



# ACUTE CARE IN THE RESIDENTIAL SETTING AND THE CMS PHYSICAL ENVIRONMENT CONDITIONS OF PARTICIPATION

Jennifer O'Connell  
Fire Protection Engineer



COMPLIANCE VANGUARD  
*Leading the way in Regulatory Compliance*

## TABLE OF CONTENTS

Introduction .....	3
Acute Hospital Care at Home History.....	4
The Physical Environment Conditions of Participation .....	6
Application of The Physical Environment Conditions of Participation.....	9
The Problem.....	12
Residential Construction .....	12
Patient Population .....	14
State Requirements .....	14
The Next Steps .....	16
Conclusion.....	19
Key Takeaways .....	19
Sources .....	20



## INTRODUCTION

The global pandemic highlighted the need for alternative methods for treating patients outside the Acute Hospital setting. Several studies have shown that providing acute care in the home setting is greatly beneficial to patients. The Centers for Medicare Medicaid Services (CMS) created the Acute Hospital Care at Home program in November of 2020 and opened the program to hospitals via a Conditions of Participation waiver process. The Conditions of Participation are specific requirements that must be met for health care facilities to receive Medicare / Medicaid funds. This process waives the Condition of Participation for 24-hour nursing care but did not waive any other Conditions of Participation. The Physical Environment Conditions of Participation found in 42 CFR Part 482.41 dictates hospitals meet the requirements of NFPA 101, *The Life Safety Code*®, and additional specific safety regulations, which are impossible to meet in a residential situation. This white paper is provided to point out the need for additional review of the Acute Hospital Care at Home Program, waiver process, and Conditions of Participation while also discussing those safety concerns that can be regulated in the residential setting.

To properly document the problem discussed in this paper, direct citations of documents have been added. All quoted information is shown in italics and sources have been cited at the end of this paper.



## ACUTE HOSPITAL CARE AT HOME HISTORY

In the 1990s, Dr. Bruce Leff and his colleagues with Johns Hopkins Hospital Geriatrics conducted a study based on a “Hospital at Home” concept to provide hospital level care for geriatric patients that either refused to come to the hospital or were more prone to hospital acquired infections<sup>1</sup>. From this additional studies were conducted to determine the impact of home-based acute care on the patients. In June of 2018 a study was published online and then again in JAMA Internal Medicine, titled **“Association of a Bundled Hospital-at-Home and 30-Day Postacute Transitional Care Program With Clinical Outcomes and Patient Experiences”**. The *“case-control study with 507 participants found that compared with patients receiving inpatient care, patients receiving hospital-at-home care had shorter length of stay; lower rates of 30-day hospital readmission, emergency department visits, and skilled nursing facility admissions; and better ratings of care. There were no differences in the rates of adverse events.”*<sup>2</sup> Another 2018 study also found that *“acute care can be delivered in the home with equal quality and safety, reduced cost, and improved patient experience”*<sup>3</sup>.

In addition to the positive clinical outcomes, the Hospital at Home program has proven to be more cost effective. In a comparative study conducted in 2006 by Dr. Bruce Leff and his colleagues, it was found that *“The mean cost was lower for hospital-at-home care than for acute hospital care (5081 dollars vs. 7480 dollars) ( $P < 0.001$ )”*<sup>4</sup>. Since cost of care has risen over the years it is safe to assume that the cost savings in 2023 will be greater.

In November 2020 The Centers for Medicare/Medicaid Services (CMS) announced the Acute Hospital Care at Home Program in an effort to reduce the overcrowding of hospitals as a result of the COVID 19 global pandemic<sup>5</sup>. This program waived the Condition of Participation for 24-hour nursing care found in 42 CFR 482.23(b) and (b)(1) but did not waive any other Condition of Participation. As of the writing of this paper, there is no expiration date to this waiver posted on the CMS website. However, the waiver information does state that any hospital taking the waiver must also contact their state Medicaid agencies as there may be state law requirements that must be met. Per the CMS Acute Hospital Care at Home Resources website, as of January 31, 2023, there are 260 Hospitals in 37 states providing this service<sup>6a</sup>.

As the Public Emergency associated with COVID-19 comes to a close, we are left to wonder where the future of Acute Hospital Care at Home stands. This program could change the future of health care delivery but without additional review, regulation, and implementation, the future may be uncertain. On December 29, 2022 President Biden signed into law the Consolidated Appropriations Act (CAA), extending the Acute Hospital Care at Home (AHCaH) individual waiver through September 30, 2023.<sup>6b</sup>





## THE PHYSICAL ENVIRONMENT CONDITIONS OF PARTICIPATION

The Conditions of Participation are specific requirements that must be met for health care facilities to receive Medicare / Medicaid funds. Following are the current physical environment conditions of participation<sup>7</sup>:

### **482.41 Conditions of participation: Physical environment.**

*The hospital must be constructed, arranged, and maintained to ensure the safety of the patient, and to provide facilities for diagnosis and treatment and for special hospital services appropriate to the needs of the community.*

*(a) **Standard: Buildings.** The condition of the physical plant and the overall hospital environment must be developed and maintained in such a manner that the safety and well-being of patients are assured.*

*(1) There must be emergency power and lighting in at least the operating, recovery, intensive care, and emergency rooms, and stairwells. In all other areas not serviced by the emergency supply source, battery lamps and flashlights must be available.*

*(2) There must be facilities for emergency gas and water supply.*

*(b) **Standard: Life safety from fire.***

*(1) Except as otherwise provided in this section -*

*(i) The hospital must meet the applicable provisions and must proceed in accordance with the Life Safety Code (NFPA 101 and Tentative Interim*

*Amendments TIA 12-1, TIA 12-2, TIA 12-3, and TIA 12-4.) Outpatient surgical departments must meet the provisions applicable to Ambulatory Health Care Occupancies, regardless of the number of patients served.*

*(ii) Notwithstanding paragraph (b)(1)(i) of this section, corridor doors and doors to rooms containing flammable or combustible materials must be provided with positive latching hardware. Roller latches are prohibited on such doors.*

*(2) In consideration of a recommendation by the State survey agency or Accrediting Organization or at the discretion of the Secretary, may waive, for periods deemed appropriate, specific provisions of the Life Safety Code, which would result in unreasonable hardship upon a hospital, but only if the waiver will not adversely affect the health and safety of the patients.*

*(3) The provisions of the Life Safety Code do not apply in a State where CMS finds that a fire and safety code imposed by State law adequately protects patients in hospitals.*

*(4) The hospital must have procedures for the proper routine storage and prompt disposal of trash.*

*(5) The hospital must have written fire control plans that contain provisions for prompt reporting of fires; extinguishing fires; protection of patients, personnel and guests; evacuation; and cooperation with fire fighting authorities.*

*(6) The hospital must maintain written evidence of regular inspection and approval by State or local fire control agencies.*

*(7) A hospital may install alcohol-based hand rub dispensers in its facility if the dispensers are installed in a manner that adequately protects against inappropriate access;*

*(8) When a sprinkler system is shut down for more than 10 hours, the hospital must:*

*(i) Evacuate the building or portion of the building affected by the system outage until the system is back in service, or*

*(ii) Establish a fire watch until the system is back in service.*

*(9) Buildings must have an outside window or outside door in every sleeping room, and for any building constructed after July 5, 2016 the sill height must not exceed 36 inches above the floor. Windows in atrium walls are considered outside windows for the purposes of this requirement.*

*(i) The sill height requirement does not apply to newborn nurseries and rooms intended for occupancy for less than 24 hours.*

*(ii) The sill height in special nursing care areas of new occupancies must not exceed 60 inches.*

**(c) Standard: Building safety.** *Except as otherwise provided in this section, the hospital must meet the applicable provisions and must proceed in accordance with the Health Care Facilities Code (NFPA 99 and Tentative Interim Amendments TIA 12-2, TIA 12-3, TIA 12-4, TIA 12-5 and TIA 12-6).*

*(1) Chapters 7, 8, 12, and 13 of the adopted Health Care Facilities Code do not apply to a hospital.*

*(2) If application of the Health Care Facilities Code required under paragraph (c) of this section would result in unreasonable hardship for the hospital, CMS may waive specific provisions of the Health Care Facilities Code, but only if the waiver does not adversely affect the health and safety of patients.*

**(d) Standard: Facilities.** *The hospital must maintain adequate facilities for its services.*

*(1) Diagnostic and therapeutic facilities must be located for the safety of patients.*

*(2) Facilities, supplies, and equipment must be maintained to ensure an acceptable level of safety and quality.*

*(3) The extent and complexity of facilities must be determined by the services offered.*

*(4) There must be proper ventilation, light, and temperature controls in pharmaceutical, food preparation, and other appropriate areas.*

*(e) The standards incorporated by reference in this section are approved for incorporation by reference by the Director of the Office of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may inspect a copy at the CMS Information Resource Center, 7500 Security Boulevard, Baltimore, MD or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). If any changes in this edition of the Code are incorporated by reference, CMS will publish a document in the FEDERAL REGISTER to announce the changes.*

*(1) National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169, [www.nfpa.org](http://www.nfpa.org), 1.617.770.3000.*

*(i) NFPA 99, Standards for Health Care Facilities Code of the National Fire Protection Association*

*99, 2012 edition, issued August 11, 2011.*

*(ii) TIA 12-2 to NFPA 99, issued August 11, 2011.*

*(iii) TIA 12-3 to NFPA 99, issued August 9, 2012.*

*(iv) TIA 12-4 to NFPA 99, issued March 7, 2013.*

*(v) TIA 12-5 to NFPA 99, issued August 1, 2013.*

*(vi) TIA 12-6 to NFPA 99, issued March 3, 2014.*

*(vii) NFPA 101, Life Safety Code, 2012 edition, issued August 11, 2011;*

*(viii) TIA 12-1 to NFPA 101, issued August 11, 2011.*

*(ix) TIA 12-2 to NFPA 101, issued October 30, 2012.*

*(x) TIA 12-3 to NFPA 101, issued October 22, 2013.*

*(xi) TIA 12-4 to NFPA 101, issued October 22, 2013.*

*(2) [Reserved]*





## APPLICATION OF THE PHYSICAL ENVIRONMENT CONDITIONS OF PARTICIPATION

Under the Frequently Asked Questions section of CMS's Acute Hospital Care at Home website the following question and answer is noted as number "2" under the "Admissions and Location of Care" heading<sup>8</sup>:

**Does the patient's home in Acute Hospital Care at Home meet the hospital physical structure requirements in the Hospital Conditions of Participation?**

*The Life Safety Code and Health Care Facilities Code flexibility guidance applies to alternate care sites, and is found in our COVID-19 Emergency Declaration Blanket Waivers for Healthcare Providers. However, any of the temporary locations or alternate care sites would need to be approved by the hospital's state. It is important for hospitals to work with their states to determine if this model would be meet the licensure requirements for individual states.*

The COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers was created to reduce the strain resulting from the COVID-19 pandemic, permitting facilities to not meet some of the conditions of participation. Note that these blanket waivers specifically state that they will terminate at the end of the COVID-19 public health emergency, and some of them have already been terminated. The following are excerpts from the Blanket Waiver document that pertain specifically to the Physical Environment<sup>9</sup>:

**Temporary Expansion Locations:** For the duration of the PHE related to COVID-19, CMS is waiving certain requirements, under the Medicare conditions of participation at 42 CFR §482.41 and §485.623 (as noted elsewhere in this waiver document) and the provider-based department requirements at §413.65, to allow hospitals to establish and operate as part of the hospital any location meeting those conditions of participation, for hospitals that continue to apply during the PHE. This waiver also allows hospitals to change the status of their current provider-based department locations to the extent necessary to address the needs of hospital patients as part of the state or local pandemic plan. This extends to any entity operating as a hospital (whether a current hospital establishing a new location or an Ambulatory Surgical Center (ASC) enrolling as a hospital during the PHE, pursuant to a streamlined enrollment and survey and certification process), as long as the relevant location meets the conditions of participation and other requirements not waived by CMS. This waiver will enable hospitals to meet the needs of Medicare beneficiaries.

**Physical Environment for Multiple Providers/Suppliers**

**Inspection, Testing & Maintenance (ITM) under the Physical Environment Conditions of Participation:** CMS is waiving certain physical environment requirements for Hospitals, **and** CAHs, ~~inpatient hospice, ICF/IIDs, and SNFs/NFs~~ to reduce disruption of patient care and potential exposure/transmission of COVID-19. The physical environment regulations require that facilities and equipment be maintained to ensure an acceptable level of safety and quality.

CMS will permit facilities to adjust scheduled inspection, testing and maintenance (ITM) frequencies and activities for facility and medical equipment.

• **Specific Physical Environment Waiver Information:**

o 42 CFR §482.41(d) for hospitals, **and** §485.623(b) for CAHs, ~~§418.110(c)(2)(iv) for inpatient hospice, §483.470(j) for ICF/IID; and §483.90 for SNFs/NFs~~ **(Terminated waivers at 418.110(c)(2)(iv) for inpatient hospice, 483.470(j) for ICF/IID and 483.90(a)(1) and (b) for SNFs/NF on 6-6-2022 per QSO-22-15-NH & NLTC & LSC)** all require these facilities and their equipment to be maintained to ensure an acceptable level of safety and quality. CMS is temporarily modifying these requirements to the extent necessary to permit these facilities to adjust scheduled inspection, testing and maintenance (ITM) frequencies and activities for facility and medical equipment.

o 42 CFR §482.41(b)(1)(i) and (c) for hospitals, **and** §485.623(c)(1)(i) and (d) for CAHs, ~~§482.41(d)(1)(i) and (e) for inpatient hospices, §483.470(j)(1)(i) and (5)(v) for ICF/IIDs, and §483.90(a)(1)(i) and (b) for SNFs/NFs~~ **(Terminated waivers at 482.41(d)(1)(i) and (e) for inpatient hospices, §483.470(j)(1)(i) and (5)(v) for ICF/IIDs, and §483.90(a)(1)(i) and (b) for SNFs/NFs on 6-6-2022 per QSO-22-15-NH & NLTC & LSC)** require these facilities to be in compliance with the Life Safety Code (LSC) and Health Care Facilities Code (HCFC). CMS is temporarily modifying these provisions to the extent necessary to permit these facilities to adjust scheduled ITM frequencies and activities required by the LSC and HCFC. The following LSC and HCFC ITM are considered critical are not included in this waiver:

- Sprinkler system monthly electric motor-driven and weekly diesel engine-driven fire pump testing.
- Portable fire extinguisher monthly inspection.

- Elevators with firefighters' emergency operations monthly testing. ▪ Emergency generator 30 continuous minute monthly testing and associated transfer switch monthly testing.
- Means of egress daily inspection in areas that have undergone construction, repair, alterations, or additions to ensure its ability to be used instantly in case of emergency.

o 42 CFR §482.41(b)(9) for hospitals, **and §485.623(c)(7) for CAHs, §418.110(d)(6) for inpatient hospices, §483.470(e)(1)(i) for ICF/IIDs, and §483.90(a)(7) for SNFs/NFs** **(Terminated waivers at §418.110(d)(6) for inpatient hospice, §483.470(e)(1)(i) for ICF/IID and §483.90(a)(7) for SNFs/NFs on 6-6-2022 per QSO-22-15-NH & NLTC & LSC)** require these facilities to have an outside window or outside door in every sleeping room. CMS will permit a waiver of these outside window and outside door requirements to permit these providers to utilize facility and non-facility space that is not normally used for patient care to be utilized for temporary patient care or quarantine.

**Specific Life Safety Code (LSC) for Multiple Providers - Waiver Information:**

CMS is waiving and modifying particular waivers under 42 CFR §482.41(b) for hospitals; §485.623(c) for CAHs; §418.110(d) for inpatient hospice; §483.470(j) for ICF/IIDs and §483.90(a) for SNF/NFs. Specifically, CMS is modifying these requirements as follows:

- **Alcohol-based Hand-Rub (ABHR) Dispensers:** We are waiving the prescriptive requirements for the placement of alcohol based hand rub (ABHR) dispensers for use by staff and others due to the need for the increased use of ABHR in infection control. However, ABHRs contain ethyl alcohol, which is considered a flammable liquid, and there are restrictions on the storage and location of the containers. This includes restricting access by certain patient/resident population to prevent accidental ingestion. Due to the increased fire risk for bulk containers (over five gallons) those will still need to be stored in a protected hazardous materials area.

Refer to: 2012 LSC, sections 18/19.3.2.6. In addition, facilities should continue to protect ABHR dispensers against inappropriate use as required by 42 CFR §482.41(b)(7) for hospitals; §485.623(c)(5) for CAHs; §418.110(d)(4) for inpatient hospice; §483.470(j)(5)(ii) for ICF/IIDs and §483.90(a)(4) for SNF/NFs.

- **Fire Drills:** Due to the inadvisability of quarterly fire drills that move and mass staff together, we will instead permit a documented orientation training program related to the current fire plan, which considers current facility conditions. The training will instruct employees, including existing, new or temporary employees, on their current duties, life safety procedures and the fire protection devices in their assigned area. **(Terminated waivers for fire drills at §418.110(d) for inpatient hospice; §483.470(j) for ICF/IIDs; and §483.90(a) for SNF/NFs terminated on 6-6-2022 per QSO-22-15-NH & NLTC & LSC).**

Refer to: 2012 LSC, sections 18/19.7.1.6.

- **Temporary Construction:** CMS is waiving requirements that would otherwise not permit temporary walls and barriers between patients. **(Terminated waivers for temporary construction at §418.110(d) for inpatient hospice; §483.470(j) for ICF/IIDs; and §483.90(a) for SNF/NFs on 6-6-2022 per QSO-22-15-NH & NLTC & LSC).**

Refer to: 2012 LSC, sections 18/19.3.3.2.



## THE PROBLEM

Upon the review of both the Conditions of Participation for the Physical Environment and the blanket waivers specific to these Conditions of Participation, it is clear that:

- 1) The blanket waivers do not cover the majority of the requirements that apply to construction, safety systems, and egress.
- 2) It is impossible to meet the Physical Environment Conditions of Participation in the residential setting.
- 3) Each State may have differing requirements for such a program because there is no guidance on the application of safety requirements.

## RESIDENTIAL CONSTRUCTION

Residential occupancies vary greatly in type of construction, methods of construction, and jurisdictional construction requirements. These factors are also impacted by socio-economic and geographical conditions.

According to NFPA's "Home Structure Fires" report, issued in October 2021<sup>10</sup>:

- *More than one-quarter (26%) of reported fires in 2015-2019 occurred in homes. Even worse, three-quarters (75%) of civilian fire deaths and almost three-quarters (72%) of all reported injuries were caused by home fires.*
- *During this five-year period, US fire departments responded to an estimated average of 346,800 home structure fires per year. These fires caused an annual average of 2,620 civilian deaths; 11,070 civilian fire injuries; and \$7.3 billion in direct property damage.*
- *Most home fires and fire casualties result from five causes: cooking, heating, electrical distribution and lighting equipment, intentional fire setting, and smoking materials.*
- *Over the five-year period of 2015–2019 as a whole, cooking was the leading cause of home fires and home fire injuries, while smoking was the leading cause of home fire deaths.*

These statistics only apply to fire emergencies. Other emergencies such as severe weather and crime related emergencies also impact the safety of a patient at home.



Examples of residential occupancies can range from high-rise apartments in cities, to townhomes, duplexes, and sub-division single family homes in suburbs, to single family homes in a remote rural area. These buildings can be recent construction or archaic, and requirements for the construction can vary from direct oversight to no oversight. Here are a few examples of possible residential conditions:

### High Rise Apartments in Urban Areas

A patient receiving Acute Hospital Care at Home in a high-rise apartment would likely be residing in a building constructed of fire-resistive materials, with elevator access, emergency lighting, exit signage, a fire alarm system, and possibly fire suppression system. However, these conditions are generally found in newer construction. Older buildings may be limited in safety systems and means of egress capacity and socio-economic conditions may affect the level of safety within these residences. These residents would be impacted by emergencies within their residences as well as in adjacent apartments, such as fire or flooding conditions, as well as some forms of severe weather. These patients are in areas with emergency responders and hospitals nearby.

### Apartments, Townhomes, and Duplexes in Suburban Areas

A patient receiving Acute Hospital Care at Home in an Apartment, Townhome, or Duplex would likely be residing in a building constructed of non-fire-resistive materials, such as wood. Apartments may have elevator access, emergency lighting, exit signage, a fire alarm system, and possibly fire suppression system. However, these conditions are generally found in newer construction and may be limited in older buildings. Newly constructed Townhomes and Duplexes may have fire suppression systems depending on the jurisdiction but will be limited in other safety systems. These residents would be impacted by emergencies within their residences as well as in adjacent dwelling spaces, such as fire or flooding conditions, as well as severe weather. These patients are in areas with emergency responders within a 5–20-minute response time and hospitals within or in adjacent communities.

### Single-Family Homes in Suburban Areas

A patient receiving Acute Hospital Care at Home in a Single-Family Home in the Suburbs would likely be residing in a building constructed of non-fire-resistive materials, such as wood. Newly constructed homes may have fire suppression systems depending on the jurisdiction but will be limited in other safety systems. Per NFPA's "Smoke Alarms in US Home Fires" report, issued in February 2021, approximately 92% of all homes in 2018 had at least one smoke alarm<sup>11</sup>. These residents would be impacted by emergencies within their residences, as well as severe weather. Depending on the proximity of the houses within a subdivision, an emergency in an adjacent home may impact the patient's home. These patients are in areas with emergency responders within a 5–20-minute response time and hospitals within or in adjacent communities.

### Single-Family Homes in Rural Areas

A patient receiving Acute Hospital Care at Home in a Single-Family Home in a rural area would likely be residing in a building constructed of non-fire-resistive materials, such as wood. Construction may be impacted by socio-economic conditions. Fire safety systems would likely be limited to smoke alarms if any safety system at all. These residents would be impacted by emergencies within their residences, as well as severe weather. These patients are in areas with excessive times for emergency responder and hospital access.

Based on these examples alone, it is clear that there are varying conditions related to the residential situations that may be found when assessing a patient for the Acute Hospital Care at Home program.

## PATIENT POPULATION

Obviously, not all patients within an acute hospital will qualify for an Acute Hospital Care at Home Program. Only patients with specific diagnoses and with specific physical capacities would be candidates for such a program.

Per Hospital at Home.org<sup>12</sup>, patients with the following diagnoses are good candidates for an Acute Hospital Care at Home program (this is not an exhaustive list):

- community-acquired pneumonia
- congestive heart failure
- chronic obstructive pulmonary disease
- cellulitis
- volume depletions / dehydration
- urinary tract infection / urosepsis
- deep venous thrombosis
- pulmonary embolism

Per The Commonwealth Fund's 2016 Care Study titled "The Hospital at Home Model: Bringing Hospital-Level Care to the Patient"<sup>13</sup>, Presbyterian Hospital in Albuquerque, New Mexico saw 1,200 patients in their Hospital at Home Program between 2008 and 2016, with an average age of 77. The average age of patients has most likely reduced due to the impact of the COVID-19 pandemic, however, will likely rise again with the conclusion of the pandemic.

Safety Concerns for the patient must also be reviewed, such as:

- Do they live alone, with a partner, or a roommate?
- If living with someone, is that person's physical and mental capacity appropriate for acute care at home?
- Are there other factors, such as other family dynamics that need to be considered?
- Is the patient ambulatory or bed-ridden?
- Will medical gases be used by the patient?

These factors all play into the level of safety / risk associated with each patient's residence.

## STATE REQUIREMENTS

CMS has placed most of the responsibility for safety requirements related to this program on each State and with little to no guidance on the safety concerns of an Acute Hospital Care at Home program, requirements can (and do) vary greatly.



For example:

Tennessee – No specific requirements beyond what CMS has stated.

Texas – *Emergency Rule 500.4 Notwithstanding hospital functions and services requirements at 25 TAC §133.41 and hospital physical plant and construction requirements at 25 TAC §§133.161-.169, a hospital may treat an eligible patient at that patient's residence as part of the Centers for Medicare & Medicaid Services (CMS) Acute Hospital Care at Home program if the hospital:*

*(1) obtains CMS approval to participate in the Acute Hospital Care at Home program;*

*(2) submits an application as specified by HHSC via email at [infohflc@hhs.texas.gov](mailto:infohflc@hhs.texas.gov) to participate in the Acute Hospital Care at Home program;*

*(3) provides a copy of the CMS approval and any additional information HHSC requires in its review of the request; and*

*(4) receives written approval from HHSC to participate in the CMS Acute Hospital Care at Home program.*

This emergency rule was extended on January 23, 2023 with no specific expiration date.<sup>14</sup>

Maryland – Has a full draft approval by the Maryland Health Services Cost Review Commission but there is no discussion of requirements for physical environment and only focused on the payment for such services.<sup>15</sup>

Illinois – Emergency declarations from Governor to extend COVID-19 orders but there is nothing about specific Hospital at Home requirements.<sup>16</sup>

New York – No specific requirements beyond what CMS has stated.

In researching the topic, there were no requirements found that discuss how to protect patients that are at home while receiving acute care. It seems that states are waiting for the Federal Government to make the program a long-term option before they put effort into dealing with regulations.

The American Hospital Association is advocating that the current administration should extend the Hospital at Home program beyond the Public Health Emergency<sup>17</sup>. If that were to occur, the states will need to quickly come up with regulations that will cover the safety concerns for such a program. However, without a revision to the Conditions of Participation, there will be conflicts.



## NEXT STEPS

A spotlight on the safety issues associated with Acute Hospital Care at Home is the first step in making positive change.

Next, understanding that no matter how much regulation is put into place, there will always be accidents, injury, and death. Finding a balance between regulation and risk is important. There are many conditions that cannot be controlled through regulation within a private residence. Adding regulation to someone's private home starts an entire conversation on personal freedoms; however, while the person is under care of a Hospital or Health System, there is a level of responsibility for safety on the part of that Hospital or Health System. The question is, how much responsibility?

Some things that cannot be controlled are:

- Building construction – type, materials, arrangement
- Family dynamics – healthy relationships, extended family, visitations
- Socio-economic considerations – Environment, public safety, remoteness, public utilities
- Economic considerations – fixed incomes, public assistance

Some things that can possibly be controlled are:

- Fire safety equipment – working smoke alarms, fire extinguishers
- Electrical hazards
- Cooking hazards – operable stove or microwave
- Operable heating systems
- Care giver in the home – spouse, family member, or friend
- Patients are ambulatory
- Use of medical gases in the home
- Open egress paths within the home and outside the home
- Hoarding conditions
- Smokers within the home
- Ability to easily remove patient from room of care and home

At the very least, each candidate for Acute Hospital Care at Home should have their living spaces assessed for safety risks. This assessment can be conducted prior to the patient's return to their home. Patients that refuse the assessment or are found to not have safe living conditions can remain in the hospital. Depending on the situation, other social services can be informed to assist the patient.

While under care, a daily or weekly assessment can be conducted by the medical staff that visits the patient. A quick checklist is all that would be needed. These steps would document that the hospital conducted some level of review to determine the risk to each patient's safety and could be included with other risk assessments associated with falls or personal injury while under the care of the program.

In addition, a mechanism to inform first responders that there is an acute care patient within a structure is an important aspect of safety. Would the program hospital be informed if someone from the household called emergency services? Would first responders know how to handle a patient under acute care? Would there be documentation that the person may need assistance evacuating if there is a fire? What about domestic disputes and police involvement? All of these questions are important to the safety of each patient and need to be considered by each Acute Hospital Care at Home program.

Without direction or regulation, these safety concerns will not be considered. An emphasis should be placed on the need for additional regulation in order to prevent negative outcomes. Safety concerns may also be a factor in hospitals and health systems making the decision to provide Acute Hospital Care at Home programs.

Here are some additional home safety related statistics that need to be considered:

- A 2019 study, conducted by BPR Medical Gas Control titled "The Prevalence and impact of home oxygen fire in the US"<sup>18</sup>, *"found media reports covering 311 separate fires involving home oxygen over a 20-month period resulting in 164 deaths, 71 serious injuries and 119 minor injuries. This amounts to more than one death every 4 days. Notwithstanding these findings, limitations in the study method suggest that the findings remain an underestimate of the likely death rate, which is estimated at between 100 and 150 deaths per year. This is between 1.5 and 2 times what was previously thought."*

- A 2019 report by NFPA titled *“Home Fires Started by Smoking”*<sup>19</sup>, *“During 2012-2016, an estimated annual average of 18,100 (5%) reported home, structure fires started by smoking materials killed an average of 590 (23%) people annually, injured 1,130 (10%) per year, and caused \$476 million in direct property damage (7%) per year.”*
  - *Sixty-one percent of the fatalities and 48% of the nonfatally injured were in the area of origin and involved in ignition.*
  - *Forty-five percent of the fatalities and 56% of the injuries were caused by the 69% of fires that were confined to the object or room of origin.”*
  - *Medical oxygen was involved in 13% of the home smoking material fire deaths”*
- A February 2021 Article in CNBC News titled *“Natural disasters hit roughly 1 in 10 American Homes in 2021”*<sup>20</sup> noted that *“over 14.5 million homes, totaling nearly \$57 billion in property damages”* occurred per CoreLogic.
- An Article by Erin Duffin, published by Statista in November of 2022<sup>21</sup> noted that there were 97 natural disasters in the United States in 2021, resulting in a total of about 770 fatalities.
- Per the National Coalition Against Domestic Violence<sup>22</sup>: *“On average, nearly 20 people per minute are physically abused by an intimate partner in the United States. During one year, this equates to more than 10 million women and men.”*
- Per an article in US News and World Report by Gaby Galvin published in April of 2019<sup>23</sup>, discussing a study conducted by the CDC noted:
  - *“From 2002 to 2016, the nonfatal assault rate among older men rose from 77.7 to 136.3 per 100,000 people – an increase of 75.4 percent, according to study estimates. Between 2010 and 2016, the homicide rate among older men rose by 7.1 percent. Among women, meanwhile, the estimated nonfatal assault rate rose 35.4 percent from 2007 to 2016, from 43.8 to 59.3 per 100,000 people.”*
  - *“A study cited by researchers found an estimated 58 percent of perpetrators of violence against older adults were acquainted with their victims, and a separate analysis showed roughly half of homicides of older people were committed by a family member or friend.”*

The overall purpose of this paper is to point out the lack of direction related to safety within the home and to state that this is the time to create regulation and provide direction on these safety concerns. That may look like additional or a new section of Conditions of Participation as well as additional or new sections to Codes and Standards.



## CONCLUSION

Multiple studies have documented that providing Acute Hospital Care in the residential setting is highly beneficial to the patient; as well as the hospital, by reducing patient crowding and costs. However, the safety regulations associated with the Acute Hospital Care at Home program have not caught up to the needs and growth of this program. The lack of guidance is plaguing the health care community and making some health systems / hospitals reluctant to start an Acute Hospital Care at Home program.

We are at a precipice and need to take action now to provide proper safety requirements and guidance for a program that will change the delivery of health care in the near future. Failure to do so will result in confusion, cost, and most importantly, injury and death.

### Key Takeaways

- It is impossible to apply the Physical Environment Conditions of Participation to Acute Hospital Care at Home to residential occupancies.
- The lack of clarity in the Physical Environment Conditions of Participation are concerning to the programs currently providing this service and are keeping other hospitals and health systems from providing this service.
- The current Physical Environment Conditions of Participation need to be either re-worked to include Acute Hospital Care at Home requirements or a new Subsection of Conditions of Participation need to be created specifically for this program.

## Sources

1. Hospital at Home History  
<https://www.hospitalathome.org/about-us/history.php>
2. Association of a Bundled Hospital-at-Home and 30-Day Postacute Transitional Care Program With Clinical Outcomes and Patient Experience  
Alex D. Federman, MD, MPH, Tacara Soones, MD, MPH, Linda V. DeCherrie, MD, Bruce Leff, MD, and Albert L. Siu, MD, MSPH  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6143103/>
3. Hospital-Level Care at Home for Acutely Ill Adults  
Jeffrey L. Schnipper, MD, MPH., Brigham and Women's Hospital  
<https://clinicaltrials.gov/ct2/show/NCT03524222>
4. Hospital at Home: Feasibility and Outcomes of a Program to Provide Hospital-level Care at Home for Acutely Ill Older Patients  
Bruce Leff, Lynda Burton, Scott L Mader, Bruce Naughton, Jeffrey Burl, Sharon K Inouye, William B Greenough 3rd, Susan Guido, Christopher Langston, Kevin D Frick, Donald Steinwachs, John R Burton  
<https://pubmed.ncbi.nlm.nih.gov/16330791/>
5. <https://www.cms.gov/newsroom/press-releases/cms-announces-comprehensive-strategy-enhance-hospital-capacity-amid-covid-19-surge>
6. a-<https://qualitynet.cms.gov/acute-hospital-care-at-home/resources>  
b- <https://qualitynet.cms.gov/acute-hospital-care-at-home>
7. <https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-G/part-482>
8. <https://qualitynet.cms.gov/acute-hospital-care-at-home/resources#tab2>
9. <https://www.cms.gov/files/document/covid-19-emergency-declaration-waivers.pdf>
10. <https://www.nfpa.org/News-and-Research/Data-research-and-tools/Building-and-Life-Safety/Home-Structure-Fires>
11. <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Detection-and-signaling/ossmokealarms.pdf>
12. <https://www.hospitalathome.org/about-us/candidate.php>
13. <https://www.commonwealthfund.org/publications/case-study/2016/aug/hospital-home-model-bringing-hospital-level-care-patient>



14. <https://www.hhs.texas.gov/sites/default/files/documents/gl23-1001.pdf>
15. [https://mhcc.maryland.gov/mhcc/pages/home/commissioners/documents/20211216/Ag4\\_Hospital\\_at\\_Home\\_JCR\\_12162021.pdf](https://mhcc.maryland.gov/mhcc/pages/home/commissioners/documents/20211216/Ag4_Hospital_at_Home_JCR_12162021.pdf)
16. <https://coronavirus.illinois.gov/resources/executive-orders.html>
17. <https://www.aha.org/fact-sheets/2022-09-13-fact-sheet-extending-acute-hospital-care-home-program-beyond-end-covid-19>
18. <http://www.firebreaks.info/wp-content/uploads/2019/09/BPR-WhitePaper-2019-v6.1.pdf>
19. [https://www.nfpa.org/News-and-Research/Data-research-and-tools/US-Fire-Problem/Smoking-Materials?&order\\_src=G054&gclid=CjwKCAiA\\_vKeBhAdEiwAFb\\_nrRuEwN8qmwVYxVz9G33Z3Ed0rml\\_VTAqbcNQ7vRX9J1rNIA9p1VqjhoCERkQAvD\\_BwE&gclsrc=aw.ds](https://www.nfpa.org/News-and-Research/Data-research-and-tools/US-Fire-Problem/Smoking-Materials?&order_src=G054&gclid=CjwKCAiA_vKeBhAdEiwAFb_nrRuEwN8qmwVYxVz9G33Z3Ed0rml_VTAqbcNQ7vRX9J1rNIA9p1VqjhoCERkQAvD_BwE&gclsrc=aw.ds)
20. <https://www.cnn.com/2022/02/17/natural-disasters-such-as-fires-hurricanes-hit-1-in-10-us-homes-in-2021.html>
21. <https://www.statista.com/topics/1714/natural-disasters/>
22. <https://ncadv.org/STATISTICS>
23. <https://www.usnews.com/news/health-news/articles/2019-04-04/violence-against-older-americans-on-the-rise-cdc-says>

Special Thanks to:

Zach Wilson  
Debra Jodry  
Lisa de Grouchy  
Keith Buckman  
Heather Rose  
Lauren Schrumph