

ASHP Statement on Telehealth Pharmacy Practice

Position

ASHP believes appropriately trained and equipped pharmacists can use telehealth to remotely oversee pharmacy operations and provide distributive, clinical, analytical, consultative, and managerial services. ASHP advocates for telehealth utilization in suitable functions of pharmacy operations and patient care to improve patient outcomes, expand access to healthcare, enhance patient safety, achieve effective cost-of-care, and interact with other healthcare team members. ASHP further advocates that boards of pharmacy adopt compatible regulations that enable the use of United States-based telehealth services within and across state lines for appropriate practice settings and that additional research be conducted to establish best practices for telehealth.

Background

Telehealth. Definitions of telehealth vary widely.¹ The Agency for Healthcare Research and Quality has defined telehealth as "the use of information and telecommunications technology in healthcare delivery for a specific patient involving a provider across distance or time."² The Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) defines telehealth more broadly: "the use of electronic information and telecommunications technologies to support and promote long-distance clinical healthcare, patient and professional health-related education, and public health and health administration. Technologies include videoconferencing, the internet, store- and forward imaging, streaming media, and landline and wireless communications."³ The 2020 American Medical Association (AMA) Telehealth Playbook⁴ defines telehealth as "a digital health solution that connects the patient and clinician through real-time audio and video technology" and states that telehealth "can be used as an alternative to traditional in-person care delivery and, in certain circumstances, can be used to deliver care such as the diagnosis, consultation, treatment, education, care management, and self-management of patients."

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The Centers for Medicare & Medicaid Services (CMS) distinguishes between telehealth and telemedicine, at least as it concerns Medicaid, defining “Telehealth (or Telemonitoring)” as “the use of telecommunications and information technology to provide access to health assessment, diagnosis, intervention, consultation, supervision and information across distance.”⁵ CMS follows this definition by saying “[t]elehealth includes such technologies as telephones, facsimile machines, electronic mail systems, and remote patient monitoring devices, which are used to collect and transmit patient data for monitoring and interpretation.” CMS notes that although such technologies “do not meet the Medicaid definition of telemedicine they are often considered under the broad umbrella of telehealth services” and may nevertheless be covered and reimbursed as part of a Medicaid coverable service.⁵ Other authors⁶ have also made this distinction, while some organizations do not; the American Academy of Pediatrics states that terms *telemedicine* and *telehealth* “are considered synonymous and are used interchangeably to describe use of electronic information and telecommunications technologies to support clinical healthcare, patient and professional health-related education, public health and health administration.”⁷

Just as many definitions of telehealth include a broader scope of virtual healthcare services than does telemedicine, ASHP believes “telehealth pharmacy practice” is a more appropriate overarching term for the virtual delivery of pharmacists’ patient care services than “telepharmacy.” For the purposes of this document, ASHP defines telehealth pharmacy practice as use of electronic information and telecommunications technology by pharmacists to provide patient care services. This definition reflects the broad spectrum of pharmacy practice. Telehealth patient care services and operations may include, but are not limited to, the following:

- comprehensive medication management,
- chronic disease state management,
- medication selection and dispensing,
- sterile and nonsterile compounding verification,
- patient assessment and evaluation,
- adverse drug event detection and monitoring,

- patient counseling,
- medication reconciliation,
- clinical consultation,
- outcomes assessment,
- healthcare data analysis,
- interacting with other healthcare practitioners,
- healthcare personnel supervision,
- provision of drug information, and
- oversight of aspects of pharmacy operations.

Practice Advancement Initiative 2030 (PAI 2030). The ASHP PAI states that the pharmacy enterprise “must have sufficient resources to develop, implement, and maintain technology-related medication-use safety standards.”⁸ It further recommends that virtual pharmacy services “should be deployed to optimize operational and clinical services that extend patient care services and enhance continuity of care.”⁸

Telehealth pharmacy practice applications

Telehealth pharmacy practice has demonstrated value in a variety of settings for medication selection, order review, and dispensing; intravenous (IV) admixture verification; patient counseling and monitoring; and clinical services.⁹ Telehealth pharmacy services have long proven useful in supporting settings that perform medication-use activities when a pharmacist is not physically present or pharmacy resources may be limited, such as geographically isolated ambulatory clinics and healthcare facilities.¹⁰⁻¹³ Telehealth also provides a solution for order review and verification in tertiary medical centers when staffing, particularly in specialty areas such as oncology and pediatrics, is limited (e.g., due to attrition or staff turnover), creating a mechanism for health systems to provide enterprise-level pharmacy services throughout the system even when not all pharmacies operate 24 hours per day.^{14,15} Other facilities may use telehealth services for supplemental workload balancing, which includes network workload balancing and on-call assistance.¹⁴ In addition, telehealth provides a tool for virtual monitoring, assessment, detection, decision-making, and adverse drug event management.¹⁶

Medication selection, order review, and dispensing. Telehealth has been used successfully to enable pharmacists to be directly involved in the medication selection process for patients at geographically remote hospitals. Specific tasks may include but are not limited to remote review of new medication orders, entry of orders into the patient's electronic health record, release of medication from an automated dispensing cabinet, and electronic supervision of technicians in the performance of pharmacy operations.^{10-13,17-20}

IV admixture verification. Although technology systems for remote checking of IV admixture preparation were originally designed to reduce contamination risk by reducing the need for pharmacists to physically enter sterile compounding areas to review and verify finished preparations, these and similar technologies can be used for verification of admixtures at different stages of preparation, across multiple sites, and over long distances.^{20,21} The technology also reduces exposure risk by reducing the number of pharmacy personnel and other providers having to handle hazardous medications, such as chemotherapy. Documentation and safety can also be enhanced with these systems, as images capture lot numbers and expiration dates in addition to the step-by-step processes of preparation. Some of these systems perform in-process verification steps (e.g., barcode verification of correct product selection, gravimetric verification of additive quantities), which provide additional assurance to the remote pharmacist that the preparation is correct.

Patient counseling and monitoring. Pharmacists have been using telecommunications technology to counsel patients about the proper use of their medications for as long as telephone service lines have been available. Early examples of pharmacists employing videoconferencing technology to counsel geographically remote patients include the outreach program by a Federally Qualified Health Center in eastern Washington State²² and another program in North Dakota.²³ The Indian Health Service has also implemented videoconferencing technology to provide pharmacist services to remote areas of Alaska,²⁴ and the U.S. Navy has deployed use of this technology worldwide.²⁵ Other examples include the use of videoconferencing to provide comprehensive medication management,²⁶ chronic disease state management (e.g., diabetes mellitus, chronic obstructive pulmonary disease, congestive heart failure and other cardiovascular conditions, post-MI cardiac rehabilitation, gout),²⁷⁻³⁸ specialty

pharmacy services (e.g., oncology, autoimmune diseases, multiple sclerosis, cystic fibrosis),³⁹⁻⁴² and mental and behavioral health telehealth.^{43,44} Implementation of intensive care unit telemedicine services, including telehealth pharmacy practice, led to reduced hospital length of stay, an increase in institutional best practice adherence, and lower rates of preventable complications.⁴⁵ Pharmacists are also being encouraged to use mobile applications to communicate with patients to help them manage their diseases and medications.^{46,47}

Expanding pharmacy services. ASHP supports implementation of telehealth services to “maintain pharmacy operations and pharmacist-led comprehensive medication management that extend patient care services to and enhance continuity of care for rural or medically underserved populations.”⁴⁸ Telehealth can be used to enable onsite pharmacy activities if the pharmacist is not physically located at the point of pharmacy operation or patient care.

Millions of Americans live in areas, both rural and urban, devoid of pharmacies.⁴⁹ Until recently, much of the focus of expanding telehealth pharmacy practice has been on rural areas. According to the 2019 National Pharmacist Workforce Study (NPWS),⁵⁰ more licensed pharmacists were unemployed or working outside of pharmacy than in the 2014 NPWS,⁵¹ which suggests there has not been a shortage of pharmacists. However, workforce issues continue to plague rural areas.⁵² Between 2003 and 2018, 16% (1,231) of independently-owned rural pharmacies closed.⁵³ Similarly, 180 rural hospitals closed between 2005 and 2021, causing pharmacists and other professionals to leave rural areas for employment.⁵⁴ Telehealth pharmacy services in retail and hospital pharmacy settings can help fill the gap.⁵⁵⁻⁵⁷ More recently, attention has also turned to the problem of “pharmacy deserts” in urban areas,^{58,59} as Federally Qualified Health Centers (FQHCs) and other healthcare institutions increase utilization of telehealth and explore strategies such as remote dispensing.⁶⁰⁻⁶²

Federal regulation. Federal regulation of telehealth has evolved, and CMS has established standards for telehealth.⁶³ The Health Insurance Portability and Accountability Act⁶⁴ (HIPAA) and Subtitle D of the Health Information Technology for Economic and Clinical Health (HITECH) Act,⁶⁵ which was enacted as part of the American Recovery and Reinvestment Act of 2009,⁶⁶ address privacy and security concerns associated with electronic transmission of health information. FDA has jurisdiction over medical software and equipment that may be involved in

healthcare whether online, mobile, or in-house. Pharmacists communicating with a patient via a mobile application should ensure it is compliant with FDA standards.⁶⁷

ASHP advocates for changes in federal (e.g., Social Security Act), state, and third-party payment programs to define pharmacists as healthcare providers and provide an infrastructure supporting sustainability of pharmacist-provided patient care services and improved interactions between pharmacists and other healthcare providers that benefit patient care.^{68,69} ASHP recognizes that reimbursement for those provider services may be contingent on credentialing by payers and other appropriate bodies. ASHP further encourages health systems to include pharmacists in their credentialing and privileging processes in a manner consistent with other healthcare professionals to assess pharmacists' competence to engage in patient care services, including telehealth pharmacy practice.⁷⁰ Provider status and institutional privileging and credentialing processes expand pharmacists' ability to bill for services they are already providing, enhancing the health system's reimbursement for services and facilitating ongoing growth of telehealth pharmacy practice. In addition, the Federal government and accrediting bodies should collaboratively establish standards for telehealth pharmacy practice and associated technologies, and incorporate regulatory and reimbursement imperatives to encourage adoption of standards regarding telehealth practice that would foster wider adoption and improve patient care.

State regulation. The Model Act, while not a federal standard, provides boards of pharmacy with model language for developing state laws or board rules.⁷¹ The Model Act defines telehealth-related terms and provides requirements for remote pharmacy services. Many states now have specific regulations for telehealth.⁷² However, these state laws and regulations demonstrate wide variation in the application and control of telehealth systems.⁷³ States have variously described telehealth pharmacy practice in terms of remote order management with or without dispensing using automated dispensing cabinets, remote supervision of medication order filling with or without automated medication order dispensing, and inpatient dispensing activities (including IV preparation). When providing pharmacy services across state lines, pharmacists must be aware of the regulations of the state in which the pharmacist is located and the state in which the patient is receiving care.⁷⁴ State laws and

regulations vary on the definition of telehealth, licensing requirements, education and training for participating pharmacists and technicians, practice setting restrictions, and geographical limitations for the remotely practicing pharmacist. State laws and regulations also vary widely regarding the technology required to implement telehealth. Although most stipulate a camera and some audio exchange between the pharmacy and the remote pharmacist, the specification of the types of technology (video vs. still, telephone vs. voice over internet protocol [VoIP]) and the types and amounts of transactional information captured vary widely. Some state boards of pharmacy have identified specific training, certification, or experience that pharmacy technicians engaged in telehealth must possess.^{75,76}

As use of telehealth expands, state board of pharmacy regulations and state laws regarding its use should evolve, while avoiding mandating technologies that could impede future improvements in patient care and the medication-use process. ASHP advocates that federal and state governments adopt laws and regulations that modernize and standardize telehealth practices nationwide and facilitate the use of U.S.-based telehealth services to enhance interprofessional practices. ASHP further advocates that boards of pharmacy and state agencies that regulate pharmacy practice address the following regarding telehealth pharmacy practice:

1. Education and training of participating pharmacists;
2. Education, training, certification by the Pharmacy Technician Certification Board, and licensure of participating pharmacy technicians;
3. Communication and information systems requirements;
4. Remote order entry, prospective order review, verification of the completed medication order before dispensing, and dispensing;
5. Direct patient-care services, including comprehensive medication management and medication therapy management services and patient counseling and education;
6. Licensure (including reciprocity) of participating pharmacies and pharmacists;
7. Service arrangements that cross state borders;

8. Service arrangements within the same corporate entity or between different corporate entities;
9. Service arrangements for workload relief in the point-of-care pharmacy during peak periods;
10. Pharmacist access to all applicable patient information; and
11. Development and monitoring of patient safety, quality, and outcomes measures.⁷⁷

ASHP advocates for interstate pharmacist licensure to expand the mobility of pharmacists, especially during emergencies, and to enhance their ability to practice in multiple states, which is particularly important to telehealth pharmacy practice.⁷⁸ National Association of Boards of Pharmacy's (NABP) Electronic Licensure Transfer Program⁷⁹ is a good first step toward true interstate licensure but should be enhanced at the state level to meet the needs presented by the rapid expansion of telehealth pharmacy practice. ASHP supports exploration of licensure models (e.g., endorsements, interstate agreements) that would allow pharmacists to provide specific services across state lines and encourages advocacy to implement such models.^{78,80}

In addition, some state legislatures have passed laws ensuring that insurance reimbursements for telehealth are the same as non-telehealth services. Whether these statutes can or will be applied to pharmacy-related telehealth services in those states remains unanswered. Many of the telehealth payment models involving pharmacists have been implemented in managed care organizations that see value of increasing frequency of visits and follow-up to improve quality of care in chronic disease state management.⁸¹ As payment shifts toward value-based care, insurance payers may be increasingly interested in telehealth models.⁸²

Reimbursement for telehealth pharmacy practice services

ASHP advocates for reimbursement for pharmacists' provision of telehealth pharmacy services commensurate with the complexity and duration of service and consistent with other healthcare providers, to ensure that patients can maintain access to vital services.⁸³ During the COVID-19 public health emergency, hospitals, health systems, and clinics quickly pivoted to

providing patient services via telehealth. The Centers for Medicare & Medicaid Services, commercial payers, and state policymakers have indicated that they would like to maintain telehealth services post-pandemic. Because pharmacists are not currently recognized as healthcare providers through Medicare Part B, reimbursement for telehealth services has been challenging.⁸⁴

ASHP advocates for full recognition of pharmacists as reimbursable healthcare providers through Medicare, Medicaid, and all health insurance plans.⁶⁸ Since this has not yet been fully realized, as an interim step, ASHP supports federal and state legislation and regulation that would provide qualified pharmacists (i.e., as determined by the state board of pharmacy or the credentialing board of a qualified healthcare institution) provider status to bill for services rendered through telehealth.⁸³ ASHP also advocates billing for services using existing billing codes, and expansion of those codes, as the current set is limited and does not capture the full potential of clinical pharmacy services, including services provided via telehealth.⁸⁵

Telehealth infrastructure

The technology infrastructure required for the implementation and maintenance of telehealth services may be scalable and adjusted to fit the care setting. Two intra-system facilities may already share a network, a pharmacy information system, and possibly an order management system. In this scenario, perhaps the only additional equipment needed is a digital communication system for transmission of any orders not provided via computerized provider order entry (CPOE).

In contrast, the inter-system model provides telehealth services to a facility external to the health system. This could involve a variety of infrastructures; for example, a cloud-based health information exchange (HIE) where all patients and care providers interact through a variety of hardware and software. Additionally, all data may be stored in a relational database or data warehouse.

As more pharmacists are providing telehealth management, it is recommended that organizations investigate the feasibility of integrating telehealth solutions (e.g., video conferencing software, remote monitoring devices) into the electronic health record (EHR).

Telehealth EHR integration streamlines workflow, optimizes cognitive workload, minimizes clinician burden, and facilitates documentation.^{86,87} In addition, incorporation of decision support tools, machine learning, and internet-of-things technologies will offer greater insights, earlier prediction, and better care by pharmacists to patients and caregivers in a variety of settings, ranging from institutional to home-based care.

With all electronic systems and workflow processes, redundancies and contingency plans must be carefully outlined and readily referenced in organizational policies and procedures to ensure continuity of operations and safety in instances of unplanned events.

Security of information and equipment

The security and integrity of patient data is of paramount importance when determining the information technology setup of a telehealth system.⁸⁸ Security is vital when accessing and modifying patient records. Adherence to HIPAA⁶⁴ and HITECH⁶⁵ regulations are important to both the providers of telehealth pharmacy services as well as the entities who receive them. As security continues to be threatened by breaches and ransomware, facilities are tightening their security policies. Telehealth pharmacy providers may notice additional layers of security such as multifactor authentication requirements for access to their network or electronic medical record as well as shorter workstation session timeouts with inactivity.

Security is important wherever telehealth pharmacy is practiced. It is important to note that some states require that pharmacists work only from licensed pharmacies. This includes home-based practices and corporate environments that may need to be licensed as a professional pharmacy according to state regulations. A professional and secure environment should be provided in every setting. Care should be taken to keep the environment a professional workspace with all necessary references, resources, confidentiality, and data security practices.

Patient-centric considerations for the telehealth pharmacy visit

The environment for provision of telehealth services should be evaluated from the patient's point of view. It should provide proper lighting to allow the patient to clearly see the

pharmacist's face. Dress and appearance should be consistent with what would be seen within a healthcare facility. Ideally, the camera is at eye level to simulate a true face-to-face interaction. The background should appear professional, free from clutter, commotion, and provide a sense of privacy. Audio and video quality should be verified with the recipient upon initiation of the visit. The patient should be allowed access to all applicable patient care records during an encounter when possible.⁸⁹

Conclusion

Telehealth is a method used in pharmacy practice in which pharmacists utilize electronic information and telecommunications technology to provide patient care services. Telehealth services that adhere to ASHP practice guidelines allow expanded coverage, improved patient safety, and enhanced communication between patients, healthcare providers, and pharmacists. Variability in laws between states and evolving regulations must be closely monitored when implementing services. ASHP advocates for more research to investigate a refined definition and best practices in the implementation and delivery of telehealth services.⁹⁰

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Additional information

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Disclosures

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