



# Hospital at Home and Alternate Sites of Care: Leading Pharmacy Services in a Shifting Landscape

**PELA® Virtual Conference Report**  
**November 2021**

## INTRODUCTION

On Nov. 4, 2021, the ASHP Pharmacy Executive Leadership Alliance (PELA®) convened its third virtual conference, Hospital at Home and Alternate Sites of Care: Leading Pharmacy Services in a Shifting Landscape. The conference provided health-system pharmacy executives and thought leaders an opportunity to discuss current experiences, challenges, opportunities, and strategies to lead innovations within health systems. With the launch of the Centers for Medicare & Medicaid Services (CMS) Hospitals without Walls program in March 2020, health systems have a more immediate opportunity to implement and sustain new practice models that allow patients to be provided care in their homes. The healthcare industry's shift to lower-cost, alternate care settings creates opportunities for pharmacy executives to innovate by adapting, expanding, and establishing pharmacy services that provide care across the continuum for the whole patient. **Linda S. Tyler, president of ASHP and professor (clinical) of pharmacotherapy, University of Utah College of Pharmacy, Salt Lake City**, provided an overview of the day's events and welcomed participants to the conference dedicated to a topic she believes is of strategic importance to healthcare in this country and one that seems to be approaching a tipping point. Tyler welcomed representatives from over 150 multi-hospitals and health systems, including chief pharmacy officers and directors of pharmacy, ambulatory care, infusion care, and pharmacy information technology.



Paul W. Abramowitz



Linda S. Tyler

In his opening remarks, **ASHP Chief Executive Officer Paul W. Abramowitz** emphasized that ASHP is committed to ensuring that pharmacy services are fully integrated into existing and emerging hospital-at-home (HAH) models and is looking ahead at ways to help create the future of these models to ensure that optimal medication outcomes are achieved. He further affirmed that ASHP will continue to meet the challenges of vertical integration that are disrupting how medications are managed. Abramowitz stated that supporting members and the nation's pharmacy executives in developing, implementing, and advocating for the necessary infrastructure to be successful in this changing landscape is a priority for ASHP.

The PELA Virtual Summit objectives were as follows:

- Discuss challenges and opportunities to manage total cost of care and consumer preferences influencing shifts from traditional care locations to patient homes and alternative sites of care.
- Discuss areas of innovation and disruptors that health systems need to assess, embrace, and plan for to maintain marketplace competitiveness and enterprise sustainability.
- Discuss regulatory and payer models affecting long-term planning for the implementation of new health-system practice models and patient access.
- Discuss the strategic and tactical decisions pharmacy executives face in leading the pharmacy enterprise and identifying potential solutions for pharmacy services.

## KEYNOTE

### OPPORTUNITY FOR INNOVATION IN HEALTH-SYSTEM PHARMACY

**Admiral Rachel L. Levine, assistant secretary for health, U.S. Department of Health and Human Services (HHS), Washington, D.C.,** addressed the group and thanked pharmacists for the role they have played in response to the COVID-19 pandemic. Admiral Levine noted that as we overcome the pandemic and build a stronger foundation for a healthier future, she is enthusiastic to work with pharmacists to improve patient access to care, and build on other successful initiatives such as the Public Readiness and Emergency Preparedness (PREP) Act, which has expanded access to HIV prophylaxis, COVID-19 vaccines, and opioid use disorder treatment. Admiral Levine also announced that the new Office of Climate Change and Health Equity will work with organizations like ASHP to create an environment where every person is safe and healthy.



Admiral Rachel L. Levine



David M. Levine

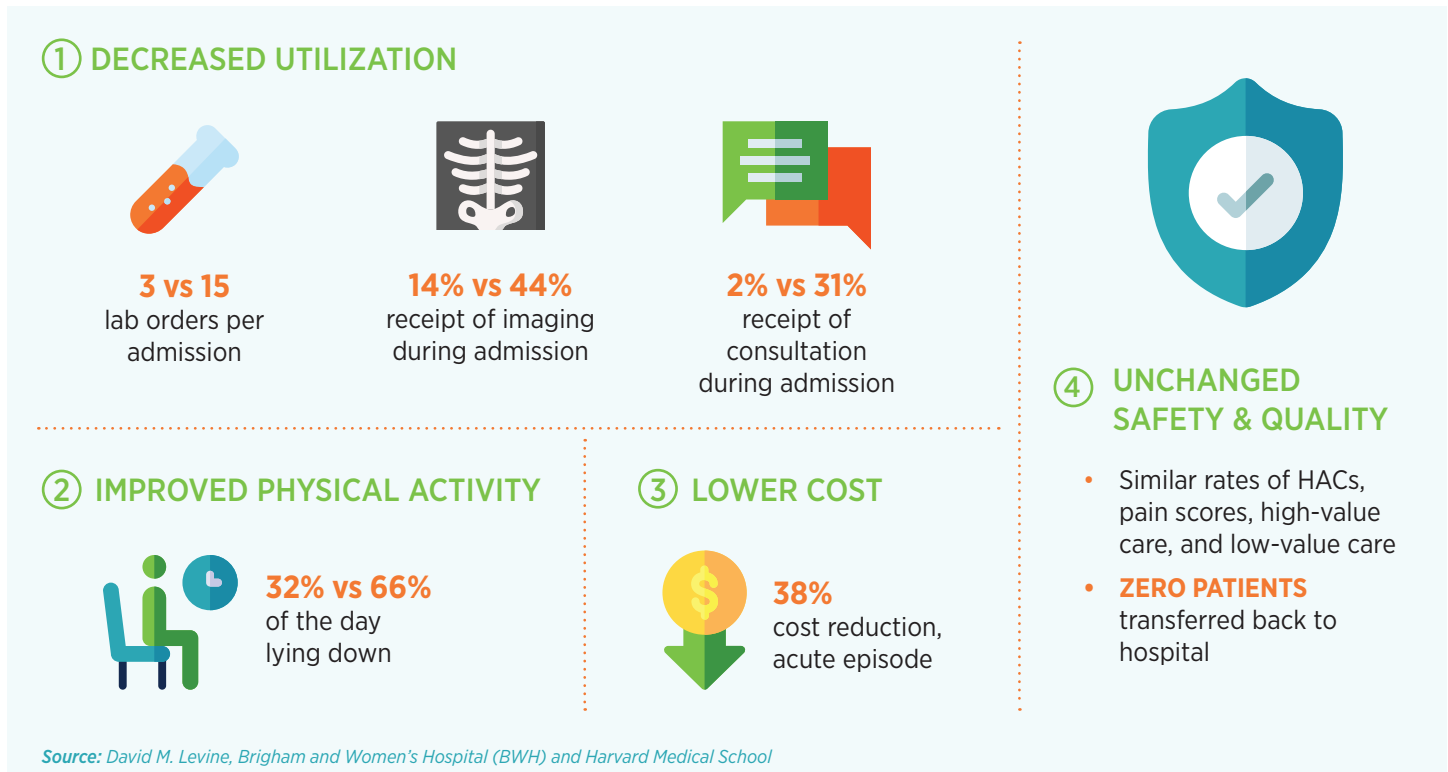
**David M. Levine, internist and clinician-investigator, Division of General Internal Medicine and Primary Care, Brigham and Women’s Hospital (BWH) and Harvard Medical School, Boston, Massachusetts,** and one of the medical directors of the BWH Home Hospital program, shared his first-hand experience with providing hospital-level care at home for acutely ill adults.<sup>1</sup> In his presentation, Levine described the BWH Home Hospital program; explained the evidence base for the program, including his own research; then concluded by sharing the program’s current experience with scale and adaptation. While new technologies and treatments offered in the hospital setting have changed over time, the hospital “room” itself has changed little over the past 75 years. Hospitals are the most expensive and labor-intensive patient care setting, yet hospitalization can often result in unintended clinical consequences for patients including delirium, permanent functional loss, and adverse events such as falls. Gaining access to a hospital bed is also challenging with systems often over department (ED) wait times, particularly during COVID surges. The goal of the Home Hospital program is to deliver the right care to the right patient at the right time. Patients can transfer to home after being admitted, substitutive after an ED visit, and less frequently, substitutive without an ED visit or admission. They have identified over 75 diagnoses that are suitable for home hospital care providing other criteria are met (e.g., > 18 years old, within the designated service area). Some of the more common diagnoses include cellulitis, pneumonia, heart failure, asthma, and anticoagulation need. On average, patients receive two nurse visits per day within their home, daily physician visits, remote vital signs monitoring, diagnostic testing in the home, and phone and/or video consultation. Patients will be self-administering their medications in the home and guidelines need to be augmented or modified to meet the needs of the home hospital model. For example, BWH adapted the hospital’s self-administration of medications policy, including which patients are candidates for self-administration, to the home setting. Levine believes that the pharmacy team is crucial to this work, and favors using the inpatient pharmacy (although there are other models for outsourcing that are being implemented by some organizations). Pharmacists have contributed their expertise by providing guidance and adapting policies, for example, developing intravenous push guidelines, continuous infusion vs. intermittent infusion protocols, and smart pump support. There are also logistics that need to be worked out with regulatory requirements for medications, particularly controlled substances, but, in Levine’s experience, most can be resolved by adapting existing procedures.

“  
Our pharmacists at Brigham have been the lynchpin to making our program start and grow.

- **David M. Levine**  
Clinician-Investigator and Medical Director  
Division of General Internal Medicine and  
Primary Care  
Brigham and Women’s Hospital and Harvard  
Medical School  
Boston, Massachusetts

Levine noted that there is good evidence to support the cost-effectiveness of acute hospital-at-home models, including several randomized controlled trials that have shown reduction in mortality and readmissions. Several of these studies were published in other countries, a driving factor for conducting their own study in the United States. The results of the BWH trial demonstrated an overall 38% cost reduction with markedly decreased resource utilization (labs, imaging, and consults), improved physical activity, unchanged quality, and, notably, no transfers back to the hospital.<sup>2</sup>

## HOME HOSPITAL U.S. TRIAL RESULTS



The number of HAH programs is growing, and more health systems are starting programs, in part due to the Acute Hospital Care at Home CMS waiver, which was introduced in November 2020. The CMS provided a regulatory framework and payment mechanism for Medicare and Medicaid beneficiaries. A waiver was granted if the applicant met conditions of participation, and would be paid 1:1 for the diagnosis-related group (DRG). Some health systems have also negotiated payment with commercial insurance plans. Levine felt that the model seems to be approaching the tipping point, which will largely be driven by whether the CMS waiver continues into the future and, as value-based payment (VBP) models demand low cost, high-value service delivery. Levine said that the model became a “pandemic playbook,” as it was adapted to caring for COVID-19 patients and to increase surge capacity. Levine is also investigating the potential benefits of the model for rural patients. He noted that before the CMS waiver, there needed to be a VBP model, such as an accountable care organization (ACO), large Medicare Advantage population, or huge capacity crisis for it to make financial sense to implement the program, so some chief financial officers push back. Sometimes pharmacy departments also initially push back. State boards of pharmacy do not have regulatory guidance for it and some have never heard of HAH. CMS views the home as an extension of the hospital, and hospital rules should apply. Right now, Levine is optimistic that the adoption of acute hospital-at-home programs will continue to scale, spread, and reach the tipping point.

# PHARMACY EXECUTIVE LEADER DISCUSSION GROUPS

The PELA® Advisory Panel, a group of 150 diverse leaders representing health systems across the U.S., shared their experiences, challenges, and lessons learned implementing HAH programs. Participants described a wide variety of pharmacist care and service delivery models, and many built upon existing programs, some HAH programs in existence for many years. For example, one organization had already committed to a VBP model, so arriving at the lowest-cost site of care for services was very important. Several participants noted that their organizations had expanded alternate sites of care delivery, not just HAH programs, to address increased demands for beds in inpatient care areas as well as the ED.

HAH models were sometimes built on existing investments in home care service lines or ambulatory infusion centers.

There was some concern whether HAH care will be a sustainable model as capacity needs levels out and will be dependent on payer support. It appeared that many organizations relied on their system's ambulatory or home infusion units to fill gaps while some established contracts with local retail pharmacies to provide oral medications or controlled substances. Some sites had established a centralized "control center" with dedicated staff to support the team in the field because the HAH model is a "hybrid" of services that overlap across inpatient and outpatient care and requires precise coordinating deliveries, medication administration, safety considerations, and navigating existing legal and regulatory requirements. Even when the volume of patients is initially low, the time for service coordination is very time-intensive for pharmacy. For this reason, participants strongly recommended designating a pharmacy coordinator.

“

The strategic question is about capacity for the services. We added several FTEs for our Transitions of Care program and that has flowed over into at-home care. In my mind, I see that (model) being extended. I think we have the fundamental elements in place and infrastructure to support it (e.g., leadership, retail pharmacy), but more than anything, it will depend on what payers decide to do.

- **James L Gray, III**  
Executive Director, Pharmacy  
President, Missouri Board of Pharmacy  
Barnes-Jewish Hospital  
Saint Louis, Missouri

## Drivers for Implementation of Alternative Sites of Care

- Free up hospital beds to increase capacity
- Support VBP model need for lowest cost, high-quality services
- Payer reimbursement shifts to lower-cost care settings
- Address consumer preferences for home-based services
- Reduce stress on nurses and physician and address workforce shortages

One participant noted that they had ramped up a new HAH program to address an excess of inpatients and ED patients. One goal was to have inpatients spend the last few days of their hospitalization at home. They currently have up to 10 patients in the HAH program at one time. In this participant's case, the pharmacy department worked on the HAH proposal, but was not involved in planning and development until the moment of implementation. The decision was made to use retail pharmacies to handle dispensing to provide a 72-hour supply of oral medications. At some sites, supplemental over-the-counter medications or inhalers are provided by the retail pharmacy, but newly started medications and up to 48-hour supplies of controlled substances are dispensed by the hospital pharmacy. Several organizations noted that they were utilizing inpatient pharmacy staff for most HAH medication-related services. One site is piloting automation in the home, where medications are automatically dispensed for patient. In this system, when the pharmacist verifies a medication order, the medication is dispensed from a secure storage "cube" and a digital photo of what was dispensed is available so that nurse can verify the dispensing matches the medication administration record (MAR).

Addressing technical aspects of the remote care process appears to be most challenging, such as deciding which component of the electronic health record (EHR) to use. Other common challenges include how information and documentation are integrated when medications are provided by a mix of entities, such as the inpatient pharmacy, retail pharmacy, or home infusion services. While there was no consensus on best practice, most sites were using the inpatient EHR and MAR, but using outpatient prescription label functionality to comply with state board of pharmacy requirements. There were also challenges when technology and devices were not easily able to be adapted to the home setting.

For example, home infusion services may use different pumps and standard concentrations in the home setting, and barcode verification may not be possible with prescriptions provided by a retail pharmacy. Documentation also has to be set up so that medications not provided by the health system are not billed to the patient. Many challenges around billing and the intersections between retail pharmacies, inpatient pharmacies, and other entities providing medications were discussed. Finally, a challenge to scaling these programs is how to care for patients in rural locations who do not have broadband coverage. Again, there was no consensus on resolution of these issues, but most often organizations adapted their inpatient systems to manage the HAH process, which simplifies some of these challenges.

One participant's organization recently went live with an HAH program. They noted that, despite their highly-motivated intake staff, they still struggled to identify appropriate patients. This organization identified two distinct paths for pharmacy, depending on whether the patient was transitioning to home from the inpatient side or "admitted to home" from the ED. If the patient is coming from the ED, the pharmacy will fill first doses in ED, but once the patient is at home, the medications come from the regular home cart fill system. In this organization's model, the inpatient pharmacist provides all clinical services as well, although they hope to eventually have two full-time pharmacists devoted to the program.

## Hospital-at-Home Pharmacy Implementation Considerations

Patient selection and triage	<ul style="list-style-type: none"> <li>• How are patients assessed to ensure they are safely able to self-administer their medications?</li> <li>• How do patient self-administration policies and procedures (e.g., as with transplant patients) need to be adapted?</li> </ul>
Storing, dispensing and administering oral, topical, IV, and inhaled medications	<ul style="list-style-type: none"> <li>• What is the ideal timing and quantity for delivery of medications (e.g., how will cart fill work, number of days supply)?</li> <li>• How can medications, including controlled substances, be properly secured and stored in the home setting?</li> <li>• How are missing medications handled?</li> <li>• Who will provide medications (e.g., from inpatient pharmacy or retail partner)?</li> <li>• What emergency medications will be available?</li> </ul>
Storing, dispensing, and administering infusions	<ul style="list-style-type: none"> <li>• How will medications requiring refrigeration be stored?</li> <li>• How can waste be minimized?</li> <li>• What infusion protocols (e.g., continuous vs. intermittent infusions or IVP options) need to be adapted?</li> </ul>
Technology and information management	<ul style="list-style-type: none"> <li>• How will information be integrated into the EHR (e.g., how to review and verify orders and enter relevant information)?</li> <li>• How will medication administration be documented?</li> <li>• How will pumps and pump libraries interface with the EHR (if outsourced provider)?</li> <li>• How will patients without broadband access be connected to the care team (e.g., in rural locations)?</li> </ul>
Storage and waste/disposal of medications in the home	<ul style="list-style-type: none"> <li>• How will hazardous drugs such as chemotherapy and controlled substances waste be managed?</li> <li>• How will other discontinued medications be discarded (e.g., is there a discharge process with collection of unused medications or disposal bag provided)?</li> </ul>
Billing, legal, and regulatory requirements	<ul style="list-style-type: none"> <li>• How can controlled substances regulations be met?</li> <li>• How can prescription-labeling requirements be met?</li> <li>• How will billing and cost accounting be managed when multiple entities (e.g., home infusion, retail pharmacies) are involved?</li> </ul>
Provision of clinical services	<ul style="list-style-type: none"> <li>• What process is used to teach patients and validate they are taking their medications as scheduled?</li> <li>• When and who will complete medication reconciliation?</li> <li>• Who will provide medication management services?</li> <li>• Will 24/7 pharmacy coverage be provided?</li> </ul>
Workforce considerations	<ul style="list-style-type: none"> <li>• Will dedicated staff be assigned to HAH programs or integrated into the existing pharmacy staffing model?</li> <li>• Will there be remote access to the pharmacy or will the pharmacist ever need to travel to the home?</li> </ul>

Pharmacists' roles in HAH programs included dispensing of medications, medication reconciliation, order verification, and, at one site, the pharmacist virtually checks in daily with the patient. Several sites have embraced telehealth to also connect virtually with physicians, nurses, and other care team members who visit the patients in the home. One participant felt that there is an opportunity now to build on COVID-19 provisions that allow pharmacists broader roles, such as to administer monoclonal antibodies in the home. Pharmacists and pharmacy technicians could fill a gap by delivering infusion services in the home and noted that home infusion pharmacists are comfortable in this space. Others felt that pharmacy staffing shortages would be a challenge should opportunities expand, but agreed that the profession needs to be flexible and willing to retool staff into new roles. In any event, pharmacy leaders will need to monitor the impact of HAH and alternate sites of care services on staffing and respond accordingly. For example, monitoring if there is a declining inpatient census or increase in acuity of patients as the less-acute patients shift to other settings.

Recommendations for those implementing HAH programs include the following:

1. Designate a pharmacy coordinator at the outset of the program to navigate complex issues that arise during program implementation and expansion.
2. Work with ASHP to develop a best practice guideline for providing pharmacy HAH services.
3. Work with ASHP to develop talking points for health-system leadership and those talking to policy makers and regulatory authorities.
4. Develop additional unique policies to speak to medication storage handling (e.g., for transport, temperature, ensuring patient is not storing in their own refrigerators).
5. Develop standing orders for medication administration unique to the home setting (e.g., line flushing, intravenous push vs. infusion, and continuous vs. intermittent infusions).
6. Create admission kits that includes all materials needed for patients at home (e.g., secure bin for storing medications, safe medication storage and administration education materials).
7. Monitor the impact of on staffing if there is a corresponding decline in onsite hospital census or increase in acuity of patients as the HAH patients increase, and be prepared to respond accordingly.
8. Consider new partnerships if there are gaps in service delivery needs, and leverage the expertise of home infusion pharmacies.



## PHARMACY EXECUTIVE PANEL

### ENTERPRISE SOLUTIONS AND STRATEGIC DIRECTIONS

**Thomas J. Johnson, ASHP immediate past president and vice president of pharmacy, Avera Health, Valley Springs, South Dakota**, introduced the panel who were asked to discuss their strategic approach to aligning with and developing enterprise-wide solutions that address challenges and opportunities related to alternative site of care, including HAH programs. Panelists included **Michael C. Cotugno, director of pharmacy patient care services, Brigham and Women’s Hospital, Boston, Massachusetts; Mitra Z. Gavgani, vice president, pharmacy services, Johns Hopkins Home Care Group, Baltimore, Maryland; and Margaret Peinovich, senior pharmacy manager, Northwest Wisconsin Region, Mayo Clinic Health System, Menomonie, Wisconsin.** Cotugno’s hospital has had a HAH program in place for over six years and noted that, even though patients are not inside the hospital’s four walls, these patients are considered by BWH to be in the hospital, so all of the same services need to be provided (at least as a goal). They are continuing to expand the pharmacy’s role, including rounding and performing medication reconciliation. Gavgani added that bringing the right people to the table early on is critical to avoid overlap and duplication of resources, while creating efficient handoffs. Cotugno believes that the transitions-in-care program will transform into HAH care delivery that will include medication therapy management services and collaborative practice agreements traditionally provided by their ambulatory care services. Gavgani noted the ability to expand pharmacy roles in innovative care delivery models and successfully compete for organization resources is to align pharmacy initiatives with the organization’s strategic priorities. Furthermore, she relied on previous successes and the tradition of a strong and well integrated pharmacy presence from acute care to ambulatory to the home, and saw the HAH program as an opportunity to showcase what pharmacy can do. She urged leaders to demonstrate that pharmacists are a valued partner in the care of patients, and then ask for additional resources. She also strongly suggested that pharmacists be visible to patients and bring them to the table as you advocate for the services pharmacy provides. Peinovich described the way that the HAH program has been an opportunity to bring all of the pharmacy services and support services together to deliver the best care to the patient in their home.

In the Mayo program, pharmacists connect virtually with the patient at home and manage them as any other inpatient — conducting medication reconciliation, providing medication management (ambulatory pharmacists), and assisting with medication packaging. Peinovich believes that connecting with the patient brings rich information about social determinants of health, strong stories, and provides professionally satisfying work. Her team has seen firsthand how they have impacted patients’ lives. For example, helping a patient who needed, but delayed care because they had to take care of a loved one. As a result of assisting the patient, they were able to create long-term patient relationships (and retention), build trust, and create high patient satisfaction. These are all significant contributions by the pharmacy to the organization’s overall strategic goals. The panelists said their programs continue to scale and they are looking at ways to expand their reach and include rural patients who would greatly benefit from HAH care. Expanding services into broader geographic locations will likely require new partnerships and outsourcing services. The sustainability and expansion of the business model and pharmacy’s contribution to it will rely on ways



This may be the most complicated medication process we have come across in our careers. When we started off, we envisioned these patients in their homes and our minds went to ambulatory care, but these patients really do model inpatient care needs. We quickly pivoted to dispensing processes to match the inpatient care model.

- **Margaret Peinovich**  
Senior Pharmacy Manager of Operations  
Mayo Clinic Health System – Northwest  
Wisconsin Region  
Eau Claire, Wisconsin

to generate volume in the outpatient arena, such as developing a robust “meds to home” program, providing compliance packaging, processing prior authorizations, and offering a home delivery service. HAH programs innovatively bring all resources to meet the patient where they are, and present an excellent opportunity for pharmacists to showcase the ways they can contribute to organizational goals, improve outcomes, and enhance the patient experience.

Strategies the panelists suggested for engagement of the pharmacy enterprise into the broader organization goals include:

1. Rely on the health system’s strategic priorities and align the pharmacy enterprise to contribute to the success of those initiatives.
2. Bring the right team to the table to ensure resources and services are not overlapping and are coordinated handoffs (e.g., managed care, home care, home infusion, paramedics).
3. Include legal counsel and risk management to assist with interpretation and applicability of laws and regulations, and assist with navigating new scenarios with the governing regulatory agencies, including the state board of pharmacy and/or department of health.
4. Ensure there is a routine process to evaluate the decisions on patient management pathways and payment structures and the related impact on individual service line budgets.
5. Leverage the tradition of strong acute care services and well integrated pharmacy presence from acute care to ambulatory to the home.
6. Ensure that the pharmacist is not “invisible” to the patient; bring patients to the table to be part of decision-making and they will advocate for pharmacists.
7. Generate revenue and retain patients by offering valued services, such as a “meds to home” program, prior authorization assistance, and home delivery options.

## PHARMACY EXECUTIVE PANEL



**Michael C. Cotugno**



**Mitra Gavvani**



**Thomas J. Johnson**



**Margaret Peinovich**

# HOSPITAL AT HOME AND THE PERSISTENT EVALUATION OF ALTERNATE SITES OF CARE

During the conference, participants primarily focused on the emerging HAH models, but also addressed how these models represented the persistent need and pressures to evaluate the most appropriate site of care for patients. Hospital at home, although an acute care patient care service, accentuates the need to assess all of the health-system resources that provide medications to patients in their post-acute care as well as the various cost structures and payer requirements. The opportunities for health systems to evaluate and expand medication management service lines across the patient journey will be essential for the continued sustainability for hospitals and health systems and will require the joint efforts of pharmacy executives, organization's managed care leadership, and others that can adequately assess payer contracts and the total cost of care improvements available.



Paul C. Walker

Closing remarks were offered by **Paul C. Walker, ASHP president-elect and clinical professor and assistant dean of experiential education and community engagement, University of Michigan College of Pharmacy; manager, Department of Pharmacy, Michigan Medicine, Ann Arbor.** Walker concluded the PELA event by thanking participants and noted that the robust discussion has energized pharmacy leaders through sharing of best practices, lessons learned, challenges, and successes of meeting patient needs. Providing acute care at home and other alternate sites of care models present the opportunity for pharmacy leaders to shape the profession and show the value that pharmacists can bring to the healthcare team and their organizations.

## REFERENCES

1. CMS Announces Comprehensive Strategy to Enhance Hospital Capacity Amid COVID-19 Surge. November 25, 2020. <https://www.cms.gov/newsroom/press-releases/cms-announces-comprehensive-strategy-enhance-hospital-capacity-amid-covid-19-surge>
2. <https://homehospital.bwh.harvard.edu/>
3. Program lets hospital patients heal at home, CBS News video <https://youtu.be/60DYM1ottrl>
4. Hospital-Level Care at Home for Acutely Ill Adults: A Randomized Controlled Trial. Levine DM, Ouchi K, Blanchfield B, Saenz A, Burke K, Paz M, Diamond K, Pu CT, Schnipper JL. Ann Intern Med. 2020 Jan 21;172(2):77-85. doi: 10.7326/M19-0600. Epub 2019 Dec 17.

## EXECUTIVE INSIGHT



### EXECUTIVE LEADER INTERVIEW

#### **Neil A. Gilchrist**

*Chief Pharmacy Officer  
UMass Memorial Medical Center  
Worcester, Massachusetts*

#### **How do you staff for providing home hospital services?**

At UMass Memorial Health, we have initially built the pharmacy services for this program with current team members, including operations, informatics, clinical and medication safety. Admitting the first patient to service was a key threshold. We have built into the growth of the program when reaching an average daily census of 12-15 patients to add a fulltime dedicated clinical pharmacist. We have additional resources of both certified pharmacy technicians and clinical pharmacists as the average daily census grows.

#### **As part of the home hospital team, what patient care activities does the pharmacist perform?**

Our program is structured to provide pharmacy services similar to those for a patient admitted into the brick-and-mortar hospitals. The HAH patient receives a full medication reconciliation, prospective order verification by a clinical pharmacist for all medication orders, pharmacist clinical monitoring using rules based tools in the EHR, pharmacokinetic monitoring, and medication counseling to list some key activities.

#### **How often do pharmacists engage with patients?**

We are in the process of hiring a full-time, dedicated clinical pharmacist to our HAH program. One of the goals in taking this step is to provide direct patient interaction to the patient with a clinical pharmacist via our remote patient monitoring platform and telemedicine visit.

#### **How is information integrated into the EHR?**

The EHR is extended into the home with our HAH program. This creates a seamless transition of patient care at all levels of acuity and serves as the source of patient care information across the patient's admission. This was a key operational decision for the program in leveraging our integrated health record and bringing other key services into the home.



## EXECUTIVE LEADER INTERVIEW

### Jordan Rush

*Assistant Director of System Retail and Outpatient Pharmacy*

*UNC Health*

*Chapel Hill, North Carolina*

### How have you approached implementing your HAH program?

At UNC Health, we were given limited guidance on how to operationalize the Advanced Care at Home program from our partnered vendor and consultants. Since we were not given any additional FTEs to support this service, the decision was made to dispense medications through one of our retail pharmacies for oral medications and our home infusion pharmacy for injectables. We partnered with our board of pharmacy to finalize our workflows and gain approval from them, especially as it related to controlled substance dispensing. From there, we developed training materials and updated any applicable policies and procedures to support this new initiative.

### How are medications provided to HAH patients at UNC Health and are they provided by your inpatient pharmacy or outsourced?

Oral medications are currently dispensed from one of our in-house outpatient pharmacies during their hours of operation and is supplemented by a local external pharmacy for additional needs. Injectable medications are supplied by our partnered paramedics and our home infusion pharmacy. We have also partnered with an external vendor to supply infusions for after hours as well. We are in the process of transitioning all medication dispensing to the inpatient pharmacy. The main barriers leading to this decision was the difficulty in obtaining infusions during the weekends and after hours (the external partners did not want to accept new patients into their program during off-hours) and the difficulty in linking which National Drug Code (NDC) number was actually dispensed vs. what was captured in the patient's medical record from a billing perspective. Additionally this will minimize the chance for a transcription error when the provider documents an inpatient order but then needs to send an outpatient prescription to the pharmacy to actually "order" the medication and will reduce the amount of backend billing workflows that we needed to create to support reimbursement to the outpatient pharmacy departments from the virtual hospital.

### How is information integrated into the EHR?

Our partnered vendor for the Advanced Care at Home program has their own platform that is the backbone for the program. It allows for the scheduling of virtual appointments, video calls, notification alerts, and pictures to be exchanged. Inpatient medication orders are placed within the EHR which then routes to an inpatient clinical pharmacist for review and approval. Once approved, the provider will then place the outpatient prescription order for the oral or injectable medication. Therefore, the MAR for the patient is up to date for medications. Additionally, the EHR contains patient registration information, provider documentation, and billing information.

### Is there time allocated for a pharmacist other than for dispensing functions?

The pharmacy department did not receive additional FTEs but are involved in medication histories for patients from the brick-and-mortar hospital before transitioning into the Advanced Care at Home program, medication reconciliation, and medication order reviews.