

House of Delegates

Policies Approved by the ASHP House of Delegates March-June 2026

2601

Responsible Integration of Artificial Intelligence in Pharmacy Education and Training

Source: Council on Education and Workforce Development

To advocate for the responsible integration of artificial intelligence (AI) into pharmacy education and training programs to support learner development and practice readiness; further,

To advocate for development of competencies for discerning AI-generated content, including strategies to validate the accuracy, credibility, and applicability of information produced by AI systems; further,

To collaborate on the development of standards for AI use in pharmacy education and training.

Rationale

AI has the potential to evolve education and the learning environment by delivering personalized experiences, simulating clinical decision-making, and expanding access to knowledge resources. Conversely, AI also introduces unique challenges related to academic integrity, validation of information, learner overreliance, and responsible application, such as generative AI, which uses AI to create original content.

Emerging platforms which leverage AI to analyze, synthesize, and present clinical literature demonstrate both the potential value and the risks of integrating AI into the education and training of future healthcare professionals. In a recent [JAMA article, Building the AI-Enabled Medical School of the Future](#), the authors highlight that academic institutions must move quickly to embed AI literacy, validation skills, and ethical awareness into curricula to ensure learners are equipped for practice in AI-enabled health systems.

This pharmacy education and training-focused policy will emphasize the need to equip learners with skills to critically evaluate and responsibly apply AI outputs, prepare future practitioners with competencies to navigate AI-enabled health systems, support faculty and preceptors in integrating AI appropriately into teaching, learner assessment

and professional development activities, and establish safeguards to ensure integrity and alignment with professional values.

2602

Safe Use of Controlled Substances Through Regulatory Reform

Source: Council on Pharmacy Management

To advocate for the reform of the Controlled Substances Act (CSA) to align with contemporary healthcare practice standards, with input from pharmacists and other stakeholders; further,

To urge the Drug Enforcement Administration (DEA) to issue transparent and practical guidance when interpreting and applying laws and regulations related to the CSA and other drug laws that affect patient care; further,

To encourage the DEA and other regulatory agencies to balance regulatory requirements with patient access to medically necessary controlled substances when developing regulations and interpreting and enforcing laws and regulations; further,

To promote collaboration among the DEA, professional associations, and regulatory agencies to identify and reduce: 1) barriers to patient care; 2) burdens on healthcare workers; and 3) cost of healthcare delivery in the establishment and enforcement of controlled substance laws and regulations.

Rationale

The Drug Enforcement Administration (DEA) and Department of Justice (DOJ) routinely update regulations and measures to counter substance abuse in the US. Two major implications of these changes include: (1) increasing regulatory burden on pharmacy operations and (2) a lack of standardized education and resources to support pharmacies in adequately responding to DEA inspections.

The mission of the DEA is to enforce U.S. controlled substance laws and regulations. The DEA has the authority to enter the controlled premises of a registered location and conduct administrative inspections both routinely and as circumstances warrant (21 U.S.C. 880 and 21 CFR 1316.03). The primary purpose of an inspection is to ensure compliance with the Controlled Substances Act (CSA) of 1970 regarding record-keeping, inventory, security, access controls, training records, and reports. Inspections can be conducted with voluntary consent of the DEA registrant or by an administrative inspection warrant by any judge of the United States or of a state court of record (21 U.S.C 880). Upon notice of CSA violations, pharmacies may face criminal investigations, civil and administrative actions, letters of admonishment, or even revocation of registration, which can be detrimental to both the organization and individual pharmacists. To mitigate or prevent avoidable CSA violations, transparency and uniformity in DEA interpretation and application of laws and regulations is essential. DEA should provide transparent and practical guidance that clearly communicates expectations, explains enforcement rationale, and maintains publicly accessible, up-to-date information about how it interprets and enforces laws and regulations under the CSA and related drug policies.

Since the original authorship of the CSA in 1970, health-system pharmacy practice has evolved significantly, yet the laws governing controlled substances have remained largely unchanged. Dissonance between practice and law presents ongoing challenges for compliance and vulnerabilities within health systems. Pharmacists and pharmacy technicians responsible for overseeing and monitoring controlled substances often face challenging situations, including how to respond to specific patient care scenarios (e.g., the handling and disposition of controlled substances brought into hospitals by patients) that conflict with the CSA or involve product-specific nuances that are not addressed by the CSA. Modernization of the CSA would provide an opportunity for the DEA to collaborate with key stakeholders, including health-system pharmacists, to achieve greater alignment with practice, improve regulatory compliance, and reduce the overall regulatory burden. Some examples to consider for the modernization of the CSA include expansion and formalization of telemedicine authority for CS prescribing; creation of a national telemedicine registration that would eliminate the need for a state-by-state DEA registration requirement; establishment of risk-based flexibility for patients with chronic conditions who need to maintain continuity of therapy during emergencies; and shifting from weight-based production quotas to dosage-form based quotas to mitigate drug shortages for clinically appropriate care.

2603

Pharmacy Leadership of Infusion Services

Source: Council on Pharmacy Management

To encourage healthcare organizations to engage pharmacists and pharmacy leaders in the development and management of infusion service lines; further,

To advocate for payment commensurate with the level and complexity of care and services provided to support sustainable infusion business models; further,

To advocate for the elimination of site of care restrictions to ensure patient preference and continuity of care in infusion services; further,

To encourage use of technology that integrates with patient medical records to enhance medication safety and streamline authorization and adjudication processes.

Rationale

Members of the pharmacy workforce practicing within the infusion business are required to be experts throughout multiple stages of the patient's treatment including knowledge of the disease states, the management of complex medication regimens, patient education, regulatory requirements, and determination of the appropriate site of care for patients based on clinical needs, policies, and payer requirements. The number of patients receiving home and specialty infusion services has grown rapidly and is projected to continue to grow given the aging population, rates of chronic disease, shift to outpatient services, and increased development of injection-based medications.

Complex payer policies and proposed reimbursement models further complicate infusion therapy. Many patients receiving infusions are shifted to lower cost sites of care, mandated by their health insurers, which may lead to lapses in care, missed infusions, and disconnect from the primary care team. Site neutral payments, prior authorizations, payer denials, and bagging practices all present unique challenges for hospital and health-system pharmacy. Given the high cost, safety considerations, and operational complexity associated with most infusion therapies, health systems have increasingly focused on the oversight and execution of these services. Support is needed to establish sustainable reimbursement models that allow for high-quality, patient-centered infusion services.

The pharmacy workforce has unique knowledge and expertise to navigate most challenges in infusion care, which should be leveraged to provide leadership and oversight for infusion care. This includes the full scope of services encompassing preparation, administration, authorization, and adjudication of care. For example, shifting infusion care to the home setting offers potential cost-savings for health systems and payers, while providing a more convenient option for patients. This shift to home-based care requires care coordination, assessment of home care viability for specific patients, considerations for safety, adherence to regulatory requirements, and around-the-clock access to care. In support of this, pharmacy leaders must identify treatments available for safe and effective administration in the home setting and determine resources required for home-based treatments.

Successful execution of infusion services requires up-to-date technology that fully integrates with health-system electronic medical records. These systems should manage the full breadth of services, from ordering and processing to authorization and adjudication of medication claims. This ensures medications are safely prepared, authorized, and administered in an efficient manner.

2604

Integrity of Pharmacist Provided Health Information

Source: Council on Public Policy

To oppose any governmental restriction on pharmacists' ability to provide evidence-based health information to patients; further

To urge policymakers to protect pharmacists' professional autonomy in educating patients on medications, public health issues, and emerging scientific developments; further

To oppose the elimination, suppression, manipulation, or politicization of evidence-based public health data and drug safety information by any entity; further

To advocate for legislation that protects scientific integrity and ensures transparency in the dissemination of public health information; further

To affirm that pharmacists are trusted and reliable medication experts and have the professional responsibility to disseminate evidence-based, health information to patients and communities.

Rationale

Pharmacists play a vital role in public health, serving as reliable, accessible, and trusted sources of evidence-based medical information for patients and communities. As experts in medication therapy, pharmacists ensure individuals have the knowledge and information they need to make informed decisions about their care.

However, in recent years, pharmacists' ability to share accurate, science-based health information has been threatened by political interference, unjustified restrictions, and the deliberate distortion or suppression of public health data. These threats not only undermine pharmacists' professional autonomy but also endanger the communities they serve.

Pharmacists must be free to practice in accordance with scientific evidence and professional ethics, without being curtailed by political agendas. Any effort to restrict their ability to educate the public, speak truthfully about medications, or respond to emerging health threats must be met with firm opposition.

Because misinformation can spread rapidly, it is more important than ever to uphold integrity and transparency. Silencing or censoring pharmacists risks irreparable harm. It compromises patient safety, erodes public trust, and weakens the very foundations of our healthcare system. Policymakers must ensure that pharmacists remain empowered to educate patients on medications, emerging scientific advancements, and critical public health concerns.

2605**Deregulation of Prescription Drugs**

Source: Council on Therapeutics

To oppose legislation or regulations that permit reclassification of prescription medications to over-the-counter (OTC) status outside of the established Food and Drug Administration (FDA) review and approval process.

Rationale

The FDA requires manufacturers seeking to market a prescription drug product as nonprescription (Rx-to-OTC switch) to demonstrate that the medication is safe and effective for self-care. Regulation requires OTC drug labeling that is easily understood without the guidance of a healthcare professional, and that OTC drugs should treat conditions suitable for self-diagnosis, such as allergies or headache. Approval decisions are predicated on robust evidence from clinical trials, consumer behavioral studies, and post-marketing surveillance data. Manufacturers may also switch a prescription drug to OTC by including an Additional Condition for Nonprescription Use (such as a required questionnaire or pharmacist consultation before purchase) to address safety concerns and ensure patients have the information needed to choose the right medication for their condition.

State-level efforts to deregulate prescription drugs outside of this established framework (e.g., state laws authorizing OTC sale of ivermectin) bypass FDA safety standards and may pose significant risks to patients. While ASHP strongly supports initiatives (such as expansion of pharmacist prescribing authority) that increase patient access to clinically appropriate, evidence-based healthcare services and drug therapies, deregulation of prescription drugs outside the FDA process eliminates essential safeguards. Many prescription medications have

important contraindications, toxicities, drug-drug interactions, or monitoring needs that require evaluation by a pharmacist or prescriber or are used to treat conditions requiring a medical diagnosis. Removing the opportunity for patient education and clinical assessment undermines safe medication use, increases the risk of harm, and weakens public trust in the medication-use process.

Drug deregulation also carries significant legal, regulatory, and liability concerns to pharmacists. Although some state laws include provisions for civil or criminal immunity or prohibit license revocation for pharmacists who dispense drugs under such statutes, selling medications without FDA-approved nonprescription labeling may constitute misbranding under the Food, Drug, and Cosmetic Act. This conflict between federal and state law has not yet been adjudicated, creating substantial legal uncertainty. Pharmacies may elect not to offer deregulated drugs under these conditions, further confusing patients and limiting access while failing to achieve the intended goal of expanding medication availability.

2606

Drug Dosing in Conditions that Alter Pharmacokinetics and Pharmacodynamics

Source: Council on Therapeutics

To encourage research on the pharmacokinetics and pharmacodynamics of drugs in acute and chronic conditions; further,

To encourage drug product manufacturers and other stakeholders to conduct and publicly report pharmacokinetic and pharmacodynamic research in pediatric, adult, geriatric, and patients at the extremes of weight to facilitate safe and effective dosing of drugs in these patient populations; further,

To advocate healthcare provider education and training that facilitate optimal patient-specific dosing in populations of patients with altered pharmacokinetics and pharmacodynamics; further,

To support development and use of standardized models, laboratory assessment, genomic testing, utilization biomarkers, and electronic health record documentation of pharmacokinetic and pharmacodynamic changes in acute and chronic conditions.

This policy supersedes ASHP policy 1804.

Rationale

The pharmacokinetic and pharmacodynamic properties of drugs found in drug information monographs are based on the drug's absorption, distribution, metabolism, and excretion in healthy, adult patients during Phase I of a drug's clinical trials. Many patients receiving drug therapy do not fit this profile, and many have compromised organ function. The medical community has long recognized the need for a standardized approach to evaluating organ system dysfunction. Although there are methods to determine organ function (e.g., the Cockcroft-Gault equation for renal function or the Child-Turcotte-Pugh Classification for Severity

of Cirrhosis), there is debate as to whether these methods are true indicators of organ function, as the components that comprise these equations may fluctuate based on severity and patient status. Traditional laboratory values used to evaluate organ dysfunction can be bidirectional and conflicting as well.

With the exception of adjustments for renal dysfunction, there is not much information regarding dosage adjustment for specific drugs. Many organ systems are involved in a drug's absorption, distribution, metabolism, and excretion. Hepatic effects, for example, are a risk area, as those effects are slower to be seen and have not been the subject of much research, and the number of drugs affected are smaller in number than renally excreted drugs. Both acute and chronic aspects of patient conditions may require monitoring and adjustment, including sepsis, encephalopathies, pregnancy, heart failure exacerbations, and cystic fibrosis. Certain protocols, such as therapeutic hypothermia, can also have clinically significant impact on a drug's pharmacokinetic and pharmacodynamic behavior. There is also need to promote research and utilization of biomarkers into practice, as these may reflect organ function and may provide pharmacists with a more complete clinical picture.

Pharmacists are also seeing an increase in the number of patients at both extremes of weight, and there is a lack of information regarding dosing medications for these populations. ASHP advocates that the Food and Drug Administration develop guidance for voluntary drug dosing studies in these populations, as the need for this guidance is supported by the complexity of drug dosing that can vary based on drug and patient characteristics. Drug product manufacturers should be encouraged to complete pharmacokinetic and pharmacodynamic dosing studies, and to publicly report the results, especially for drugs for which significant weight extremes may have a clinical impact.

2607

Direct-to-Consumer Clinical Genetic Tests

Source: Council on Therapeutics

To support research to validate and standardize genetic markers used in direct-to-consumer clinical genetic tests and guide the application of test results to clinical practice; further,

To encourage the Food and Drug Administration (FDA) to continue to regulate direct-to-consumer clinical genetic tests as medical devices and work with the National Institutes of Health to evaluate and approve direct-to-consumer clinical genetic tests; further,

To advocate that direct-to-consumer clinical genetic tests be provided to consumers through the services of appropriate healthcare professionals who order tests from laboratories certified under the Clinical Laboratories Improvement Amendments of 1988 (CLIA); further,

To support FDA policies and procedures regarding advertising of direct-to-consumer clinical genetic tests, including the following requirements: (1) the relationship between the genetic marker and the disease or condition being assessed is clearly presented, (2) the benefits and risks of testing are discussed, (3) such advertising is provided in an understandable format, at a level of health literacy that allows the intended audience to make informed decisions, and

includes a description of the established patient-healthcare provider relationship as a critical source for information about the test and interpretation of test results; and (4) how patient information is collected, protected, shared, and used; further,

To encourage health systems to create policies and procedures addressing direct-to-consumer genetic testing results as it relates to confirmatory testing, integration of genomic information into the healthcare record, genetic counseling, and clinical decision-making; further,

To encourage pharmacists to educate consumers and clinicians on the potential risks and benefits of direct-to-consumer clinical genetic tests for disease diagnosis and decisions involving drug therapy management.

This policy supersedes ASHP policy 2101.

Rationale

Since 2018, the FDA has implemented multiple processes, procedures, and guidance documents surrounding in vitro diagnostics (IVDs), also referred to as direct-to-consumer (DTC) testing. The FDA now reviews DTC tests for moderate- to high-risk medical purposes, to determine the validity of the test claims. The FDA review consists of assessing for analytical validity, clinical validity, and claims made by the company marketing the test about how well it works. Additionally, the FDA reviews descriptive information about the test for accuracy and for an appropriate level of health literacy.

The FDA now regulates DTC tests as medical devices. The specific regulatory requirements depend on the risk classification of the individual IVD. The FDA has been proactive about streamlining the regulation of DTC tests, as well as determining appropriate for use by a consumer without the involvement of a healthcare provider.

In October 2018 and April 2019, the FDA issued a safety communication to alert the public to concerns regarding pharmacogenetic tests with unapproved claims to predict an individual's response to a specific therapeutic drug, where these claims may not be supported by clinical evidence. Warning letters were sent by the FDA to select companies. Patients and providers were advised the FDA has not evaluated genetic tests, which make claims regarding the effects of a specific medication. Pharmacists should continue to educate patients about the potential limitations and variability of DTC genetic tests.

As consumer use of DTC testing continues to be prevalent, it is critical healthcare systems develop policies and best practices related to the utilization of data patients may present to their healthcare teams. Providers should be aware that for most medications the relationship between genetic variations and a medication's effects has not been established. If a patient provides a test report from a genetic DTC test claiming to predict a person's response to a specific medication, the healthcare team should seek information in the FDA-approved drug label regarding whether genetic information should be used for determining therapeutic treatment. Confirmatory testing should be considered by the healthcare team from a CLIA-certified laboratory.

Finally, DTC genomic testing is done outside of a healthcare system where they are considered assets of the company, which does not provide the same protections. In 2023, the genetic testing company, 23andMe, with over 12 million customers, suffered a cyber-attack that had compromised data for nearly 7 million users – exposing sensitive personal and genetic data, including names, photos, birth years, ethnicity, and information from family trees. 23andMe filed for bankruptcy in 2025 and placed its assets up for sale. In the wake of this, there have been multiple concerns regarding the sale of customer data (DNA, health, ancestry, etc.). and it is unknown what new owners might do with that data. Customers are also concerned that deleting their account or deleting the DNA sample is complicated or slow, and they're not confident the data is actually removed after confirmation. Currently, there is no federal genetic privacy law and few states have some consumer protections regarding data privacy which complicates this further.

2608

Optimizing Career Fulfillment in Pharmacy

Source: Council on Education and Workforce Development

To recognize that fostering career fulfillment strengthens patient care and advances the profession by promoting a resilient, engaged, and purpose-driven workforce; further,

To advocate for dedicated organizational priorities focused on career fulfillment that integrate recognition strategies, structured development guidance, and individualized support and mentoring across the care continuum; further,

To encourage the pharmacy workforce to align their professional development plans with their personal definitions of career fulfillment and core values to help support sustainable engagement and well-being throughout their careers.

Rationale

Career fulfillment represents a holistic and evolving concept that extends beyond workforce retention and professional development. While professional development equips individuals with skills, career fulfillment addresses the alignment of those skills and roles with personal values, well-being, and long-term satisfaction. The pharmacy workforce increasingly seeks meaningful work environments where structured development guidance, recognition strategies, and individualized pathways reflect both organizational needs and individual aspirations.

Current organizational structures often require pharmacy leaders to juggle the dual responsibilities of overseeing daily operations and providing individualized career guidance and fulfillment-focused support. Establishing dedicated roles or frameworks to share these responsibilities can enhance workforce engagement, growth, and well-being ultimately advancing organizational performance and strategic goals.

Supporting career fulfillment requires organizations to create dedicated roles and structures that provide education, training, and tailored guidance. These efforts are particularly important during transitional moments, such as entry into practice, advancement to new

responsibilities, or shifts into leadership or nontraditional roles. Frameworks that incorporate coaching and mentorship can help individuals navigate these transitions effectively and maintain engagement throughout their careers.

Equally important is empowering the pharmacy workforce to take ownership of their professional journeys by aligning personal values with professional development plans. By recognizing fulfillment as a key component of workforce well-being, organizations can create sustainable career pathways that not only enhance satisfaction and promote resilience but also elevate the profession and strengthen the quality of patient care delivered across all practice settings.

2609

Quality of Pharmacy Education

Source: Council on Education and Workforce Development

To support the Accreditation Council for Pharmacy Education's continuing role of promulgating accreditation standards and guidelines and engaging in sound accreditation processes to ensure quality in the education provided by colleges of pharmacy; further,

To advocate that pharmacy education should proactively incorporate established and emerging practice advancements, practice standards, and innovative technology; further,

To acknowledge that, in addition to a robust curriculum, access to quality experiential educational sites and the availability of qualified faculty (including preceptors) are essential determinants of the ability to provide a quality pharmacy education.

This policy supersedes ASHP policy 1108.

Rationale

The Council supports the Accreditation Council for Pharmacy Education's role in ensuring the quality of education provided by colleges of pharmacy. Multiple factors contribute to ongoing fluctuations in the supply and demand of the pharmacy workforce. It remains important that workforce projections are thoughtfully considered when decisions are made regarding program development and expansion. Colleges of pharmacy continue to face nationwide challenges related to enrollment trends, operational costs, and constrained higher education funding. Given our professional responsibility to prepare the next generation of pharmacists for the workforce, colleges of pharmacy and other partners should work innovatively to find solutions that support pipeline development, didactic and experiential education, workforce recruitment and retention, and sustainability across both academic and practice enterprises. Further, we support the ongoing research about the pharmacy workforce through reports such as data from the Bureau of Labor Statistics, the National Pharmacist Workforce Study, and other similar state-level projections.

Incorporating pharmacy practice advancements and innovative technology into pharmacy education is essential to prepare future-ready pharmacists who can thrive in evolving healthcare environments. As pharmacists take on expanded roles in clinical decision-making,

public health, and digital health, education must align with these changes by integrating tools such as telepharmacy, and AI-assisted care.

Bridging the gap between academic training and real-world practice ensures graduates are competent, collaborative, and adaptable. Additionally, leveraging technologies such as virtual simulations and personalized learning platforms enhances student engagement and skill development. These innovations also support equitable healthcare delivery by training students to serve diverse and underserved populations through modern, accessible care models.

2610

Advancing Technology Innovation and Vendor Accountability in Health-System Pharmacy

Source: Council on Pharmacy Management

To urge hospitals and health systems to actively engage pharmacy departments in prospective assessment, governance, competitive procurement, ongoing performance monitoring, and evaluation of technologies impacting patient care, inclusive of pharmacy informatics leadership; further,

To encourage pharmacy leaders to take ownership of pharmacy's role in implementing, maintaining, and optimizing medication-related technologies, including associated processes and governance; further,

To support collaboration between pharmacy leaders and technology vendors in the design, implementation, maintenance, and ongoing optimization of technologies that improve patient-care outcomes and the user experience, consistent with appropriate procurement and contracting requirements; further,

To encourage technology vendors to provide transparent estimates of the resources required for implementation, integration, training, maintenance, and long-term support; further,

To advocate for federal laws and regulations that establish appropriate oversight mechanisms and define technology vendors' responsibilities for safety, performance transparency, and timely remediation of identified risks.

This policy supersedes ASHP Policy 2406.

Rationale

The adoption of medication-related technology [e.g., health information technology (HIT)] in hospitals has been steadily increasing. The 2024 ASHP National Survey of Pharmacy Practice in Hospital Settings reports basic analytics (e.g., data from smart pumps, clinical decision support, compounding technology) are used in nearly 80% of hospitals and advanced analytics (e.g., artificial intelligence, machine learning, predictive analytics) are used in about 7% of hospitals, an increase from 4% in 2021 and 2.6% in 2020. Investing in technology and properly integrating it within healthcare can prevent errors, improve quality, and prevent waste. Emerging or novel technologies offer opportunities to transform the medication use process. These technologies

offer significant opportunities to increase direct patient care time, close care gaps, reduce administrative burden, and minimize repetitive tasks. However, without a coordinated approach, adoption can be fragmented, underused, or misaligned with hospital goals.

Before selecting or upgrading medication-related technology, organizations must determine their needs and goals. For instance, the Office of the National Coordinator for HIT maintains the Health IT Playbook to help clinicians, administrators, and clinician-practice staff. The Health IT Playbook provides tools to help healthcare organizations choose and implement the right HIT systems for their needs. As hospitals and providers implement HIT within their institutions and practices, however, they often encounter new types of errors and problems. The medical literature is replete with many reports of the unintended consequences of HIT, so continuous monitoring of these systems is required. It has become increasingly important to properly assess the interface between HIT and users to identify whether any new risk has been introduced to the system and implement HIT appropriately, considering medication-use processes and human factors. Critical questions hospitals and health systems face include (1) when do HIT advances exceed the capacity for integration into workflow, (2) when does HIT begin to introduce risk into the medication-use process rather than improve patient safety, and (3) what are the accountabilities of HIT providers, regulators, and providers to ensure the necessary product development and assessments are made before implementation of new HIT.

ASHP advocates that the pharmacy department be part of the implementation team for any medication-related technology within an institution. Pharmacy technology solutions are capital investments with major budget implications costing millions of dollars annually. Given the rising cost of healthcare and internal competition for finite capital dollars, it is important to identify solutions that will improve quality and safety while being fiscally responsible. Pharmacy leaders must assume responsibility for guiding the design, selection, assessment, and implementation of new and existing medication-related technologies within the department of pharmacy, including their governance and continuous evaluation. Technology assessment tools should be applied by the pharmacy workforce to proactively determine gaps in function prior to implementation, during upgrades, and as part of the continuous evaluation of technology performance. Assessments should include but are not limited to, risk, cybersecurity, clinical and operational. The use of failure modes effects analysis (FMEA) and other resources should be considered. Organizations selecting or upgrading medication-related technology should work closely with implementation partners or vendors to ensure the following: (1) products are suited to the organization's needs; (2) Technology will be usable by clinicians and staff; and (3) accurate estimates of resources needed are identified to implement and support new or upgraded technology. It is imperative that technology vendors provide comprehensive estimates that clearly specify all required human, technical, financial, and operational resources and time commitments necessary for the implementation, integration, training, and long-term support of new or upgraded technology solutions. These processes also provide opportunities to examine and optimize care delivery processes. Tailoring both technology and processes around care pathways takes advantage of the technology's potential to support safer care, inclusive of patient goals, while reducing burdens on healthcare professionals. Risk assessment should also be considered when implementing any new technology to ensure that unintended consequences are minimized. Regulatory and accreditation organizations include components

of risk assessment and quality improvement within their criteria, but hospitals need to incorporate these into their overall plans. Such risk assessments may lead to reduced scrutiny of certain medication-related technology implementations as purchasers are often not required to research each product's capabilities and limitations. Finally, federal law should recognize vendors' accountability for the safety of their products as implemented.

Pharmacy workforce involvement in the development of technologies is critical. ASHP supports collaboration between pharmacy leaders and technology vendors to share pharmacy input for the development or enhancement of innovative technologies that improve patient outcomes and optimize usability. The medication-use process is inherently a multi-disciplinary process requiring involvement from numerous health-system departments. Pharmacy leadership is necessary and core principles of system-wide strategic alignment, collaboration, and change management are also fundamental. ASHP encourages members of the pharmacy workforce to actively pursue and engage in opportunities to influence technology construction.

2611

Standard of Care Regulatory Model

Source: Council on Pharmacy Management

To promote the adoption of a standard of care regulatory model for pharmacy practice.

Rationale

Standard of care regulatory models for pharmacy practice (e.g., pharmacist-provided clinical care, patient safety, automation, compounding standards) allow pharmacists to operate with greater autonomy and use their professional judgment and expertise within a defined scope of practice. States with existing standard of care regulatory models include: Idaho (implemented in 2018), Alaska (transitioned to through rulemaking in 2023), Montana (passed a bill in 2023), and Iowa (adopted via legislative reform in 2024). The federal pharmacy services (e.g., Veterans Affairs, Department of Defense, Public Health Service) operate under a standard of care framework and credential and privilege pharmacists using a defined scope of practice.

As regulation of pharmacy practice has become more complex, there is a growing interest in adopting a standard of care regulatory model, which has the potential to remove a significant volume of detailed rules. Today, many states have complex rules dictating exactly which test, therapy, or disease state intervention pharmacists can provide. Each new statutory allowance introduced into pharmacy practice often necessitates the development of corresponding competencies or implementation of training courses. Much like physicians, nurses, and other healthcare professionals, pharmacists should instead be held to the standard of care rather than relying on 'brightline' rules or standards, which leave little room for interpretation. The standard of care model allows practice to align with the highest level of education and training for that individual.

Like physicians, privileging and credentialing will help to determine the appropriate education and training associated with the scope of practice required for the setting. ASHP encourages health systems to incorporate pharmacists into established privileging programs that align with education, training, and practice experience in their designated setting(s) (see ASHP policy 1415, Credentialing, Privileging, and Competency Assessment). Within many

health-systems, pharmacists have been integrated into their privileging processes but adoption of standard of care regulatory models will require revised privileging procedures and pharmacists' inclusion in healthcare insurance credentialing procedures to support reimbursement. ASHP advocates for the inclusion of pharmacists in health insurance credentialing processes consistent with their authorized scope of practice (see ASHP policies 2011, Credentialing and Privileging by Regulators, Payers, and Providers of Collaborative Practice; and 2405, Pharmacist Access to Provider Networks).

2612

Promoting Environmental Sustainability in Healthcare

Source: Council on Pharmacy Practice

To acknowledge the importance of environmental sustainability in promoting and preserving public health; further,

To encourage implementation of environmentally conscious practices that reduce waste within the healthcare system; further,

To advocate for legislation and regulation that enables waste-minimization efforts in medication-use practices across all points of the pharmacy supply chain; further,

To advocate for environmentally sustainable drug manufacturing processes that minimize the environmental impact across the full medication and supply life cycle; further,

To encourage members of the pharmacy workforce to seek out opportunities that promote environmental sustainability and health.

Rationale

In healthcare, sustainability refers to the implementation of cost-efficient, environmentally responsible practices that support healthy and resilient communities over time. Environmental health, a key component of public health, focuses on how natural and built environments affect human health and disease.

As part of the built environment, healthcare facilities are increasingly expected to enhance environmental stewardship in support of patient and public health. Healthcare activities generate substantial amounts of waste, which, if improperly managed, can have serious environmental and public health consequences. According to the World Health Organization (WHO), approximately 85% of healthcare waste is non-hazardous general waste, while the remaining 15% consists of hazardous materials, including infectious, chemical, and radioactive waste. Improper disposal of both hazardous and non-hazardous healthcare waste can contribute to environmental pollution, the spread of infectious diseases, and occupational risks for healthcare workers.

In the United States, healthcare facilities [produce more than six million tons of solid waste annually](#), with plastics accounting for 20% to 25% of that total. Approximately 91% of plastics, including those used in healthcare, are not recycled, contributing to landfill

accumulation and environmental degradation. A single hospital bed is estimated to generate nearly 30 pounds of waste per day, highlighting the scale of the issue in high-volume facilities.

2613

Body Size Inclusivity

Source: Council on Pharmacy Practice

To recognize that body size bias influences health outcomes, social interactions, and decisions across workplaces and healthcare settings; further,

To promote the use of body size inclusivity in practice to ensure a comprehensive, patient-centered approach to care; further,

To encourage adoption of best practices that minimize body size bias across professional and healthcare settings.

Rationale

Body size inclusivity is defined as “accepting and respecting a wide range of body types and ensuring that all individuals, regardless of their body size, feel valued and included.” It is the intentional acknowledgment, respect, and accommodation of people of all body sizes in personal, professional, and organizational settings. In contrast, weight stigma refers to discriminatory acts and ideologies targeted towards individuals because of their weight and size, favoring smaller body sizes and perpetuating stigma, bias, and discrimination. [Research demonstrates](#) that weight-based stigma is a social determinant of health, associated with increased psychological stress, anxiety, depression, and lower self-esteem, contributing to both mental and physical health burdens for affected individuals.

Several healthcare organizations have developed policies and initiatives to promote body size inclusivity, aiming to reduce psychological harm and stigma associated with weight bias. For example, the World Obesity Foundation has advocates for system-level change to eliminate weight bias in healthcare and other sectors. The Massachusetts Medical Society emphasizes that with increased risk of weight bias comes increased incidence and prevalence of depression, social rejection, anxiety, and suicidality across all ages. [Guidelines from the American Diabetes Association and other groups](#) recommend comprehensive provider training, inclusive clinical environments, and respectful, person-centered communication to reduce stigma and improve obesity care.

Professional policies can play a central role in promoting body size inclusivity by setting clear expectations for equitable treatment, implementing anti-discrimination protections, and providing training to staff and leadership on recognizing and counteracting weight and height bias. Organizations can also audit existing policies and practices through a body-size lens to identify areas for improvement, while maintaining the collection of body size information needed for patient care decisions. By institutionalizing these changes, organizations signal a commitment to the psychological safety and dignity of all employees, reducing stigma, and promoting an environment where health, productivity, and professional success are not contingent on body size. Pharmacists and pharmacy technicians with education and training on

the importance of body size inclusivity represents an opportunity to be a trusted and patient-centered professional.

2614**Pharmacy Workforce Leadership in Improving Vaccine Access**

Source: Council on Pharmacy Practice

To affirm the pharmacy workforce is the leader in increasing patient access to vaccinations to improve public health; further,

To collaborate with key stakeholders to support the public health role of the pharmacy workforce in the initiation, preparation, and administration of all adult and pediatric vaccinations; further,

To advocate that state and federal health authorities establish required centralized databases for timely documentation of vaccine administrations that are interoperable and accessible to all healthcare providers; further,

To advocate for payer coverage guarantees without cost sharing of evidence-based vaccines; further,

To work with federal, state, and local governments and others to improve the vaccine development and supply system in order to ensure an adequate supply of vaccines; further,

To foster public vaccine confidence through consistent, evidence-based, and culturally sensitive engagement with individuals and communities.

This policy supersedes ASHP policy 2247.

Rationale

Increasing adult and pediatric patients' access to vaccinations is an important public health challenge. The unique training and expertise of members of the pharmacy workforce in all aspects of the medication-use system can help expand patients' access to vaccinations and promote disease prevention in all practice settings. Hospital and health-system pharmacists, student pharmacists, and pharmacy technicians provide care to a patient population that is at risk and often critically ill, and such patients are especially dependent on herd immunity. Patients in rural areas, where a pharmacy may provide the only convenient access to a healthcare professional, will benefit from increased pharmacy workforce vaccination authority.

Although all states permit pharmacist administration of some vaccines, state laws differ in the range of vaccines pharmacists and pharmacy technicians may administer and the patient populations they are permitted to vaccinate. During the COVID-19 public health emergency, new regulatory flexibility under the Public Readiness and Emergency Preparedness (PREP) Act allowed pharmacy technicians and pharmacy students, under the supervision of a licensed pharmacist, to administer COVID-19 and influenza vaccines through 2029. Permanently

allowing trained and certified pharmacists, including student pharmacists, to order and administer all adult and pediatric vaccines (e.g., by eliminating the requirement that some vaccinations be conducted within a collaborative practice agreement) would encourage standardization of pharmacy vaccination practice within and among states, as would permitting appropriately trained and supervised pharmacy technicians to prepare and administer vaccinations. ASHP also advocates for payer coverage guarantees without cost sharing of vaccines and appropriate reimbursement of the pharmacy workforce for all vaccination services.

To aid in sharing important patient vaccination information, centralized and interoperable databases of patient vaccinations should be established, and all authorized vaccination providers, including pharmacists, student pharmacists, and pharmacy technicians, should be required by law or regulation to document their vaccinations in those databases in a timely manner when they become available.

Pharmacists, student pharmacists, pharmacy technicians, and pharmacy educators should embrace their role in this important public health effort by providing education about the importance of vaccination in disease prevention, participating in community vaccination programs, and training vaccination providers.

The pharmacy workforce has an integral role in promoting disease prevention by promoting vaccine confidence. The CDC defines vaccine confidence as “the trust that patients, their families, and providers have in recommended vaccines, the providers who administer vaccines, and the processes and policies that lead to vaccine development, licensure or authorization, manufacturing, and recommendations for use.” Building vaccine confidence can involve helping patients, caregivers, healthcare providers, and members of the public overcome vaccine hesitancy, which is a delay in acceptance or refusal of vaccination despite availability of vaccination services.

The pharmacy workforce, and in particular its leaders, also has an important role in working with federal, state, and local government, the pharmaceutical industry, and other stakeholders to improve the vaccine development and supply system to ensure a consistent and adequate supply of vaccines.

2615

Pharmacy Workforce Right of Conscience and the Patient’s Right of Access to Therapy

Source: Council on Pharmacy Practice

To support processes that protect patients’ access to legally prescribed treatments while reasonably accommodating members of the pharmacy workforce exercising rights of conscience; further,

To affirm the value of shared decision-making that protects patient well-being and continuity of care while balancing the rights of conscience held by members of the pharmacy workforce and other healthcare professionals; further,

To recognize the right of pharmacy workforce members to decline participation in non-emergency care delivery activities they consider morally, religiously, or ethically objectionable; further,

To support the principle that a member of the pharmacy workforce exercising rights of conscience must remain respectful of, and responsive to, and serve the legitimate health care needs and preferences of the patient and shall provide appropriate referral or transfer of care without any actions to persuade, coerce, or otherwise impose personal values, beliefs, or objections on the patient.

This policy supersedes ASHP policy 0610.

Rationale

ASHP affirms members of the pharmacy workforces' right to decline to participate in therapies they consider to be morally, religiously, or ethically troubling but recognizes that a right of conscience must balance a pharmacist's or pharmacy technician's deeply held beliefs with his or her professional duty and the patient's autonomous right to access legally prescribed and medically indicated treatments. To achieve this balance, systems to protect the patient's right to timely access to therapy should be developed in advance of non-emergent clinical scenarios where a member of the pharmacy workforce might exercise the right of conscience. The right of conscience therefore creates an affirmative responsibility on the part of the pharmacist or pharmacy technician to proactively notify his or her employer about therapies of concern. In addition, a pharmacist and pharmacy technician exercising the right of conscience must respect and serve the legitimate healthcare needs and desires of the patient and must provide a referral without any actions to persuade, coerce, or otherwise impose on the patient the pharmacist's or pharmacy technician's values, beliefs, or objections. For the purposes of this policy, "referral" is defined in manner similar to that used by the [American Academy of Family Physicians](#) (Consultations, Referrals, and Transfers of Care; 2012 COD): a referral is a request from one member of the healthcare workforce to another to assume responsibility for management of one or more of a patient's specified problems, for a specified period of time, until the problem(s)' resolution, or on an ongoing basis, and represents a temporary or partial transfer of care to another member of the healthcare workforce for a particular condition. When conscience requires a pharmacist or pharmacy technician also to decline to refer the patient to a specific provider who can provide the legally prescribed and medically indicated treatment, the pharmacist or pharmacy technician should offer impartial guidance to patients about how to inform themselves regarding access to the therapy. The [National Catholic Bioethics Center](#) suggests that healthcare providers declining to refer may assist patients with accomplishing a transfer of care to another provider or institution of the patient's choosing by providing a general list of other providers or institutions based on geographic vicinity or area of specialty, so long as the list is not developed based on the criterion of whether the providers are known or believed to offer the therapy in question. Institutions should have processes in place to ensure that the transfer of care process does not interfere with the patient's right to obtain legally prescribed and medically indicated treatments. Any accommodations made on

the basis of a pharmacist's or pharmacy technician's decision to exercise the right of conscience should be nonpunitive.

2616

SAFE AND EFFECTIVE COMPOUNDING

Source: Council on Pharmacy Practice

To affirm that compounding of medications, when done to meet immediate or anticipatory patient needs, is part of the practice of pharmacy and is not manufacturing; further,

To support preferential use of commercially manufactured products in ready-to-administer dosage forms where barriers do not exist; further,

To encourage the pharmacy workforce members who compound medications to use only drug substances that have been manufactured in Food and Drug Administration-registered facilities and that meet official United States Pharmacopeia (USP) compendial requirements; further,

To advocate that all compounding activities meet applicable USP standards and federal and state regulations; further,

To support the principle that the pharmacy workforce be adequately trained and have sufficient facilities, equipment, automation, and technology to ensure the quality of compounded medications; further,

To encourage USP to develop compounded preparation monographs for commonly compounded preparations; further,

To educate prescribers, other healthcare professionals, and patients about the potential risks associated with the use of compounded preparations.

This policy supersedes ASHP policy 2139.

Rationale

The practice of compounding has evolved along with the profession of pharmacy and it remains an essential component of patient care and pharmacy practice. With advances in pharmaceutical manufacturing, the need for preparation of individualized medications based on a prescription or medication order has decreased but not disappeared. Extemporaneous compounding of medications, when done to meet immediate or anticipatory patient needs, will likely always be an essential part of the practice of pharmacy, and cannot be replaced by any manufacturing model currently envisioned. Commercially and readily available drug products in the form necessary to meet patient needs should always be preferred to extemporaneously compounded alternatives, except when excipients or other components render the commercially available product clinically inappropriate for an individual patient. When extemporaneous compounding is required, it should meet strict requirements to protect

patients from receiving substandard or poor-quality medications that pose a safety risk to their health and well-being. In particular, extemporaneously compounded sterile preparations must ensure highest quality. Extemporaneous compounding should be performed only using drug substances that have been manufactured in Food and Drug Administration-registered facilities and that meet official United States Pharmacopeia (USP) compendial requirements. Such compounding should only be performed by adequately trained pharmacists and pharmacy technicians, in facilities and with equipment that meet technical and professional standards to ensure the quality and integrity of the compounded medication, and in accordance with USP standards and other applicable federal and state regulations. To facilitate such a high level of compounding, USP should develop drug monographs for commonly compounded preparations. ASHP and its members have always devoted a great deal of effort to promoting safe extemporaneous compounding, through education of pharmacists and pharmacy technicians, publication of best practices, and advocacy, recognizing the inherent risks of any such endeavor. Pharmacists and pharmacy technicians have a responsibility to safely prepare and distribute compounded medications to meet the unique and customized therapeutic needs of their patients, and ASHP and pharmacists therefore have a responsibility to educate prescribers, other healthcare professionals, and patients about the potential risks associated with the use of extemporaneously compounded preparations.

2617**Role of the Pharmacy Workforce to Combat Public Health Disinformation and Misinformation**

Source: Council on Pharmacy Practice

To affirm that disinformation and misinformation undermine public health and trust in health care professionals, increasing risk of potential harm and adverse patient outcomes; further,

To educate individuals on how to recognize and counter disinformation and misinformation; further,

To oppose and actively dispel the dissemination of disinformation and misinformation by members of the pharmacy workforce; further,

To collaborate with key partners to combat disinformation and misinformation.

Rationale

Public health disinformation and misinformation pose a growing threat to patient safety, population health, and trust in healthcare professionals. Disinformation is defined as false or misleading information that is deliberately created, presented, and disseminated with the intent to deceive, mislead, or cause harm. Misinformation is defined as inaccurate or false information shared without intent to deceive, often due to misunderstanding, incomplete information, or rapidly evolving science. In the public health context, disinformation often aims to undermine evidence-based guidance, erode trust in health institutions or professionals, or influence health behaviors in ways that increase risk to individuals or communities.

A longstanding area of concern related to disinformation and misinformation is with

vaccines and vaccine preventable diseases. Maintaining public trust in vaccine evidence-based recommendations is essential to protecting patient and public health, and that trust depends on transparent, rigorous processes grounded in scientific evidence. The pharmacy workforce needs to remain steadfast in their commitment to science-driven decision making related to vaccines and patient education in order to support shared clinical decision making.

Clinical decisions often require nuance, and pharmacists may reasonably differ in how they interpret evolving evidence, weigh risks and benefits, or apply guidelines to individual patients. Differences in evidence-informed professional opinions, including vaccine recommendations based on patient factors or emerging data, are not the same as misinformation. Good faith interpretation of available evidence, even when it does not fully align with a guideline, is an essential part of professional practice. Efforts to address disinformation must distinguish intentional or reckless spread of falsehoods from legitimate clinical judgment that reflects the complexity of real-world care.

ASHP, state affiliates, and its members have a professional duty to recognize and combat disinformation and misinformation with their constituencies and in their communities. It is imperative that the pharmacy workforce serve as a source of truth for scientific and evidence-based information. Many leading health professional organizations, including the American Medical Association and the American Nurses Association, have advanced policy statements that outline key elements for addressing disinformation and misinformation such as conveying clear definitions, reinforcing professional responsibility, providing trusted education and communication, creating accountability, and collaborating with other partners with similar goals and policy positions. ASHP should align and collaborate with peer pharmacy and medical organizations to reinforce shared principles and support critical public health initiatives that uphold scientific integrity and patient safety.

2618

FDA's Public Health Role

Source: Council on Public Policy

To affirm that the Food and Drug Administration's public health role is to ensure the safety and effectiveness of drugs, biologics, and medical devices through risk assessment, appropriate product approval and labeling, manufacturing oversight, maintaining consumer confidence in medications, and consultation with health professionals, while deferring to state regulation and professional self-regulation on matters related to the use of drugs, biologics, and medical devices; further,

To support the allocation of sufficient federal resources to allow FDA to meet its defined public health mission; further,

To support the appointment of practicing pharmacists to FDA advisory committees as one mechanism of ensuring that decisions made by the agency incorporate the unique knowledge of the profession of pharmacy for the further benefit of the patient; further,

To support an ongoing dialogue between FDA and ASHP for the purpose of exploring ways to advocate the best use of FDA-regulated products by consumers and health care professionals.

This policy supersedes ASHP policy 0012.

Rationale

ASHP recognizes the critical importance of the FDA in protecting public health by ensuring the safety of drugs, biologics, and medical devices. Strong federal oversight of drug safety is vital and requires robust federal funding to allow FDA to fulfill its mission, particularly in a rapidly evolving healthcare landscape. Public health would also benefit from the inclusion of practicing pharmacists, particularly those with hospital or health system experience, on FDA advisory committees, which would ensure that the agency has benefits from pharmacists' unique clinical and pharmacotherapeutic expertise, ultimately enhancing patient care. FDA's stakeholder engagement, including its long history of collaboration with ASHP and other pharmacy organizations, is integral to fostering shared efforts to promote medication and device safety, and must be protected from political interference.

2619

Protecting the Pharmacy Workforce Against Unauthorized Synthetic Media

Source: Council on Public Policy

To advocate for federal and state laws, regulations, public education efforts, and enforcement mechanisms that protect the pharmacy workforce and healthcare organizations from liability and other harms arising from unauthorized, nonconsensual, or deceptive synthetic media generated or materially manipulated content; further,

To advocate for standardized, accessible, and timely methods and frameworks at the federal, state, and local levels addressing the hazards associated with and mitigating the dangers posed by such content.

Rationale

Advances in artificial intelligence have enabled the rapid creation and spread of highly realistic synthetic media, including "deepfake" audio, video, text, and simulated professional interactions. When used to impersonate health professionals and pharmacy organizations without authorization, these technologies pose significant risks. Pharmacists, student pharmacists, and pharmacy technicians may have their names, likenesses, or credentials misused to lend credibility to false or misleading medical information. Such content can spread medication-related misinformation, undermine trust in evidence-based care, and cause reputational harm to pharmacy personnel falsely portrayed as providing inaccurate guidance.

Current legal and regulatory frameworks do not consistently address AI-generated impersonation of healthcare professionals or provide clear protections when professional identities are misused. Federal and state policies are needed to protect the pharmacy workforce from liability and reputational harm and to ensure accountability for misuse. Standardized frameworks for reporting suspected AI deepfakes would also support timely

identification and removal of harmful content, helping protect patient safety and maintain trust in medication-related information.

2620

Tobacco and Nicotine Cessation and Control

Source: Council on Therapeutics

To support pharmacists' practice in providing nicotine-cessation counseling and comprehensive medication management, including the appropriate use of FDA-approved nicotine-replacement therapy, and to promote pharmacist prescriptive authority; further,

To discourage the use and oppose the distribution and sale of tobacco, tobacco products, and non-tobacco nicotine (NTN) delivery systems not approved as cessation therapies; further,

To support efforts to expand patient access to tobacco cessation medications, including availability of affordable tobacco cessation medication (including zero-cost options); further,

To advocate for healthcare environments to be free of tobacco and NTN.

This policy supersedes ASHP Policy 2125.

Rationale

Pharmacists, as healthcare providers, have long discouraged the use of tobacco and tobacco products as a threat to public health. Non-tobacco nicotine (NTN) is available in numerous forms, including electronic nicotine delivery systems (e.g. vaporizers, vape pens, hookah pens, and electronic cigarettes and pipes), and more recently, nicotine pouches. Contents of these highly addictive systems include nicotine, flavorings, propylene glycol, glycerin, potentially harmful aerosols, and other unknown ingredients. The long-term effects of use are still relatively unknown, and given these uncertainties, pharmacists should discourage their use. ASHP opposes the distribution or sale of tobacco, tobacco products, and other nicotine delivery systems by pharmacies or facilities that contain a pharmacy (e.g., grocery or retail stores) and advocates that hospitals and health systems be tobacco-free environments.

Through [Section 907 of the Federal Food, Drug and Cosmetic Act](#), the Food and Drug Administration (FDA) has the authority to propose and adopt tobacco product standards including maximum N-Nitrosonornicotine (NNN) in smokeless tobacco products, nicotine yield in cigarettes, and other regulation for combusted tobacco products. The 2009 Family Smoking Prevention and Tobacco Control Act (TCA) prohibits cigarettes or any of their component parts (including the tobacco, filter, or paper) shall not contain artificial or natural flavor (other than tobacco or menthol) or an herb or spice. Flavor, an often characterizing element of tobacco products, has [significantly influenced](#) nicotine use in children and [adolescents](#). In response to the increase in NTN products, Congress passed [H.R.2471](#) which expanded FDA's authority to regulate tobacco products containing nicotine from any source, including synthetic nicotine.

Pharmacists have a role in recommending and managing drug therapy to support cessation of nicotine-containing products, including tobacco and electronic nicotine delivery

systems, as described in the [ASHP Therapeutic Position Statement on Cessation of Tobacco Use](#). Newer therapies, including varenicline, are associated with more and evolving safety risks when compared to nicotine replacement therapies. Given the complexity of drug therapy, pharmacists should play a central role in ensuring the safe and appropriate use of these therapies including patient assessment, education, prescribing, and monitoring of pharmacologic therapies. Given the public health impact of smoking, several states already have programs that provide, cover, or facilitate access to nicotine cessation programs that primarily operate through State Departments of Health (or Public Health), Medicaid Agencies, and State Quitlines, with some providing tobacco cessation medications for qualifying patients and/or have collaborative practice agreements that permit pharmacists to prescribe tobacco cessation medications.

2621

Safe and Effective Use of Long-Acting Injectable Antipsychotics

Source: Council on Therapeutics

To advocate for the development and implementation of standardized, pharmacist-led processes to ensure the safe, effective, and coordinated use of long-acting injectable (LAI) antipsychotics across the continuum of care; further,

To advocate for a centralized health information exchange that collects real-time and standardized information of LAI antipsychotic administrations accessible to all healthcare providers engaged in the care of the patient; further,

To collaborate with key stakeholders on the development of best practices for the safe use and management of LAI antipsychotics, regardless of site of care.

Rationale

Long-acting injectable (LAI) antipsychotics offer improved adherence, reduced relapse and hospitalization rates, and more consistent therapeutic drug levels with clear accountability for treatment engagement. However, their use may be limited by access barriers, clinician training or experience, as well as prescribing biases that reserve LAIs for patients with documented nonadherence rather than incorporating them as a proactive treatment option. System-level challenges include limited access, difficulty obtaining reimbursement, and fragmented care pathways that disrupt continuity and follow-up. Because this class of medications often lacks standardized protocols for administration, documentation, and monitoring, patients may receive duplicated doses, missed doses, or incorrect formulations, particularly during transitions of care. Variability in prescribing practices, inadvertent switching of medications from initiation to maintenance regimens, irregular dosing intervals, and non-standardized documentation across care settings further complicates the use of these medications.

Integrating pharmacists into the administration process of LAIs has expanded access and improved safety. Patients with schizophrenia and related chronic conditions often require sustained therapy to prevent relapses and support recovery. Pharmacists are essential to optimizing care with long-acting injectable (LAI) antipsychotics. They administer injections,

educate patients and providers, support medication adherence, monitor for side effects, and coordinate care. By serving as accessible points of contact, pharmacists help address barriers such as needle anxiety and limited access. Their active involvement enhances adherence and clinical outcomes, reduces hospitalizations, and expands treatment access—particularly in community pharmacy settings and through home-based services. The implementation of a standardized state or national LAI database similar to state PDMPs, is critical as it would centralize documentation from various settings, align dosing schedules, and offer clinicians real-time access to administration histories. Adopting this approach will enhance patient safety, reduce dosing errors, and facilitate greater pharmacist involvement in interdisciplinary care, consistent with ASHP's commitment to promoting medication management continuity and data interoperability for patient care.

2622**Dosing of Combination Antibiotics**

Source: Council on Therapeutics

To advocate for Food and Drug Administration-approved standardized labeling of combination antibiotics with dosing instructions that include each component in a clear and unambiguous manner; further,

To support the continuous evaluation and streamlining of combination antibiotic formulation ratios; further,

To advocate for information system vendors to incorporate discrete data fields and for drug reference resources to reflect each antibiotic component; further,

To encourage healthcare organizations to adopt strategies that ensure appropriate dosing of combination antibiotics; further,

To educate stakeholders and the public regarding the safe dosing and administration of combination antibiotics for pediatrics and adults.

Rationale

Combination antibiotics pose a unique challenge for pharmacists because each product contains two active components, each with its own strength, and variations in how doses are calculated can create confusion in dosing, dispensing, and administration. In adults, dosing and dispensing of these drugs is done with standard doses equivalent to the sum of the two antibiotic components and are provided from manufacturers in standardized formulations, often in ready to administer bags. Conversely, pediatric patients are often dosed based on the weight-based dosing of one component of the combination drug (e.g the beta-lactam or the trimethoprim component) with a few exceptions based upon the goal of treatment. While most intravenous concentrations of these medications are standardized, there are 11 dosage formulations of amoxicillin-clavulanate on the US market, including five different amoxicillin to clavulanate ratios (i.e., 2:1, 4:1, 7:1, 14:1, 16:1). These multiple ratio formulations further

increase the risk of prescribing, dispensing, and administration errors which can impact the effectiveness and/or the toxicity of these antibiotics. While this phenomenon is decreasing, many manufacturers' labeling and dosing references describe doses in a variety of ways, and multiple presentations exist even within the same reference. This has also led to dosing errors with the intravenous antibacterial drugs [due to confusion about the drug strength displayed on the vial and carton labels](#).

Furthermore, many pediatric patients are [not treated at standalone children's hospitals](#) where there is infrastructure and support, including pediatric specific order sets, pump libraries, drug information and pharmacists trained to care for pediatric patients exist. A [2024 study in Journal of Pediatric Pharmacology and Therapeutics \(JPPT\)](#) surveyed pharmacists treating pediatric patients in a variety of settings cited that barriers to dosing and administration of combination drugs including: extended infusions, infusion pump interoperability challenges, CPOE (computerized physician order entry) auto-adjustments, dose rounding, drug shortages, premade adult products, non-formulary drugs, and different ordering processes for pediatric and adult patients. This study also found that order sets, guidelines, and intranet pages were the most common sources of internal antibiotic dosing recommendations, where dosing may be different than what is found in external antibiotic dosing references including Lexicomp, Micromedex, Sanford Guide and more. A [2023 study](#) from JPPT reviewed amoxicillin-clavulanate use at standalone and children's hospitals within acute care hospitals and found that significant formulation selection variability exists across the United States with these institutions carrying on average five amoxicillin-clavulanate products.

In the outpatient setting, medication errors [during order entry and dispensing](#) include: information and knowledge gaps about medication indications or doses for pediatric patients, communication gaps between health care providers and caregivers, and product preparation vulnerabilities. An [additional study](#) that looked at pediatric medication errors, found that antibiotics emerged as the most frequently implicated drug class.

2623

Evidence-Based Medicine

Source: Council on Therapeutics

To define evidence-based medicine as the conscientious, explicit, and judicious appraisal and application of the best-available current data integrated with clinician expertise and patient values to inform the development and implementation of professional policies, standards, and clinical practice decisions; further,

To affirm evidence-based medicine as a foundational principle of pharmacy practice, patient care, and the development of ASHP professional policies and advocacy positions, including clinical decision-making and public health guidance.

Rationale

Evidence-based medicine (EBM), also known as evidence-based practice, evidence-based clinical practice, evidence-based healthcare, evidence-based method, and evidence-based approach are all encompassing terms that describe a methodical approach to clinical decision-

making. EBM is a cornerstone of modern healthcare, emphasizing the use of the best available research evidence to guide clinical decision-making. The goal of EBM is to improve patient care by using the most current and reliable scientific research—such as randomized controlled trials, systematic reviews, and meta-analyses—to guide diagnosis, treatment, and management decisions. It involves critically evaluating and integrating evidence into the clinical decision-making process, ensuring that the interventions provided are both effective and appropriate for the individual patient.

However, there is controversy surrounding the term. This arises from its ideal of objective, standardized care, which sometimes clashes with the realities of clinical practice, patient individuality, and the inherent limitations of research. In recent years, particularly with the rapidly evolving need for safe and effective treatment during the COVID-19 pandemic, adoption of artificial intelligence, and proliferation of publications, the term evidence-based medicine has evolved from an approach to patient care that uses best available evidence, clinical expertise, and patient values to one that includes these values but also a more nuanced understanding of the complexities inherent in translating research into practice, recognizing that both organizations and clinicians are subject to their own biases. Ultimately, EBM uses diligent, explicit, and sensible use of available evidence to care for individual patients that integrates individual clinical expertise that is diverse in origin. EBM is not a replacement for individual clinical expertise and does not consist only of randomized controlled trials or meta-analyses, nor considers data that is outdated or impossible to practice.