current health

Understanding the New CMS Guidelines for Hospital at Home

What you need to know before implementing acute hospital care at home.

How to Use this Guide

While Hospital at Home is not new, COVID-19 has pushed many organizations to adopt novel frameworks to deliver care outside the hospital. As of November 2020, CMS will reimburse for this care through their Acute Hospital Care at Home (AHCAH) program. As a result, we've seen tremendous interest from health system partners looking to build formal Hospital at Home programs.

In this guide, we'll unpack the CMS reimbursement requirements for acute hospital care at home and point out where remote patient monitoring can help. In addition to the **CMS website**, we encourage health systems starting out with Hospital at Home to check out the following resources:

- **Hospital at Home Users Group**
- **Hospital at Home consulting group through Johns Hopkins Medicine**
- **American Hospital Association**

Contents

What is Hospital at Home

Despite attempts to move healthcare into the home, notably by Johns Hopkins coining the Hospital at Home model in 1995, healthcare has remained tied to brick and mortar facilities. This is largely due to financial models and incentives within the United States that have proven to be a considerable barrier to the delivery of home-based healthcare.

However, payer policy over the last 3 years as well as consumer behaviour changes driven by COVID-19 are now creating new markets for healthcare at home. There are now new opportunities for health systems and providers to design care models that allow for some of our sickest patients to be treated from the comfort and safety of their home.

Hospital at Home, is one such model. Also referred to as a virtual hospital, this model provides hospital-level care to patients within their home, at a time when the pandemic has made this more important than ever.

As of November 2020, CMS began reimbursing for Hospital at Home as part of a new, innovative Acute Hospital Care at Home (AHCAH) program during the COVID-19 public health emergency. This allows regulatory flexibility for hospitals to bill for inpatient care at home using the same billing and coding requirements as inpatient treatments. It is widely expected that a program of this kind will become permanent even after COVID-19.

For health systems looking to build Hospital at Home from the ground up, this guide will take you through the key considerations based on CMS guidelines including:

1. How to Get Started
2. Patient Eligibility & Enrollment
3. Staffing & Services
4. Data & Reporting

Benefits of Hospital at Home

70%
Decrease in 30 day readmissions[1]

35%
Decrease in length of stay[2]

38%
Decrease in cost of care[1]

1. Levine D.M., Ouchi K., Blanchfield B., et al. Hospital Level Care at Home for Acutely Ill Adults: A Randomized Controlled Trial. Ann Intern Med. 2020 Jan 21;172(2):77-85. doi: 10.7326/M19-0600. Epub 2019 Dec 17. PMID: 31842232.
2. Leff B, Burton L, Mader SL, Naughton B, Burl J, Inouye SK, Greenough WB 3rd, Guido S, Langston C, Frick KD, Steinwachs D, Burton JR. Hospital at home: feasibility and outcomes of a program to provide hospital-level care at home for acutely ill older patients. Ann Intern Med. 2005 Dec 6;143(11):798-808. doi: 10.7326/0003-4819-143-11-200512060-00008. PMID: 16330791.

How to Get Started

How can you qualify to receive reimbursement for acute hospital care at home?

Reimbursement under the Medicare program is via the normal inpatient prospective payment system (IPPS). To qualify for this program, hospitals must **submit a waiver to CMS**. Since CMS monitors inpatient care at the hospital level, a separate waiver is required for each hospital, even if the AHCAH program will be run by a single health system.

Do you need to have run a prior Hospital at Home program to qualify?

No experience is necessary to qualify for this program. However, CMS has a separate, expedited waiver process for those hospitals who have prior experience providing acute hospital services to at least 25 patients.

It is important to note that prior experience does *not* need to match AHCAH requirements, but rather, just demonstrate a hospital's ability to deliver high-quality, home-based care to patients who qualify for inpatient admission. However, hospitals *will* be asked to comply with CMS standards to receive reimbursement. For example, if a hospital previously enrolled patients from home into their program, this counts towards their experience but will need to be adjusted to receive CMS reimbursement under the AHCAH program.

Patient Eligibility & Enrollment

What patients are eligible?

To be eligible for reimbursement, patients must meet the normal medical requirements for inpatient treatment in an acute care hospital. As part of the waiver request, hospitals must note which accepted patient leveling process they use (InterQual, Milliman etc.) to ensure patients require acute inpatient care.

Outside of that requirement, there are a number of factors hospitals should consider when developing patient eligibility criteria including:

- **Diagnostics:** What laboratory, imaging, and other diagnostic services can support patients in their homes?
- **Staffing:** Which clinical and ancillary teams are available to support your home-based patients?
- **Equipment:** What equipment (e.g., oxygen, infusion pumps, etc.) do you have available to deploy to the home?
- **Monitoring:** How often do you plan to monitor patients in the home?

While CMS has not set any definitive selection criteria for hospital at home programs, they do provide suggestions, based on a recent randomized controlled trial, including patients with infection, COPD, heart failure, asthma, CKD, diabetes, atrial fibrillation or those at end of life care. Similarly, the AHA identifies patients with COPD, CHF, infection or diabetes as good targets for Hospital at Home.

Those patients who receive care within the context of disease-management pathways, particularly those for whom a hospital has a defined admission orderset, are particularly well suited to at-home care, because the well-understood, algorithmic nature of their care is most efficiently translated into a Hospital at Home care plan.

Mount Sinai

Hear how Mount Sinai is using remote monitoring to improve the quality of their oncology care.

How remote monitoring can expand patient eligibility

While remote monitoring is not a requirement for reimbursement by CMS, having a real-time view of patient vitals can expand what patients are eligible to receive care at home to include higher-acuity and higher-risk patients. If you're looking to include these patients in your Hospital at Home program, it is important that your remote monitoring solution be:

Passive - By minimizing what is required of patients to share their vital signs, your program is accessible to all patients, regardless or tech literacy or physical abilities.

Continuous - Real-time, 24/7 data allows you to manage high-acuity conditions with the potential for rapid deterioration.

Highly Accurate - With hospital-level monitoring in a patient's home your team can quickly identify deterioration as they would in the ward.

Actionable - To be able to act on the large amounts of data your team needs sophisticated alerts that eliminate the noise and identify the one patient who needs attention in that moment.

Current Health has a proprietary FDA-cleared wireless device that continuously and passively captures a patient's respiration rate, oxygen saturation, mobility & step count, pulse rate, and body temperature with the same accuracy as an ICU-monitor. The wearable device is the size of a silver dollar and is worn on a patient's upper arm.

BAPTIST HEALTH

Learn more about why continuous monitoring was key to saving a COPD patient's life.

What are patient enrollment requirements?

To be eligible for CMS reimbursement, patients must be admitted from the emergency department or an inpatient hospital bed. Before going home, an inpatient hospitalist or admitting provider must conduct an in-person admission history, physical exam and admission. These patients will retain inpatient status throughout their treatment at home.

What are patient screening requirements?

There are no specific screening requirements set by CMS but it is important that hospitals assess both medical and non-medical factors before transferring a patient home. Creating a standard screening process will help identify which patients are appropriate for the AHCAH program. Hospitals should screen for things ranging from in-home utilities to the appropriate social support. Using video visits to screen for at-home living situations can be helpful, particularly when psychiatric or substance abuse issues could impact care.

Examples of circumstances to screen for include:

- Family or other support, both social and logistical
- Safe living conditions, including accessibility, and cleanliness
- Adequate utilities, such as internet connectivity and heat
- Space for recuperation, such as access to an adequate bathroom

Are there geographic requirements?

Similarly, there are no geographic requirements from CMS outside of a 30 minute in-person response time for appropriate emergency personnel (can include 911 or emergency paramedics). However, a patient's location will factor into a hospital's ability to deliver high-quality care. Hospitals should consider things like:

- Travel time to the nearest ER/hospital
- Travel time for clinicians, ancillary service providers, and vendors (e.g., DME)
- Patient connectivity / coverage and access

Staffing & Services

What services are required to be able to provide care at home?

While hospitals are free to choose what conditions or diagnoses are eligible for AHCAH program, CMS has set requirements around ability to provide or contract a number of services. As part of the waiver request, hospitals must explain how the following services will be delivered to patients:

- **Pharmacy**
- **Infusion** (IV push and IV Piggyback infusions)
- **Respiratory care** (oxygen delivery, nebulizer treatment, etc.)
- **Diagnostics** (labs, radiology)
- **Monitoring with at least 2 sets of patient vitals daily** (must include heart rate, blood pressure, respiratory rate, oxygen saturation, and temperature)
- **Transportation of patients** (ambulance, non-ambulance medical transport, other)
- **Food services** (including meal availability as needed by the patient)
- **Durable medical equipment** (e.g., commode chair, walker, cane, hospital bed)
- **Physical, occupational, and speech therapy**
- **Social work and care coordination**

With all these things, consider response times, availability of equipment, time between order placement and results. For those services not available in the home, you will need a plan for how these will be provided at the hospital or in the home.

How one hospital is using remote monitoring to deliver intravenous antibiotic therapy at home

Some treatments, such as intravenous antibiotic therapy, require close patient monitoring to detect clinical deterioration. NNUH at Home is using remote monitoring to **reduce the number of home visits needed** to monitor vital signs during treatment by reducing the number of in-person visits while improving quality of insight.

NHS
Norfolk and Norwich University Hospitals
NHS Foundation Trust

What are staffing requirements & patient touch points?

1 x at beginning of care

Initial history & physical exam

by Admitting MD

In-person (at hospital)

2 x daily at minimum

Patient visit

by Admitting MD or APP

In-person or remote (if appropriate to care plan)

2 x daily at minimum

Vital sign monitoring

by RN or MIH Paramedic

In-person or remote

24/7

On-demand emergency support

by Hospital or outsourced monitoring team

remote

As necessary

Ancillary services

by OT, PT, Social services, dietary etc.

In-person or remote

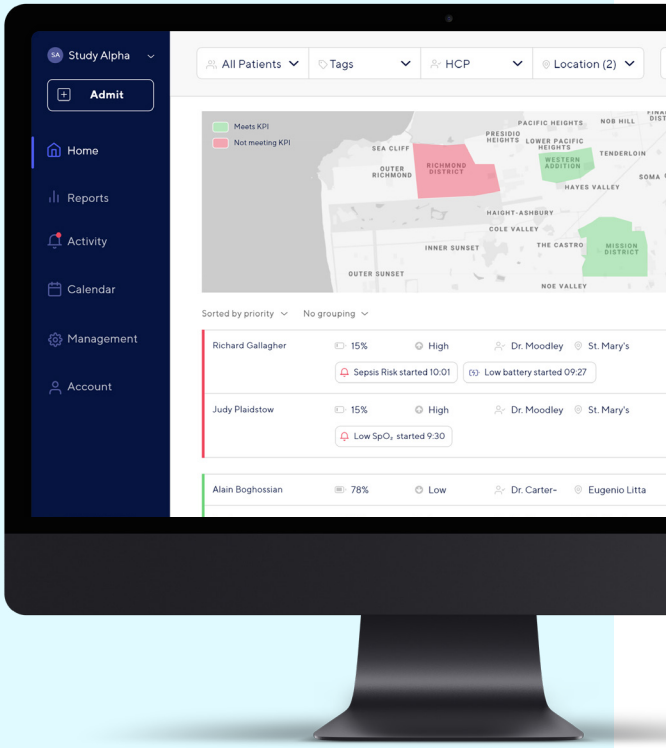
Note, while two in-person visits are required daily, these both may be done by a Mobile Integrated Health paramedic if deemed appropriate to a patient's care plan. MIH Paramedics must be officially recognized as a Mobile Integrated Health/ Community Paramedicine (MIH/CP). Requires constant medical direction if not abiding by a protocol. Hospitals must employ or contract paramedics to provide the MIH service.

Solving staffing efficiency issues with remote monitoring

Depending on a patient's care plan, remote monitoring can reduce the number of in-person visits while maintaining continuous insight into patient health at home. Leveraging remote monitoring allows health systems to more heavily rely on MIH Paramedics, minimizing the burden on inpatient care teams.

However, this requires tight communication. All team members should have shared access to a patient's vital signs, clinical alarms, and the ability to coordinate any action in response to health deterioration. This single source of insight into patient vitals can allow organizations to more easily outsource remote monitoring to a third-party who can provide first-line triage and emergency support.

Current Health identifies at-risk patients earlier by analyzing multiple patient data streams including continuous vitals and patient-reported symptoms. Alerts are surfaced through a single, shared dashboard that enables teams to prioritize and coordinate staffing resources.



What is the criteria for on-demand patient support?

The patient must have immediate, on-demand remote audio connection with a clinical team member who can immediately connect them with an RN or MD. CMS requires detailed information on how a patient will be able to immediately contact a hospital team member including what technology will be used, who will be staffing the service on the hospital end, and any limitations based on time of day or weekend.

What basic emergency response times do you need to have?

Additionally, an emergency response team must be able to get to a patient's home within 30 minutes (this can be provided by 911 or emergency paramedics). CMS requires hospitals to explain how they can meet these requirements through a detailed algorithm and timing of each step in the process including:

- Which personnel will travel to the home
- Any partnerships with local paramedic groups or other professionals who will improve this response time
- Detail equipment that will travel with this team

What can be done via remote monitoring?

Remote monitoring can be used to monitor patients between the required in-person visits. Remote monitoring allows your team to:

- **Prioritize patient visits**: Access to real-time patient vitals and symptom reporting allows you to stratify patients by risk and prioritize RN schedules for making rounds.
- **Adjust treatment in real-time**: Based on continuous vitals and real-time patient-reported symptoms, teams can adjust their care plan without the need for an in-person visit.
- **Intervene at first sign of deterioration**: Alarms can be tailored based on a patient's condition to notify their care team if there is cause for concern and enable them to triage via video visit.

Brighton and Sussex University Hospitals NHS Trust

Learn how Brighton and Sussex Hospital used remote monitoring to enable **faster weaning off of oxygen therapy**.

Ensuring access and accessibility when employing remote monitoring

Did you know that 1 in 4 Medicare beneficiaries are without a home computer with high-speed internet or a smartphone with a wireless plan?

If you are going to leverage telehealth, it is critical that you factor in **access and accessibility**. For many older adults, this may mean providing them with a smart device such as a tablet for symptom checking and video communication.

Current Health's commitment to reducing the digital divide

Ultimately, the patients who would most benefit from remote monitoring are the ones who often lack access and accessibility.

To address this, our kit arrives with everything a patient may need, including a pre-loaded tablet that walks them through a simple, 5-minute setup. Our Home Hub provides a multi-carrier cellular network for the patient to connect to, which is specifically designed for remote and rural environments. Similarly, we've made video visits available through a one-click process so patients can reach their care team without the need to download an app or login.

How to design actionable alarms to improve outcomes

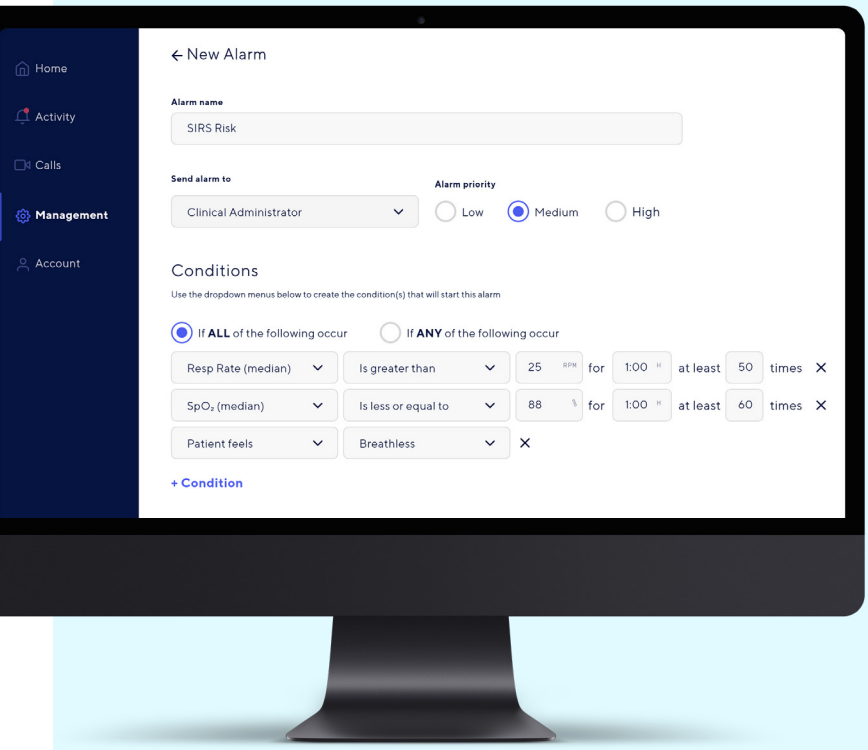
Having real-time insight into patient health is only valuable if it can identify meaningful health deterioration and prompt clinical action.

To minimize alarm burden and maximize action, alarms should:

1. Be tailored to a patient's clinical pathway, often time modified at the individual patient level to ensure alarms are sensitive to a patient's particular situation.

2. Synthesize data across multiple vital signs into a single data point, which will reduce false alarms around momentary, non-critical changes.

3. Enable automated, evidence-based workflows for patient check-ins to help gather additional information (e.g., worsening symptoms) to help guide action.



Real world example:

At Current Health, our evidence-based clinical algorithms take into account sustained trends across multiple data points to reduce false positives and enable action. Organizations can further update the following aspects of the algorithms at the individual or population level:

- **the vital sign that is causing the alert** (e.g., blood pressure, pulse rate)
- **the threshold of a specific alert** (e.g., blood pressure above 120)
- **the duration of a specific alert** (e.g., pulse higher than 100 bpm for 60 seconds)

Data and Reporting

What are reporting requirements?

The frequency of reporting varies based on whether a hospital has experience (monthly) or inexperience (weekly) with hospital care at home. Data should be reviewed by Acute Hospital Care at Home Safety committee along with specific patient cases that warranted further evaluation based on hospital policy.

Reporting must be done at the hospital level and reported to CMS on a weekly basis. Hospitals must designate their Chief Medical Officer, Chief Nursing Officer, or Chief Executive Officer to be point of contact for any CMS concerns about reporting quality.

Organizations must agree to establish a local safety committee dedicated to the AHCAH program (similar to Mortality and Morbidity) that will review on a weekly basis prior to CMS submission.

The following data must be provided, broken out by fee-for-service Medicare patients, fee-for-service Medicaid patients, and fee-for-service dual-eligibles.

- Number of patients discharged from AHCAH program (each discharge is unique, regardless of duration) .
- Number of unexpected patient deaths during AHCAH program (exclude patients on hospice or where death was expected by care team, patient, and family/caregivers). This should include cases where a patient is transferred back to hospital.
- Number of patients who were transferred to traditional inpatient care from the AHCAH program (for both clinical benefit and patient choice, regardless of duration in the program). Does not include patients transferred for diagnostic tests or planned treatment who then continued care at home.

Include in reports:

- Initial admission date (original date of admission order to hospital)
- For FFS Medicare include Medicare Beneficiary Identifier (MBI)
- For FFS Medicare include state Medicaid identifier
- For Dual-Eligibles include both MBI and state identifier

Billing requirements

All billing and coding requirements remain the same as those for inpatients treated at other alternative care locations operated by the hospital during the PHE. Medicare inpatient payment policies and rates have not changed because of this waiver. Medicare inpatient payments to a hospital will be the same as they would have been if the care were provided in a traditional inpatient setting.

About Current Health

Current Health's end-to-end enterprise platform is uniquely suited to Hospital at Home programs.

Single Data Platform

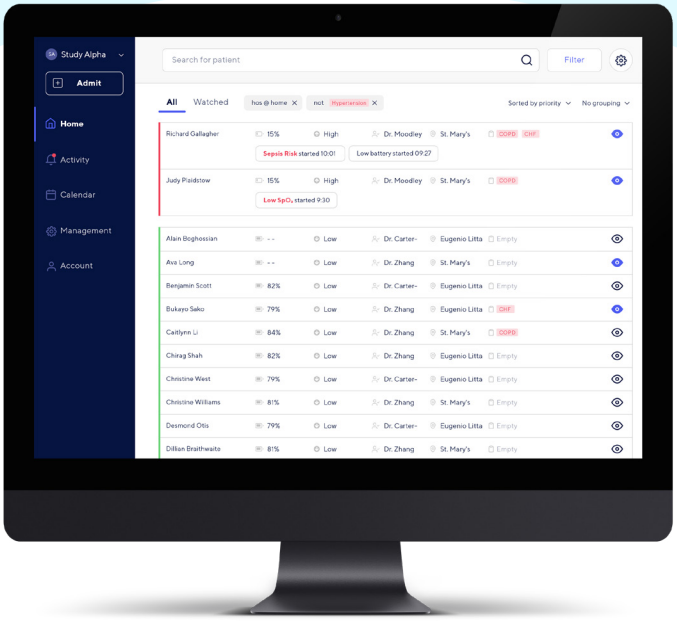
All patients stratified by risk, shared via mobile and desktop with your entire team.

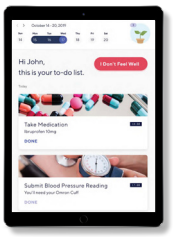
Actionable Clinical Insights

Algorithm-driven alarms help you identify patient risk earlier.

Full EHR integration

All data fully integrated into your EHR for in-time access and long-term reporting.





Your Hospital at Home Command Center

Patient-Reported Health

Asynchronous PRO, eDiaries, or symptom reporting through tablet.

Connected Devices

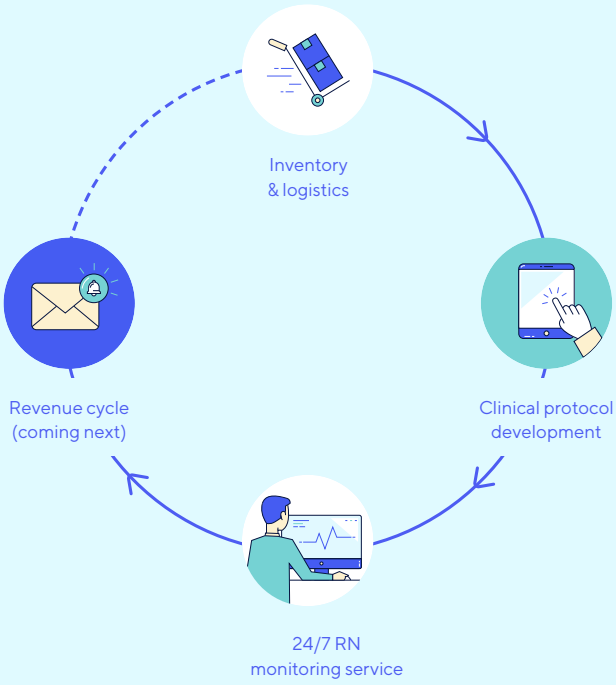
Intermittent vital sign data through wireless peripheral devices.

Continuous Vitals

Passive, continuous vital sign data through wearable sensor.

Get up and running quickly

We provide the full spectrum of managed services to help you quickly scale your Hospital at Home program.



Inventory & logistics

Enroll direcly through the EMR and we'll deliver a kit before discharge or to the patient's home.

Clinical protocol development

Templated clinical protocols for oncology, COPD, CHF, post-surgical, COVID-19, diabetes + more.

24/7 RN monitoring service

Round-the-clock health and compliance monitoring by our team of nurses.

Revenue cycle (coming next)

We take care of the billing cycle for our hospital system partners.

Where to go from here?

1. Access the CMS waiver **here**.
2. Establish your Hospital at Home planning committee.
3. Request a meeting with **Current Health** to understand remote monitoring's role in your Hospital at Home Program.

For more information
please visit our website:
currenthealth.com

current health