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## ASHP Statement on Telehealth Pharmacy Practice

1    **Position**

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

11   **Background**

12        *Telehealth.* Definitions of telehealth vary widely.<sup>1</sup> The Agency for Healthcare Research  
13   and Quality has defined telehealth as "the use of information and telecommunications  
14   technology in healthcare delivery for a specific patient involving a provider across distance or  
15   time."<sup>2</sup> The Health Resources and Services Administration (HRSA) of the U.S. Department of  
16   Health and Human Services (HHS) defines telehealth more broadly: "the use of electronic  
17   information and telecommunications technologies to support and promote long-distance  
18   clinical healthcare, patient and professional health-related education, and public health and  
19   health administration. Technologies include videoconferencing, the internet, store- and forward  
20   imaging, streaming media, and landline and wireless communications."<sup>3</sup> The 2020 American



21 Medical Association (AMA) Telehealth Playbook<sup>4</sup> defines telehealth as “a digital health solution  
22 that connects the patient and clinician through real-time audio and video technology” and  
23 states that telehealth “can be used as an alternative to traditional in-person care delivery and,  
24 in certain circumstances, can be used to deliver care such as the diagnosis, consultation,  
25 treatment, education, care management, and self-management of patients.”

26 The Centers for Medicare & Medicaid Services (CMS) distinguishes between telehealth  
27 and telemedicine, at least as it concerns Medicaid, defining “Telehealth (or Telemonitoring)” as  
28 “the use of telecommunications and information technology to provide access to health  
29 assessment, diagnosis, intervention, consultation, supervision and information across  
30 distance.”<sup>5</sup> CMS follows this definition by saying “[t]elehealth includes such technologies as  
31 telephones, facsimile machines, electronic mail systems, and remote patient monitoring  
32 devices, which are used to collect and transmit patient data for monitoring and interpretation.”  
33 CMS notes that although such technologies “do not meet the Medicaid definition of  
34 telemedicine they are often considered under the broad umbrella of telehealth services” and  
35 may nevertheless be covered and reimbursed as part of a Medicaid coverable service.<sup>5</sup> Other  
36 authors<sup>6</sup> have also made this distinction, while some organizations do not; the American  
37 Academy of Pediatrics states that terms *telemedicine* and *telehealth* “are considered  
38 synonymous and are used interchangeably to describe use of electronic information and  
39 telecommunications technologies to support clinical healthcare, patient and professional  
40 health-related education, public health and health administration.”<sup>7</sup>

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

- 49 • comprehensive medication management,

- 50 • chronic disease state management,
- 51 • medication selection and dispensing,
- 52 • sterile and nonsterile compounding verification,
- 53 • patient assessment and evaluation,
- 54 • adverse drug event detection and monitoring,
- 55 • patient counseling,
- 56 • medication reconciliation,
- 57 • clinical consultation,
- 58 • outcomes assessment,
- 59 • healthcare data analysis,
- 60 • interacting with other healthcare practitioners,
- 61 • healthcare personnel supervision,
- 62 • provision of drug information, and
- 63 • oversight of aspects of pharmacy operations.

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

### 69 **Telehealth pharmacy practice applications**

70 Telehealth pharmacy practice has demonstrated value in a variety of settings for medication  
71 selection, order review, and dispensing; intravenous (IV) admixture verification; patient  
72 counseling and monitoring; and clinical services.<sup>9</sup> Telehealth pharmacy services have long  
73 proven useful in supporting settings that perform medication-use activities when a pharmacist  
74 is not physically present or pharmacy resources may be limited, such as geographically isolated  
75 ambulatory clinics and healthcare facilities.<sup>10-13</sup> Telehealth also provides a solution for order  
76 review and verification in tertiary medical centers when staffing, particularly in specialty areas  
77 such as oncology and pediatrics, is limited (e.g., due to attrition or staff turnover), creating a

78 mechanism for health systems to provide enterprise-level pharmacy services throughout the  
79 system even when not all pharmacies operate 24 hours per day.<sup>14,15</sup> Other facilities may use  
80 telehealth services for supplemental workload balancing, which includes network workload  
81 balancing and on-call assistance.<sup>14</sup> In addition, telehealth provides a tool for virtual monitoring,  
82 assessment, detection, decision-making, and adverse drug event management.<sup>16</sup>

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

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

101 **Patient counseling and monitoring.** Pharmacists have been using telecommunications  
102 technology to counsel patients about the proper use of their medications for as long as  
103 telephone service lines have been available. Early examples of pharmacists employing  
104 videoconferencing technology to counsel geographically remote patients include the outreach  
105 program by a Federally Qualified Health Center in eastern Washington State<sup>22</sup> and another

106 program in North Dakota.<sup>23</sup> The Indian Health Service has also implemented videoconferencing  
107 technology to provide pharmacist services to remote areas of Alaska,<sup>24</sup> and the U.S. Navy has  
108 deployed use of this technology worldwide.<sup>25</sup> Other examples include the use of  
109 videoconferencing to provide comprehensive medication management,<sup>26</sup> chronic disease state  
110 management (e.g., diabetes mellitus, chronic obstructive pulmonary disease, congestive heart  
111 failure and other cardiovascular conditions, post-MI cardiac rehabilitation, gout),<sup>27-38</sup> specialty  
112 pharmacy services (e.g., oncology, autoimmune diseases, multiple sclerosis, cystic fibrosis),<sup>39-42</sup>  
113 and mental and behavioral health telehealth.<sup>43,44</sup> Implementation of intensive care unit  
114 telemedicine services, including telehealth pharmacy practice, led to reduced hospital length of  
115 stay, an increase in institutional best practice adherence, and lower rates of preventable  
116 complications.<sup>45</sup> Pharmacists are also being encouraged to use mobile applications to  
117 communicate with patients to help them manage their diseases and medications.<sup>46,47</sup>

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

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

135           **Federal regulation.** Federal regulation of telehealth has evolved, and CMS has  
136 established standards for telehealth.<sup>63</sup> The Health Insurance Portability and Accountability Act<sup>64</sup>  
137 (HIPAA) and Subtitle D of the Health Information Technology for Economic and Clinical Health  
138 (HITECH) Act,<sup>65</sup> which was enacted as part of the American Recovery and Reinvestment Act of  
139 2009,<sup>66</sup> address privacy and security concerns associated with electronic transmission of health  
140 information. FDA has jurisdiction over medical software and equipment that may be involved in  
141 healthcare whether online, mobile, or in-house. Pharmacists communicating with a patient via a  
142 mobile application should ensure it is compliant with FDA standards.<sup>67</sup>

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

159           **State regulation.** The Model Act, while not a federal standard, provides boards of  
160 pharmacy with model language for developing state laws or board rules.<sup>71</sup> The Model Act  
161 defines telehealth-related terms and provides requirements for remote pharmacy services.  
162 Many states now have specific regulations for telehealth.<sup>72</sup> However, these state laws and  
163 regulations demonstrate wide variation in the application and control of telehealth systems.<sup>73</sup>

164 States have variously described telehealth pharmacy practice in terms of remote order  
165 management with or without dispensing using automated dispensing cabinets, remote  
166 supervision of medication order filling with or without automated medication order dispensing,  
167 and inpatient dispensing activities (including IV preparation). When providing pharmacy  
168 services across state lines, pharmacists must be aware of the regulations of the state in which  
169 the pharmacist is located and the state in which the patient is receiving care.<sup>74</sup> State laws and  
170 regulations vary on the definition of telehealth, licensing requirements, education and training  
171 for participating pharmacists and technicians, practice setting restrictions, and geographical  
172 limitations for the remotely practicing pharmacist. State laws and regulations also vary widely  
173 regarding the technology required to implement telehealth. Although most stipulate a camera  
174 and some audio exchange between the pharmacy and the remote pharmacist, the specification  
175 of the types of technology (video vs. still, telephone vs. voice over internet protocol [VoIP]) and  
176 the types and amounts of transactional information captured vary widely. Some state boards of  
177 pharmacy have identified specific training, certification, or experience that pharmacy  
178 technicians engaged in telehealth must possess.<sup>75,76</sup>

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

- 187 1. Education and training of participating pharmacists;
- 188 2. Education, training, certification by the Pharmacy Technician Certification Board,  
189 and licensure of participating pharmacy technicians;
- 190 3. Communication and information systems requirements;
- 191 4. Remote order entry, prospective order review, verification of the completed  
192 medication order before dispensing, and dispensing;

- 193           5. Direct patient-care services, including comprehensive medication management  
194           and medication therapy management services and patient counseling and  
195           education;
- 196           6. Licensure (including reciprocity) of participating pharmacies and pharmacists;
- 197           7. Service arrangements that cross state borders;
- 198           8. Service arrangements within the same corporate entity or between different  
199           corporate entities;
- 200           9. Service arrangements for workload relief in the point-of-care pharmacy during  
201           peak periods;
- 202           10. Pharmacist access to all applicable patient information; and
- 203           11. Development and monitoring of patient safety, quality, and outcomes  
204           measures.<sup>77</sup>

205 ASHP advocates for interstate pharmacist licensure to expand the mobility of pharmacists,  
206 especially during emergencies, and to enhance their ability to practice in multiple states, which  
207 is particularly important to telehealth pharmacy practice.<sup>78</sup> National Association of Boards of  
208 Pharmacy's (NABP) Electronic Licensure Transfer Program<sup>79</sup> is a good first step toward true  
209 interstate licensure but should be enhanced at the state level to meet the needs presented by  
210 the rapid expansion of telehealth pharmacy practice. ASHP supports exploration of licensure  
211 models (e.g., endorsements, interstate agreements) that would allow pharmacists to provide  
212 specific services across state lines and encourages advocacy to implement such models.<sup>78,80</sup>

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

**221 Reimbursement for telehealth pharmacy practice services**

222 ASHP advocates for reimbursement for pharmacists' provision of telehealth pharmacy services  
223 commensurate with the complexity and duration of service and consistent with other  
224 healthcare providers, to ensure that patients can maintain access to vital services.<sup>83</sup> During the  
225 COVID-19 public health emergency, hospitals, health systems, and clinics quickly pivoted to  
226 providing patient services via telehealth. The Centers for Medicare & Medicaid Services,  
227 commercial payers, and state policymakers have indicated that they would like to maintain  
228 telehealth services post-pandemic. Because pharmacists are not currently recognized as  
229 healthcare providers through Medicare Part B, reimbursement for telehealth services has been  
230 challenging.<sup>84</sup>

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

**239 Telehealth infrastructure**

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

246 In contrast, the inter-system model provides telehealth services to a facility external to  
247 the health system. This could involve a variety of infrastructures; for example, a cloud-based  
248 health information exchange (HIE) where all patients and care providers interact through a

249 variety of hardware and software. Additionally, all data may be stored in a relational database  
250 or data warehouse.

251 As more pharmacists are providing telehealth management, it is recommended that  
252 organizations investigate the feasibility of integrating telehealth solutions (e.g., video  
253 conferencing software, remote monitoring devices) into the electronic health record (EHR).  
254 Telehealth EHR integration streamlines workflow, optimizes cognitive workload, minimizes  
255 clinician burden, and facilitates documentation.<sup>86,87</sup> In addition, incorporation of decision  
256 support tools, machine learning, and internet-of-things technologies will offer greater insights,  
257 earlier prediction, and better care by pharmacists to patients and caregivers in a variety of  
258 settings, ranging from institutional to home-based care.

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

## 262 **Security of information and equipment**

263 The security and integrity of patient data is of paramount importance when determining the  
264 information technology setup of a telehealth system.<sup>88</sup> Security is vital when accessing and  
265 modifying patient records. Adherence to HIPAA<sup>64</sup> and HITECH<sup>65</sup> regulations are important to  
266 both the providers of telehealth pharmacy services as well as the entities who receive them. As  
267 security continues to be threatened by breaches and ransomware, facilities are tightening their  
268 security policies. Telehealth pharmacy providers may notice additional layers of security such as  
269 multifactor authentication requirements for access to their network or electronic medical  
270 record as well as shorter workstation session timeouts with inactivity.

271 Security is important wherever telehealth pharmacy is practiced. It is important to note  
272 that some states require that pharmacists work only from licensed pharmacies. This includes  
273 home-based practices and corporate environments that may need to be licensed as a  
274 professional pharmacy according to state regulations. A professional and secure environment  
275 should be provided in every setting. Care should be taken to keep the environment a

276 professional workspace with all necessary references, resources, confidentiality, and data  
277 security practices.

### 278 **Patient-centric considerations for the telehealth pharmacy visit**

279 The environment for provision of telehealth services should be evaluated from the patient's  
280 point of view. It should provide proper lighting to allow the patient to clearly see the  
281 pharmacist's face. Dress and appearance should be consistent with what would be seen within  
282 a healthcare facility. Ideally, the camera is at eye level to simulate a true face-to-face  
283 interaction. The background should appear professional, free from clutter, commotion, and  
284 provide a sense of privacy. Audio and video quality should be verified with the recipient upon  
285 initiation of the visit. The patient should be allowed access to all applicable patient care records  
286 during an encounter when possible.<sup>89</sup>

### 287 **Conclusion**

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

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### **Additional information**

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### **Authors**

Brendan R. Begnoche, PharmD  
Garnet Health Medical Center  
Middletown, NY

C. David Butler, Pharm.D., M.B.A.  
Teradata, Inc.  
Richmond, Virginia

Paige H. Carson, Pharm.D., BCPS, CDE, CPP  
Atrium Health  
Charlotte, North Carolina

Andrea Darr, Pharm.D., BCPS  
Avel eCARE, LLC



Sioux Falls, South Dakota

Matthew T. Jenkins, Pharm.D., M.S.  
University of Virginia Health System,  
Charlottesville, Virginia

Trinh Le, M.S., M.B.A., FASHP  
UNC Health Care  
Raleigh, North Carolina

Robert B. McDaniel, Pharm.D., CMQ  
The University of Texas MD Anderson Cancer Center  
Houston, TX

Hesham Mourad, Pharm.D., EMBA, BCPS, BCCCP, CPHIMS  
Mayo Clinic  
Jacksonville, FL

Colleen J. Shipman, Pharm.D., M.P.H., BCPS  
Oregon Health and Science University  
Portland, Oregon

Timothy P. Stratton, Ph.D., BCPS, FAPhA  
University of Minnesota College of Pharmacy, Duluth  
Duluth, Minnesota

Kelvin Tran, Pharm.D.  
Houston, TX

Kong Kit Wong, Pharm.D., BCACP  
VA Capitol Health Care Network (VISN 5)  
Washington, DC

**Disclosures**

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