contact for many patients, authority to order laboratory and imaging studies as well as prescribe medication, equipment and supplies makes the health system more efficient and effective. It reduces the time spent going between providers (a therapist referring to a physician for these things). More specifically — following the lead of psychologists in New Mexico — the efficiency of and access to care in the rural setting can be improved.

Politics. APTA's lobbying experience and efforts are strong, but is this taking resources away from other priorities?

Case Study: Imaging

In June 2016, the APTA House of Delegates passed RC 12-16 by a 93% favorable vote, which amended APTA HOD P06-12-10-09 Diagnosis by Physical Therapist to explicitly include the ordering of imaging studies. The 2016 House of Delegate also charged APTA to pursue efforts to recognize the legal authority of physical therapists to order imaging as part of the physical therapist scope of practice. Since 2016, APTA and its state chapters have progressed advocacy efforts to recognize the legal ability of PTs to order imaging studies. In addition, a number of resources and tools have been created to assist and support chapters, state boards, and members on this issue. Currently, 11 jurisdictions expressly permit PTs to order imaging studies.

This abbreviated report presents the rationale for this change, associated education, and competency requirements as well as legislative and regulatory considerations.

Rationale for Change

A review of related literature and APTA documents, as well as conversations with PTs employed by the federal government in civil service and members of the uniformed services, a professional liability company (HPSO), and APTA staff have provided the following insight regarding the rationale supporting the House's 2016 decision to add imaging ordering to the physical therapist scope of practice.

Societal Need

An American Academy of Medical Colleges report indicates there will be a shortage of primary care physicians between 21,400 and 55,200 by 2033 (Global Data PLC, 2024). Physical therapists are well-suited to help fill some of this gap because physician office caseloads indicate that back and spine pain and arthritis account for two of the top 10 reasons for a primary care visit (Finley, 2018).

Additionally, as direct access practitioners who provide services without an order or referral from any other health care professional, physical therapists can be a patient's entry-point into the health care system for particular illnesses or injuries, or wellness services. When the PT identifies red flags, or the examination findings do not match the patient's complaints, it may be appropriate for the PT to order diagnostic imaging tests to answer specific questions, arrive at a definitive diagnosis, and help direct the physical therapist plan of care.

A 2022 narrative review of literature describes the many benefits of this type of autonomous and integrated care, including improved patient access to care and increased efficiencies of health care resources such as spending and use of services (Clark, 2022).

Evolution of Practice

Physical therapists practicing as direct access providers for nonsurgical management of musculoskeletal injuries in the U.S. military have been ordering imaging studies successfully since the Vietnam War (Szymanek, 2022). Today, these privileges are locally credentialed to individual therapists based upon training and competence as well as site-specific needs. PTs are assessed and re-credentialed at regular intervals. Other government agencies, such as the Indian Health Service (1994) and U.S. Department of Justice Federal Bureau of Prisons (2011) followed suit with expanded clinical privileges for physical and occupational therapists with applicable training or certification.

Despite advocacy efforts and subsequent successful legislative changes since 2016 by APTA and its state chapters to expand the legal authority of PTs to order imaging studies, a survey of U.S. physical therapists distributed during 2020-2021 revealed that awareness of imaging privileges and practice of imaging referral remained relatively low (Mabry, 2023).

Evidence-Based Practice

A commonly cited concern related to expanded prescriptive authority is potential overuse of health care resources. However, multiple studies of physical therapists initiating imaging referrals in the U.S. have refuted this concern. For example, a retrospective study from a university hospital where physical therapists who have met center-specific competency requirements have unrestricted diagnostic imaging referral privileges found that these PTs appropriately used diagnostic imaging in 91% of the studies ordered over five years. (Keil, 2019).

Inherent in this privilege are the associated responsibilities and risks. When imaging tests reveal findings that require follow-up with a medical provider, the ordering clinician must provide this information to the patient, ensure the patient's understanding, and assist with referral if the patient does not have a preexisting relationship with this type of provider. Although liability claims could result from physical therapists ordering diagnostic imaging studies, HPSO — a company that has provided professional liability insurance to physical therapists for decades — shared that their data does not reflect any claims for PTs related to imaging in the jurisdictions where PTs are currently authorized to order imaging studies.

To mitigate risks and potential liability claims associated with physical therapist imaging privileges, HPSO recommends adherence to the following actions:

- Adjust the PT plan of care based upon abnormal results of diagnostic imaging studies.
- Ensure order of the correct test, especially if PTs broadly obtain the ability to order imaging.
- Acknowledge incidental findings without delay and ensure proper follow-up and/or referral to a provider.
- Notify the primary care provider of results.
- Follow-up when the patient does not have a primary care provider, resulting in potential gaps in care related to non-PT-related results.
- Document the recommendations the PT has provided to the patient.
- Ensure no delay or failure to diagnose.

Education and Competency Requirements

Investigation of current Commission on Accreditation in Physical Therapy Education standards, related literature, and other resources in addition to conversations with the Federation of State Boards of Physical Therapy provided the basis for this summary of prerequisite education and demonstration of competency.

Entry-Level Versus Advanced Practice

Knowledge of diagnostic imaging is considered essential for entry-level physical therapists, as it relates to foundations for evaluation, differential diagnosis, and prognosis. As such, this topic is included in the content outline for the 2024 National Physical Therapist Licensure Examination (FSBPT, 2024). However, it is listed as an example of nonpharmacological medical management of each body system. Other stated examples in this area include tests and procedures for which physical therapists do not currently have prescriptive authority, such as laboratory testing, other medical tests, and surgical procedures.

Many states do consider the practice of ordering imaging studies to be an advanced skill, and in those states this privilege is tied to detailed specifications such as a DPT degree and/or additional training requirements (APTA, 2023).

Standards

Consistent with the evolution of practice, CAPTE added a specific imaging curricular standard in 2016. Since then, CAPTE has required in its Standards and Required Elements for Accreditation of Physical Therapist Education Programs for programs to address how diagnostic imaging is covered in the DPT curriculum (Standard 7A). Programs provide narratives as to where and how this content area is included in the professional curriculum. In addition, the programs provide a maximum of three to five examples of course objectives demonstrating the highest expected level. These requirements remain the same for CAPTE's 2024 Standards and Required Elements (Standard 7A).

Education and Competence

In 2015, the Imaging Special Interest Group of the APTA Academy of Orthopaedic Physical Therapy created an Imaging Educational Manual and other resources to assist academic and clinical faculty. However, a survey of accredited DPT programs conducted in 2022-2023 noted a large discrepancy in imaging content hours and method of instruction (Hazle, 2024).

As noted in the discussion of the evolution of practice, different jurisdictions have varying interpretation of the knowledge, skills, and abilities required to perform this task safely and the most effective way to ensure a PT's competence with this expanded privilege.

Legislative and Regulatory Considerations

When the 2016 APTA House of Delegates charged APTA to develop and promote a plan to achieve practice authority for ordering and performing imaging studies (APTA minutes, 2016), the association assessed the legal landscape in selected jurisdictions to identify potential barriers and challenges. This included an analysis of legislative and regulatory considerations related to both the various state physical therapy laws and the laws governing other providers. APTA collaborated with the APTA Imaging SIG to develop strategies and resources for this initiative. APTA also worked with its state chapters, FSBPT, and various state boards to initiate legislative and regulatory changes that would acknowledge the legal ability of PTs to order imaging studies. APTA State Affairs staff and the APTA Imaging SIG hosted webinars for state chapters leaders, legislative chairs, and chapters lobbyists to provide training on advocating on this topic in their state legislatures. FSBPT has also provided webinars and sessions at their annual conference for their members representing the various state physical therapy licensure entities.

Model and State Practice Acts

APTA held discussions with FSBPT to address concerns related to state licensure boards' obligation to public protection. This collaboration resulted in FSBPT's seventh edition update of The Model Practice Act for Physical Therapy: A Tool for Public Protection and Legislative Change FSBPT in 2022 to specifically list imaging as part of physical therapist practice. It describes the "practice of physical therapy" as "examining, evaluating and **testing** patients/clients …" [emphasis added] and defines testing as "standard methods and techniques used to gather data about the patient/client, including but not limited to imaging, electrodiagnostic and electrophysiologic tests and measures" (model practice act).

It should be noted that all U.S. jurisdictions allow PTs to "refer" a patient to an appropriate provider when red flags are identified. In fact, many state physical therapy practice acts state that it is a violation if a physical therapist does not refer a patient for additional studies or evaluation by an appropriate provider when such a red flag appears. As such, PTs can refer a patient to a physician or radiologist with the recommendation for imaging studies. This differs from a PT providing an order for imaging studies, which is a request, as opposed to a recommendation.

Since 2016, a number of APTA state chapters have successfully lobbied for legislation or obtained positive legal interpretations explicitly expanding the legal scope of practice for physical therapists to order imaging studies. Some of these jurisdictions do so via explicit state statutes, and others have provided clarification through physical therapy licensure board rules, policies, or opinions. Some states permit imaging orders in general, whereas others have detailed specifications such as training requirements (advocacy doc).

As of June 1, 2024, states that have passed legislation or issued legal interpretations that recognize the ability of PTs to order x-rays and/or imaging studies include Arizona, Colorado, District of Columbia, Iowa, Maryland, New Jersey, North Dakota, Rhode Island, Utah, West Virginia and Wisconsin. In some states, such as North

Dakota and Rhode Island, PTs may order only X-rays, but in other states such as West Virginia, these privileges extend to “any type of diagnostic imaging study.”

Laws and Regulations Outside Physical Therapy

It is important to note that when it comes to expanding prescriptive authority for physical therapists, barriers often exist in the laws governing other providers. As such, legislative action to expand the prescriptive authority for physical therapists within state physical therapy laws and regulations alone will not meet the goal. When other providers are involved in the performance of tests, studies, or medications, the legal scope of those providers’ legal scope might need to be amended to recognize their ability to **accept** an order from a physical therapist. An example of this barrier occurred in Wisconsin, when APTA Wisconsin sought to update their state physical therapy practice act to permit physical therapists to order X-rays. They discovered that the radiologic technology practice act in their state did not allow radiologic technologists to accept X-ray orders from physical therapists. The chapter sought legal advice and ultimately introduced legislation to amend the Wisconsin radiologic technology practice act to allow them to accept orders from physical therapists.

State chapters that wish pursue imaging privileges have been encouraged to work with APTA State Affairs and the APTA Academy of Orthopaedic Physical Therapy Imaging SIG, both of which can provide information, advocacy tools, talking points, grassroots, and other assistance, such as the SIG’s extensive education resources.

Political Landscape

Changes to scope of practice are often met with political opposition from other provider groups, although the opposite also has been true, as with anecdotal evidence in one state that an influential orthopedic surgeon supported imaging ordered by physical therapists. To minimize such an impact, working with various other groups is recommended; for example, APTA Wisconsin’s negotiations in amending the state’s radiologic technology practice act included the state medical society, state hospital association, chiropractors, and health plans.

Conclusion

Physical therapists in multiple settings across the U.S. have demonstrated their ability to order imaging studies safely and judiciously. APTA supports the inclusion of ordering imaging studies within physical therapist scope of practice. The Wisconsin case study related to ordering imaging could be used as a roadmap for expanding prescriptive authority related to imaging in states that do not currently provide this privilege, or for other potential changes to physical therapist scope of practice. However, any efforts to expand prescriptive authority for physical therapists does require personnel resources, time, and funding. Legal scope of physical therapist practice is governed by state licensure laws and regulations. Efforts to pursue changes to state licensure laws is determined by each APTA state chapter (with support from APTA). Timing of such state legislative or regulatory efforts is determined by the state chapter based on the political landscape in their state, other competing legislative or strategic priorities, and state chapter member needs.

Case Study: Durable Medical Equipment, Prosthetics, Orthotics and Supplies

In 2013, the APTA House of Delegates passed HOD P06-13-28-28, adopting the position statement Access to Durable Medical Equipment:

- Resolved, That the American Physical Therapy Association supports physical therapists as authorized prescribers of durable medical equipment;
- Resolved, That the American Physical Therapy Association supports and advocates for patients' and clients' access to high-quality, cost-effective, appropriate durable medical equipment; and,
- Resolved, That the American Physical Therapy Association supports and advocates for patients' and clients' access to technology-related durable medical equipment services and to clinically related durable medical equipment services including professional services provided by physical therapists, and will advocate for choice, access, quality, cost-effectiveness, and adequate funding to allow patients and clients to live active and productive lives in their homes and communities.

Durable medical equipment encompasses a wide range of items under the federal statutory definition of the Medicare benefit that includes orthoses, prostheses, wheelchairs, canes, traction equipment, negative pressure would therapy devices, and others.

Physical therapists are currently qualified suppliers of DMEPOS under Medicare statute and regulations. However, PTs are not included in the Centers for Medicare & Medicaid Service's list of authorized prescribers/ordering providers for DMEPOS under the Medicare benefit.

This abbreviated report summarizes the information gathered related to physical therapists' prescriptive authority for DMEPOS.

Rationale for Change

A review of related literature and APTA documents, as well as conversations with PTs employed by the federal government in civil service and members of the uniformed services, and APTA staff have provided the following insight regarding the rationale supporting the House's 2013 decision to add DMEPOS ordering to the physical therapist scope of practice.

Societal Need

Physical therapist prescription of DMEPOS is essential to providing timely, cost-effective, quality health care. With respect to patient access, an American Academy of Medical Colleges report indicates there will be a shortage of up to 55,200 primary care physicians 2033 (Global Data PLC, 2024; Finley, 2018). As direct access practitioners who provide services without an order or referral from another health care professional, physical therapists stand ready to fill the physician gap as the entry point for patients in need of DMEPOS to maintain mobility and function. Individuals who present before a physical therapist may have needs for DME to maximize their function so they can live active, safe, and productive lives in their homes and communities. Article 20 of the United Nations Convention on the Rights of Persons with Disabilities guarantees the right to personal mobility and full inclusion and participation in all aspects of life.
Parties must ensure that people with disabilities have the ability to move around independently, at their own time and place, and at an affordable cost. This includes providing access to mobility aids, devices, and assistive technologies at an affordable cost.

In 2022, 1.5 billion people in the United States needed walkers as part of their orthopedic, geriatric, or emergency care. This number is expected to increase in the next decade with the rise in the geriatric population that will result in more orthopedic procedures and medical emergencies (Global Market Insights, 2023). In addition, an estimated 5.5 million people in the United States use a wheelchair (U.S. DOT), nearly 2.3 million live with limb loss, and over 3.4 million live with limb difference (Amputee Coalition, 2024). These people all depend on DMEPOS to function in their homes, workplaces, and communities.

Furthermore, physical therapist prescription of DMEPOS will serve to optimize the current process for patients, providers and the healthcare system. Physical therapists are qualified to evaluate patients' needs for DMEPOS, order appropriate devices, and ensure their proper fit and function. However, it is currently required (for payment for the device) that the PT communicates the DMEPOS need(s) to an authorized prescriber who then writes an order based on the PT's recommendation. These extra steps create unnecessary administrative burden, potential additional health care appointments and can also lead to a delay in patients receiving their DMEPOS. Such delays can cause patient safety risks and patient frustration as their activity and participation are limited (Wang, 2021).

Evolution of Practice

The Guide to Physical Therapist Practice, APTA's seminal resource describing physical therapist practice and the foundations upon which that practice is built, states that it is within the physical therapists' professional scope of practice to select, prescribe, apply, fabricate, and modify adaptive technologies when the examination findings, diagnosis, and prognosis indicate that the use of these technologies will meet the individual's unique immediate and anticipated medical and functional needs. When such technologies already are in use' PTs use examination data, diagnosis, and prognosis to determine how effectively the technologies are working to meet the individual's needs (Guide to PT Practice, 2023).

Prescription, application, and, as appropriate, fabrication or modification of adaptive technologies are processes used to select, fit, and deliver adaptive technology devices that reduce the level of physical disability, promote activities and participation, and decrease pain caused by various pathologies and injuries. Proper prescription, application, and fabrication and/or modification of adaptive technologies can promote good posture; maximize comfort, safety, and efficiency during locomotion; enhance breathing and digestion; minimize risk for pressure ulcers, skin irritation, and other secondary impairments; slow progression of disability; minimize pain; and maximize function during activities of daily living and instrumental activities of daily living (Guide to PT Practice, 2023).

Per the Guide, prescription, application, and, as appropriate, fabrication and/or modification of adaptive technologies may include the following:

- Aids for locomotion (e.g., crutches, canes, walkers, rollators, manual wheelchairs, power wheelchairs, power-operated vehicles, exoskeletons).
- Orthoses (e.g., ankle-foot orthoses, knee-ankle-foot orthoses, body jackets, wrist cock-up splints, shoe inserts).
- Prostheses (e.g., transtibial and transfemoral prostheses, upper extremity prostheses).
- Seating and positioning technologies (e.g., custom-molded seating, removable lateral trunk supports and upper extremity support trays for wheelchairs, sidelyers, prone standers, manual or power recline systems for wheelchairs).
- Health monitoring and diagnostic wearables.
- Taping (e.g., strapping tape, elastic tape, kinesiology tape).
- Other adaptive technologies, including transfer technologies, to improve safety, function, and independence (e.g., transfer boards, mechanical lifts, safe patient-handling equipment, bathroom technologies including raised toilet commodes, adaptive commodes, transfer benches, and sliders).

Despite this foundation set forth in the Guide to Physical Therapist Practice, PTs find themselves effectively unable prescribe DMEPOS due to payer policies that mirror CMS guidelines.

Evidence-Based Practice

U.S. medical residencies in orthopedics and neurology offer little or no formal orthotic and prosthetic training. As a result, the expertise and training of the physical therapist, occupational therapist, and orthotist in the patient evaluation, mechanics, and fabrication of orthotics for patients with orthopedic diagnoses exceeds the knowledge and training of the physician specialties (Fisk, 2016).

Similarly, primary care physicians often manage the complex and lifelong medical needs of individuals with spinal cord injury and play a key role in wheelchair evaluation and prescription. However, when a new wheelchair or adjustments are indicated, PCPs should refer their patient to a physical therapist or occupational therapist who specializes in wheelchair prescription and fitting to justify the custom configuration that will optimize a patient's health. (Michael, 2020)

Education and Competency Requirements

Investigation of the National Physical Therapy Exam for PTs, current Commission on Accreditation in Physical Therapy Education standards, related literature, and other resources provided the basis for this summary of prerequisite education and demonstration of competency.

Entry-Level Versus Advanced Practice

Knowledge, skills, and abilities related to equipment, devices, and technologies are expected of all entry-level physical therapist clinicians as indicated by their inclusion in DPT education programs and the national licensure exam.

Standards

CAPTE requires in its Standards and Required Elements for Accreditation of Physical Therapist Education Programs for the professional curriculum to include [INSERT THE APPROPRIATE TOPIC FROM BELOW] (Standard 7A). In addition, programs are to prepare students to competently perform interventions involving "prescription, application, and, as appropriate, fabrication or modification" (Standard 7D27)

Education and Competence

The examination and interventions provided by physical therapists in DMEPOS is included in entry-level physical therapist education.

Passing the national licensure examination ensures clinician competence and patient and public safety. In the NPTE-PT Test Content Outline effective January 2024, the category Equipment, Devices, and Technologies refers to the different types of equipment, devices, and technologies, use requirements, and/or contextual determinants, as well as any other influencing factors involved in the selection and application of equipment, devices, and technologies, including consideration of current best evidence, in order to support appropriate and effective patient and client management for rehabilitation, health promotion, and performance across the lifespan. Specific areas of required knowledge include:

- Applications and adjustments, indications, contraindications, and precautions of assistive and adaptive devices/technologies (e.g., walkers, wheelchairs, adaptive seating systems and positioning devices, mechanical lifts)

- Applications and adjustments, indications, contraindications, and precautions of prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses, microprocessor controlled prosthetic devices)

• Applications and adjustments, indications, contraindications, and precautions of protective, supportive, and orthotic devices/technologies (e.g., braces, helmets, taping, compression garments, serial casts, shoe inserts, splints).

CAPTE also has Standards and Required Elements for prosthetics content in doctoral entry-level physical therapist programs, designed to prepare students to achieve educational outcomes required for initial practice of physical therapy. The 7D elements are provided to support faculty and programs with examples to demonstrate the required standard elements for accreditation.

The Academy of Acute Care Physical Therapy's Amputation and Limb Difference Curricular Guideline 2021 includes content related to limb difference , and prosthetic fundamentals for the lower and upper limbs, as well as legislative and regulatory considerations.

The Medicare DMEPOS benefit also includes wound care supplies and equipment. The Academy of Clinical Electrophysiology and Wound Management's Wound Management Special Interest Group has developed recommendations to support academic and clinical faculty in developing, updating, and implementing a robust entry-level integumentary/wound management curricular plan. Included are practice parameter selection and application techniques of available modalities appropriate for management of infection (e.g., pulsed lavage with suction, wound cleansing/irrigation, electrical stimulation, noncontact ultrasound, Negative pressure wound therapy).

Legislative and Regulatory Considerations

Model and State Practice Acts

The FSBPT Model Practice Act includes the following within the practice of physical therapy (item 17. B.): "prescription, application and, as appropriate, fabrication of assistive, adaptive, orthotic, prosthetic, protective and supportive devices and equipment" (7th Edition MPA, version 7.0). This language has been in the Model Practice Act since 1997.

Thanks to advocacy by APTA state chapters, some jurisdictions have adopted provisions (or variations of) from the Model Practice Act that include language that explicitly recognizes the application, fabrication, and/or modification of adaptive technologies, orthoses, and prostheses as part of the legal scope of practice. However, it is unclear if any jurisdiction has yet to explicitly include the prescription of DMEPOS within the statutory definition of physical therapy. The determination to pursue such a change in the state physical therapy licensure law is determined by state chapters based on their priorities, members' needs, and state political dynamics.

Laws and Regulations Outside Physical Therapy

Per the House position statement, APTA has engaged in efforts to support patient access to high-quality, cost-effective, appropriate durable medical equipment as well as to technology-related durable medical equipment services and clinically related durable medical equipment services. This work includes APTA engagement on various rules and regulations issued by the Centers for Medicare & Medicaid Services impacting DME, as well as federal legislative activity. Advocacy efforts have been primarily aimed at patients' and clients' access to high-quality, cost-effective, appropriate durable medical equipment and technology-related durable medical equipment services, as well as choice, access, quality, cost-effectiveness, and adequate funding for DMEPOS. (See Appendix 2 for a detailed list of advocacy efforts and priorities.)

In the current session of the U.S. Congress, APTA is supporting the Medicare O&P Patient-Centered Care Act (H.R. 4315). This legislation would ensure that Medicare beneficiaries are able to access the orthotic and prosthetic devices they need through three major provisions. First, Medicare beneficiaries would be ensured of

timely access to a replacement custom-fitted and custom-fabricated orthosis if an ordering physician determines that a replacement orthosis is necessary if there is a change in the physiological condition of the patient, there has been an irreparable change in the condition of the orthosis, or the cost of repairs would be excessive. Under current law, Medicare beneficiaries often wait years before the Medicare program will cover a replacement orthosis, regardless of whether the orthosis is medically necessary. Second, physical therapists, occupational therapy practitioners, orthotists and prosthetists, and physicians would be exempt from competitive bidding when providing off-the-shelf orthoses to Medicare beneficiaries in the course of their practice. This would allow these providers to furnish off-the-shelf orthoses without a competitive bidding contract. Finally, “drop-shipment” of all custom-fitted and custom-fabricated orthoses and all prostheses to a Medicare beneficiary’s home without clinical intervention by a provider or supplier would be prohibited, reducing the likelihood of waste, fraud, and abuse. This would result in significant cost savings to the Medicare program while protecting patient access to clinical assessments, fittings, adjustments, and other related clinical care.

APTA has not yet engaged in federal advocacy aimed at adding licensed physical therapists as qualified prescribers or ordering providers of DMEPOS under the Medicare benefit. Such a change would require federal legislation, which would necessitate substantial resources due to the expectation that increasing the number of ordering providers may result in higher DMEPOS costs as well as factors related to the current political landscape.

Political Landscape

Legislation to explicitly add physical therapists as authorized prescribers of DMEPOS under Medicare would likely be opposed by other stakeholders, such as physician groups. Such an effort would require collaboration with other therapy providers such as occupational therapists, who are also suppliers of DMEPOS but not currently authorized prescribers.

It is also anticipated that CMS would strongly oppose such legislation in the current environment given ongoing issues related to fraud and abuse under the DMEPOS benefit. These concerns are illustrated in the revisions to the DMEPOS chapter of the Medicare Program Integrity Manual in February 2024, which clarify the communication and documentation required to verify that a beneficiary’s ongoing DMEPOS needs remain reasonable and necessary (CMS, Medicare Program Integrity Manual).

Furthermore, this effort would require negotiations and potential trade-offs. Whenever a change in policy is estimated to increase federal spending, such as this one (more prescribers ordering equipment = more equipment ordered), other areas must be identified where federal spending could be decreased.

Since enactment of the APTA House of Delegates position about DME in 2013, APTA has been focused on strategic priorities in Congress that were deemed to be policy priorities for the association, such as payment, repeal of the Medicare therapy cap, enactment of the Allied Health Workforce Diversity Act, the PTA payment differential and supervision, year-over-year cuts to the Medicare Physician Fee Schedule, student loan debt, administrative burden (eg, prior authorization and locum tenens), among others. In addition, beginning in March 2020 APTA was focused on various issues related to the COVID-19 pandemic such as congressional relief packages for providers, telehealth, Medicare sequestration, the advent of long COVID, etc.

Conclusion

Entry-level physical therapists do have the knowledge, skills and abilities to prescribe DMEPOS but the lack of recognition from CMS as an authorized prescriber means that any equipment ordered by a PT would not be financially covered.

APTA could consider the inclusion of adding PTs as ordering providers of DMEPOS for future editions of the APTA Public Policy Priorities. This request potentially could pertain to all DMEPOS or be limited to a specific section of DMEPOS, such as ambulatory aids — there is precedence for such limitations, as optometrists have restrictions on their ability to order supplies (CMS, Ordering & Certifying). Introduction of such a bill would need to be considered alongside other competing legislative or strategic priorities. Necessary information required to make an informed decision about policy priorities includes member value and estimated costs to the association for the initiative, as well as the estimated congressional score for such a proposed bill. A congressional or legislative score is the calculated estimated increase in federal spending that would result from the implementation of a proposed policy.

Investigation: Laboratory Studies

As direct access practitioners, physical therapists may encounter situations that are appropriate for ordering laboratory studies. Examples include:

- Screening lab tests for clients without injury or illness who seek care via a wellness visit or sports/workplace physical examination to identify potential health disorders.
- A pregnancy test that is prerequisite to, or part of an order set, for imaging studies, which physical therapists are permitted to order in a growing number of jurisdictions.
- Lab tests for a physical therapist patient who presents with specific complaints, to identify whether the presentations are within or beyond the physical therapist's scope of practice, the goal being to obtain information that may prompt referral to another health care provider and help inform the physical therapist plan of care.

The investigation of the feasibility of ordering laboratory studies within physical therapist scope of practice included inquiries into why and how this change might take place as well as potential barriers and facilitators.

Rationale for Change

Societal Need

In addition to the potential benefits related to health care access and cost described earlier, the ability for a physical therapist to order lab studies may facilitate a more appropriate prescription of physical therapist interventions. For example, a patient with low albumin and prealbumin levels would not tolerate the same intensity of muscle-strengthening exercise to achieve the desired outcome compared with a patient who has the metabolic capacity for optimal muscle development. This finding could facilitate the need for appropriate physical therapist intervention and the need for medical/nutritional referral to enhance the overall holistic and clinical outcomes for the patient (CAPTE 7D10).

Evolution of Practice

United States

The extent of DOD physical therapists' utilization of laboratory studies is lacking in the literature. Two published case series written by military PTs describe how laboratory studies were used as part of medical screening and/or differential diagnosis for conditions such as gout and cancer (Crowell 2012, Rhon 2013). More recently, an observational study performed at a military health clinic compared the utilization patterns of advanced privileges (to include laboratory studies) and corresponding safety events between PTs and primary care providers. The study reviewed the clinical records of six to 11 physical therapists over a three-year period, resulting in 41,656 total PT encounters. Of note, only one of the PTs included in the study

was a graduate of the sole military-based PT program; all other PTs were graduates of civilian universities. Over the three years, PTs ordered a total of 32 laboratory studies, with no safety events reported.

A supplementary table from a 2020 article by Mabry (see Table 2) lists examples of laboratory tests ordered by military PTs and the conditions these tests may aid in screening. An appropriate menu of laboratory studies, in line with the education and skills possessed by physical therapists working in any particular setting, can be developed.

Table 2: Examples of Laboratory Tests Ordered by Military PTs

Laboratory Test	Example of condition tested
Serum Creatine Kinase (CK)	Rhabdomyolysis
Complete Blood Count (CBC)	Infection
Erythrocyte Sedimentation Rate (ESR)	Infection
C-Reactive Protein (CRP)	Infection
Human leukocyte antigen B27 (HLA-B27)	Ankylosing Spondylitis
Vitamin D	Vitamin D Deficiency

Although civilian PTs in the U.S. do not routinely order lab tests, consumers in some jurisdictions are able to directly order lab tests for themselves without a clinician order (ACLS, 2024). In a 2021 position paper, the American Society for Clinical Laboratory Science stated that this is a result of a shift from a clinician- to consumer-driven focus, where patients take responsibility for their own health care. It is important to note that only tests that have an FDA clinical laboratory improvements amendments waiver can be ordered by consumers. Waivered tests have been determined to have simple procedures, very low risk of error, and “no unreasonable risk of harm if performed incorrectly” (US FDA, 2024). State laws vary in the ability of consumers to directly order their own lab tests, with some allowing it, others disallowing it, some not stipulating, and others allowing with limitation. Furthermore, a consumer may not be reimbursed through their health care insurer for lab studies not ordered by a clinician.

International

The U.K.’s, Australia’s, Canada’s, and New Zealand’s APP scopes specifically include the ordering of lab studies (Taiwah, 2023). A 2023 international framework of APP competencies and capabilities, developed from a scoping review of published studies and government guidelines, and a qualitative study of clinical expert APP’s, includes the following relevant competency: “Requests and interprets diagnostic investigations based on jurisdictional provisions and with appropriate predetermined authorizations (e.g., diagnostic imaging or laboratory investigations)” (Tawiah 2023, 2024).

Education and Competency Requirements

No specific information on laboratory studies could be found in the CAPTE documents. CAPTE Standards and Required Elements for Physical Therapist Education state that “differential diagnosis” must be included in the physical therapist professional curriculum. If physical therapists are to have the privilege to order laboratory

studies, further exploration as to how these skills are taught in alignment with “differential diagnosis” is needed to assess DPT students’ competency.

Legislative and Regulatory Considerations

State Practice Acts

No state physical therapy practice act contains explicit statutory language recognizing the ability of PTs to order clinical lab test. APTA Arizona introduced legislation in 2024 (SB 1266) to add laboratory tests to the scope of practice act; however, that legislation did not pass. Some state practice acts have prohibiting language; for example, South Carolina law does not allow PTs to “order laboratory or other medical tests.”

Laws and Regulations Outside Physical Therapy

Current CMS regulations do not allow physical therapists to order laboratory tests for Medicare and Medicaid beneficiaries. Regulation 42 CFR 410.32(a)(2) states that the only nonphysician providers who can order diagnostic laboratory tests are the following (most of whom must work under the direction and supervision of a physician): clinical nurse specialists, clinical psychologists, clinical social workers, marriage and family therapists, mental health counselors, nurse-midwives, nurse practitioners, and physician associates.

Dietitians have a unique role in lab ordering, in that in 2014 CMS ruled that registered dietitians could become privileged to independently write orders. In response, the publication Ostomy Wound Management published “Nutrition 411: New CMS Rule Gives Dietitians Order Writing Privileges” (Collins, 2014). The article states:

> The Centers for Medicare and Medicaid Services (CMS) announced a final rule that will allow registered dietitians (RDs) to become privileged to independently write orders beginning July 11, 2014.
>
> Under the new rule, qualified RDs will be able to order patient diets and hospitals will be able to privilege them to order nutrition-related **laboratory tests** to monitor and modify diet plans without the supervision or approval of a physician. “Eliminating extra steps in the treatment process will free up resources, allowing all healthcare providers to care for patients more effectively and efficiently,” according to Glenna McCollum, Past President of the Academy of Nutrition and Dietetics. The CMS estimates the savings from the new rule at $459 million per year.
>
> As the CMS previously noted, “Our intent in revising the provision was to provide the flexibility that hospitals need under federal law to maximize their medical staff opportunities for all practitioners, but within the regulatory boundaries of their State licensing and scope-of-practice laws.”
>
> Relevant portions of the final rule are on pages 5, 11, 13, 33, 43-52, 112, 144–145, 150–159, 177–178, and 186–187. The entire rule can be read here.

Note CMS stating that dietitians’ ordering privileges still depend on regulatory boundaries and scope of practice laws. Therefore, their ability to order labs varies by state. Working with CMS to establish a rule for PTs similar to the one for dietitians may be a consideration for next steps.

Examples From Other Professions

The ability of nonphysician providers to order laboratory testing varies widely from state to state. Examples of nonphysician providers who are permitted to order laboratory tests in some states are chiropractors, nurse practitioners, psychologists, physician associates, optometrists, pharmacists, dietitians, and acupuncturists. Regulatory approaches to nonphysician providers ordering laboratory tests also vary widely.

Table 3 shows a summary of authority to order laboratory tests for six nonphysician professions in a sample of 10 states that were explored and appendix 3 provides the specific regulatory language used.
Nurse practitioners and physician associates are authorized to order laboratory tests in all states that were sampled. Nurse practitioners tend to have unrestricted ability to order laboratory tests, whereas physician associates are often restricted to ordering within the scope of the supervising physician.

Table 3: Authority of Nonphysician Providers to Order Laboratory Studies – 10-State Sample

	Chiropractors	Nurse Practitioners	Psychologists	Physician Associates	Optometrists	Pharmacists
Arizona	Restricted	Unrestricted	None	Unrestricted	None	Restricted
California	Unrestricted	Unrestricted	Unclear	Unrestricted	Restricted	Restricted
Colorado	Unrestricted	Unrestricted	Unrestricted for "Prescribing Psychologist"	Unrestricted	None	Restricted
Maryland	Restricted	Unrestricted	None	Restricted	Unrestricted	Restricted
Mississippi	Restricted	Restricted	None	Restricted	None	Restricted
Missouri	Unrestricted	Restricted	None	Restricted	Restricted	Restricted
New York	Restricted	Unrestricted	"Within scope of practice"	Restricted	Restricted	Restricted
Oregon	Unrestricted	Unrestricted	None	Unrestricted	Unrestricted	Unrestricted
South Carolina	Unclear	Restricted	Unclear	Restricted	Unclear	Restricted
Vermont	Unrestricted	Unrestricted	Proposed	Unrestricted	None	Restricted

Unrestricted: Provider may order any test without a relationship with another provider.
Restricted: Ordering authority is restricted either in which tests may be ordered or by being required to have a relationship with another provider or be part of a health system.
Unclear: Evidence could not be found to allow or prohibit ordering authority.

Chiropractors are also authorized to order laboratory tests in all 10 states that were sampled. In Colorado, Missouri, Oregon, and Vermont there are no restrictions for chiropractors wanting to order laboratory testing. In states that have restrictions, those restrictions are vague, such as "only those that are in the best interest of the patient" in Mississippi; or are specifically limited, such as to "nasal swabs, oral swabs, sputum collection, urine collection, finger pricks or venipuncture" in Arizona, or, in New York, to a specified list of laboratory tests that they are authorized to order (NY State Education Dept, 2002).

Where pharmacists are authorized to order laboratory tests, they tend to be limited to ordering tests that are required to monitor the safety and effectiveness of medications. For example, Section 4052(a)(12) of the California Business and Professional Code states that pharmacists can "Order and interpret tests for the purpose of monitoring and managing the efficacy and toxicity of drug therapies … in coordination with the

patient's primary care provider or diagnosing prescriber …" Pharmacists are also often required either to have a collaborative practice agreement with a physician or practice or to work within a health system. In New York, Missouri, Arizona, Colorado, and Vermont, pharmacists can order laboratory tests only as part of a collaborative medication management agreement with an authorized facility or physician.

Optometrists tend to be more limited in their authorization to order lab tests. Optometrists cannot order laboratory tests in four of the states sampled: Arizona, Colorado, Mississippi, and Vermont. Where optometrists do have authority to order laboratory tests, they are often restricted to those relevant to conditions of the eye. For example, the optometry practice act in Missouri limits optometrists to ordering tests for "conditions of the eye and adnexa." Similarly, the optometry practice act in California also limits authorization to order testing to tests for "conditions of the eye and adnexa" and tests for "detecting indicators of possible systemic disease that manifests in the eye for the purpose of facilitating appropriate referral to or consultation with a physician and surgeon." In New York, optometrists' ordering authority is restricted to a list of specified laboratory tests. In two of the states sampled, Maryland and Oregon, optometrists have unrestricted authority to order laboratory tests.

State practice acts governing acupuncturists' ability to order lab tests also vary. There are restrictions in Mississippi; use is unrestricted in Arizona, Arkansas, Florida, New Mexico, and California.

Arizona acupuncturists, fairly recently (proposal in 2020) expanded their scope of practice to include lab testing, stating in the proposal: "Increasingly, states across the U.S. are adding the ability for Acupuncturists to use allied diagnostic techniques (see , Florida, New Mexico, and California). Permitting licensed acupuncturists to order diagnostics further enables their ongoing integration into a patient's health care team and enables more thorough interprofessional communication. Additionally, it supports appropriate patient referral as needed."

To be a licensed acupuncturist in Arizona, one must be "certified by the national certification commission for acupuncture and oriental medicine (NCCAOM), or its successor organization, or another certifying body or examination that is recognized by the board." The NCCAOM requires a master's level degree in oriental medicine, acupuncture, or Chinese herbology to apply for certification. The master's level education includes biomedicine, likely the foundation for the ability to order labs. According to CAPTE, a doctoral program for physical therapy must include the following curriculum: anatomy, physiology, pathology, cellular and tissue health throughout the life span for the included body systems, body system interactions, differential diagnosis, health and surgical conditions seen in physical therapy, genetics, exercise science, biomechanics, kinesiology, neuroscience, motor control and motor learning, diagnostic imaging, nutrition, pharmacology, pain and pain experiences, and psychosocial aspects of health and disability.

Comparing the education requirements, the DPT education is more medically comprehensive than the requirements for acupuncturists in Arizona and, therefore, a licensed PT would be as qualified or more qualified to order labs. The other states with no restrictions refer to an acupuncturist as a doctor of oriental medicine and/or give the designation of primary health care provider, therefore deeming lab ordering as part of their scope of practice.

Similar to this task force mission, the Commission on Dietetic Registration did a study on whether it is in the scope of practice for dietitians to write lab orders, which may be a resource for APTA to model.

In most of the states that were sampled, psychologists do not have authority to order laboratory tests. However, there is a proposal in Vermont to expand psychologist scope of practice to include ordering laboratory tests. Some psychologists in Colorado are able to order laboratory tests, but only for the purpose of monitoring medications prescribed by the psychologist.

In some states, it is not health profession practice acts but clinical laboratory regulations that govern who is authorized to order laboratory testing. In these cases, the regulations typically state that the laboratories can only accept orders from a physician, dentist, or other "authorized" person. Some states have chosen to specify which professions are authorized to order laboratory tests while others are silent. In Maryland, the regulations governing clinical laboratories specify that nurse midwives, nurse practitioners, chiropractors (blood or urine

only), dental surgeons, dentists, clinical social workers, and physician assistants are nonphysician professions that are permitted to order laboratory tests. In Oregon, professional boards decide whether their licensed members are authorized to order and receive results of laboratory tests. The Laboratory Compliance Section of the Oregon Public Health Authority lists physician assistants, chiropractors, naturopaths, midwives, pharmacists, nurse practitioners, nurse anesthetists, nurse specialists, dentists, and optometrists as nonphysician providers who are authorized to order laboratory tests.

These two examples demonstrate that efforts to change regulations to allow physical therapists to order laboratory testing would require significantly different strategies from state to state. In Maryland, advocacy efforts would need to be directed at changing the regulations that cover clinical laboratories. In Oregon, it would be the role of the State Board of Physical Therapy to adjudicate whether physical therapists have the authority and then inform the Laboratory Compliance Section.

Physical therapists may already be ordering laboratory tests in states that do not specifically regulate which professions are authorized to order them. California may be one example from the 10 states that were sampled. The California Department of Public Health states that "…the healthcare practitioner must be licensed in the state of California as a physician and surgeon, or licensed as a healthcare provider with a scope of practice that authorizes one to order clinical laboratory tests. If the test results can be lawfully used by the healthcare provider to diagnose, manage, or treat the patient, then it would likely be appropriate for that healthcare provider to order the test."

Political Landscape

Opponents

- There likely are fewer opponents of PTs' ordering lab tests than for other areas of prescriptive authority, since this is part of the examination and not treatment (as in prescribing medications). The professions authorized to order lab studies are listed here:
- Physicians.
- Chiropractors.
- Nurses.
- Psychologists.
- Psychiatrists.
- Physician associates.
- Optometrists.
- Pharmacists.

Internally, fellow PTs and PTAs may not support, and may actively work against, the effort to order lab studies and imaging. A climate assessment should be taken to better understand what levels of support and opposition will come from within the profession.

Allies

Professions that have historically been friendly with APTA should be asked regarding their interest in pursuing PT ordering of lab tests. There is potential for coalitions to be formed.

Patient advocacy groups. Patient advocacy groups should be consulted on how PTs' ability to order lab tests may benefit their constituents, and what coalitions may be formed. Previous research has documented the benefit of direct access in the best interest of the patient (Clark, 2022). As noted with comments from AAPA and FSBPT, it must be emphasized that this is for the purpose of providing quality care to the patient — safe, efficient, effective, timely, patient-centered, and equitable.

Policymakers. It would be worthwhile to determine which politicians have been advocates for our profession previously. Specifically, do any policymakers have a health care background? This situation creates an opportunity for framing the discussion of ordering lab studies as part of direct access, which may lead to

decreased costs and improved outcomes in patients (Ojha, 2014). In a systematic review of direct access in physical therapy, PTs' diagnostic and management decisions for MSK conditions were found to be similar to that of orthopedic physicians (Marks, 2016).

Conclusion

Including the ability to order clinical lab studies in the physical therapist scope of practice is feasible from a safety, efficiency, and efficacy standpoint. Physical therapists in the U.S. Uniformed Services and APPs in the U.K., Australia, Canada, and other countries have shown that physical therapists can safely and effectively order lab studies. Ordering lab studies fits within the existing physical therapist scope of practice from the Guide to Physical Therapist Practice, including History/Systems Review and Diagnosis. Furthermore, it is becoming increasingly common in some state jurisdictions for individuals to order lab studies for themselves without a clinician order. In some states, where it is not specifically prohibited, civilian physical therapists outside of Uniformed Services may be ordering lab studies.

Advancing this initiative will require enhancing entry level curricula to include specific information on indications for and interpretation of lab studies. Adding content to the national physical therapy examination should then follow. Physical therapy state practice acts may need to be changed to include the ordering of lab studies, particularly if there are provisions within the practice act that explicitly prohibit this. In some states, the clinical laboratory board governs who is authorized to order labs. In these states, APTA's chapters would need to investigate this and lobby these boards to get physical therapists added to the list of providers from whom the board accepts orders. CMS does not authorize physical therapists to order lab studies for Medicare and Medicaid beneficiaries. However, several other nonphysician providers (physician associates, nurses, social workers, psychologists, counselors, and dietitians) are authorized, and physical therapists should make the case to be added to this list.

Investigation: Medication

Physical therapists routinely see patients presenting with a range of diagnoses and symptoms. To help patients manage their symptoms, physical therapists perform a thorough examination to determine the most appropriate intervention strategies. Ordering prescription medications is one intervention that physical therapists may use, independently or in conjunction with other treatments, to help each patient manage their symptoms and achieve their therapeutic goals.

The investigation of the feasibility of ordering medication within physical therapist scope of practice included inquiries into why and how this change might take place as well as potential barriers and facilitators. Additionally, where appropriate, the report provides this information in relation to the five different schedules of drugs, substances, or chemicals(dea.gov):

- Schedule I: no currently accepted medical use and high potential for abuse.
- Schedule II: high potential for abuse.
- Schedule III: moderate to low potential for physical and psychological dependence.
- Schedule IV: low potential for abuse and low risk of dependence.
- Schedule V: lower potential for abuse than Schedule IV. Schedule V drugs are generally used for antidiarrheal, antitussive and analgesic purposes.

Rationale for Change

Societal Need

In addition to the potential benefits related to health care access and cost described earlier, evidence exists that physical therapists may recommend less prescription medication than physicians for patients with minor musculoskeletal disorders (Gagnon, 2021). At times, physicians may prescribe medications but not indicate the appropriate time frame for use. However, if PTs who are seeing these patients at regular intervals have prescriptive rights related to medication, they could engage in effective medication communication with the physician and therefore have potential to influence timely implementation and/or discontinuation of medications such as NSAIDs, other anti-inflammatory medications, or muscle relaxants.

Evolution of Practice

United States Military

The list of policy-approved medications can potentially vary across military medical centers. Each medical facility has a local Pharmacy and Therapeutic Committee that recommends which medications are to be included in the physical therapy prescription list. This decision is made with collaborative input of physical therapy leadership, pharmacy leadership, and committee members. The consultant guidance memorandums also provide strategic guidance as to which medications are deemed appropriate for prescribing under PT scope of practice. The list of recommended classes of medications is similar across services: nonsteroidal anti-inflammatories (to include diclofenac, indomethacin, ibuprofen, meloxicam, piroxicam, and naproxen), non-narcotic analgesics (to include acetaminophen), muscle relaxants (to include cyclobenzaprine and methocarbamol), topical agents (to include diclofenac gel, capsaicin, fluocinonide, menthol, lidocaine, hydrocortisone, and dexamethasone), and supplements (to include vitamin D3, calcium carbonate, calcium/vitamin D combination, and pyridoxine/B6). Ultimately, the commander of the medical facility is the final authority to grant prescription privileges to PTs and other providers.

The extent of DOD physical therapists' utilization of medication prescription is lacking in the literature. Recently, an observational study performed at a military health clinic compared the utilization patterns of advanced privileges (to include medication prescription) between PTs and primary care providers (Mabry, 2020). The study reviewed the clinical records of six to 11 physical therapists over a three-year period, resulting in 41,656 total PT encounters. Of note, only one of the PTs included in the study was a graduate of the sole military-based PT program; all other PTs included were graduates of civilian universities. Over the three years, PTs placed a total of 28 medication prescriptions. Supplementary Table 1 from the article (Table 4) lists examples of medications available for prescription by military PTs at this medical facility. The article does not describe patterns of specific medicines prescribed by PTs in this sample.

Table 4. Limited Medication Formulary Employed by Military PTs

NSAIDs	Pain Relievers	Topical	Muscle Relaxants	Other

Ibuprofen Naproxen Meloxicam Celecoxib Indomethacin Toradol/ Ketoralac Other (pharmacy dependent)	Acetaminophen Aspirin	Diclofenac Gel Lidocaine Patches Pain Relieving Balms (typically menthol based)	Cyclobenzaprine Methacarbomol	Calcium Vitamin D Ergocalciferol Cholecalciferol Multivitamins Protein Supplementation Melatonin Glucosamine and Chondroitin/ MSM

*NSAID = non-steroidal anti-inflammatory drug

United States Board of Prisons

Expanded clinical functions include prescribing dexamethasone sodium phosphate for iontophoresis.

International

The U.K. is the only region whose national APP scope of practice involves the prescribing of medication (Taiwah 2023). In some states and territories in Australia, physiotherapists are permitted to prescribe medication; however, this is not in the national scope of physiotherapy practice at this time (APA 2023). APP models with university credentialed post-licensure programs were developed in Canada in pediatric rheumatology and musculoskeletal care in the early 2000's. APP's in Canada have expanded into primary care, emergency departments, and specialized medical and surgical care. However, a national Canadian APP model and scope of practice including prescribing medications has not yet been established (Herrington 2024).

Since 2013 in the U.K., physiotherapists can complete regulated, accredited independent non-medical prescribing programs to enable them to prescribe medicines. The scope of physiotherapist independent prescribing from the Chartered Society of Physiotherapy (CSP 2016) is as follows:

> "The physiotherapist independent prescriber may prescribe any licensed medicine from the British National Formulary, within national and local guidelines for any condition within the practitioner's area of expertise and competence within the overarching framework of human movement, performance and function. They may also mix medicines prior to administration and may prescribe from a restricted list of controlled drugs as set out in Regulations."

Since 2015, U.K. independent prescriber physiotherapists may prescribe controlled drugs including: oral or injectable morphine, transdermal fentanyl and oral diazepam, dihydrocodeine tartrate, lorazepam, oxycodone hydrochloride or temazepam. In an observational study of U.K. independent prescribing physiotherapists, their activities not only included prescribing medicines but also identifying adverse drug reactions, deprescribing medicines for non-pharmacological pain management, adjusting the dosage of medicine, and recommending over the counter medications (Noblet 2022). The U.K. also has a supplemental prescribing program for physiotherapists under which "supplementary prescribing is the use of a written clinical management plan (CMP) to prescribe agreed medicines in partnership with a doctor. The CMP can include any licensed or unlicensed medicines and all controlled drugs." (Chartered Society of Physiotherapy).

As of December 2021, there were 1,640 registered independent prescriber (2.7%) and 1,728 supplementary prescriber physiotherapists (2.8%) out of a total of 61,132 registered physiotherapists in the U.K. (HCPS 2021). A recent survey queried 552 physiotherapy prescribers in the U.K. about their perceived benefits and challenges of prescribing. The results led study authors to conclude that review, and potential expansion, of the drug formulary for physiotherapists is necessary, along with ongoing education and supervision to support physiotherapy prescriber growth in this area (Parkinson, 2024).

An exploratory qualitative, multi-step review of extended scope of practice for Dutch physiotherapists revealed that prescribing paracetamol and NSAID's and giving injections is considered "optional with extensive training" (Bastiaens, 2021).

Evidence-Based Practice

Mabry et al.'s 2020 observational study in a U.S. military health clinic also looked at corresponding safety events related to the 28 medication prescriptions ordered by six to 11 PTs over a three-year period. No safety events were reported. Military physical therapists were found to have a similar safety profile to primary care physicians (Mabry 2020).

A 2017 Cochrane review of non-medical prescribing versus medical prescribing for acute and chronic disease management supports the efficacy of non-medical prescribing care. Forty-six studies were included with a total of 37,337 participants, although 45 of those studies were nurses only, with the other one being nurses and pharmacists. The findings suggested "that non-medical prescribers, practicing with varying but high levels of prescribing autonomy, in a range of settings, were as effective as usual care medical prescribers." It was determined that nonmedical prescribers can deliver comparable outcomes in several areas including medication adherence, patient satisfaction, and health-related quality of life. It is important to note that the breadth of medications prescribed for nurses would be wider than would be expected for APPs (Weeks 2016).

A scoping report of allied health professions prescribed by the United Kingdom Department of Health was performed in 2009. The report stated that between 2005 and 2006, 60,000 medicine incidents were reported across the U.K. and no allied health providers were identified as being responsible for any of the incidents. The 2005-2006 time period is significant because supplementary prescribing rights were given to physical therapists in 2005. No spike in incidents related to allied health professionals (such as physical therapists) provides evidence for successful roll-out of prescribing rights.

A request was made to HPSO, a professional liability company, for comment regarding potential changes to liability coverage if physical therapists were to obtain the privilege to prescribe medication. The company responded that the increased scope of practice would increase risks and exposures and therefore would reasonably increase professional liability insurance premiums. The 2022 CNA/HPSO Nurse Practitioner Report data shows that medication prescribing, as an allegation, has the third-highest average total incurred amount, $356,892, and comprised 17.7% of all allegations; in claims involving NP-owned practices, medication prescribing accounted for 34.4 percent of all closed claims and resulted in an average total incurred of $544,744. Also, 16.8% of license defense matters were due to medication prescribing, which was the second-highest allegation. Though they acknowledged that risks and exposures encountered by various other professions and the potential medications prescribed by physical therapists would not be the same.

Education and Competency Requirements

Within CAPTE Standard 7, specific content areas for entry-level physical therapists are listed and includes pharmacology. CAPTE Standard 7 does not provide further details beyond "pharmacology." In current educational practices within the current CAPTE Standard "pharmacology", it is unlikely that DPT students currently demonstrate the knowledge, skills, and abilities for prescriptive authority. If all DPT students are expected to achieve entry-level competency for prescriptive authority, we recommend that CAPTE review the current standards related to "pharmacology" and potentially consider language that is consistent with competency expectations of other health care providers.

No definitions or standards of practice exist for ordering medications within the Guide to Physical Therapist Practice. Resources to guide and support education and clinical practice for physical therapists should be developed using information and resources from international physical therapists who have prescriptive authority and ordering laboratory testing privileges.

Samson (2023) described the training and usage of joint aspiration techniques and corticosteroid injections in the knee and shoulder.

U.S. Military

Medication prescription is classified as a non-core privilege and requires completion of additional education. This advanced training may be accomplished through a professional course in pharmacology, an APTA/AMA sponsored course in pharmacology, or attendance at an advanced-practice military PT course (BUMEDINST 6010.30).

U.S. Bureau of Prisons

An agency memorandum specifies a list of appropriate certifications and/or training courses specific to each area of expanded privilege.

International

Alberta, Canada does not believe that entry-level education prepares physiotherapists to develop the needed competencies for the tiers of medication interventions. Three programs in Canada provide an accredited APP program. These are university-based master's level programs (Herrington 2024) Alberta divides medication responsibilities and authority into three categories: medication assistance, medication reconciliation, and medication advising. It is the position of the College of Physiotherapists of Alberta that education for entry level practice education does not enable the physiotherapist to develop the competences described in these areas.

The Chartered Society of Physiotherapists states: "At the point of initial registration with the HCPC (Health and Care Professions Council), all physiotherapists will have acquired a detailed scientific knowledge base in biological, clinical, physical and behavioural science, applied to health, disease, disorder and dysfunction as set in Standard 12 of the Health and Care Professions Council Standards of Proficiency for Physiotherapists. All Physiotherapists are able to draw on this knowledge and skills to inform their practice as set out in Standard 12." (Chartered Society of Physiotherapists 2023). However, according to CSP guidelines, additional training is required.

The Allied Health Professions Federation represents 12 health professional bodies across the U.K. and details in their Prescribing Programme Information that four of these professions have been given prescribing responsibilities:

- Independent and supplementary prescribing – Physiotherapy, Podiatry, Therapeutic Radiographers and Paramedics
- Supplementary prescribing – Dietetics, Diagnostic Radiographers

It is further noted that prescribing requires an additional HCPC annotation and only HCPC-approved courses provide eligibility for this annotation. Currently all approved programs are delivered by higher education institutions.

Prescribing Competency Frameworks

For physical therapists to order medications in the United States, it will be important to follow current prescribing competency frameworks. These frameworks are universal for all prescribing providers and could serve as the minimum requirements for education standards that would need to be developed for PTs' prescription authority privileges.

The U.K.'s National Health Service has developed and updated a framework for all prescribers (Hall, 2020) The authors focus on Miller's pyramid (Miller 1990) as a model that promotes using multiple assessments to

build, develop and align together to show overall competence. The framework consists of 10 competencies, divided into two domains: the consultation and prescribing governance. These competencies can be found in Appendix 4 and can serve as a model to develop competencies consistent with our international partners.

Similarly, the Australian National Prescribing Service has developed a framework consisting of seven competency areas along with recommendations on how to achieve these competencies. All prescribers, including physiotherapists, adhere to these competencies, which can also be found in Appendix 4.

Examples From Other Professions

Physician Associate Prescribing Authority

General Facts:

- PAs are licensed to practice in all 50 states, the District of Columbia, all U.S .territories, and the uniformed services.
- PAs are authorized to prescribe medications in all jurisdictions where they are licensed, except in Puerto Rico.
- Where PAs have prescriptive authority, that authority includes controlled medications, except in Kentucky (where they can prescribe only non-controlled medications)
- The majority of state practice acts require PAs to have an agreement with a specific physician in order to practice (AAPA). The American Academy of Physician Associates is currently advocating for a new model, Optimal Team Practice, which would allow PAs to work independently and be eligible for direct payment by all public and private insurers.

General PA Education:

- All programs are at a masters' degree level.
- Classroom phase is 175 hours of behavioral sciences, 400 plus hours of basic sciences, and 580 hours of clinical medicine.
- Clinical rotations are 2,000 hours of supervised clinical practice in seven standard areas of practice.

Prescribing Curricula:

- The national average of formal classroom instruction in pharmacology is 75 hours. (This does **not** include instruction in pharmacology that students receive during clinical medicine course work or clinical rotations.)
- Pharmacology is taught by a doctoral-level pharmacologist or clinical pharmacist.
- Pharmacology courses in PA programs address indications and dosage, pharmacokinetics, pharmacodynamics, drug interactions, adverse effects, and contraindications.
- Pharmacology content is presented in relation to specific body systems.
- Pharmacology education occurs on each clinical rotation/clerkship which consists of writing medication orders and prescriptions.
- Students are required to include specific medication treatment modalities in their patient management plans.

PA Certification:

- All states require completion of a national certifying exam for state licensure.
- The national exam content outline shows that 18% of the examination focuses on pharmacological therapeutics.

- Maintaining national certification requires completing 100 hours of CME every two years and passing a comprehensive recertification examination every 10 years. This recertification exam is weighted heavily toward the evaluation of knowledge of clinical therapeutics.

Nurse Practitioner Prescribing Authority

Nurse practitioners are primary care providers who are licensed to practice and authorized to prescribe prescription medications in all jurisdictions across the United States. However, there are some exceptions as to the type of medications NPs can prescribe. Where NPs have prescriptive authority, that authority includes Schedule II - V controlled medications, except in Georgia and Oklahoma where they can prescribe only Schedule III – V controlled medications. (Deering, 2023).

Requirements for obtaining prescriptive authority for NPs vary by state and jurisdiction. Some states grant prescriptive authority as part of the licensing process, while other states have additional educational requirements. Additional educational requirements include, up to 45 hours of graduate level pharmacology, 6 months of physician supervised experience, of up to 450 hours of clinical practice.

NP programs in the United States are at the master's or doctorate degree level. Required coursework in the NP curriculum includes advanced pharmacology, which includes pharmacodynamics, pharmacokinetics, and pharmacotherapeutics. (Accreditation Commission for Education in Nursing, 2024). As part of the didactic portion of the curriculum, NP students typically receive between 30-75 hours of formal instruction on pharmacology. Throughout the NP curriculum, students must complete a minimum of 750 hours of supervised direct patient care clinical hours. (National Task Force, 2022).

Following the completion of formal education, all NPs are required to pass a 150-question national examination. Pharmacology is threaded in the Planning, Implementation, and Evaluation content domains of the exam. (American Nurses Credentialing Center, 2022). Following the national examination, NPs are required to renew their certification every five years to provide evidence of continued competence. For certification renewal NPs are required to complete 75 hours of continuing education and 25 of these hours must related to pharmacology. (American Nurses Credentialing Center, 2022).

Legislative and Regulatory Considerations

Physical Therapy State Practice Acts

Many state PT practice acts recognize the ability to store and use prescription topical medications that are prescribed by a physician; however, no U.S. jurisdiction allows physical therapists to prescribe any form of prescription medication. Details of a five-state sample are included below:

California:
California PT Rules and Regulations
California Practice Act

New York:
NY PT refer to other healthcare
NY PT Law
Physical therapists may not independently possess prescription medications. Nor may they administer drugs via most routes of administration.

Oregon

Oregon PT Rules/Regulations
A physical therapist may purchase, store, and administer topical and aerosol medications as part of the practice of physical therapy. A PT shall comply with the rules adopted by state board of Pharmacy specifying protocols for storage of medication.

Missouri
Missouri PT Practice Act
Direct access in August 2023
The prescribing of any drug or medicine or the administration or dispensing of any drug or medicine other than a topical agent administered or dispensed upon the direction of a physician.
PTs shall practice physical therapy within the scope of their education and training as provided in the sections…

South Carolina
South Carolina Practice Act
Practice Act - Code of Laws Title 40 – "nothing in this chapter shall be construed to authorize a physical therapist to prescribe medications or order lab or other medical tests."

Laws and Regulations Outside Physical Therapy

Generally, prescriptive authority requires an application to the federal Drug Enforcement Agency and adherence to all state requirements, including current and active licensing, potential supervisory or collaborative practice agreements, and any applicable continuing education and training. NPs use Form 224 specific to mid-level practitioners (Zhang, 2024).

Although a DEA number is not mandatory for medical providers who do not plan to prescribe controlled substances, practicing without one will cause interruptions and delays for you and your patients. Insurance companies often use a provider's DEA number when processing claims for prescription medications and pharmacies also use DEA numbers when filling prescriptions. DEA frowns on this practice stating "The DEA strongly opposes the use of a DEA registration number for any purpose other than the one for which it was intended, to provide certification of registration in transactions involving controlled substances". Despite the administration's position, many pharmacies and insurance companies continue to use DEA numbers because it is a simple, standardized way to identify providers. (Thrive AP, 2023)
There is an eight-hour training course required for all healthcare professionals prior to administering medication. Once obtained, a DEA Certificate of Registration is good for 36 months. (US DOJ DEA Practitioner's Manual, 2023)

Examples from Other Professions

The American Association of Nurse Practitioners divides prescriptive authority into three categories:

- Full practice permits NPs to prescribe independently.
- Reduced practice may require a collaborative practice agreement with a physician or limits on the prescribed medications.
- Restricted practice requires physician supervision or delegation when prescribing controlled substances.

For Nurse Practitioners many states require collaborative practice agreements that detail the working relationship between physicians and the NP. These agreements include the terms of NPs' prescriptive authority. NPs have full practice authority in 28 states and the District of Columbia. The remaining states are

split between reduced and restricted practice/prescribing authority, requiring collaborative practice agreements or supervision of a physician.

Each state's board of nursing regulates NP prescriptive and practice authority. As of Dec. 2, 2022, NPs who meet state-specific requirements and limitations can prescribe Schedule II-V drugs in all states except Georgia and Oklahoma, where NPs can only prescribe Schedule III-V controlled substances.

Practice authority for physician assistants (PAs) includes the legally required relationship that a PA must have with a physician or other health care provider in order to practice or prescribe. Some states require a PA to be supervised by a physician or other health care provider to practice and prescribe. In some states, collaboration with a physician or other health care provider is allowed for practice and prescriptive authority. In other states, PAs can practice or prescribe without supervision or collaboration once certain requirements are met, as noted by this analysis by the National Conference of State Legislatures.

The National Community Pharmacists Association (NCPA) says pharmacists in 47 states can test and treat by writing a prescription though it varies on what prescriptions they can prescribe and occurs under the auspices of a collaborative practice agreement (CPA) in most states. A CPA is a formal agreement between pharmacists and other healthcare providers in which the pharmacist is authorized to perform services that are otherwise outside of his or her legal scope of practice, but for which the pharmacist is educationally and clinically prepared. CPAs have been used to allow pharmacists to prescribe for acute infections based on laboratory test results, such as influenza and strep throat, and chronic disease management, such as modifying the dose of diabetes medications, among other uses. Pharmacists can also prescribe under a collaborative drug therapy management (CDTM) which is a partnership between qualified pharmacists and prescribing clinicians to manage a patient's drug therapy, as defined within the context of a collaborative practice agreement (CPA). This approach allows pharmacists to deliver services such as selecting, initiating, adjusting, and monitoring medications; ordering and interpreting laboratory tests; and administering drugs. To support heart disease and stroke prevention and control, CDTM can include pharmacists engaging directly with patients in their own care and adjusting patients' medications for hypertension, cholesterol, and other chronic condition.

According to NCPA, in about 34 states pharmacists can do it independently without a collaborative agreement or prescription, but still may limited as to what they can prescribe. Pharmacists in most states sampled are authorized to prescribe limited substances, subject to certain restrictions, such as hormonal contraceptives, oral fluoride, opioid antagonists, smoking cessation products, HIV prophylaxis, and statin therapy:

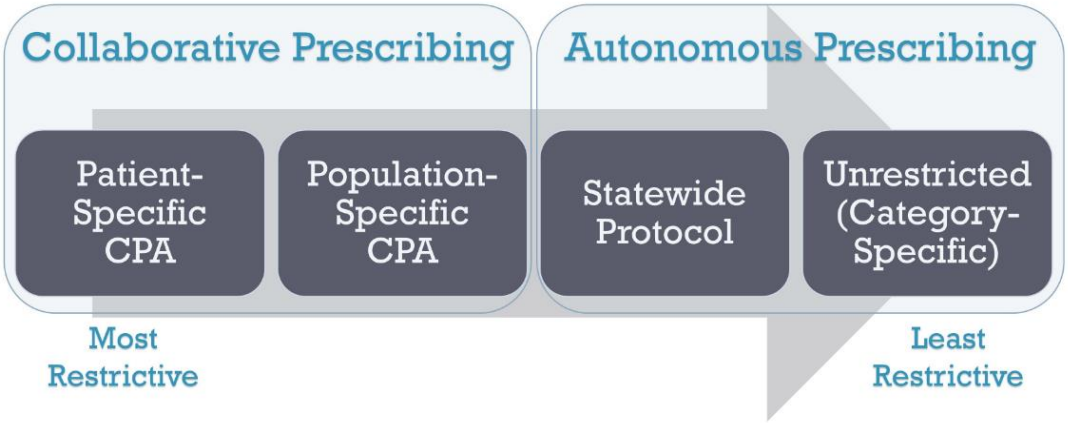

Table 5 summarizes levels of authority to order laboratory tests for six nonphysician professions in a sample of 10 states that were explored. Appendix 5 provides the specific regulatory language used.

	Chiropractors	Nurse Practioners	Psychologists	Physician Associates	Optometrists	Pharmacists
Arizona	Not authorized	Allowed and independent	Not authorized	Only under the supervision of a physician.	Limited to Schedule II-V	Allowed under a collaboration agreement + limitations
California	Not authorized	Allowed under a collaboration agreement with a physician	Not authorized	Only under the supervision of a physician	Limited to Schedule II-V	Allowed under a collaboration agreement + limitations
Colorado	Not authorized	Allowed after 1,000 hours of prescribing mentorship with physician or APRN	Restricted and advanced training required	Allowed under a collaboration agreement with a physician	Limited to Schedule II-V	Allowed under a collaboration agreement + limitations
Maryland	Not authorized	Allowed after the first 18 months of practice.	Not authorized	Only under the supervision of a physician	Limited to Schedule IV-V	Allowed under a collaboration agreement + limitations
Mississippi	Not authorized	Allowed under a collaboration agreement with a physician	Not authorized	Only under the supervision of a physician	Limited to Schedule II-V	Limited - emergency basis
Missouri	Not authorized	Allowed under a collaboration agreement with a physician	Not authorized	Only under the supervision of a physician	Limited to Schedule II-V	Allowed under a collaboration agreement + limitations
New York	Not authorized	Allowed under a collaboration agreement with a physician	Not authorized	Only under the supervision of a physician	Limited to Schedule IV-V	Allowed under a Collaborative Drug Therapy Management Agreement
Oregon	Not authorized	Allowed and independent	Not authorized	Allowed under a collaboration agreement with a physician	Limited to Schedule II-V	Allowed under a collaboration agreement + limitations
South Carolina	Not authorized	Allowed under a collaboration agreement with a physician	Not authorized	Only under the supervision of a physician	Limited to Schedule II-V	Allowed under a collaboration agreement + limitations
Vermont	Not authorized	Collaborative agreement required for the first 24 mo/2,400 hours of practice	Not authorized	Only under the supervision of a physician	Limited to Schedule III-V	Allowed under a collaboration agreement + limitations

Trends can be identified when looking at the sampled states in terms of prescriptive authority for medications. For instance, in recent years, there has been advocacy to shift physician associates (formerly physician assistants) toward a collaborative agreement with physicians from a supervisory requirement. The majority of states currently allow PAs to prescribe Schedule II-V medications under a physician's supervision or delegation of authority. Only a handful of states do not allow PAs to prescribe Schedule II drugs.

There is also a growing trend in allowing prescriptive authority for psychologists. Psychologists have been prescribing certain medications in the U.S. military since 1991. The Commissioned Corps of the U.S. Public Health Services and the Indian Health Service also permit psychologists to prescribe medications. Since 1999, Guam, New Mexico, Louisiana, Illinois, Iowa, and Idaho have granted prescriptive authority to psychologists with advanced training. Advanced training in this context means having a PsyD or PhD degree, a two-year postdoctoral master's degree in clinical pharmacology or psychopharmacology, six months to three years of physician-supervised practicum depending on the state and passing a licensing exam. In 2024, a bill was introduced in Arizona to expand prescriptive authority for psychologists. Colorado passed a bill in 2023 that allows psychologists to prescribe psychotropic medications under a collaborating agreement with a physician upon completion of a postdoctoral master's program, passing the national exam, and completing 750 hours of prescribing practice, treating at least 150 patients under a supervising physician (Colorado, 12-245-309).

Chiropractors largely do not have prescriptive authority for medications. In three of the states sampled (Arizona, California and Vermont), chiropractors were specifically excluded from prescribing medications. In Mississippi, chiropractors are authorized to recommend, dispense, and sell vitamins or food supplements. While specifically excluded from prescribing drugs or medicine in California, chiropractors are authorized to recommend vitamins, food supplements or proprietary medicines. The majority of state practice acts of the states sampled remain silent on whether chiropractors may dispense vitamins and supplements.

At least in one of the states sampled (Arizona), naturopaths are authorized to prescribe drugs except for opioids. Arizona defines naturopathic medicine as "medicine taught in approved schools of naturopathic medicine and in clinical, internship, preceptorship and postdoctoral training programs approved by the board and practiced as a recipient of a degree of doctor of naturopathic medicine…"

According to the National conference of State Legislatures, optometrists can prescribe certain classifications of controlled substances depending on state law and/or rules and regulations. Schedule II controlled substances includes hydrocodone only. Optometrists in at least five of the sampled states are authorized to prescribe pharmaceutical agents in the diagnosis, management, and treatment of the eye and adnexa subject to some restrictions. In 2010, Vermont removed the majority of restrictions on optometrists' prescriptive authority so that now it is much broader. In other states, examples of restrictions include time and dosage restrictions, restrictions on prescribing to children, drug schedule restrictions, and exclusion of administering IVs, injections (except injections used to treat conditions of the eye), immunosuppressants, or oral antifungals. Some states specify certain educational requirements to allow optometrists prescriptive authority. For example, in Colorado, optometrists must complete 60 hours of ocular pharmacology, clinical pharmacology, therapeutics, and anterior segment disease as well as 60 hours of supervised clinical training and a course in cardiopulmonary resuscitation.

Political Landscape

Closed window. With recent attention on overprescribing, there is a negative connotation towards prescribing medications. Is the window of opportunity for physical therapy to enter this space currently closed?

Framing our profession as medication prescribers. Is this the wrong way to frame our profession since we are an alternative to medication? Physical therapy has been branded as an alternative to medication for some time. This will need to be considered as lobbyists create a narrative to frame the argument.

Conclusion

A societal need to expand medication prescriptive authority to physical therapists is supported by the rising need for health care workers and evidence of cost savings with preserved quality care in musculoskeletal conditions managed by physical therapists. The evolution of physical therapist practice shows that the authority to prescribe certain medications has been successful in the U.S. military and in other countries. Research supports the positive outcomes of physical therapist and other non-physician prescribers measured by medication adherence, patient satisfaction, and health-related quality of life. Most physical therapist medication prescribers require additional training to qualify for the privilege.

CAPTE standards are broad, only including pharmacology as content area in entry-level education. It is unlikely that academic programs include the information necessary for medication prescriptive authority. The APTA Guide to Physical Therapist Practice is similarly vague. Competencies for prescribing medications in Australia and the U.K. could serve as a model for determining competency and the necessary educational requirements for both students and faculty. It is unclear if this could be added to existing entry-level programs or if these are advanced competencies. The current model practice act does not include prescriptive authority for medications. However, legal language for medication prescriptive authority exists in other health professions and can provide guidance as changes by APTA state chapters are proposed. There will certainly be strong opinions from our medical peers. It will be important to approach these rights cautiously with an understanding of the landscape and timing of this issue.

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Appendix 1. Descriptions of Specialty Practice

All Areas:

- No specific mention of prescriptive authority regarding ordering lab values and/or medication.
- General knowledge requirements of laboratory tests, imaging, and pharmacology, as they pertain to physical therapist care. This does not specifically include knowledge, or skills for independent placement of orders for laboratory tests, or medication prescription.

Specialty Area(s)	**In addition, general relevant knowledge requirements including:**
Cardiovascular and Pulmonary (2017), Clinical Electrophysiologic (2017), Geriatric (2020), and Wound Management (2020)	N/A
Neurologic (2016)	Clinical Sciences (Signs and symptoms, management, and epidemiology of injuries and diseases) • Medical management, including knowledge of: Imaging, such as MRI, f-MRI, CT Scans, and PET scans; Clinical diagnostic procedures, such as EMG, NCV, and evoked potential exam; Laboratory tests, including normal and abnormal findings. • Pharmacology, including knowledge of: Pharmacokinetics and pharmacodynamics; Abnormal drug reactions, interactions, and adverse dosage effects; Effects on the body systems, including common short- and long-term effects.

Oncologic (2017)	Clinical Sciences 1. Pharmacology (e.g., chemotherapy pharmacokinetics, pain medication, hormonal agents). 13. Laboratory tests (e.g., blood counts specific to neutropenia and thrombocytopenia, inflammatory markers, tumor assays, including hormone receptor status). 14. Diagnostic imaging (e.g., cardiac, bone density, CT, MRI, PET scanning as used in metastatic workups).
Orthopaedic (2015)	C. Evaluation: 4. Incorporate data from ancillary testing (e.g., imaging, labs, electrophysiological studies). E. Medical and Surgical Considerations: 2. Pharmacology, 3. Ancillary tests (e.g., lab studies, EKG, electrophysiological exams).
Pediatric (2020)	b. Identifying, reviewing and interpreting all available patient or client data and contextual factors to determine the clinical significance to physical therapy care, which may include: 1) Medical and psychological history, including risk factors. 2) Physical assessment. 3) Diagnostic studies, physiologic monitoring and laboratory. E. Medical and Surgical Considerations 1. Imaging studies. 2. Pharmacology (e.g., opioid addiction, polypharmacy, on/off label use of prescription, nonprescription medications). 3. Ancillary tests (e.g., lab studies, EKG, electrophysiological exams).
Sports (2023)	Administration: ● Identify the administrative and legal requirements to dispense medications. ● Develop and implement policies and procedures related to drug testing and counseling. Medical and Surgical Considerations: ● Understand pharmacology as related to athletic participation and athletic injuries (e.g., prescription medications, over-the-counter medications, ergogenic aids). ● Understand the use and purpose of ancillary tests as related to sports medicine (e.g., lab studies, EKG, electrophysiological exams).
Women's Health (2020)	Medical Management, including knowledge of: a. Imaging studies (e.g., ultrasound, MRI, CT scans, PET scans). b. Clinical diagnostic procedures (e.g., urodynamic testing, defecography, diagnostic hip injections, anal manometry).

	c. Laboratory tests, including normal and abnormal findings (e.g., rheumatoid panel, thyroid levels, urinalysis, stool analysis, prostate screening). d. Surgical interventions (e.g., mastectomy, prostatectomy, suspension surgeries, hysterectomy). e. Nonsurgical medical interventions (e.g., radiation therapy, bladder instillations, pain injections, Botox injections). f. Assessment, monitoring, activity modifications, and precautions related to medical procedures (e.g., antepartum care, gynecological, gastrointestinal, breast surgery). Pharmacology, including knowledge of: a. Pharmacokinetics and pharmacodynamics. b. Abnormal drug reactions, interactions, and adverse dosage effects. c. Effects on the body systems, including common short- and long-term effects.

Appendix 2. APTA advocacy aimed at DMEPOS.

Areas of APTA advocacy include, but are not limited to:

- Monitor and comment on regulations defining transitional coverage for emerging technologies.
- Monitor and comment on regulations implementing definition of “Reasonable and necessary” for purposes of Medicare coverage.
- Advocate for legislation to create a separate CRT benefit category.
- Address coding Problems and seek to preserve access to titanium, bariatric, and positional tilt wheelchairs.
- Monitor patient access to oxygen equipment.
- Advocate for patient access to disposable negative pressure wound therapy.
- Advocate to prevent further expansion of competitive bidding to orthoses other than truly Off-the-Shelf (OTS) orthoses.
- Monitor implementation of blended payment rates to protect patient access to DMEPOS in rural and non-Competitive bidding areas.
- Advocacy on the current 5-year Reasonable Use Lifetime (RUL) policy that is leading to payment denials for and limiting beneficiaries’ access to medically necessary upper extremity orthoses.

Over the years, APTA has submitted numerous official comments to CMS on proposed rules impacting the DMEPOS benefit. These comments have covered a wide range of issues including, but not limited to, implementation of DME prior authorization; supporting higher payments for DME in rural areas; supported continuing to exempt complex rehabilitative manual wheelchairs and certain other manual wheelchairs from the DMEPOS competitive bidding program; and from fee schedule adjustments to DMEPOS. Additional information on some of the more recent APTA activity can be found at:

- Regulatory Review | Final DMEPOS Rule Streamlines Benefit and Payment Processes for Certain Devices | APTA
- CMS Adds to DMEPOS Prior Authorization List | APTA
- Proposed DMEPOS Rule Could Benefit Rural Areas | APTA

In addition, APTA is a member of the Independence Through Enhancement of Medicare and Medicaid (ITEM) Coalition. The ITEM Coalition is devoted to raising awareness and building support for policies that will enhance access to assistive devices, technologies, and related services for people with disabilities and chronic conditions. Most recently the ITEM Coalition was successful in an initiative to secure Medicare coverage for power seat elevation and power standing system and the issuance of a National Coverage Analysis (NCA) for coverage of power seat elevation systems in August 2022.

On Capitol Hill, APTA has partnered with the American Occupational Therapy Association (AOTA) and the American Orthotics & Prosthetics (AOPA) on introducing the *Medicare Orthotics and Prosthetics Patient-Centered Care Act.* This bipartisan legislation would help Medicare beneficiaries who use orthotic braces and prosthetic limbs to be as functional and independent as possible while limiting waste, fraud, and abuse in the Medicare benefit. The bill would treat O&P practitioners like physical and occupational therapists and physicians for purposes of off-the-shelf (OTS) orthotics, allowing these providers to furnish OTS 2 orthoses without a competitive bidding contract (at the competitively bid rate) to ensure patient convenience and access to care at no additional cost to the government. The bill would also reduce the likelihood of waste, fraud, and abuse by prohibiting drop-shipping of all orthoses and prostheses other than truly OTS orthoses, resulting in significant cost savings while protecting patient access to clinical assessments, fittings, adjustments, and other related clinical care. Finally, the legislation would revise the overly expansive regulatory interpretation of the meaning of “off-the-shelf” orthotics for purposes of competitive bidding, to restore Congressional intent and preserve patient access to the clinical expertise necessary to ensure properly fit orthoses.

Appendix 3: Regulatory Language for Ordering Laboratory Studies by Profession and State

Acupuncturists

Arizona

A.R.S 32-3901. Definitions

In this chapter, unless the context otherwise requires:

1. "Acupuncture":

(vii) Ordering diagnostic imaging and clinical **laboratory** procedures to determine the nature of care or to form a basis for referral to other licensed health care professionals, or both.

Chiropractors

Mississippi

Source: Miss. Code Ann. § 73-6-5(1) (1972)

113. Doctors of chiropractic should utilize only those **laboratory** and X-ray procedures, and such devices or nutritional products that are in the best interest of the patient and not in conflict with state statute or administrative rulings.

Arizona

A.R.S. 32-925. Practice of chiropractic; limitations

A. A doctor of chiropractic is a portal of entry health care provider who engages in the practice of health care that includes:

2. Physical and clinical examinations, diagnostic x-rays and **clinical diagnostic laboratory** procedures that are limited to nasal swabs, oral swabs, sputum collection, urine collection, finger pricks or venipuncture in order to determine the propriety of a regimen of chiropractic care or to form a basis for referring patients to other licensed health care professionals, or both.

Mississippi

Source: Miss. Code Ann. § 73-6-5(1) (1972)

113 Doctors of chiropractic should utilize only those **laboratory** and X-ray procedures, and such devices or nutritional products that are in the best interest of the patient and not in conflict with state statute or administrative rulings.

Maryland

COMAR 10.10.06.02

A. Primary Standard.

A laboratory may not perform a laboratory test, except under a health awareness permit or cholesterol permit, without obtaining written or electronic authorization from:

B. Other Authorized Persons. **Other persons authorized to order laboratory tests** include:(4) A chiropractor requesting a test on blood or urine;

Colorado

COLORADO BOARD OF CHIROPRACTIC EXAMINERS POLICIES

30-9 PRACTICES WITHIN THE SCOPE OF CHIROPRACTIC PRACTICE BY STATUTE OR RULE ARE:

Practices within the scope of chiropractic in Colorado include, but are not limited to:

All blood, saliva, urine and hair **laboratory testing** consistent with the clinical presentation.

Vermont

Vermont Statutes Online

26 V.S.A § 521

(3) “The practice of chiropractic” means the diagnosis of human ailments and diseases related to subluxations, joint dysfunctions, and neuromuscular and skeletal disorders for the purpose of their detection, correction, or referral in order to restore and maintain health, including pain relief, without providing drugs or performing surgery; the use of physical and clinical examinations, conventional radiologic procedures and interpretation, as well as the use of diagnostic imaging read and interpreted by a person so licensed and **clinical laboratory procedures** to determine the propriety of a regimen of chiropractic care; adjunctive therapies approved by the Board, by rule, to be used in conjunction with chiropractic treatment; and treatment by adjustment or manipulation of the spine or other joints and connected neuromusculoskeletal tissues and bodily articulations.

Dieticians

Article: “Nutrition 411: New CMS Rule Gives Dietitians Order Writing Privileges”

The Centers for Medicare and Medicaid Services (CMS) announced a final rule that will allow registered dietitians (RDs) to become privileged to independently write orders beginning July 11, 2014.

Under the new rule, qualified RDs will be able to order patient diets and hospitals will be able to privilege them to order nutrition-related **laboratory tests** to monitor and modify diet plans without the supervision or approval of a physician. “Eliminating extra steps in the treatment process will free up resources, allowing all healthcare providers to care for patients more effectively and efficiently,” according to Glenna McCollum, Past President of the Academy of Nutrition and Dietetics. The CMS estimates the savings from the new rule at $459 million per year.

As the CMS previously noted, “Our intent in revising the provision was to provide the flexibility that hospitals need under federal law to maximize their medical staff opportunities for all practitioners, but within the regulatory boundaries of their State licensing and scope-of-practice laws.

Relevant portions of the final rule are on pages 5, 11, 13, 33, 43-52, 112, 144–145, 150–159, 177–178, and 186–187. The entire rule can be read at www.federalregister.gov/articles/2014/05/12/2014-10687/medicare-and-medicaid-programs-regulatory-provisions-to-promote-program-efficiency-transparency-and.

CASE STUDY – Initiating Orders for Nutrition-Related **Laboratory Tests** for RDNs Practicing in Hospital, Ambulatory and Private Practice Settings
https://www.cdrnet.org/vault/2459/web/20%20Case%20Study_RDN%20Initiating%20Lab%20Orders_December%202022.pdf

Arizona: there are no regulatory requirements that mandate certification or licensure in the state

- Proposed regulation 2019: https://www.azleg.gov/alispdfs/sunrise/RNP.pdf
- House bill to expand dietitian ordering power – passed house and senate then vetoed by governor in 2021 AZ HB2820

26. Authorizes a licensed hospital that meets prescribed requirements to allow a licensed dietitian nutritionist to order, if initially authorized or granted standing order privileges by medical staff, the following:

a) diets;
b) a change in diet orders;
c) durable medical equipment related to nutrition;
d) nutritional supplementation;
e) parenteral nutrition;
f) medical nutrition therapy; and
g) **laboratory tests** to check and track nutrition status.

Nurses, Advanced Practice (APRN)

Mississippi
Reduced Practice

State practice and licensure laws reduce the ability of NPs to engage in at least one element of NP practice. State law requires a career-long regulated collaborative agreement with another health provider in order for the NP to provide patient care, or it limits the setting of one or more elements of NP practice.

Arizona
Full Practice

State practice and licensure laws permit all NPs to evaluate patients; diagnose, order and interpret diagnostic tests; and initiate and manage treatments, including prescribing medications and controlled substances, under the exclusive licensure authority of the state board of nursing. This is the model recommended by the National Academy of Medicine, formerly called the Institute of Medicine, and the National Council of State Boards of Nursing.

Maryland
COMAR 10.10.06.02

A. Primary Standard.
A laboratory may not perform a laboratory test, except under a health awareness permit or cholesterol permit, without obtaining written or electronic authorization from:
(2) A nurse practitioner certified by the Maryland State Board of Nursing under COMAR 10.27.07

Colorado
Full Practice

State practice and licensure laws permit all NPs to evaluate patients; diagnose, order and interpret diagnostic tests; and initiate and manage treatments, including prescribing medications and controlled substances, under the exclusive licensure authority of the state board of nursing. This is the model recommended by the National Academy of Medicine, formerly called the Institute of Medicine, and the National Council of State Boards of Nursing.

Vermont
26 V.S.A § 1572

(4) “Advanced practice registered nurse” or “APRN” means a licensed registered nurse authorized to practice in this State who, because of specialized education and experience, is licensed and authorized to perform acts of medical diagnosis and to prescribe medical, therapeutic, or corrective measures under administrative rules adopted by the Board.

California
[5] AB-890 Nurse Practitioners: Scope of Practice: practice without standardized procedures.

“A nurse practitioner may perform or interpret clinical laboratory procedures that they are permitted to perform under Section 1206 and under the federal Clinical Laboratory Improvement Act (CLIA).”

Physician Associates
Mississippi
Supervision of physician
Part 2615 Chapter 1: The Practice of Physician Assistants

Arizona
A.R.S. 32-2501. Definitions

6. "Collaborating physician or entity" means a physician, physician group practice, physician private practice or licensed health care institution that employs or collaborates with a physician assistant who has at least eight thousand hours of clinical practice as certified by the board pursuant to section 32-

2536 and does not require a supervision agreement and that designates one or more physicians by name or position who is responsible for the oversight of the physician assistant.

Maryland
COMAR 10.10.06.02

A. Primary Standard.
A laboratory may not perform a laboratory test, except under a health awareness permit or cholesterol permit, without obtaining written or electronic authorization from:
(3) A physician's assistant, as authorized by the physician's assistant's supervising physician;

Colorado
Code of Colorado Regulations
3 CCR 713-1
Collaborative Practice Agreement

Vermont
Vermont Statutes Online
26 V.S.A § 521

(3) “The practice of chiropractic” means the diagnosis of human ailments and diseases related to subluxations, joint dysfunctions, and neuromuscular and skeletal disorders for the purpose of their detection, correction, or referral in order to restore and maintain health, including pain relief, without providing drugs or performing surgery; the use of physical and clinical examinations, conventional radiologic procedures and interpretation, as well as the use of diagnostic imaging read and interpreted by a person so licensed and clinical laboratory procedures to determine the propriety of a regimen of chiropractic care; adjunctive therapies approved by the Board, by rule, to be used in conjunction with chiropractic treatment; and treatment by adjustment or manipulation of the spine or other joints and connected neuromusculoskeletal tissues and bodily articulations.

Pharmacists
California
California Business and Professional Code Section 4052 – Authority of pharmacist

a. Notwithstanding any other law, a pharmacist may do all of the following:
(12) Order and interpret tests for the purpose of monitoring and managing the efficacy and toxicity of drug therapies. A pharmacist who orders and interprets tests pursuant to this paragraph shall ensure that the ordering of those tests is done in coordination with the patient's primary care provider or diagnosing prescriber, as appropriate, including promptly transmitting written notification to the patient's diagnosing prescriber or entering the appropriate information in a patient record system shared with the prescriber, when available and as permitted by that prescriber.

Mississippi
Supervision of physician
Part 2630 Chapter 2: The Supervision of Pharmacists

Arizona
A.R.S. 32-1970 Collaborative practice agreements; requirements; rules; definitions

G. For the purposes of this section:
1. "Collaborative practice agreement" means an agreement between a pharmacist and a provider that outlines the drug therapy and disease management services, including initiating, monitoring and modifying prescription drug and **laboratory test orders** that are authorized by the provider and delegated to the pharmacist for the purposes of drug therapy management or disease management based on the pharmacist's skills or training.

Maryland
COMAR 10.10.06.02

A. Primary Standard. A laboratory may not perform a laboratory test, except under a health awareness permit or cholesterol permit, without obtaining written or electronic authorization from:

(7) A pharmacist, for tests that qualify for a letter of exception under COMAR 10.10.03.02B and for glucose, A1c, lipids (including total cholesterol, HDL, LDL, and triglycerides), AST, and ALT.

Colorado
State Board of Pharmacy Rules and Regulations 3 CCR 719-1
17.00.70

Evidence-Based Healthcare Service Pursuant to a CPA Protocol (other than a statewide protocol) Agreement and Protocol with a Prescriber or Prescribers.

e.1.c. **Ordering and evaluating the results of laboratory tests** directly, related to management of the drug therapy;

Vermont
26 V.S.A. § 2023
Collaborative Practice Agreement

Psychologists
Colorado
12-245-301. Definitions.

(7) "Prescribing psychologist" means a licensed psychologist who holds a prescription certificate.

(8) "Prescription certificate" means a document issued by the board, with approval of the Colorado medical board, to a licensed psychologist that permits the licensed psychologist to prescribe psychotropic medications pursuant to this part 3.

12-245-309. Prescription authority - psychotropic drugs - prescription certificates -requirements - issuance, denial, renewal, and revocation of certification - rules.

(5) Prescribing and administering practices. (a) A prescribing psychologist may:

(I) Prescribe psychotropic medication through the use of telepsychology; and

(II) Prescribe and administer psychotropic medication within the recognized scope of practice, including **ordering and reviewing laboratory** tests in conjunction with a prescription for the treatment of a mental health disorder.

Vermont
Preliminary Assessment of Scope of Practice Prepared by: Vermont Psychological Association

(1) A description of the practices and activities that the profession or occupation would be permitted to engage in if the scope of practice is amended. Psychologist-doctorates are not currently authorized to prescribe psychiatric medications in the state of Vermont. If the scope of practice is amended, psychologist-doctorates with extensive additional education, training, supervised practice, and passing a nation exam may be issued a license to prescribe psychiatric medications for appropriately diagnosed psychological conditions. This will include consultation with other health practitioners, **ordering lab tests**, determining drug-drug and drug-disease interactions, frequent and sufficient follow up with individual patients, and emphasizing nonpharmacological approaches to improving overall health and mental health conditions.

Optometrists
Missouri
Title XXII, Chapter 336

Defining practice of optometry — other definitions. — 1. The "practice of optometry" is the examination, diagnosis, treatment, and preventative care of the eye, adnexa, and vision. The practice includes, but is not limited to:

(3) The performance of diagnostic procedures and ordering of laboratory and imaging tests for the diagnosis of vision and conditions and diseases of the eye and adnexa.

Appendix 4: International Competency Statements for Physiotherapists Prescribing Medication.

U.K. Royal Pharmaceutical Society 2021	Prescribing Competencies Framework: Australia 2021
1. Assess the Patient	**1. Understand the Person and Their Needs**
1.1 Undertakes the consultation in an appropriate setting	1.1 Ensure competence to assess the person's needs
1.2 Considers patient dignity, capacity, consent and confidentiality	1.2 Discuss with the person their medical and treatment history
1.3 Introduces self and prescribing role to the patient/carer and confirms patient/carer identity.	1.3 Assess the person according to the clinical context and health professional's scope of practice
1.4 Assess the communication needs of the patient/carer and adapts consultation appropriately	1.4 Consider the persons' cultural history and identify when gathering information to understand their needs
1.5 Demonstrates good consultation skills and build rapport with the patient/carer	1.5 Review and interpret information in the person' health records to contribute to an understand of their needs and current treatment
1.6 Takes and documents an appropriate medical, psychosocial and medication history including allergies and intolerances	1.6 Explore with the person their adherence to prescribed medicines and the treatment plan
1.7 Undertakes and documents an appropriate clinical assessment	1.7 Make or review and understand the diagnosis and key clinical issues including those that are, or may be medicine-related
1.8 Identifies and addresses potential vulnerabilities that may be causing the patient/carer to seek treatment	1.8 Discuss with the person the clinical issues and implications for treatment
1.9 Accesses and interprets all available and relevant patient records to ensure knowledge of the patient management to date	
1.10 Requests and interprets relevant investigations necessary to inform treatment options	
1.11 Makes, confirms or understand, and documents the working or final diagnosis by systematically consider the various possibilities (differential diagnosis)	
1.12 Understand the condition(s) being treated, their natural progression and how to assess their	

severity, deterioration and anticipated response to treatment	
1.13 Reviews adherence (and non-adherence) to, and effectiveness of, current medicines	
1.14 refers to or seeks guidance from another member of the team, a specialist or appropriate information source when necessary	
2. Identify Evidence-Based Treatment Options Available for Clinical Decision Making	**2. Understand the Management Options**
2.1 Considers both non-pharmacological and pharmacological treatment approaches	2.1 Recognise when it is clinically appropriate not to prescribe medicines
2.2 Considers all pharmacological treatment options including optimizing doses as well as stopping treatment (appropriate polypharmacy and deprescribing)	2.2 Review current medicines and consider the possibility of a contribution to current health issues
2.3 Assesses the risk and benefits to the patient of taking or not taking a medicine or treatment	2.3 Where treatment is indicated, consider both non-pharmacological and pharmacological options
2.4 Applies understanding of the pharmacokinetics and pharmacodynamics of medicines and how they may be altered by individual patient factors	2.4 Identify suitable medicine options
2.5 Assesses how co-morbidities, existing medicines, allergies, intolerances, contraindications and quality of life impact on management options	2.5 Obtain, interpret, and apply current reliable evidence and information about medicines to inform decision making
2.6 Considers any relevant patient factors and their potential impact on the choice and formulation of medicines, and the route of administration	2.6 Consult other health professionals about potential medicines and the treatment plan, where appropriate
2.7 Assesses, critically evaluates and uses reliable and validated sources of information	2.7 Tailor medicines for the person, considering relevant potential benefits, harms, medicine and person-specific factors
2.8 Stays up to date in own area of practice and applies the principles of evidence-based practice	2.8 Consider the financial cost and affordability of the medicines to the person
2.9 Considers the wider perspective including the public health issues related to medicines and their use and promoting health	2.9 Consider the implications to the wider community of prescribing a particular medicine
2.10 Understand antimicrobial resistance and the roles of infection prevention, control and antimicrobial stewardship measures	2.10 Refer the person for further assessment or treatment when the suitable treatment options are outside the health professional's scope of practice

3. Present Options and Reach a Shared Decision	3. Agree on a Plan for Medicines
3.1 Actively involves and works with the patient/carer to make informed choices and agree a plan that respects the patient's/carer's preferences	3.1 Explore the person's opinions and preferences concerning medicines and the treatment plan
3.2 Considers and respects patient diversity, background, personal values and beliefs about their health, treatment and medicines, supporting the values of equality and inclusivity, and developing cultural competence	3.2 Negotiate therapeutic goals that enhance self-management
3.3 Explain the material risk and benefits, and rationale behind management options in a way the patient/carer understand, so that they can make and informed choice	3.3 Discuss the possible medicines options with the person and allow them time to make an informed decision
3.4 Assesses adherence in a non-judgemental way; understands the reasons for non-adherence and how best to support the patient/carer	3.4 Explore and respond appropriately to the person's concerns and expectations about their health and the use of medicines to maintain their health
3.5 Builds a relationship which encourages appropriate prescribing and not the expectation that a prescription will be supplied	3.5 Develop the medicines plan in partnership with the person
3.6 Explores the patient's/carer's understanding of a consultation and aims for a satisfactory outcomes for the patient/carer and prescriber	3.6 Identify the need for, and develop with the person, a plan to review treatment
4. Prescribe	**4. Prescribe Medicines and Communicate the Agreed Treatment Decision**
4.1 Prescribed a medicine or device with up-to-date awareness of its actions, indications, dose, contraindications, interactions, cautions and adverse effects	4.1 Ensure adequate and current knowledge of medicines prior to prescribing
4.2 Understands the potential for adverse effects and takes steps to recognize, and manage them, whilst minimizing risk	4.2 Prescribe medicines compliant with relevant legislation, regulatory frameworks, guidelines, codes of practice, scope of practice and organizational policies and procedures
4.3 Understands and uses relevant national, regional and local frameworks for the use of medicines	4.3 where prescribing relies on electronic (eg. Telehealth) or telephone servies (eg. Verbal prescription or medication order), ensure compliance with relevant legislation, guidelines and policies
4.4 Prescribes generic medicines where practical and safe for the patient, and knows when medicines should be prescribed by branded product	4.4 Provide accurate and complete information to other health professionals in a timely manner when implementing new medicines or modifying existing medicines or treatment plans

4.5 Accurately completes and routinely checks calculations relevant to prescribing and practical dosing	4.5 Discuss and document the treatment plan with the person and ensure they understand both the plan and how to use the medicine(s) safely and effectively
4.6 Prescribes appropriate quantities and at appropriate intervals necessary to reduce the risk of unnecessary waste	
4.7 Recognises potential misuse of medicines, minimizes risk and manages using appropriate processes	
4.8 Uses up-to-date information about the availability, pack sizes, storage conditions, excipients and costs of prescribed medicines	
4.9 Electronically generates and/or writes legible, unambiguous and complete prescriptions which meet legal requirements	
4.10 Effectively uses the systems necessary to prescribe medicines	
4.11 Prescribes unlicensed and off-label medicines where legally permitted, and unlicensed medicines only if satisfied that an alternative licensed medicine would not meet the patient's clinical needs	
4.12 Follows appropriate safeguards if prescribing medicines that are unlicensed, off-label or outside standard practice	
4.13 Documents accurate, legible and contemporaneous clinical records	
4.14 Effectively and securely communicates information to other healthcare professionals involved in the patient's care, when sharing or transferring care and prescribe responsibilities, with and across all care settings.	
5. Provide Information	**5. Review the Outcomes of Treatment**
5.1 Assesses health literacy of the patient/carer and adapts appropriately to provide clear, understandable and accessible information	5.1 Explore with the person their response to treatment including adherence to the medicines and treatment plan
5.2 Check the patient's/carer's understanding of the discussions had, actions, needed and their commitment to the management plan	5.2 Gather objective information, using appropriate indicators, to assess the response to medicines, where appropriate
5.3 Guides the patient/carer on how to identify reliable sources of information about their condition, medicines and treatment	5.3 Synthesise information provided by the person, other health professionals and from the assessment, to determine the response to medicines

5.4 Ensures the patient/carer knows what to do if there are any concerns about the management of their condition, if the condition deteriorates or if there is no improvement in a specific timeframe	5.4 Stop or modify existing medicines and other treatments, where appropriate
5.5 Encourages and supports the patient/carer to take responsibility for their medicines and self-manage their condition	5.5 Discuss with the person the benefits of a comprehensive medicines review, where appropriate
6. Monitor and Review	5.6 Work with the person and other health professionals to modify the treatment plan to optimize the safety and effectiveness of treatment, where appropriate
6.1 Establishes and maintains a plan for reviewing the patient's treatment	5.7 Discuss the findings of the review and recommendations with other health professionals. Where appropriate
6.2 Establishes and maintains a plan to monitor the effectiveness of treatment and potential unwanted effects	
6.3 Adopts the management plan in response to ongoing monitoring and review of the patient's condition and preferences	
6.4 Recognises and reports suspected adverse events to medicines and medical devices using appropriate reporting systems	
7. Prescribe Safely	**6. Prescribe Safely and Effectively**
7.1 Prescribes within own scope of practice and recognizes the limits of own knowledge and skill	6.1 Understand and prescribe medicines according to relevant legislation, regulatory frameworks and organizational requirements
7.2 Knows about common types and causes of medication and prescribing errors, and knows how to minimize their risk	6.2 Practise within the limits of the health professional's education, training and scope of practice as applied to prescribing
7.3 Identifies and minimizes potential risks associated with prescribing via remote methods	6.3 Understand common causes of incidents and error associated with prescribing and medicines use and implement strategies to reduce the risk of these occurring
7.4 Recognises when safe prescribing processes are not in place and acts to minimize risks	6.4 Detect and report errors, incidents and adverse events involving medicines
7.5 Keeps up to date with emerging safety concerns related to prescribing	6.5 Apply quality use of medicines principles when prescribing medicines
7.6 Reports near misses and critical incidents, as well as medication and prescribing errors using	6.6 Critically evaluate information about medicines and make evidence-based decisions in the context of the persons's needs

appropriate reporting systems, whilst regularly reviewing practice to prevent recurrence	
8. Prescribe Professionally	**7. Prescribe Professionally**
8.1 Ensures confidence and competence to prescribe are maintained	7.1 Understand and comply with applicable professional standards, codes of conduct and guidelines relevant to prescribing
8.2 Accepts personal responsibility and accountability for prescribing and clinical decisions, and understands the legal and ethical implications	7.2 Demonstrate appropriate professional judgement when interpreting and applying prescribing guidelines and protocols to the person's situation
8.3 Knows and works within legal and regulatory frameworks affecting prescribing practice	7.3 Maintain accurate and complete records of the interactions
8.4 Makes prescribing decisions based on the needs of patients and not the prescriber's personal views	7.4 Accept responsibility and accountability for prescribing decisions
8.5 Recognises and responds to factors that might influence prescribing	7.5 Engage in ongoing professional development and education to improve prescribing practice
8.6 Works within the NHS, organizational, regulatory and other codes of conduct when interacting with the pharmaceutical industry	7.6 Ensure the person's needs take precedence over all considerations in all prescribing decisions
	7.7 Demonstrate respect for other health professionals and their contributions within a collaborative care model
9. Improve Prescribing Practice	
9.1 Improves by reflecting on own and others' prescribing practice, and by acting upon feedback and discussion	
9.2 Acts upon inappropriate or unsafe prescribing practice using appropriate processes	
9.3 Understands and uses available tools to improve prescribing practice	
9.4 Takes responsibility for own learning and continuing professional development relevant to the prescribing role	
9.5 Makes use of networks for support and learning	

9.6 Encourages and supports others with their prescribing practice and continuing professional development	
9.7 Considers the impact of prescribing on sustainability, as well as methods of reducing the carbon footprint and environmental impact of any medicine	
10. Prescribe as Part of a Team	
10.1 Works collaboratively as part of a multidisciplinary team to ensure that the transfer and continuity of care (within and across all care settings) is developed and not compromised	
10.2 Establishes relationships with other professionals based upon understanding, trust and respect for each other's roles in relation to the patient's care	
10.3 Agrees the appropriate level of support and supervision for their role as a prescriber	
10.4 Provides support and advice to other prescribers or those involved in administration of medicines where appropriate	

Appendix 5: Regulatory Language for Prescribing Medication by State and Profession

CALIFORNIA

Nurse practitioners are granted full independent prescribing authority following a two-year supervisory period, after which they have Full Practice Authority. (California HealthCare Foundation, 2021)

New categories for NPs in California:

- 103 NP - Works under the provisions outlined in Business and Profession Code Section 2837.103. This NP works in a group setting with at least one physician and surgeon within the population focus of their National Certification
- 104 NP - Works under the provisions outlined in Business and Professions Code Section 2837.104. This NP may work independently within the population focus of their National Certification.
    - Please note, the law requires a licensee to first work as a 103 NP in good standing for at least 3 years prior to becoming a 104 NP. Consequently, the Board is only able to certify 103 NPs at this time and will not be able to certify 104 NPs until 2026.
    - Nurse practitioners with full-practice authority can practice within the complete scope of their NP license without a supervising physician. They can diagnose patients, order tests, prescribe medications, and perform physical exams. (Munday, 2023)

NEW YORK

With full practice authority, nurse practitioners in New York will now be able to evaluate, test, diagnose, manage treatment, and prescribe medications for patients without having to sign a contract agreement with a supervising physician. According to the New York State Nurses' Union, nurse practitioners with more than 3,600 practice hours under their belts can practice independently in primary care while nurse practitioners with less than 3,600 hours should complete their practice hours under a physician.(Hochul, 2022)

In January 2024. S66/A1262 would expand **psychologist** scope to include prescriptions. Under S66/A1262, psychologists would be authorized to prescribe a drug, laboratory test, or any medicine, device or treatment, including controlled substances. This bill would grant them "prescriptive authority" to administer and/or distribute drugs (including controlled substances) without charge. Requires further training and collaboration with an approved medical healthcare including nurse practitioners and clinical nurse specialists.

S853/ A608 would empower **pharmacists** to administer medications for mental health and substance abuse disorders under their own authority and without physician supervision. Physicians were against this but it passed in January 2024.

MISSOURI

Written collaborative practice agreements are required between a physician and an NP. The agreement must outline geographic practice areas for the physician and the NP and methods of treatment within an NP's scope of practice.

A physician assistant with a certificate of controlled substance prescriptive authority as provided in this section may prescribe any controlled substance listed in Schedule III, IV, or V and may have restricted authority in Schedule II, when delegated the authority to prescribe controlled substances in a collaborative practice arrangement.

The collaborating physician shall be responsible to determine and document the completion of at least one hundred twenty hours in a four-month period by the physician assistant. Successful completion of an advanced pharmacology course that includes clinical training in the prescription of drugs, medicines, and therapeutic devices. A course or courses with advanced pharmacological content. Completion of a minimum of three hundred clock hours of clinical training by the collaborating physician in the prescription of drugs, medicines, and therapeutic devices; Completion of a minimum of one year of supervised clinical practice or supervised clinical rotations.

SOUTH CAROLINA

Initial Prescriptive Authority Applicant After obtaining a SC nurse practitioner, certified nurse mid-wife, or clinical nurse specialist license, a prescriptive authority application may be completed with the following requirement(s): Provide evidence of completion of forty-five (45) contact hours of education in pharmacotherapeutics acceptable to the board, within two (2) years before application. At least fifteen (15) of the forty-five (45) hours should be in controlled substances.

In South Carolina, Senate Bill 553 allows physician assistants (and nurse practitioners) should be allowed to practice without supervision after 6,000 hours of clinical training. Currently, they must complete only 3,000 hours. If passed, this bill would also make PA's legally accountable for their patients' care. The bill has sparked debate on both sides. Those in support argue that more help will decrease physician burnout, but those against say 6,000 hours isn't nearly enough. Physicians must complete 16,000 hours of clinicals, in addition to undergrad and medical school training. NPs and PAs would also be allowed to volunteer at health fair events and perform disaster triage. The bill would also make PAs legally accountable for the care of their patients.

OREGON

The Oregon State Board of Nursing may authorize a nurse practitioner or clinical nurse specialist to write prescriptions, including prescriptions for controlled substances listed in Schedules II-V.

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