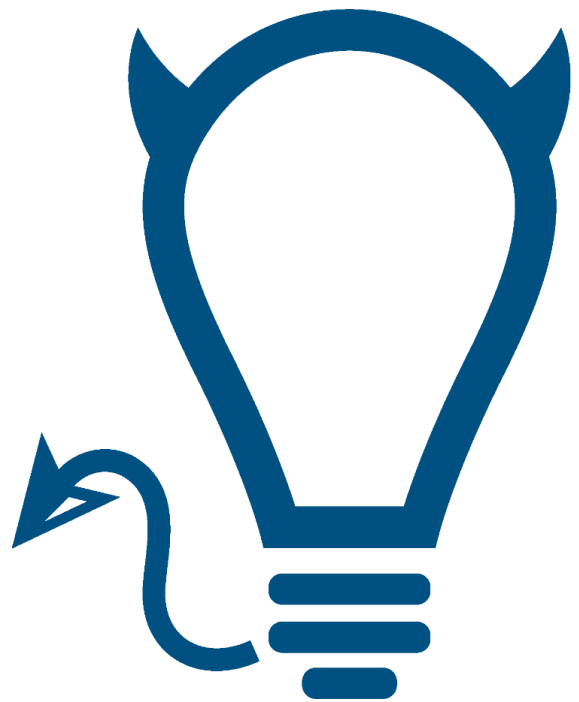


# Duke Institute for Health Innovation

## Development and implementation of a Hospital at Home Program in Wake County

Last Updated in 2021



Catalyzing Transformative Innovation in Health and Healthcare



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<b>Thank you!</b>	



## Executive Summary

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### **Project Proposal Team**

**Dr. Vidhya Aroumougame, Dr. Michael Spiritos, Leigh Bleecker, Suresh Balu, Dr. Mark Sendak, Dr. Alex Cho  
Will Knechtle, Akash Patel**

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### **Problem**

**Duke Health hospitals are often at capacity and there are often patients who receive care in this high-cost setting who could potentially be treated at home.**

When DRAH hospital is at maximum capacity, patients are boarded in the emergency room for a prolonged period of time until a bed becomes available. This is not optimal patient care. When DRAH is at inpatient capacity, patients normally accepted as direct admissions are diverted to hospitals with available inpatient beds.

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### **Solution**

**We will provide Acute Hospital Care at Home (HaH) care, an innovative delivery model treating patients for hospital conditions in the comfort of their own home.**

First, we will identify 10 patients who are eligible for the HaH program based on initial admission diagnosis and developed criteria. We will utilize previously developed risk/mortality screening tools from DIHI projects to identify eligible patients for this program at low-risk for deterioration. Then, the patients will be transitioned from the hospital back to their homes where we will establish a telemedicine and remote monitoring infrastructure. Finally, our health care team will visit patients in their home to provide treatment that they would normally receive in an inpatient setting.

General Criteria: Medicare patients arriving in the ED who live within 5 miles of Duke Raleigh; admissions for asthma, pneumonia, COPD, CHF, UTI, or cellulitis. Patients have otherwise stable medical conditions, live in safe homes, and are candidates for inpatient admission to Hospital or Internal Medicine.

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### **Goals**

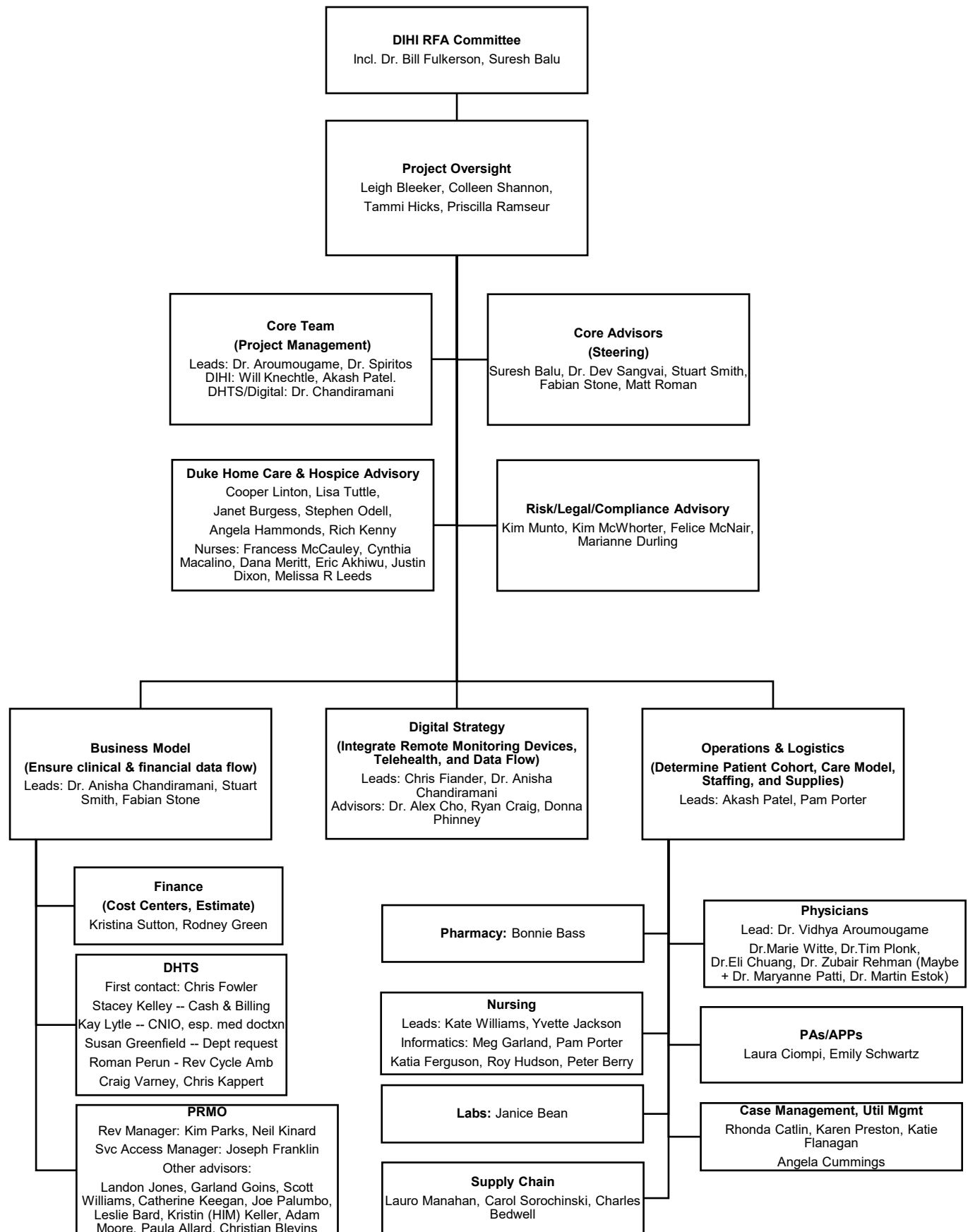
- 1. Prove that we are able to safely provide acute care in the home.**
- 2. Increase efficient bed management at Duke Health inpatient facilities.**
- 3. Provide acute care in a more cost-effective manner.**

This project is aligned with the values of DIHI because it is a novel method of care delivery that will serve the citizens of Wake County by providing them health care in the comfort of their homes and delivering safe outcomes with improved overall satisfaction. This would improve the overall access to healthcare for the patients of Wake County and would be among the first programs of its kind in North Carolina.

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## Stakeholder Organizational Chart





## Contacts

Please contact one of the following individuals if the contents of this document need clarification. If your question is directly related to a function of a role below, please contact that person first:

Role	Contact	Email (Phone)
Clinical Lead – DRAH Hospitalist	Dr. Vidhya Aroumougame	
Operational Lead – DRAH CMO	Dr. Michael Spiritos	
Project Manager – DIHI Staff	William Knechtle	
Logistics Lead – DIHI Student Scholar	Akash Patel	
Supplies and Logistics Lead	Pam Porter	
DRAH Nurse Admin, Informatics	Meg Garland	
DHCH Infusion Nursing	Yvette Jackson	
DHCH Medtronic Remote Device Lead	Angela Hammonds	
DRAH Nutrition Services Lead	Lisa Marker	
DRAH Care Management Director	Amy Fraccola	
DHTS RFA Project Liaison	Dr. Anisha Chandiramani	
DHTS RFA Project Liaison	Christopher Fiander	
DUHS Corporate Finance	Stuart Smith	
Patient Revenue Management Office	Fabian Stone	

To contact DHCH after-hours, patients may call 1-800-XXX-XXXX

For patients who would like Food Service/Room Service, call 919-XXX-XXXX

Partners external to Duke University Health System:

Role	Company	Email (Phone)
Non-Emergency Transport	First Choice Medical Transport	
Emergency Transport	Wake County EMS	
Durable Medical Equipment Supplier	Adapt Health	
Imaging Services	National Mobile	
Remote Monitoring Devices	Medtronic	

## References

### Web

- <https://dihi.org/tag/hospital-at-home/> - Project Planning Event Updates
- <https://www.capc.org/strategies/acute-hospital-home/> - Includes Webinars and Office Hours led by peers
- <https://qualitynet.cms.gov/acute-hospital-care-at-home> - Waiver Application and FAQs
- <https://hahusersgroup.org/>

### Literature

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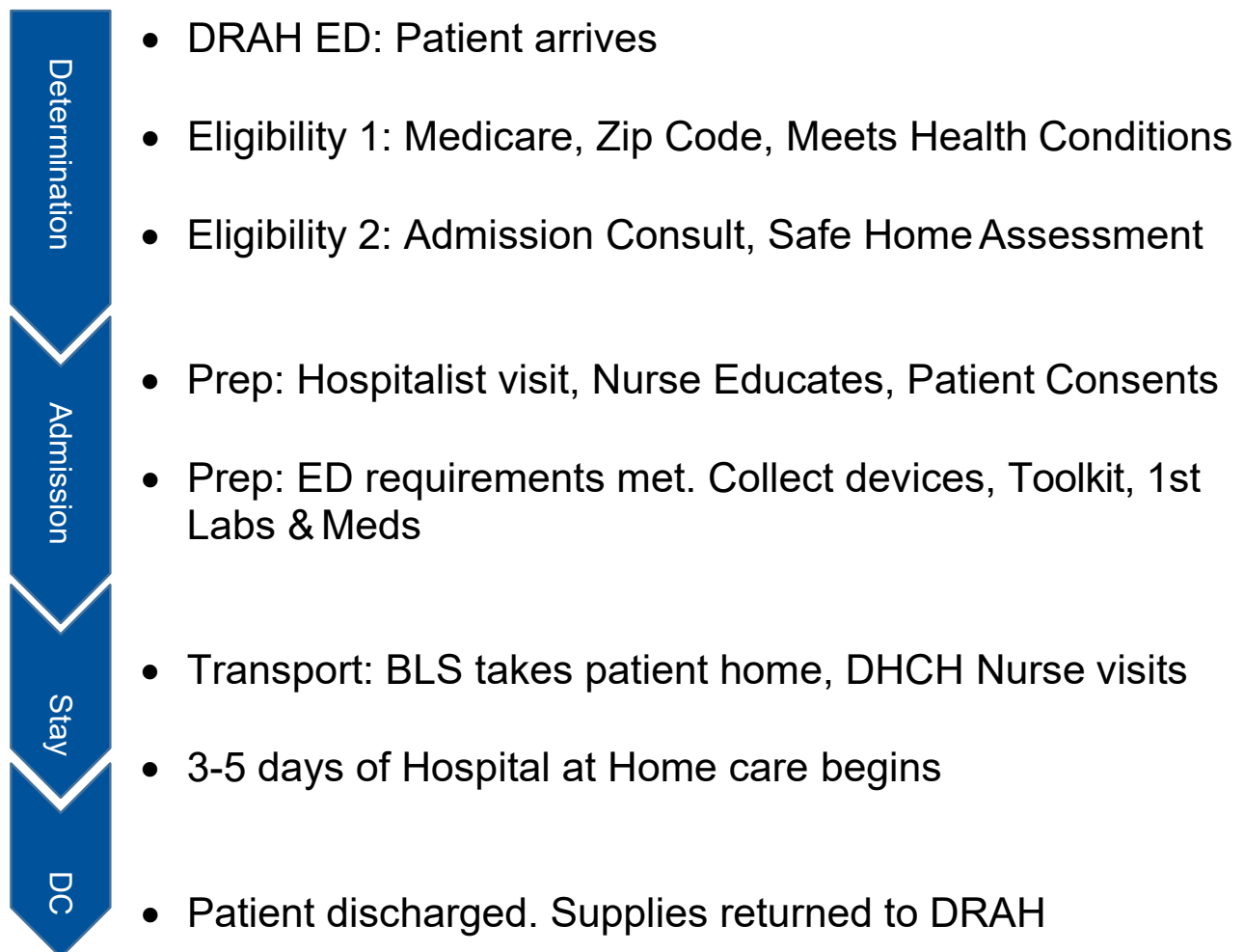
## Operational Summary

### Cohort of patients (10 max)

- DRAH ED arrivals M-F 8a-3p
- Medicare
- Residence <5 miles DRAH (Zip)
- Safe home conditions, patients
- Asthma, COPD, PNA, UTI Cellulitis, CHF needing inpatient care
- Goal to treat 1-2 patients per week
- One patient at a time. LOS est. 4d

### 3-5 day in-home visit

- Hospitalist visits daily, in-person
- Nurse visits 2-3x a day, takes labs, kit
- Medication incl. IV antibiotics, steroids
- Medtronic InterView for remote monitoring
- Physician has cell phone, patient can call
- Ambulance return to DRAH if necessary
- IP bill, IP EHR dept., DRAH Cost Centers
- Max 2 concurrent patients



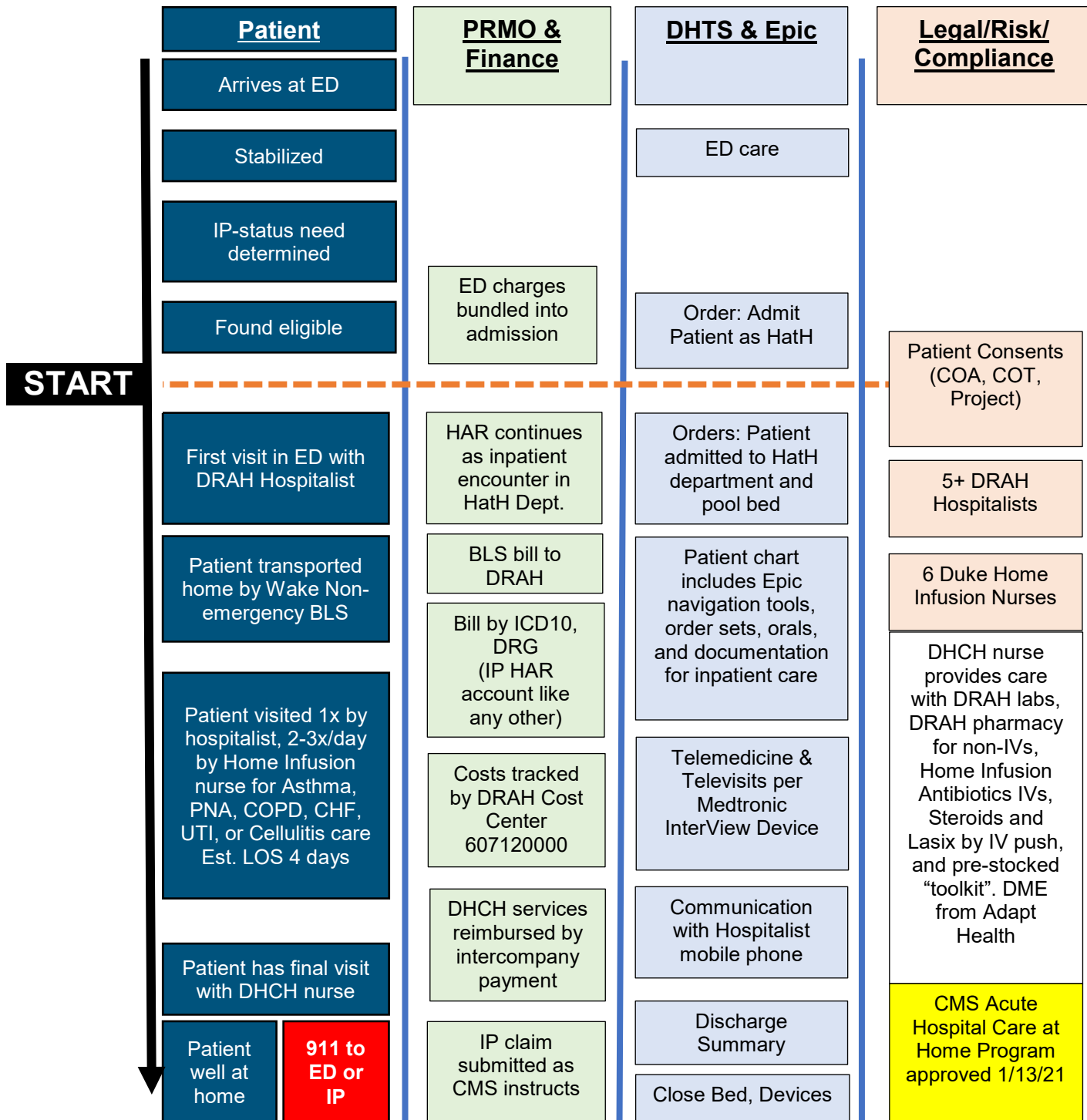


## DRAH Hospital at Home Pilot Model

**Billing Mechanism:** Inpatient Services. Waiver Application to CMS Acute Home Hospital Care Program. DRAH cost centers. Inpatient claim submitted as CMS instructs.

**Epic Mechanism:** Unique department and pool bed designed with inpatient features.

**Care:** Continuous inpatient care, provided by DRAH hospitalists and DHCH nurses. Patients needing services not provided will return to the hospital or ED.



*For more detail about ideal pilot processes, see playbook content below.*



## Hospital at Home Patient-Eligible Conditions During Pilot

Thank you for your support of the Hospital at Home program! We are seeking patients visiting the Emergency Department who would be admitted to a hospitalist's care and eligible according to the conditions below.

Adult Medicare patients are eligible for this program if they will be treated for **COPD, Asthma, UTI, Pneumonia, Cellulitis, or Heart Failure without complications**. You may receive notification about these patients if they reside within Zip Codes near Duke Raleigh Hospital (27609, 27608, 27607, 27606, 27604, 27603, 27601, 27610), preferably within 5 miles.

CONDITION	GUIDING VISIT REASONS, PRESENTING CONDITIONS	DIAGNOSTIC REFERENCE*	MS-DRG*
<b>Cellulitis</b>	Abscess; Blood infection; Fever; Decreased PO; Hyperglycemia; Insect Bite; Rash; Wound Check or Infection; Pain, Swelling or Injury	<b>L03</b> (L03.9, L03.1, L03.2, L03.3, L03.8, L03.9);	603
<b>UTI</b>	Abdominal/Groin/Flank Pain, Urinary Retention, Dysuria, Hematuria, Urinary Frequency, Urinary Retention, Chills, Emesis & Nausea, Fever	N39.0, N99.531	690
<b>Asthma (exacerbation)</b>	Asthma; Shortness of Breath; Allergic Reaction; Flu-like Symptoms (Chills, Cough, Fever, Generalized Weakness, Fatigue, Headache, Sore Throat)	<b>J45</b> (J45.2x, J45.3x, J45.4x, J45.5x, J45.90x)	203
<b>COPD (exacerbation)</b>	Abdominal, Chest, or Back Pain; Shortness of Breath; Asthma; Bradycardia; Flu-like Symptoms (Chills, Cough, Fever, Generalized Weakness, Fatigue, Headache, Sore Throat)	<b>J44</b> (J44.0, J44.1, J44.9)	191 192
<b>Pneumonia</b>	Abdominal, Chest, or Back Pain; Shortness of Breath; Bradycardia; Flu-like Symptoms (Chills, Cough, Fever, Generalized Weakness, Fatigue, Headache, Sore Throat)	<b>J18</b> (J18.0, J18.1, J18.2, J18.8, J18.9)	194 195
<b>Heart Failure without complication</b>	Abdominal, Chest, or Back Pain; Shortness of Breath; Bradycardia, Leg pain, Leg Swelling, Generalized Weakness, Dizziness, Fatigue	<b>I50</b> (I50.1, I50.2, I50.3, I50.4, I50.9)	293

### ADDITIONAL GUIDANCE FROM THE HOSPITAL AT HOME TEAM

Patients may also not be eligible if they visit for reasons such as aphasia, assault, crash, seizure, dental needs, depression, drug abuse, fall, homelessness, irregular heartbeat, loss of consciousness, neck pain or injury, neurologic symptoms, numbness, oncologic care, rectal bleeding, risk of or attempted suicide, stroke, or sickle cell pain. Communication with the patient must not require an interpreter.

Patients must have a caregiver and a safe home environment according to the Case Management Home Assessment. Patients are ineligible if they are undomiciled, are in police custody, reside in a facility providing on-site medical care, or require durable medical equipment (DME) other than oxygen.

Please communicate whether patients are likely to require IV steroids or antibiotics, have an acute concomitant condition, cannot independently ambulate to a bedside commode, or peripheral intravenous access could not be obtained. No schedule II medications will be administered or dispensed at the patient home.

*\*For eligibility guidance, identifying comparable patient samples, and estimating hospital input direct cost.*



### Role Commitments

	Patient	Case Management	ED Attending	Hospitalist	Nursing	Transport
Determination	<ul style="list-style-type: none"> <li>• Arrives in ED</li> <li>• Undergoes home assessment and medical work-up</li> </ul>	<ul style="list-style-type: none"> <li>• Confirms zip code &amp; payer status</li> <li>• Conducts verbal home safety assessment</li> <li>• Educates patient</li> </ul>	<ul style="list-style-type: none"> <li>• Medically assesses and stabilizes patient</li> <li>• Initiates patient's medical eligibility</li> <li>• Consults hospitalists and case management</li> </ul>	<ul style="list-style-type: none"> <li>• Confirms patient medical and program eligibility</li> <li>• Consents patient</li> </ul>	<ul style="list-style-type: none"> <li>• Educates patient</li> <li>• Prepares and connects mobile devices in the ED</li> </ul>	<ul style="list-style-type: none"> <li>• BLS receives call from DRAH ED Case Manager</li> </ul>
Admission	<ul style="list-style-type: none"> <li>• Learns about program and consents to enrollment</li> <li>• Travels home via BLS transport</li> </ul>	<ul style="list-style-type: none"> <li>• Communicates with BLS transport and home support to prepare home for team arrival</li> <li>• Communicates with Duke Home Care and Hospice Nursing Team</li> </ul>	<ul style="list-style-type: none"> <li>• Finalizes disposition</li> </ul>	<ul style="list-style-type: none"> <li>• Assigns patient to program</li> <li>• Develops care plan</li> <li>• Determines patient's needed equipment, medications, labs</li> </ul>	<ul style="list-style-type: none"> <li>• Receives care plan</li> <li>• Meets patient in home</li> <li>• Confirms safety assessment of the home and prepares care area</li> </ul>	<ul style="list-style-type: none"> <li>• Cares for patient during transport</li> <li>• Position patient at home</li> <li>• Helps prepare patient bed at home</li> </ul>
Home Care	<ul style="list-style-type: none"> <li>• Receives care</li> <li>• Maintains mobile medical devices</li> <li>• Communicates any concerns to care team</li> </ul>	<ul style="list-style-type: none"> <li>• Participates in daily care rounds</li> <li>• Facilitates patient support network remotely (via call)</li> <li>• Calls patient regarding care needs</li> </ul>	<ul style="list-style-type: none"> <li>• Stands by for potential decompensation-related transport to ED</li> </ul>	<ul style="list-style-type: none"> <li>• Visits daily</li> <li>• Remains available by mobile phone</li> <li>• Ensures care plan is executed</li> <li>• Monitors for decompensation</li> </ul>	<ul style="list-style-type: none"> <li>• Visits 2-3 times/day</li> <li>• Monitors vitals via Medtronic devices</li> <li>• Administers meds, collects labs, cares for wounds, conducts physical assessments</li> <li>• Educates patients</li> </ul>	<ul style="list-style-type: none"> <li>• EMS: 24/7 availability in case of patient deterioration</li> </ul>
Discharge	<ul style="list-style-type: none"> <li>• Communicates needs to providers, home caregivers, contact network</li> </ul>	<ul style="list-style-type: none"> <li>• Determines final needs</li> <li>• Coordinates disposition for post-discharge</li> </ul>	N/A	<ul style="list-style-type: none"> <li>• Determines patient stability and completion of treatment</li> <li>• Closes patient bed in virtual inpatient environment</li> <li>• Checks in with CM and nursing</li> </ul>	<ul style="list-style-type: none"> <li>• Administers therapeutics</li> <li>• Removes IV lines</li> <li>• Provides discharge paperwork</li> <li>• Collects remote monitoring devices</li> </ul>	<ul style="list-style-type: none"> <li>• Sends bill straight to hospital (not insurance)</li> </ul>



## The Care Implementation Workflow

### Day 1 Part 1

1. **Patient arrives** at the Duke Raleigh Emergency Department (DRAH ED).
2. Patient visit reason/chief complaint, residential zip code, payer, arrival time, and IP admission status data will become available and be processed through a DIHI Tableau Dashboard available [here for the ED](#) and [here for DRAH Hospitalists and Case Managers](#). This dashboard will filter patients according to criteria for the data above detailed in [this one-pager](#), which will also be printed and posted on ED hub bulletin boards. **Duke Raleigh hospitalists and ED nurses involved with managing** this DRAH Acute Hospital Care at Home program (hereinafter, referred to as “the program”), and others by request, will receive de-identified emails scheduled to go out on the hour if a new pre-eligible patient was added to the dashboard.
  - a. Patients will be enrolled Monday-Friday between 8:00am and 3:00pm Eastern Standard Time. Patients will only be eligible if they are in the ED within this time range.
3. The Emergency Department provides standard high-quality care for the patient (physicians’ and nurses’ workflows should be the same until hospital medicine consult is placed requesting admission). The **ED attending** conducts a medical assessment for the patient, which will provide information that will help determine the patient’s medical eligibility for the program. Eligible patient conditions include; Cellulitis, Urinary tract infection (UTI), Asthma, Chronic Obstructive Pulmonary Disease (COPD), Pneumonia, and Heart Failure without complication. (See [this one-pager](#) again for reference). The **ED attending** will also assess general patient stability and recommend appropriate disposition.
  - a. Eligible patients will be likely to be admitted to a general medicine or step-down bed.
4. The **ED attending** consults Hospital Medicine team for admission. During this consult, the ED attending will discuss the patient condition with the hospital medicine physician triaging admissions. The Emergency Medicine Department and Hospital Medicine Department has been educated on medical eligibility criteria for this program. This hospitalist may not be directly involved with the program, yet with information in the consult and/or information from a [dashboard](#) email, hospitalists will contact a **program hospitalist** to perform a chart review to evaluate for the patient’s eligibility for the program. Program hospitalists will also keep track of the dashboard to evaluate for eligible patients.
  - a. The ED attending holds off on placing a bed request order until after the program hospitalist’s evaluation has occurred.
5. The **program hospitalist** will begin assessing the patient’s final eligibility for the program and consult **case management** to begin the [patient home assessment](#). The **program hospitalist** will speak with a **case manager** by phone.
6. **Case manager** confirms Medicare insurance status (Medicare Advantage is not recommended for the pilot, but could be covered in the future), identifies the home address, and confirms that the home is within 5 miles of DRAH.
7. **Case manager** interviews the patient to complete the Case Management Screening and Initial Assessment. They convert the assessment to a note. They also interview the patient to complete a [patient home assessment](#) (using the corresponding dot phrase .HOSPITALATHOMESAFETYASSESSMENT). The purpose of this interview is to ensure that



the patient's home is safe for the patient and care teams. The **case manager** can confirm or deny patient eligibility for enrollment.

8. **Case manager** shares educational [brochure](#) about the program with the patient. This will be printed in available Emergency Department offices and stations. If the case manager cannot find a copy in time for the patient visit, they should inform the ED Clinical Lead RN.
9. **Case Manager** communicates eligibility criteria to the **program hospitalist**.
10. **Program hospitalist** meets with the patient to assess and finalize patient eligibility.
11. **Program hospitalist** provides paper [program consent documentation](#) (RMD authorization, Medication authorizations, research consent).
12. **Service Access Manager** (DRAH Admissions & Same Day Surgery) provides electronic consent documents (COA/COT, HIPAA) in MyChart to the patient for completion at the patient's bedside. This should align with standard workflow for an inpatient admission.
13. **Patient** consents to the program. (If not, continues inpatient admission within DRAH walls).
14. **Program hospitalist** notifies the **case manager** and **ED nurse** that a patient has consented to the program.
15. **Case manager** notifies **Duke Home Care and Hospice (DHCH)** of the eligible patient by direct phone call. They provide as much information about the patient as available. The **Case Manager** receives the name and phone number of the **DHCH nurse** to care for the patient.
16. **Program hospitalist, ED attending, and ED nurse** ensure emergency care is complete and orders for program care are complete.
  - a. Program Hospitalist performs complete History and Physical and places admission orders. This includes medication reconciliation.
    - i. IV infusions: The **ED attending** or **program hospitalist** orders the first dose as a one-time order for administration in the emergency department- Initial treatment for the treatment condition (diagnoses listed above requiring antibiotics, steroids, Lasix, etc.) will be administered in the ED as per the current admission process.
    - ii. **Program hospitalist** reconciles the patient's home medications and determines medications that should be continued.
    - iii. A prescription for ongoing IV antibiotics will be sent to **Duke Home Infusion**.
    - iv. The order for non-IV infusion medications required during the program stay will be entered in EPIC for DRAH Inpatient Pharmacy so that they may be entered on the MAR. (Steroids and Lasix apply here, and will be with dispensed with a Take Home label for each vial).
    - v. The **patient** gives their consent to provide their home prescription medications to **DRAH Pharmacy** to store them during their home care stay. Provider documentation will include an indication for the patient to share their own prescribed supplies of non-IV medication. (During the patient stay, the pharmacy will be storing home medication and delivering the medications to be taken over the next 24 hours.)
    - vi. A **Duke Home Infusion courier** delivers the medications to the patient's home, where it will be administered by Duke Home Infusion nurses
  - b. If an IV infusion is needed, an **ED nurse** administers the first dose in the ED.
  - c. **Program hospitalist** orders labs in Epic.
  - d. **ED nurse** ensures the patient keeps the same arm band, because they keep the same MRN and CSN.
17. **Program hospitalist** admits the patient the DRAH Acute Hospital Care at Home inpatient department.



18. **Program hospitalist** submits a bed request order for a pool bed associated with the department.
19. **DRAH Pharmacist**
  - a. Checks medications and dosage, assesses oral vs. IV
  - b. Verifies doses for the next 24 hours and dispenses a 24-hour supply.
  - c. Manually prints labels for medications. Medications are unit-dosed with barcodes from the manufacturer.
  - d. **Tech** prepares and retrieves IV (vials, except for IV antibiotics) and oral medications. Applicable medications will be placed in a vial or bag with a Take Home label on the outside.
20. **Program hospitalist** notifies the **case manager** that patient care in the ED is complete and that the **program hospitalist** has communicated with the **DRAH pharmacist**.
21. **ED nurse** visits **patient** to prepare them for the Acute Hospital Care at Home
  - a. Speaks with **program hospitalist** in person
    - i. Checks correct patient, patient address
  - b. Speaks with patient (introductions, hospital at home education) in the ED. They answer any questions that the patient might have regarding enrollment, deferring to the hospitalist team for any out-of-scope questions.
  - c. Asks the patient if they would like the hospital to provide their next dinner and breakfast. If yes, shares food menu with the patients.
22. **Program hospitalist** confirms RMD setup and **ED nurse** visit has occurred.
  - a. If the **patient** requested food service when visiting with the ED nurse, the hospitalist will notify Room Service to inform them that the patient will be receiving meals. The hospitalist will call the Room Service program at 919-XXX-XXXX and provide the patient's address and mobile phone number or home phone.
23. **Program hospitalist** communicates with **ED Case Manager** to order transport and complete transport paperwork. BLS transport will not bill insurance for transport; they will bill DRAH.
24. **ED case manager (or ED nurse)** contacts [First Choice Basic Life Support \(BLS\) transport services](#) to arrange patient transportation. Completes transport paperwork.
  - a. If necessary, the **case manager** orders durable medical equipment (DME), including oxygen, from our DME partner at the time of initial assessment. Our DME partner is [Adapt Health](#). (If any DME, including oxygen need is identified after the patient is in their home, **DHCH** will take responsibility for the service.)
25. **ED Case manager** calls the **DHCH nurse** to tell them BLS' estimated arrival time. The ED Case Manager shares the estimated time of arrival with the **patient** and **ED nurse**.
26. **ED nurse** ensures all patient IV medications are completed and IV access is locked prior to transport. They should not be removed. (BLS does not allow running IV infusions in transport).
27. **DHCH nurse** collects necessary patient equipment on their way to the patient home.
  - a. Visits Medical Office Building 1 to pick up nursing [toolkit](#).
  - b. Prints lab labels in [MOB1 Suite 203](#).
  - c. Collects Remote Monitoring Device set ([Medtronic Interview Platform](#)) in MOB1, 203.
  - d. Visits DRAH Pharmacy to pick up medication.
  - e. Signs document assuming responsibility for any patient-specific controlled substances.
  - f. Prepared with Duke VPN laptop, mobile phone, and internet hub
28. **DHCH Nurse** travels to patient home using their own car following the BLS transport.
  - a. Monitors miles using standard DHCH practice



## Day 1 Part 2

29. The **case manager (or ED nurse)** communicates the patient transport estimated time of arrival to the patient.
30. The **First Choice Transport** vehicle should arrive within 60 minutes of the case manager's call.
31. The **ED nurse** and **First Choice Transport** prepare the patient for transport. This includes closing IV accesses as needed.
32. **First Choice** transports the patient to their home address. The **patient** arrives.
  - a. Anticipate codes A0428 for BLS transport, A0425 for mileage.
  - b. Estimated 15-minute one-way travel time to addresses within 5 miles within Zip Codes 27609, 27608, 27607, 27606, 27604, 27603, 27601, and 27610.
  - c. First Choice will assess the home safety according to their standard care
33. The **DHCH nurse** arrives for their first visit at the home. They confirm the [verbal home safety assessment](#) that was conducted by **case management**, noting any major safety concerns. If the in-person confirmation differs from the verbal home assessment done with the patient in the ED and this difference is concerning to patient or provider safety, then the patient is not enrolled in the program. If they have already been transported to the home, then they are returned to the hospital for traditional hospital care by **First Choice BLS** transport. Setup care area: **the DHCH nurse** confirms patient care area is suitable and, with **First Choice** support sets up any equipment necessary to provide care (e.g., home care station).
  - a. **DHCH nurse** sets up care area in patients' home to accommodate equipment and ease of movement for patient and caregiver.
  - b. **DHCH nurse** connects and positions Remote Monitoring Devices ([Medtronic Interview Platform](#), Bluetooth) so that they can be used to monitor patient vitals.
  - c. **DHCH nurse** completes patient's screenings and completes the head to toe assessment, documenting in EPIC
  - d. If appropriate, the **DHCH nurse Duke Home Infusion** administers **medication**. (A **Duke Home Infusion Nurse** would set up the IV pump as needed).
  - e. **DHCH nurse** educates patient about IV pumps.
  - f. **DHCH nurse** educates patient about how and when to use the [Medtronic Interview Platform](#) and helps the patient test their use.
34. **First Choice** departs once patient and equipment are safely secure in the home.
35. **DHCH nurse** reviews program, care plan, communication, and equipment information with the patient.
  - a. Keeps and provides record of caregiver, patient, and provider names and phone numbers. Key: Provides patient with nocturnal hospitalist cell phone number.
36. **Program hospitalist** calls or performs a video visit to follow up with the patient.
37. **DHCH nurse** leaves the patient home.



## DAY 2-3: HOME CARE DAY (Per accepted patient acuity, we anticipate at least two midnights of inpatient care)

### 8:00 AM each day – Care Team Meeting

1. The hospitalist will lead a care team meeting to plan/assess the patients' care. The meetings will be a check-in to notify the team of any concerns, ask questions, and confirm that the logistics for the day are understood. (This will be a standing Zoom meeting.)
2. Duke Food Services will deliver the patient's meal by courier, if they did not already the prior evening.

### Est. 9:00 AM each day – Morning Nurse Visit (Day 2 AM will be the second nurse visit)

#### A. Visit Preparation

The **DHCH nurse** will visit the [DRAH Mobile Office Building 1](#) (MOB1) Suite 203 room to collect the replenished [toolkit](#), pharmacy medications (non-antibiotic IVs), and labs. A specimen label printer and refrigerator will be available within the DRAH MOB1 Suite 203 room.

*Note: Similar to steps of the **DRAH Inpatient Pharmacy** to prepare the patient for admission, a 24-hour supply will be dispensed from the **DRAH Inpatient Pharmacy** each day. These will be unit-dosed with barcodes from the manufacturer. Each drug will be placed in a vial with a Take Home label on the outside. Oral medication orders should include the notation for self-administration if the provider expects the patient to take their own doses without a nurse being present. An **exception** has been made for IV antibiotics, for which DHCH has optimal equipment for administration in the home: A prescription for the antibiotics will have been sent to Duke Home Infusion and a **Duke Home Infusion courier** will have delivered the medications to the patient's home.*

The **DHCH nurse** will drive to the patient's home with a VPN-supported secure laptop sourced from Duke Health Technology Services (DHTS), Rover scanning ability, and the collected equipment.

The **DHCH nurse** is prepared to document care in Maestro Care (EPIC) per typical inpatient standards and processes. They should also confirm that the patient provided vitals at a selected time outside of nurse and hospitalist visiting time, through the Medtronic Mobile InterView. **Duke Home Infusion nurses** will scan the barcode and document medication administrations in the MAR for doses administered. (They will not be able to scan **antibiotic** IV medications. These they will have to document an override for scanning.)

#### B. Physical assessment

The **DHCH Nurse** performs physical assessment at the beginning of each visit to determine patient status. These are documented in Maestro Care.

#### C. Monitor vitals

**DHCH Nurse** performs vitals check at the beginning of each visit to determine patient status. The Medtronic Mobile InterView Platform includes devices for monitoring vitals in the home. Vitals the platform monitors include pulse, pulse oximetry, blood pressure, and weight. (Temperature will be measured by a separate thermometer). Patients will be instructed to connect to the devices for



vital sign monitoring at 3 other pre-determined times for ongoing determination of the patient's condition. If there is a concern for decompensation, nurses will follow the [decompensation protocol](#). Significant changes in vital signs will be communicated to **program hospitalists** by phone (24/7 service).

The **program hospitalist** will also monitor these values and notify care team of concerns.

For any technological issues concerning remote monitoring devices, nurses and patients may contact Angela Hammonds, BSN, RN at 919-479-0466 (Telemedicine and Triage, Duke Home Care and Hospice)

#### D. Labs

Nurse draws blood and/or collects urine according to orders placed in EPIC. Nurse stores the blood work and samples in a temperature-controlled box/cooler (part of [toolkit](#)). Lab orders to expect include basic metabolic panels (BMP), comprehensive metabolic panel (CMP), hepatic function panel (HFP), complete blood counts (CBC), urine analysis, and coagulation studies.

#### E. Medication administration

The **DHCH nurse** administer medications using the MAR. The **DHCH nurse** will scan the barcode and document administrations on the MAR for doses administered when he/she is present. The DHCH nurse will also document oral meds the patient self-administered (method TBD).

IV medications: IV infusions are given in the home using home infusion pumps provided by Duke Home Care and Hospice. Typical piggyback infusions usually use Accuflo, minibag, or IV push. Nurses remain for the duration of the IV infusion.

*Note: It is standard DHCH practice to administer IV infusions in the home and teach patients and their caregivers how to do this, based upon patient/caregiver demonstration of compliance with process. Duke Raleigh Pharmacy and Duke Home Care and Hospice Nursing representatives will meet to review the medication together prior to administration.*

Oral medications: The **program hospitalist** will have reviewed all medications and ordered all necessary medications with a note about those that the patient can self-administer. All oral medications are supplied by **DRAH inpatient pharmacy**. Oral medications are given according to schedule and many will be self-administered. When the DHCH nurse visits, they will review the medication orders in Epic, speak with the patient, and document those that were taken in the MAR.

#### F. Wound care

Patient wound care is provided as appropriate. Supplies are available in the [toolkit](#).

#### G. Imaging

DRAH will contract with an independent portable radiology company to provide x-ray, ultrasound, echocardiograms and EKG radiology services to patients. Patients that require more advanced radiology testing during their enrollment in this program will be transported less than 5 miles back to Duke Raleigh hospital via Basic Life Support (BLS) trucks for their imaging before being returned to the home. The **program hospitalist** and **case manager** will be responsible for this patient transfer to DRAH.



### Est. 10:00 AM – Nurse Returns to DRAH after morning visit

When the **DHCH Nurse** returns to the hospital, he/she delivers the blood work to the DRAH laboratory office (located on the main floor of the hospital). Lab work should be returned within 2 hours of being placed on ice.

### Daily Hospitalist check-in (Likely afternoon, time at discretion of patient and hospitalist)

The **program hospitalist** will drive to the patient home with a portable secure VPN-supported laptop sourced from Duke Health Technology Services.

The **program hospitalist** visits the patient in their home, assesses the medical condition of the patient and confirms or modifies the care plan. The program hospitalist will also check the [Medtronic Interview Platform](#) to review heart rate, pulse oximetry, blood pressure, and weight; second daily visits are optional via the [Medtronic InterView's telehealth call](#). Documentation and orders will occur in EPIC, as well as communications about any changes to the rest of the care team (e.g., nurses, other hospitalists). For reinforced communication, the **program hospitalist** will call the **DHCH nurse** to notify them of new orders. The **program hospitalist** will check that the patient has the correct phone numbers of the care team. Patients will have 24/7 access to their covering **program hospitalist** by mobile phone.

If the patient needs an X-ray, the order will *not* be in Epic. The **program hospitalist** will place the order in the contracted vendor's ordering system. The company would then visit the patient's home for the mobile imaging, and that company's radiologist will perform the reading. The company's results will be scanned in and added to the progress note in Maestro Care.

*Note: This contracted vendor has three vehicles in Raleigh and can perform imaging within 6 hours of the order, 24/7 and provides results by fax. Exam results are provided by a JCAHO-accredited independent radiology group within 4 hours of order receipt for STAT exams and 8 hours of order receipt for routine exams.*

If the patient require imaging not provided by the at-home company, the **program hospitalist** will consult **Case Management** for support arranging **BLS transport** to DRAH. If new DME is required, the **program hospitalist** will consult **Case Management** who will contact **Adapt Health**. For social work support, **Case Management** (as well as **Utilization Management**) will be in the AM and PM daily huddles so that they can follow the patient throughout their stay. If consults to other specialties are required, hospitalists can place a telemedicine consult.

### Est. 3:00 PM each day – Second Nurse Visit

Repeat early AM visit.

Respond to 9AM visit lab values and vitals.

Respond to new hospitalist orders if applicable.

Remind the patient of Room Service (919-XXX-XXXX) supervisor call; this supervisor will help the patient submit orders for the next two or three meals if the patient requested.

**At 4:00 PM each day**, the hospitalist will lead a care team meeting to plan/assess the patients' care. The meetings will be a check-in to notify the team of any concerns, ask questions, and confirm that the logistics for the next day are understood. (A standing Zoom meeting will be scheduled.)



## HOME CARE DAY – DECOMPENSATION OR OTHER SAFETY CONCERNS

### Assessing changes in home safety

If the patient's home environment changes during their hospitalization from unforeseen circumstance (such as hurricane evacuations, power outages, internet outages, flooding concerns, etc.), the patient will be returned to the hospital via BLS transport or via EMS. Federal, state, local, and hospital guidelines and recommendations will be followed.

This would take place as a transfer from the hospital at home. The Hospital at Home should be considered an off-site unit/extension of the hospital.

### Decompensation assessment

Three paths:

- 1) Concerns from the critical vital signs, or patient monitoring
- 2) Concerns from the patient (communicated via mobile phone)
- 3) Concerns from the provider (transport, nurse, or hospitalist).

Hospitalists involved with program are committed to 24/7 response. When concern about decompensation is raised, the hospitalist conducts a telehealth visit (or in-person visit if timing allows) to assess decompensation. If the patient is decompensating, then EMS is contacted via 911 for the patient to return to the hospital. Wake County EMS services is under contract with Duke University Health System, is aware of this program, and will be ready to arrive within 30 minutes of 911 initiation. Triage for patient is determined by cause of decompensation, which the patient and/or the provider will communicate directly to the EMS team:

- A. Decompensation due to worsening of primary health condition results in transfer back to the hospital. If the patient appears otherwise stable from the Hospitalist's assessment, the patient will be transferred to a med-surg or step-down bed. If the patient manifests a more serious decompensation, the patient will be transferred to the ICU. All transfers will include communications with the Operations Administrator and the receiving care team. On rare occasions, decompensating Hospital at Home patients may require an assessment and stabilization in the ED before appropriate bed placement is identified. Available hospital staff will guide the EMS team to the patient's assigned bed. The patient will not be transferred back to the home.

Wake County EMS is aware of the program and patient population. Upon arrival at the patient's home, EMS will conduct their own medical assessment.



## LAST VISIT & DISCHARGE

The hospitalist confirms discharge eligibility, the patient is medically cleared, and the hospitalist communicates the patient status to the DHCH Nurse and the rest of the care team. Anticipated discharges will be communicated during the morning huddle.

The Duke Home Care and Hospice Nurse provides the discharge summary (printed on DRAH 4<sup>th</sup> floor) and final discharge education. They collect [Medtronic Interview Platform](#) equipment and transport it back to the [DRAH MOB1 Suite 203](#). Other medical equipment, such as sharps boxes, are also removed from the home.

Follow-up: The program hospitalist's communication of patient status triggers scheduling a follow-up appointment with a primary care provider within 7 days of discharge (per protocol). The program hospitalist confirms the patient has a follow-up appointment scheduled after discharge. (The discharge order will remove the patient from the inpatient list.)

1. **Patient** is stable and responding to treatment as expected
2. **Program hospitalist** determines that the patient is stable for discharge and that treatment is complete. This occurs within the second-to-last visit.
3. **Program hospitalist** creates a discharge summary.
4. **Program hospitalist** places the discharge order.
5. **DHCH nurse** identifies discharge paperwork in Maestro Care and prints to DRAH 4<sup>th</sup> Floor and delivers it to the patient in their home. This is the final in-person visit.
6. **DHCH nurse** completes final care.
  - a. Administers final medications
  - b. Administers other final treatment or care
  - c. If applicable, removes IV lines
  - d. If applicable, helps determine final DME needs and contacts the Case Manager to complete them
7. **DHCH nurse** collects the [Medtronic Interview Remote Monitoring Platform](#) (platform includes a tablet, weight scale, BP cuff, Pulse Oximeter)
8. **DHCH nurse** discharges the patient.
9. **Program hospitalist** and/or **DHCH nurse** talks with the patient to ensure they understand the discharge information and are satisfied with closing communication. A follow-up appointment with a Primary Care Provider within 7 days is confirmed.
10. **DHCH nurse** leaves the patient home.
11. **DHCH nurse** returns the Medtronic Interview Remote Monitoring Platform to the DHCH warehouse and other reusable supplies, such as the [toolkit](#) bag, to [DRAH MOB1 Suite 203](#).



# The Logistics of Care Implementation by Role

## 1. Patient and caregiver

### 1.1. Roles and responsibilities

#### 1.1.1. Arrival

The patient is approached by the ED care team, or the patient asks about the program. The patient is provided educational material by the Case Manager during the Home Safety Assessment. [Click here for the brochure.](#)

#### 1.1.2. Assessment

The ED attending conducts a medical assessment for the patient. The ED attending will inpatient consult with a hospitalist and the consulted hospitalist will involve the Hospital at Home Hospitalist. The patient and caregiver provide details about their insurance, home address, and [home safety](#) to the case management team. The hospitalist confirms the medical eligibility of the patient.

#### 1.1.3. Consent

The patient asks questions and is formally consented for program enrollment by the hospitalist team. [This is the consent form.](#)

#### 1.1.4. Home care

*Medical treatment:* Patient adheres to the medical care plan.

*Nutrition and meals:* Patient is provided meals from Duke Raleigh Hospital food services.

[Details are here.](#)

*Daily check-in:* The patient completes daily check-ins on their Medtronic remote monitoring devices.

*Decompensation:* The patient reports any concerns about decompensation to the medical care team during the visit or by cell phone.

#### 1.1.5. Discharge

The patient is medically cleared by the hospitalist. The last provider to see the patient is the Duke HomeCare and Hospice Nurse, who provides the discharge summary.

#### 1.1.6. Follow-up

As per hospital protocol, the patient has a follow-up appointment scheduled with their primary care provider about 7 days after discharge.

### 1.2. Support and tools

#### 1.2.1. Technological support

For any technological issues concerning their remote monitoring devices, patients contact Angela Hammonds at 919-479-0466.

## 2. Emergency Department: Attending and Care Team

### 2.1. Roles and responsibilities

#### 2.1.1. Patient assessment

Patient arrives at the Emergency Department (ED). They are assessed by the ED attending and stabilized. The attending recommends appropriate disposition. ED attendings were



informed of the Hospital at Home service and are aware of ([Click here for criteria](#)), but are not responsible for determining eligibility. ED attending orders an inpatient consult.

*Note: A hospital-at-home hospitalist (i.e., a hospitalist that is working in this program) may have been alerted to the patient's eligibility via the dashboard but may not have been the official consult called from the ED. This might be due to the consult being sent to the general medicine pool. In this case the hospital-at-home hospitalist will contact the original hospitalist consulted to transfer care.*

*The ED attending does not place an admission order or bed request order. The hospitalist confirms patient eligibility, completes an admission order, and completes a bed request order for the DRAH Acute Hospital Care at Home department.*

#### 2.1.2. Consulting hospitalist

Per current hospital workflows, the ED attending recommends inpatient disposition. If the patient is likely to be admitted to general medicine care, the ED attending consults the hospitalist for admission. The hospitalist will then confirm final eligibility for the program and consult case management to begin the [verbal home assessment](#).

If the patient is eligible, the hospitalist will assign the patient and place the bed request order.

#### 2.1.3. Patient care

Patients are treated and stabilized per standard of care in the ED. If IV infusions and medications are needed for the patient care plan, the first dose is provided in the ED. This dose is completed in the ED prior to transport. **BLS trucks do not allow for running IV infusions during transport.** The port can be maintained but must be closed during transport.

Patient's home medications are thoroughly documented prior to discharge.

#### 2.1.4. Patient education

If the patient meets enrollment criteria and the patient is interested in the program, the patient is informed about the program and provided a brochure by case management. [Click here for the brochure.](#)

#### 2.1.5. Initiating DHCH nursing care

As soon as the patient has consented, the case manager notifies Duke Home Care and Hospice (DHCH) of the eligible patient by direct phone call. They provide as much information about the patient as available.

The ED nurse calls the DHCH nurse to inform them that ED care is complete.

#### 2.1.6. Initiating transport

Once patient has been consented (by hospitalist team and service access) and enrolled in the program, the case manager contacts First Choice Transport Services (1-800-XXX-XXXX) for patient transport to their home.

All IV accesses must be closed prior to transport; they do not need to be removed.

*Note: The Physician Certification Statement (PCS form) is not required. It typically informs BLS transport's insurance claim but, for these patients, the bill will be sent to DRAH.*



### 2.1.7. Patient decompensation

[Patients who decompensate](#) in their home will be brought to DRAH by EMS and guided to the assigned bed in the hospital by available staff. If the patient must visit the ED, the hospitalist team will notify an OA and the ED team about the arrival of this patient ahead of time.

If the patient is returning to the hospital from deterioration due to a medical condition that is not their primary condition for “hospitalization” (e.g., myocardial infarction), then the ED will treat this patient as a typical EMS patient.

## 2.2. Basic flow of care services

1. ED care team and case management is aware of potentially eligible patient due to dashboard.
2. Patient is assessed and stabilized by the ED attending and ED care team.
3. ED attending consults the hospitalist.
4. Hospitalist confirms initial medical eligibility and contacts case management.
5. Case management confirms demographic eligibility.
6. Hospitalist finalizes medical eligibility and seeks consent.
7. Hospitalist ensures Room Service is contacted if the patient requested meals.
8. ED care team contacts Duke HomeCare and Hospice, completes care, orders BLS transportation for patient, and closes all IV accesses (but does not remove them unless medically necessary).

## 2.3. Checklist for ED Nurse

- ED nurse will be informed by the program hospitalist in person in the ED
- ED RN will confirm the correct patient and patient home address
- If an IV infusion is needed, an ED nurse administers the first dose in the ED
- ED RN asks the patient if they would like the hospital to provide their next dinner and breakfast. If yes, shares food menu with the patients.
- The case manager (or ED nurse) communicates the patient transport estimated time of arrival to the patient.
- The First Choice Transport vehicle should arrive within 60 minutes of the case manager’s call.
- The ED nurse and First Choice Transport prepare the patient for transport. This includes saline locking IV accesses as needed.

### NOTE:

- The patient keeps the same arm band, because they will keep the same MRN and CSN.
- ED nurse ensures all patient IV medications are completed and IV access is locked prior to transport. They should **not** be removed. (BLS transport does not allow for running IV infusions during transport).

## 2.4. Available Tools

### 2.4.1. Tableau dashboard

The dashboard is monitored by the care team for patients that pass primary eligibility for enrollment into the program. Criteria that are included in this dashboard include: patient home (zip code within 5 miles of DRAH), insurance status (Medicare), and chief complaint. [Click to](#)



[access dashboard \(Must be logged into Duke network and have permission to access\).](#)

The dashboard may send hourly alerts about patient eligibility during the patient eligibility window. From 7-9am, the physician will be notified of all eligible patients, and between 9am and 2 pm the physician will be notified if an eligible patient has arrived in the last hour.

## 3. Case Management

### 3.1. Roles and responsibilities

#### 3.1.1. Confirmation of patient eligibility

Once consulted by the hospitalist, case management refers to the [Tableau dashboard \(Must be logged into Duke network and have permission to access\)](#) and confirms patient home location (within 5 miles of DRAH), insurance status (Medicare), and other preliminary eligibility criteria.

#### 3.1.2. Home assessment: Verbal interview

Once consulted by the hospitalist, case management performs a verbal home assessment in the ED prior to patient enrollment into program. The purpose of this interview is to ensure that the patient's home is safe for the patient and care teams. The interview can be documented via the dot phrase .HOSPITALATHOMESAFETYASSESSMENT in MaestroCare. Case management may also utilize [this form](#) to check eligibility requirements and provide notes to the hospital at home care team.

The verbal assessment is confirmed by nurses during the first home visit (i.e., when the patient first arrives home). To avoid a patient returning to the hospital due to an unsafe home environment, a thorough verbal home assessment is critical.

*Note: From conversations with case management: Historically, verbal home assessments rarely differ from in-person assessments. Therefore, nurses will likely confirm eligibility of the patient. However, if major discrepancies exist between verbal assessment and in-person assessment, the patient will return to the hospital for care. Additionally, BLS transport services are skilled at assessing home environments and will help in the confirmation of home safety.*

#### 3.1.3. Care management during admission

Case management attends daily huddles. They communicate with the patient in their home via telephone.

#### 3.1.4. Durable medical equipment (including oxygen)

Case management orders durable medical equipment (DME), including oxygen, as needed for the patient and as determined by the care team from our DME partner. Our DME partner is Adapt Health.

### 3.2. Checklist for Case Manager

- Contacted by H@H Hospitalist about an eligible patient
- Communicate with the patient
- Confirm patient name
- Confirm patient address



- Confirm patient insurer
- Confirm patient home address is within 5 miles of Duke Raleigh Hospital
- Interview patient to complete the Case Management Screening and Initial Assessment. Convert assessment to a note.
- Interview patient to complete [a patient home assessment](#). Use the corresponding dot phrase is .HOSPITALATHOMESAFETYASSESSMENT within the Case Management's Initial Assessment Note.
- Share educational [DRAH Hospital at Home brochure](#) with the patient. This will be printed in available in Emergency Department offices and stations. If the case manager cannot find a copy in time for the patient visit, they should inform Kate Williams, Clinical Lead RN, and an ED RN will provide the brochure when they visit the patient
- Communicate eligibility criteria with the H@H Hospitalist that contacted case management
- Contacted by H@H Hospitalist and was informed of patient consent to the H@H program
- Call Duke Home Care and Hospice to inform them of the eligible patient and ask them for the contact information of the Home Infusion nurse to care for the patient in the home
- Contact [First Choice Basic Life Support \(BLS\) transport services](#) to arrange patient transportation. Call 1-800-XXX-XXXX.
- Complete transport paperwork
- If necessary, order durable medical equipment (DME), including oxygen, from [Adapt Health](#). Call 919-XXX-XXXX Monday-Friday 08:00 – 17:00.
- Call the DHCH nurse to tell them BLS' estimated arrival time
- Communicate the BLS ETA to the patient, ED nurse, and H@H Hospitalist
- Call in to daily Zoom huddles with the H@H care team

### 3.3. Available Tools and Services

#### 3.3.1. Tableau dashboard

The dashboard is monitored by the care team for patients that pass primary eligibility for enrollment into the program. Criteria that are included in this dashboard include: patient home (zip code within 5 miles of DRAH), insurance status (Medicare), and chief complaint. [Click to access dashboard \(Must be logged into Duke network and have permission to access\)](#).

The dashboard may send hourly alerts about patient eligibility during the patient eligibility window. From 8-9am, the physician will be notified of all eligible patients, and between 9am and 2 pm the physician will be notified if an eligible patient has arrived in the last hour.



## 4. Transport (BLS and EMS)

### 4.1. Roles and responsibilities

#### 4.1.1. Patient transport

Non-EMS transport services transport patients from the hospital to the home utilizing BLS vehicles. Patients will not have any medications running at the time of transport. Transport can transport any medications or paperwork from the hospital to the home.

#### 4.1.2. Home setup

Transport personal bring the patient to the patient bed in the home.

### 4.2. Ordering services

The ED care team calls the transport company to report a patient transport and to estimate time to arrival. The transport should arrive within 60 minutes of the call.

### 4.3. Company partners

Companies available in Wake County for BLS transport can be found [here](#). Currently, First Choice is the partner company. Call 1-800-XXX-XXXX to arrange transport. Currently the key contact is: [\\_\\_\\_\\_\\_@firstchoicemedicaltransport.com](mailto:_____@firstchoicemedicaltransport.com).

### 4.4. Billing

#### 4.4.1. Billing codes

A0428 for BLS transport  
A0425 for mileage

#### 4.4.2. Billing

The bill should be sent to DRAH, not to an insurer

### 4.5. EMS involvement

EMS provides transport from the patient home to the hospital if the [decompensation protocol](#) has been initiated. EMS is called via 911. They are aware of the program and our patient population. Upon arrival, EMS will conduct their own medical assessment. The patient and the provider will communicate direct admit status to DRAH to the EMS team. EMS will transport the patient to DRAH. A nurse or other individual will guide the EMS team to the patient bed in the hospital. [Click here for a workflow diagram](#).

## 5. Hospitalist

### 5.1. Roles and responsibilities

#### 5.1.1. Patient assessment in ED

The hospitalist is emailed alerts about eligible patients in the ED through the dashboard prior to official consult by the ED attending. They communicate with the hospital medicine team the patient's eligibility in the program. [Click to access dashboard \(Must be logged into Duke network and have permission to access\)](#).



When appropriate, the ED attending consults the hospitalist team per standard inpatient consult to hospital medicine. The hospitalist assesses the patient in the ED and confirms program eligibility ([Click here for criteria](#)). The hospitalist consents the patient using [this consent form](#), enrolling the patient in the program.

Patient's home medications must be thoroughly documented prior to discharge from the ED. Patients will be continuing these medications at home as previously prescribed.

*Note: The Physician Certification Statement (PCS form) is not required. It typically informs BLS transport's insurance claim but, for these patients, the bill will be sent to DRAH.*

#### 5.1.2. Daily huddles

At 8 AM and 4 PM each day, the hospitalist will lead a care team meeting to plan/assess the patients' care. The meetings will be a check-in to notify the team of any concerns, ask questions, and confirm that the logistics for the day are understood.

#### 5.1.3. Daily visits

Hospitalists visit patients once daily in their homes. They conduct physical assessments and make changes to the care plan as needed.

#### 5.1.4. Vitals monitoring

Patients are monitored using Duke Home Care and Hospice Medtronic devices. [Click here for information about Medtronic's Mobile Interview Platform](#). Staff personnel monitor these values during business hours and notify care team of concerns. Critical vital signs (24/7 service) should be communicated to the hospitalist by phone.

#### 5.1.5. Ordering medications

Hospitalists will review the patient's home medications and order those that should be continued. Any additional oral medications ordered by the Hospitalist will be added to that list. These orders are verified by the inpatient pharmacy and/or the Duke Raleigh ED pharmacist. A 24-hour supply of these oral medications will be dispensed from the Duke Raleigh Inpatient pharmacy each day. These will be unit-dose with barcodes from the manufacturer. Each drug will be placed in a vial with a Take-Home label on the outside.

Oral medication orders will include the notation for self-administration if the provider expects the patient to take their own doses without a nurse being present. With the initial visit with the Duke HomeCare and Hospice nurse in the patient's home, he/she will secure the patient's supply of medications to be released upon discharge from the program. As well, the nurse will review the medications to be taken in the home from the list from the Duke physician. The Duke Home Care and Hospice nurses will scan the barcode and document administrations on the Epic Medical Administration Record (MAR, the same available to Duke Hospitalists) for doses administered when he/she is present and record oral doses self-administered by the patient.

For IV medications, the first dose will be ordered as a one-time order for administration in the emergency department. An order will be entered into Epic for the ongoing IV administration in the patient's home. A prescription for IV antibiotics will be sent to Duke Home Infusion. A Duke Home Infusion courier will deliver the infusion medications to the patient's home. The Duke Home Infusion nurses will meet the patient at their home for administration and coordination of follow-up.



#### 5.1.6. Documentation

Patient care documentation occurs in EPIC, per typical inpatient standards and processes. DHTS will provide a secure laptop on which hospitalists and nurses can access EPIC (MaestroCare).

#### 5.1.7. Decompensation assessment

[Click here for protocol.](#)

Three paths:

- A. Concerns from the critical vital signs, or patient monitoring
- B. Concerns from the patient (communicated via mobile phone)
- C. Concerns from the provider (transport, nurse, or hospitalist).

Hospitalists involved with program are committed to 24/7 response. When concern about decompensation is raised, the hospitalist conducts a telehealth visit (or in-person visit if timing allows) to assess decompensation. If the patient is decompensating, then EMS is contacted via 911 for the patient to return to the hospital. Wake County EMS services is under contract with Duke University Health System, is aware of this program, and will be ready to arrive within 30 minutes of 911 initiation.

Triage for patient is determined by cause of decompensation, which the patient and/or the provider will communicate directly to the EMS team:

Decompensation due to worsening of primary health condition results in transfer back to the hospital. If the patient appears otherwise stable from the Hospitalist's assessment, the patient will be transferred to a med-surg or step-down bed. If the patient manifests a more serious decompensation, the patient will be transferred to the ICU. All transfers will include communications with the Operations Administrator and the receiving care team. On rare occasions, decompensating Hospital at Home patients may require an assessment and stabilization in the ED before appropriate bed placement is identified. Available hospital staff will guide the EMS team to the patient's assigned bed. The patient will not be transferred back to the home.

#### 5.1.8. Assessing changes in home safety

If the patient's home environment changes during their hospitalization from unforeseen circumstance (such as hurricane evacuations, power outages, internet outages, flooding concerns, etc.), the patient will be returned to the hospital via BLS transport or via EMS. Federal, state, local, and hospital guidelines and recommendations will be followed.

This would take place as a transfer from the hospital at home. The Hospital at Home should be considered an off-site unit/extension of the hospital.

### 5.2. Flow of care services

#### 5.2.1. Process Map

[Click here for a process map of hospitalist logistics.](#)

#### 5.2.2. Initial consult

The hospitalist is consulted by the ED attending for evaluation of patients that are likely eligible for the program.



#### 5.2.3. Assessing medical eligibility

The hospitalist conducts medical evaluation and confirms medical eligibility. ([Click here for criteria.](#)) The hospitalist then consults case management, who is aware of the patient (due to Tableau dashboard alerts and project training), to confirm home safety and demographic eligibility.

#### 5.2.4. Educating and consenting the patient

The hospitalist and ED nurse educate the patient on the details of the program. They are given education material. ([Click here for the brochure.](#)) If the patient agrees to enrollment in the program, they are provided the consent form and other paperwork. Digital COA/COT and HIPAA documentation will be provided by a Service Access Manager to and be completed by the patient digitally while they are in the Emergency Department.

Note: Separate RMD consent is not needed. IRB consent contains verbiage that already incorporates the needed information. [This is the consent form.](#)

#### 5.2.5. Enrolling the patient

Once the patient has been consented, the hospitalist will place admission and bed request orders. The hospitalist will confirm that RMDs have been set up and that an ED nurse has completed care, provided education, and contacted the DHCH nurse. The Case Manager will order transportation and confirm that transport paperwork is complete. Once the patient arrives at home and the first DHCH nursing visit has been completed, the hospitalist will contact the patient.

#### 5.2.6. Home care

When the hospitalist visits the patient in their home, they will assess the medical condition of the patient and confirm or modify the care plan. Documentation will occur in EPIC. Hospitalists will have portable laptops with them. The hospitalist will communicate any changes to the rest of the care team (e.g., nurses, other hospitalists).

#### 5.2.7. Consults

If consults to other specialties are required, hospitalists can place a telemedicine consult.

#### 5.2.8. Discharge

When the patient is medically ready for discharge, the discharge process begins. The hospitalist confirms discharge eligibility and communicates status to the rest of the care team. The hospitalist confirms the patient has follow-up scheduled with their primary care provider after discharge. The last provider (nurse or hospitalist) to see the patient confirms patient's medical status. This last provider will also give the patient their discharge/after-visit summary.

#### 5.2.9. Potential decompensation

The hospitalist role and responsibilities for patient decompensation are listed [above](#).

### 5.3. Checklist for Hospitalist (In the ED)

#### **DRAH Hospital at Home – Program Hospitalist Checklist**

- Check emails from [tableauserver@dhe.duke.edu](mailto:tableauserver@dhe.duke.edu). Links in this email will direct you to [the web app Alert System - DRAH H@H Patients Eligible in the ED](#). If you are on a Duke Health computer or on the Duke Health or Duke Medicine VPN, you may access it.
- Call the Doc of the Day and review the Hospital at Home eligibility criteria with them and ask them to alert you if they think they are learning of a possible H@H candidate.



- Consult with ED Attending, especially if you have noticed a patient on the [dashboard](#) is a candidate for the H@H program.
- Assess the ED patient's clinical eligibility for the program by reviewing the patient's chart
- Contact ED case management to request they begin a verbal home assessment with the eligible patient.
- Check for completion of the verbal home assessment (.HOSPITALATHOMESAFETYASSESSMENT) and speak with the case manager
- Visit the patient in the ED after the assessment indicates a safe patient home
- Assess the patient's program eligibility and perform the H&P
- Provide the patient with [program consent documentation](#)
- Confirm that a Service Access Manager provided electronic consent documentation (COA/COT, HIPAA for an inpatient admission)
- Contact case management and the ED clinical nurse lead to notify them of consent
- Place admission orders
  - Order one-time order for administration of first-dose IV infusion for administration in the Emergency Department ( if not already administered)
  - Reconcile patient home medications. Determine which should be continued
  - Send prescription for on-going IV antibiotics to Duke Home Infusion
  - Send prescription for infused medications (steroids, Lasix) to DRAH IP Pharmacy
  - Check with patient that they understand plan for home prescription medications to be sent to DRAH Pharmacy for storage during their home stay
  - Order labs in EPIC
- Admit patient to the DRAH Acute Hospital Care at Home unit (an Admit to Inpatient order, not a transfer order)
- Submit bed request for pool bed associated with DRAH Acute Hospital Care at Home unit
- If patient requested food service during their hospital at home stay, the hospitalist will notify Room Service to inform them that the patient will be receiving meals. They will call the Room Service program at 919-XXX-XXXX and provide the patient's address and mobile phone number and home phone.
- Call Bonnie Bass of Pharmacy to alert her that a patient is being admitted to the Hospital at Home Program
- Call Roy Hudson to alert him that a patient is enrolled.
- Contact the ED Case Manager. Inform them that the care plan is complete and that the patient has been admitted to DRAH Acute Hospital Care at Home.
- Contact ED RN to discuss preparatory care within the ED
- Confirm ED RN visit with the patient is complete
- Contact case management with request that they order transport for the patient to their home. Request the Duke Home infusion nurse contact information



- Attend afternoon H@H care team huddle at 4:00 PM
- Contact the patient via the Medtronic Omnivisor Pro application in Google Chrome. This is a televisit to test the Medtronic Platform and follow-up with the patient. You may contact the home infusion nurse or use the afternoon huddle to learn of the nurse visit's completion.
- Plan the next day's visit times with the patient and home infusion nurse.

## 5.4. Training

### 5.4.1. Remote monitoring devices

Project clinical lead (Dr. Aroumougame) coordinates with other hospitalists to receive demonstration and training from Duke Home Care & Hospice Telemedicine Nurse (currently: Angela Hammonds).

## 6. Nursing

### 6.1. Roles and responsibilities

*Nursing skills and competency comparisons for DRAH vs. DHCH nurses are found [here](#). This program will be utilizing DHCH nurses.*

#### 6.1.1. Home assessment and setup

The DHCH nurse arrives for their first visit at the home. They confirm the [verbal home safety assessment](#) that was conducted by case management, noting any major safety concerns. If the in-person confirmation differs from the verbal home assessment done with the patient in the ED and this difference is concerning to patient or provider safety, then the patient is not enrolled in the program. If they have already been transported to the home, then they are returned to the hospital for traditional hospital care by First Choice BLS transport. Setup care area: the DHCH nurse confirms patient care area is suitable and, with First Choice support sets up any equipment necessary to provide care (e.g., home care station).

DHCH nurse sets up care area in patients' home to accommodate equipment and ease of movement for patient and caregiver.

#### 6.1.2. Physical assessment

DHCH nurse completes patient's screenings and completes the head to toe assessment, documenting in EPIC.

#### 6.1.3. Vitals monitoring

Performs vitals check at the beginning of each visit to determine patient status. The [Medtronic's Mobile InterView Platform](#) includes devices for monitoring vitals in the home. Vitals the platform monitors include pulse, pulse oximetry, blood pressure, and weight. (Temperature will be measured by a separate thermometer). Patients will be instructed to connect to the devices for vital sign monitoring at 3 other pre-determined times for ongoing determination of the patient's condition. If there is a concern for decompensation, nurses will follow the [decompensation protocol](#). Significant changes in vital signs will be communicated to program hospitalists by phone (24/7 service). The program hospitalist will also monitor these values and notify care team of concerns.



#### 6.1.4. Medication administration

[Click here for process map of logistics.](#)

Administer medications using the MAR. The **DHCH nurse** will scan the barcode and document administrations on the MAR for doses administered when he/she is present. The DHCH nurse will also document meds the patient self-administered (method TBD).

IV medications: IV infusions are given in the home using home infusion pumps provided by Duke Home Care and Hospice. Typical piggyback infusions usually use Accuflo, minibag, or IV push.

Nurses remain for the duration of the IV infusion.

*Note: Duke Raleigh Pharmacy and Duke Home Care and Hospice Nursing representatives will meet to review the medication together prior to administration.*

Oral medications: The program hospitalist will have reviewed all medications and ordered all necessary medications with a note about those that the patient can self-administer. All oral medications are supplied by DRAH inpatient pharmacy. Oral medications are given according to schedule and many will be self-administered. When the DHCH nurse visits, they will review the medication orders in Epic, speak with the patient, and document those that were taken in the MAR.

#### 6.1.5. Laboratory orders

Nurses draw blood, collect urine, etc. according to orders placed in EPIC. They store the samples in a temperature-controlled box/cooler (part of [toolkit](#)). Lab orders to expect include basic metabolic panels (BMP), comprehensive metabolic panel (CMP), hepatic function panel (HFP), complete blood counts (CBC), urine analysis, and coagulation studies. They deliver samples to the DRAH laboratory. See [below](#) for other details.

#### 6.1.6. Wound care

Patient wound care is provided as appropriate. Supplies are available in the [toolkit](#).

#### 6.1.7. Documentation

Patient care documentation occurs in EPIC, per typical inpatient standards and processes. The nurse uses a secure laptop sourced from Duke Health Technology Services (DHTS).

#### 6.1.8. Discharge

Hospitalist informs the nursing staff of patient's discharge eligibility. Nursing staff conducts final discharge education and provides discharge summary/AVS if he/she is the last provider to see the patient. The nurse discharges the patient. All equipment is collected at this time and brought back to the hospital.

#### 6.1.9. Supplies

Nursing supplies are in a ready-to-go [toolkit](#). They will be stored in DRAH Medical Building 1, Room 203. Visit the [DRAH Mobile Office Building 1 MOB1 Suite 203](#) room to collect the replenished [toolkit](#), pharmacy medications (non-antibiotic IVs), and labs. A specimen label printer will be available within the DRAH MOB1 Suite 203 room. Drive to the patient's home with a VPN-supported secure laptop sourced from Duke Health Technology Services (DHTS), Rover scanning ability, and the collected equipment.



#### 6.1.10. Assessing changes in home safety

If the patient's home environment and safety (for patient or staff) changes during their hospitalization, the nurse will notify the care team. The patient will be returned to the hospital via BLS transport or via EMS.

### 6.2. Estimated time for travel, visits, and preparation

*Note: The following section was determined with DRAH nurses in mind. These numbers might vary for Duke Home Infusion nurses.*

#### 6.2.1. Travel

Travel time one-way from the hospital is at most 15 minutes. Patient enrollment requires that patients live within 5 miles of the hospital (zip codes = 27609, 27608, 27607, 27606, 27604, 27603, 27601, 27610).

#### 6.2.2. Travel reimbursement

Nurse travel will be covered by Duke Home Care and Hospice. Hospitalists will track driving time and miles according to DRAH policy.

#### 6.2.3. First visit

The first visit will likely 1-2 hours.

Breakdown:

- Confirm verbal home assessment done by case management (est. time = 10 minutes).
- Set up of RMDs and care area (est. time = 10 minutes).
- Set up of infusion/IV pumps (est. time = 10 minutes).
- Provide care (med admin, blood draw, wound care) (est. time = 60 minutes).
- Factors that may change times include: travel time for patient to home (Nurses will likely leave the same time transport leaves from the hospital, but there may still be some discrepancies), IV infusion protocols (Nurses may or may not need to stay for the length of the IV infusion pump), and if the patient needs further education and training in the home.

#### 6.2.4. Continuing care visits

These visits will likely take about 1 hour each.

Breakdown:

- Provide care (blood draws, wound care, and medication administration) (est. time = 60 min). Nurses should stay for entire course of IV infusion.
- Patients may have other needs that require being addressed (est. time = 10 minutes).

#### 6.2.5. Discharge visit

This visit will likely take less than 1 hour.

Breakdown:

- Provide final care (blood draws, wound care, and medication administration) (est. time = 20 minutes).
- Patients may have other needs that require being addressed (est. time = 10 minutes).
- Retrieve devices and other equipment (est. time = 15 minutes).
- Final education and questions (est. time = 15 minutes).
- If last provider to see patient, then give patient their discharge/after-visit summary. This should be printed prior to departure from hospital.

#### 6.2.6. Pre-encounter preparation and post-encounter processing

Pre-encounter preparation time will vary from 10-20 minutes.

- Collect supplies.



- Print labels for lab work.
- Collect medications.

Post-encounter processing time will vary from be 10-20 minutes.

- Deliver blood work to lab.
- Drop off medication bag.
- Write patient notes.

*Note: These estimates do not include travel time to and from DRAH.*

## 6.3. Training

Care provider groups will be introduced to the program via 30-minute virtual Zoom meetings.

DHCH nurses will be given EPIC training. This includes online modules, in person classes, and/or floor time with DRAH nurses. The EPIC training should take about 8 hours + floor time.

Monitored practice sessions with EPIC and case scenarios will be offered. Open-hours periods will be offered through virtual Zoom meetings.

At least one DHCH nurse is requested to join an Informatics Nurse in a technical dress rehearsal, which will include a check of printers and demo labels in [MOB1 Suite 203](#); log-ins, AVS prints, arm band prints, and reports checks on DRAH 4<sup>th</sup> floor, and tests of equipment and devices.

All care providers will join a virtual “round table” workflow rehearsal. The care providers will talk through the workflow script from admission to discharge. Specific events to review include patient identification, enrollment, discharge, and decompensation.

## 7. Pharmacy

### 7.1. Roles and responsibilities

[Click here for process map of logistics.](#)

#### 7.1.1. Medication confirmation

Pharmacy verifies correct medication and dosage.

#### 7.1.2. Medication dispensing

Duke Hospitalists (employees) will review the patient’s home medications and order those that should be continued. Any additional oral medications ordered by the Hospitalist will be added to that list. These orders are verified by the inpatient pharmacy and/or the Duke Raleigh ED pharmacist. A 24-hour supply of these oral medications will be dispensed from the Duke Raleigh Inpatient pharmacy each day. These will be unit-dose with barcodes from the manufacturer. Each drug will be placed in a vial with a Take-Home label on the outside. Oral medication orders will include the notation for self-administration if the provider expects the patient to take their own doses without a nurse being present. With the initial visit with the Duke HomeCare and Hospice nurse in the patient’s home, he/she will secure the patient’s supply of medications to be released upon discharge from the program. As well, the nurse will review the medications to be taken in the home from the list from the Duke physician. The Duke Home Care and Hospice nurses will scan the barcode and document administrations on the Epic Medical Administration Record (MAR, the same available to Duke Hospitalists) for doses administered when he/she is present and record oral doses self-administered by the



patient. For IV medications, the first dose will be ordered as a one-time order for administration in the emergency department. An order will be entered into Epic for the ongoing IV administration in the patient's home. A prescription for IV antibiotics will be sent to Duke Home Infusion. A Duke Home Infusion courier will deliver the infusion medications to the patient's home. The Duke Home Infusion nurses will meet the patient at their home for administration and coordination of follow-up.

### 7.1.3. ED workflow

- A. Checks medications and dosage, assesses oral vs. IV
- B. Verifies doses for the next 24 hours and dispenses a 24-hour supply.
- C. Manually prints labels for medications. Medications are unit-dosed with barcodes from the manufacturer.
- D. Tech prepares and retrieves IV (vials, except for IV antibiotics) and oral medications.  
Applicable medications will be placed in a vial or bag with a Take Home label on the outside.

## 8. Food services

### 8.1. Roles and responsibilities

#### 8.1.1. CMS Application Statement

The patient's meal and nutritional resources will be assessed by Duke Raleigh Hospital case management during the initial patient assessment. The patient and caregiver may choose to provide meals for the patient, with consultation from the Duke nutritionist (employee). The patient will then utilize their own food supply for their meals. Duke HomeCare and Hospice dietary services will also assess the patient's nutritional needs. If the caregiver cannot provide regular meals or prefers meals be provided, Duke Raleigh Hospital food services will prepare and deliver a daily package of 2-3 meals to the patient home.

### 8.2. Flow of care services

#### 8.2.1. Meal ordering

1. When it is determined that a patient will be participating in the hospitals at home program and has elected to receive meals, they will be provided with a Room Service menu by the ED nurse.
2. The hospitalist will notify RS to inform them a patient will be receiving meals by calling the Room Service program at 919-XXX-XXXX and provide the patient's address and mobile or home phone number.
3. The call center operator will add the patient's phone number to the Room Services Notes field and will notify the supervisor that a patient has enrolled in the program.
4. While at the hospital, the supervisor will contact the patient for their lunch meal (if applicable) and dinner as well as the following day's breakfast, lunch, dinner and next-day breakfast.
5. The current day lunch, dinner and following day's breakfast will be delivered to the patient's home by courier. The following day's lunch, dinner and subsequent breakfast will be prepared that evening for transport by courier.
6. The supervisor will continue to call the patient daily between the hours of 2 pm and 4 pm to obtain their meals selections for lunch, dinner and breakfast.



## 8.2.2 Meal Preparation

1. Meal kits will include: instructions for safe food storage and instructions for safe food heating along with communication the importance of following their prescribed diet while at home.
2. All meals will be labeled with the following:
  - a. Patient Name
  - b. Date Meal is prepared
  - c. Date and Meal is to be consumed. For example, 1/26/21 Lunch
  - d. If the items needs to be stored below 0 F, between 0 F and 41 F.
  - e. Reheating instructions.
3. All meals will be ordered through our room service program. Diet order, allergens and supplements are interface to this system and will be strictly adhered to.
4. Meals will be prepared and stored in an approved nutrition services or café refrigerator.
5. Nutrition Services will arrange safe transport of meals to the patient's home by courier.

## 8.2.3 Clinical Nutrition

1. The Clinical Dietitian (RD) will follow all inpatient policies for the nutritional care of the patients participating in the Hospitals at Home program.
  - i. The Home Health RN will complete the inpatient Nutrition Screen in the Screening Flowsheet to determine if a more in-depth nutritional assessment is required by the RD. If the patient meets criterial a nutritional assessment, this will be completed within the policy guideline of 2 days.
  - ii. Any provider may also consult the RD for nutritional assessment within one day.
2. The RD will complete their nutritional assessments and make recommendations for the nutritional care of the patient through video visit using the Medtronic's Mobile InterView Platform.
  - i. May phone patient if necessary.
3. After the nutritional risk is determined, the patient will be followed up utilizing the same inpatient policy standards as long as they remain an inpatient on this program.

Note: RDs will need training on video visit protocol.

# 9. Laboratory and Radiology

## 9.1 Ordering, collecting, and processing labs

[Click here for process map of logistics.](#)

1. Hospitalist places order for blood work, urine sample, etc.
2. Nurse prints labels for lab work and confirms appropriate equipment is in the [toolkit](#) (more details below).
3. Nurse travels to patient home, provides appropriate care, and collects labs as indicated.
4. Nurse stores blood work (and other labs) in cooler (more details below).
5. When Nurse returns to the hospital, he/she delivers the blood work to the DRAH laboratory office (located on the main floor of the hospital).
6. Results will be available in EPIC.



## 9.2 Lab Equipment

Nurses will have a [toolkit](#) available to them that contains the needed equipment for lab work. The toolkit contents can be found in [here](#).

## 9.3 Lab Storage

Nurses will have a cooler with ice packs for storing lab work (part of [nursing toolkit](#)). Lab work should be returned within 2 hours of being placed on ice.

## 9.4 Radiology

Ordering of imaging studies is directly with the contracted company, not through EPIC. The company, as of January 2021, is National Mobile. Reports from outside radiologists will be scanned into the system. Image storage will be through Power Share, with a similar process used for outside images from other sites. Program hospitalists can have them reviewed with DUHS radiologists as needed.

Contracting is being done through Bill Trofi from DUHS, to complete BAA and other necessary contractual agreements. The contracted company will bill DRAH directly, not the payer. (We have only one payer, CMS, and they will use a bundled payment for the DRG.) The contracted company is licensed and accredited, standard practice for obtaining a BAA with DUHS.

# 10 Technology Team (Pilot Preparation)

## 10.1 Laptops and Hotspots

### Procurement

Prior to pilot kick-off: DHTS contacted Asset Management (AM) team. 3 laptops were ordered. 3 hotspots will be ordered. Laptops will be delivered within a few days directly to DRAH. The AM Team does not have hotspots on hand (like they do the laptops) and will need about 1-2 weeks to obtain them. VPN services need to be setup after the laptop is obtained. Each team member who is planning to use the laptops must sign into the computer while on the Duke network for proper configuration.

## 10.2 Data flow *This section is pending further conversation with the EPIC build team.*

**Patient Class:** Inpatient

**Unit:** DRAH Acute Hospital Care at Home

The program hospitalist must place an Admit to Inpatient order (not a transfer order), as is required to set the patient class appropriately.

The patient's admission process will follow the same process as a patient admitted to a unit in-house. Documentation processes will follow the same processes as a patient admitted to an inpatient unit in-house. Vitals taken on Medtronic Remote Monitoring Devices and oral medications taken when a care provider is not present will be reviewed with the patient and documented in Epic. Self-administration of oral medication was approved through application for the CMS Acute Hospital Care at Home waiver.

If the program hospitalist determines a need to transfer the patient to a different unit at DRAH (not DRAH Acute Hospital Care at Home unit), they will enter a transfer order. The patient would arrive by EMS transport and the program hospitalist will verbally communicate about the



transfer with ED and Service Access staff. An inpatient transfer would not show up as an Expected patient.

If no beds are available, the patient will need to transfer to the ED as a boarder patient

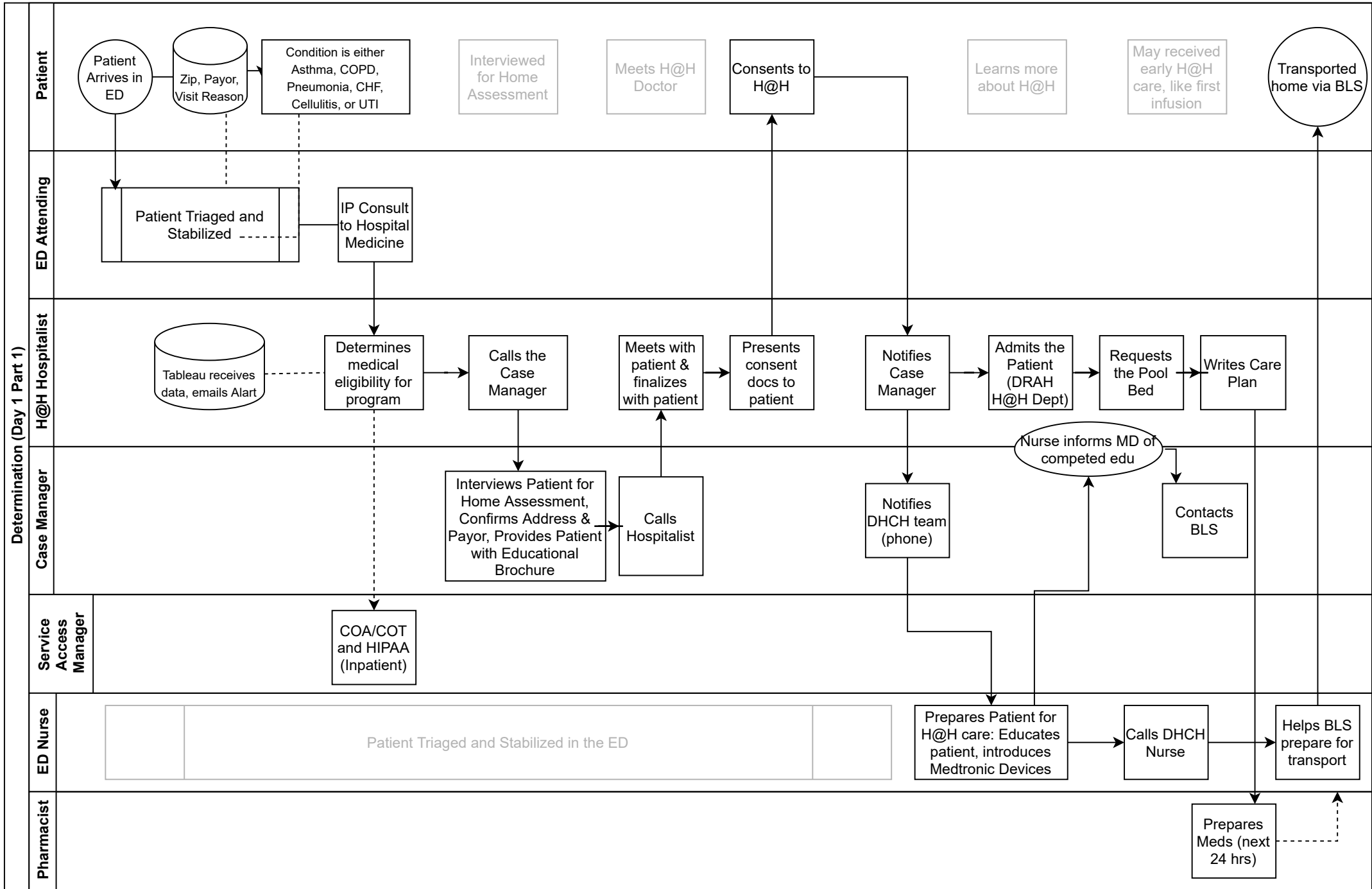
- Look up the patient in “Patient Station”
- Select the patient and select “Transfer”
- Use the existing bed request created from the transfer order
- Complete the transfer to the available ED room
- Patient will display on the ED Track Board and ED Manager

The program hospitalist will create a discharge summary and discharge order. The DHCH nurse will discharge the patient.

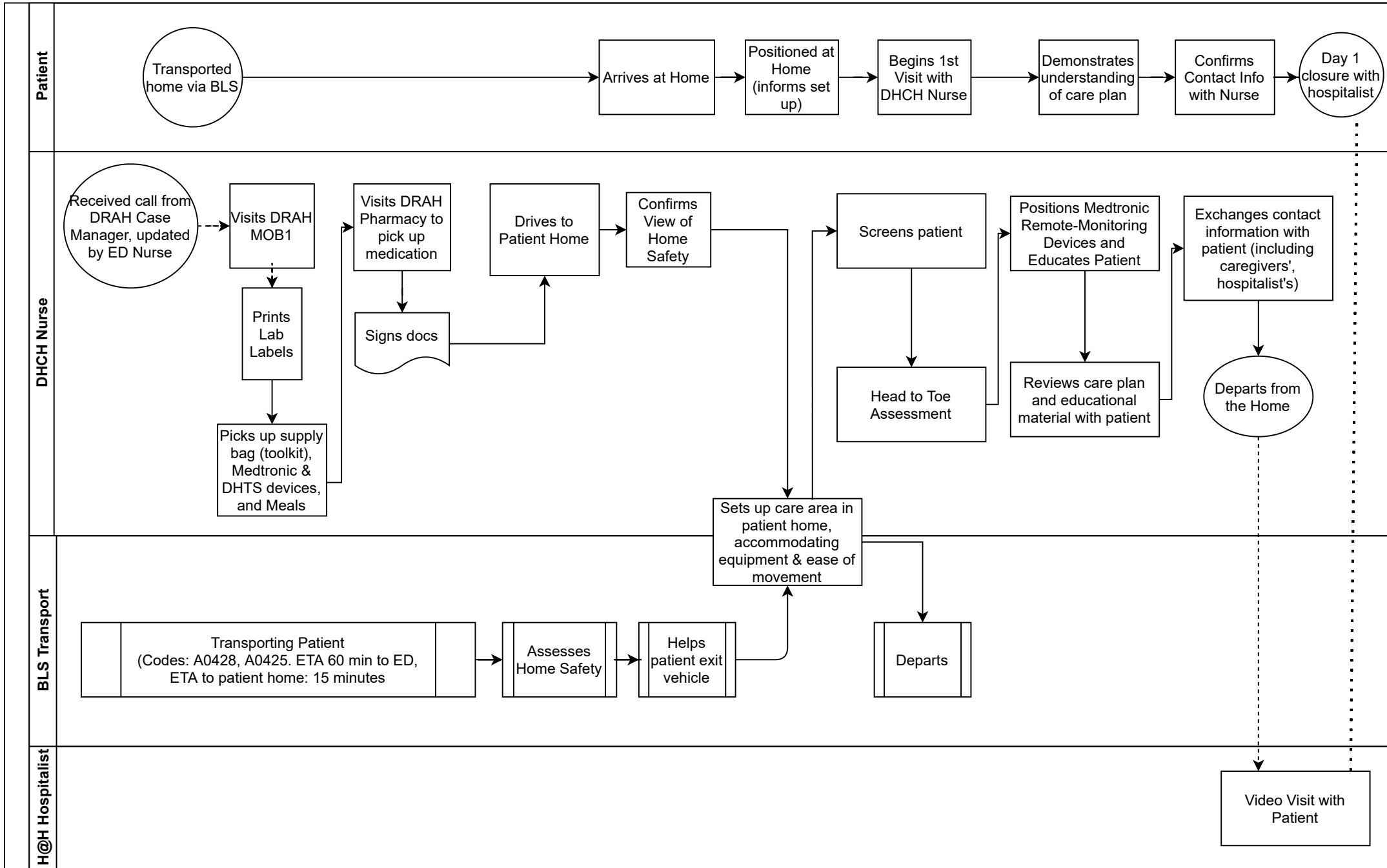


# APPENDIX

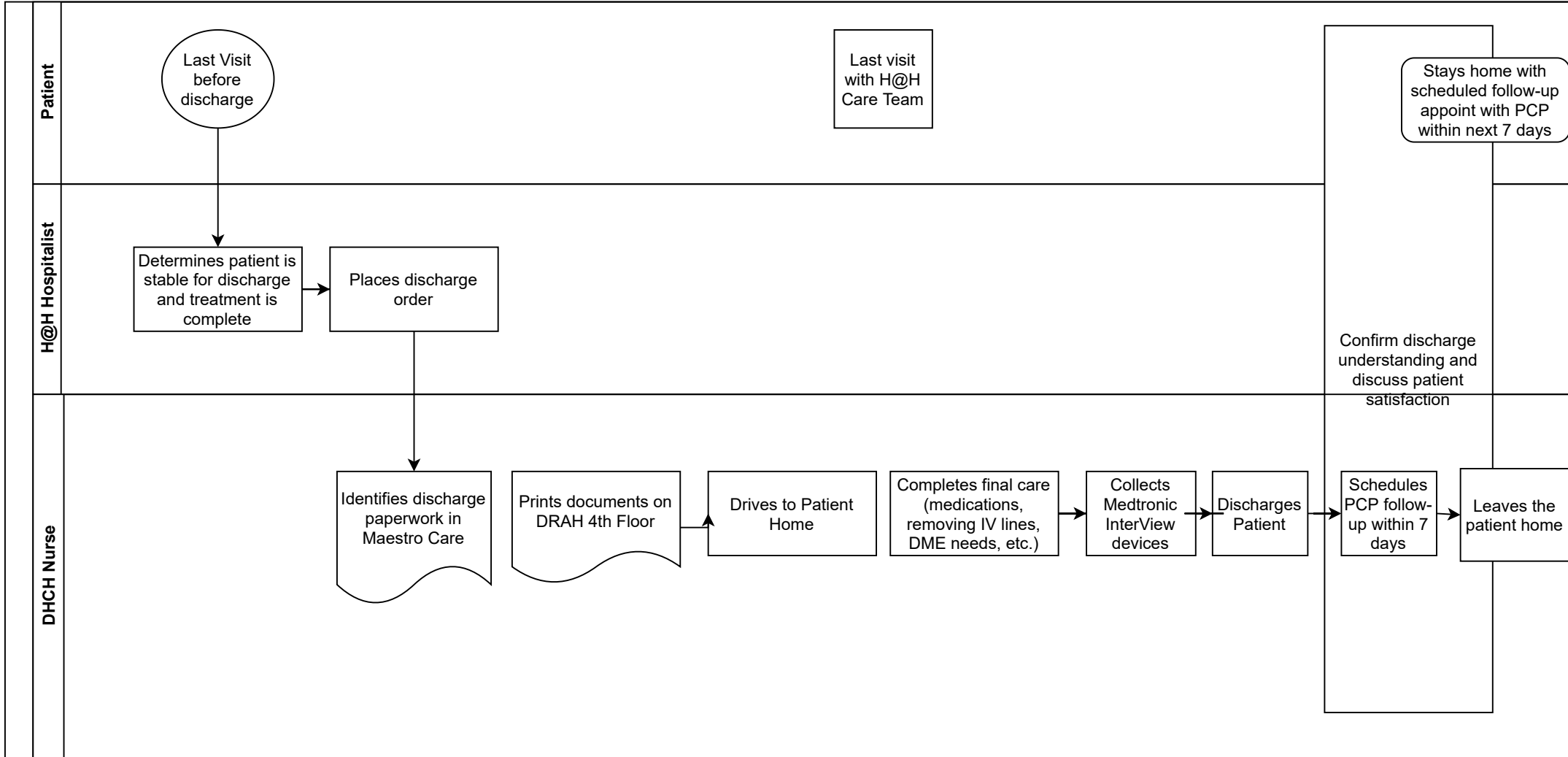
# Day 1 (In the Emergency Department)



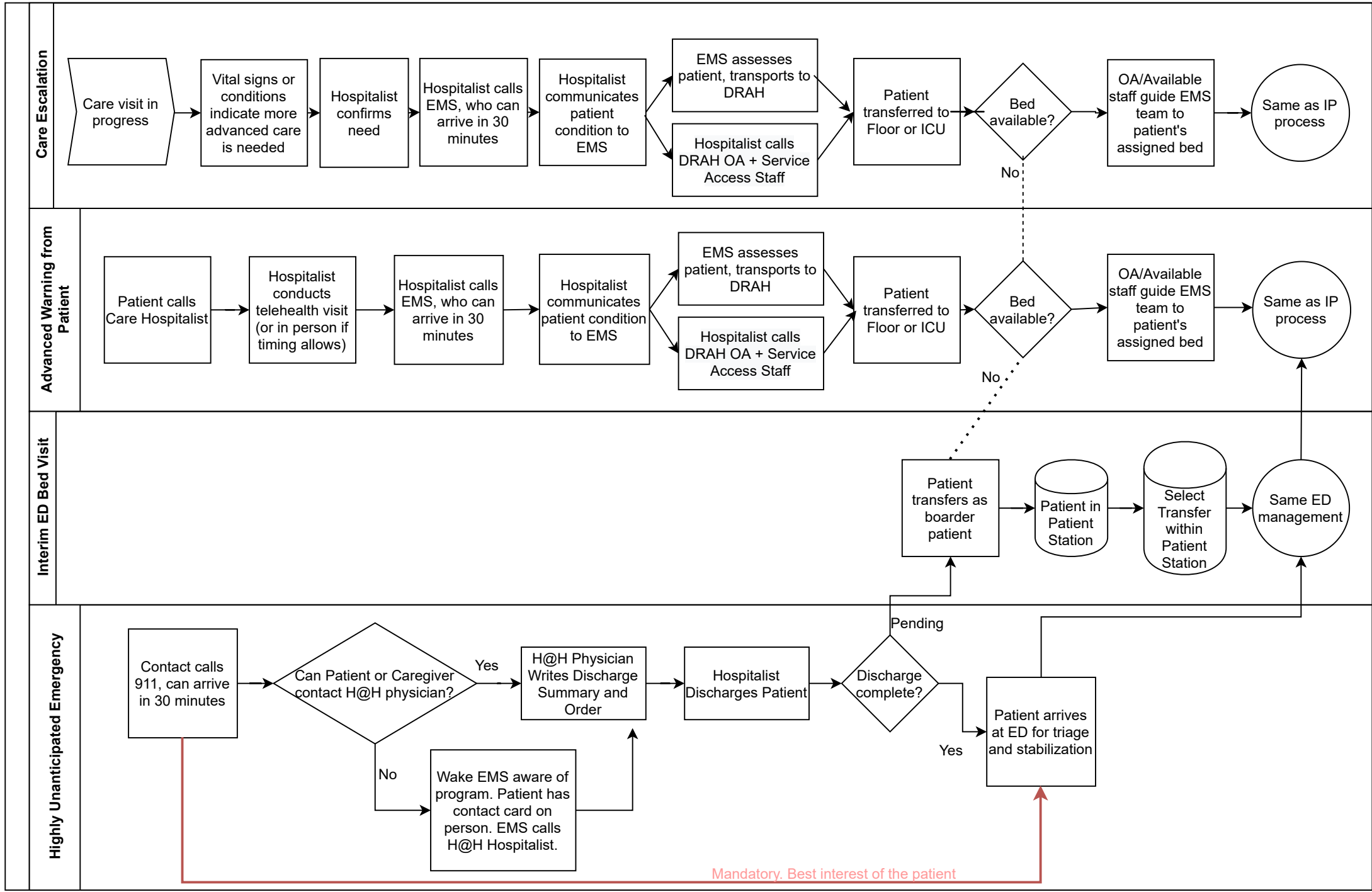
# Day 1 (ED to Home)



# Day of Discharge



# Return to DRAH





## Department and/or Facility Service Request Form

(for requests to create/edit/delete departments, locations, and/or points of service)

The purpose of this form is to gather as much information as possible to facilitate the Maestro Care preparation for any new departmental and/or facility records. Please complete all required fields to the best of your ability in accordance with the grid below. Failure to fill out the form completely may result in a delay in approving the request. This completed form needs to be submitted via Service Now: [Service New DEP Request Link](#)

Requestor / Department Contact Information
<b>Requested By:</b> Dr. Vidhya Aroumougame <b>Project Manager:</b> William Knechtle <b>Phone Number:</b> XXX.XXX.XXXX <b>Email Address:</b> xxx@duke.edu
<b>Other department contact info: (name / telephone/email)</b> <ul style="list-style-type: none"> <li>HCA/Unit Manager: Dr. Vidhya Aroumougame</li> <li>Service Access Manager (<b>Required</b>): Joseph Franklin</li> <li>PDC or DUHS Revenue Manager (<b>Required</b>): Kim A. Parks, MBA, CRCR; Neil Kinard</li> <li>Senior Leader/Administrator: Dr. Michael Spiritos</li> <li>Inbasket Pool Manager: <a href="#">Click here to enter text.</a></li> <li>Other: <a href="#">Click here to enter text.</a></li> </ul>

Request Overview							
<b>Short Description:</b> Hospital Inpatient Department for care of patients in their local residence							
<b>Date Requested:</b> 12/4/2020			<b>Date Needed:</b> 1/22/2021				
<b>Priority:</b> <input type="checkbox"/> Normal <input checked="" type="checkbox"/> High							
<b>Comment:</b> Duke Institute for Health Innovation Innovation Award. CMS Acute Hospital Care at Home Waiver. Developing acute hospital care at home is a priority across Duke University Health System.							
Type of Request:	Lead time	Sections to complete					
		1	2	3	4	5	6
<input type="checkbox"/> Clinic Acquisitions or Community Connect	120-180 days	X	X	X	X		
<input type="checkbox"/> New ASC-Ambulatory Surgery Center (Optime) or IDTF-Independent Diagnostic Testing Facility (Radiant) Location	120-180 days	X	X	X	X	X	
<input type="checkbox"/> New Surgery (Optime) Clinic/New Location	120 days	X	X	X	X	X	
<input type="checkbox"/> New Clinic/New Location	90 days	X	X	X	X		
<input checked="" type="checkbox"/> New/Reconfiguration of Inpatient Unit/HOD*	90 days	X	X		X	X	
<input type="checkbox"/> New Clinic Specialty/Existing Location	60 days	X	X	X	X		
<input type="checkbox"/> Charge Only for Manual Charge Entry or Virtual Department for Appointment Arrival/Cash Management (No Other Build Needed)	3 weeks	X	X		X		
<input type="checkbox"/> New Facility (EAF) record/location only	3 weeks				X		
<input type="checkbox"/> Departmental minor information update only (name, cost center, specialty. Note: revenue location changes require a new DEP)	10 days	X					
<input type="checkbox"/> Facility / Department Record Inactivation Request	10 days						X



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**\* Note:** when reopening or reusing a department, a new department (DEP record) must always be created unless there is no change in cost center, bill area, specialty, revenue location, patient age population, or street address and there is not a significant name change that might confuse historical views of a patient's record

### Complete Description of what is being requested and why:

Hospital Inpatient Department for care of patients in their local residence. Daily Hospital Internist house calls and related nursing care will be provided to UTI, cellulitis, asthma, COPD, pneumonia, and heart failure patients through a 2020 Innovation Award from the Duke Institute of Health Innovation. We are submitting a waiver application to the CMS Acute Hospital Care at Home program. This department is requested because it is necessary for continuity of general medicine care, monitoring, and documentation while the patient is in their local home (within 5 miles of DRAH) for an estimated three to five days. The Hospital Internist team plans to provide treatment the patient would normally receive in an inpatient setting. Patients requiring imaging or escalated care would return to DRAH.

### Section 1 – Department Service Request Information (to be completed by submitter)

This section must be completed for all changes except deletions and facility-only changes

Department Name: (DEP item # .2 used for login) – maximum 32 characters

- New name (*required*): DRAH ACUTE HOSPITAL CARE AT HOME
- Old name (*if renamed*): n/a

Abbreviation: **DRAH HAH**

(DEP item # 40) – maximum 12 characters; displays on labels and internal reports

Synonyms: **Home Hospital, HAH**

(DEP item # 45)

External Name (used in patient letters, MyChart and marketing): **DRAH Acute Hospital Care at Home**

(DEP item # 101)

Alternate (Billing) Name (used for provider enrollment, building signage, and claims): **Duke Raleigh Hospital**

(DEP item # 20013)

Specialty (each specialty requires a separate department. Department specialty is a column in Chart Review):

**Inpatient**

(DEP item # 110)

### Address Information (used for Marketing/Patient Communication/Way-finding)

Address: **3400 Wake Forest Rd**

(DEP item # 400)

Additional Address Information for Way Finding (e.g., Suite Number or Clinic 2F/2G or 3<sup>rd</sup> Floor):

[Click here to enter text.](#)

(DEP item # 400-lines 2, 3, etc.)

If Doing Business As (DBA): [Click here to enter text.](#)

City: **Raleigh**

(DEP item # 405)

State: **North Carolina**

(DEP item # 410)

ZIP Code: **27609-7317**

(DEP item # 415)

County: **Wake**

(DEP item # 420)

Office Phone: **518.542.6669**

(DEP item # 150)

Office Fax: [Click here to enter text.](#)

(DEP item # 141)

Appointment Phone Number (for reminders/confirmations):

(DEP item # 5060)

Is this a new building or one that PDC or DUHS has taken over as a major occupant?:  No  Yes

If yes, will other Duke of Duke Affiliated clinics also occupy the building now or in the near future?

No  Yes, please explain: [Click here to enter text.](#)

### Alternate Address Information (used for provider enrollment, building signage, and claims )

Address: **3400 Wake Forest Rd.**

(DEP item # 20400)



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<b>Suite Number:</b> (Include Suite Number if PDC/CPDC Clinic or if Building is shared with non-DUHS entities or if Suite is separately identified by the US Postal Service): <a href="#">Click here to enter text.</a> <small>(DEP item # 20400, line 2)</small>	
<b>City:</b> Raleigh <small>(DEP item # 20410)</small>	<b>State:</b> North Carolina <small>(DEP item # 20420)</small>
<b>ZIP Code:</b> 27609-7317 <small>(DEP item # 20430)</small>	
<b>Current Address Information (For Address Updates (errors) or Suite Number Changes if Moving within the Same Building)</b>	
Current Address: <a href="#">Click here to enter text.</a>	
Current City: <a href="#">Click here to enter text.</a>	State: North Carolina
Current ZIP Code: <a href="#">Click here to enter text.</a>	Current County Wake
Current Office Phone: <a href="#">Click here to enter text.</a>	Current Office Fax: <a href="#">Click here to enter text.</a>
<b>Basic Information</b>	
<b>Department Entity:</b> <input type="checkbox"/> PDC <input type="checkbox"/> CPDC <input type="checkbox"/> DPC <input type="checkbox"/> HBC <input type="checkbox"/> DASC <input type="checkbox"/> OSH (Outside, non-DUHS Hospital) <input type="checkbox"/> DUHS <input type="checkbox"/> DUH <input type="checkbox"/> DRH <input checked="" type="checkbox"/> DRAH <input type="checkbox"/> UNIV <input type="checkbox"/> Community Connect <small>(Report Groupers 7 (item #4306) and 10 (item # 4309))</small> Comment: Patient location will be the home	
If Hospital-Based department, what Hospital?: <input type="checkbox"/> DUH <input checked="" type="checkbox"/> DRAH <input type="checkbox"/> DRH <input type="checkbox"/> DASC	
Is there an existing department with a similar clinical workflow that can be used as a model for clinical build? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes, please list the department: <b>DRAH 4TH FLOOR NURSING UNIT</b>	
Should this department be setup as a Hospital Outpatient Department (HOD) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <small>(DEP item #'s 7050, 24600, 24605, 24617, 24626)</small> <ul style="list-style-type: none"> <li>HODs are outpatient departments from which patients are frequently admitted.</li> <li>Appointments in a HOD can be converted into a hospital inpatient encounter or the chart for the HOD can be redirected to the chart of an existing active admission.</li> <li>HOD appointments use unique inpatient navigators and tools</li> </ul> Note: All <b>Radiology</b> DEPs are set up as HODs.	
Is there an existing department with a similar clinical workflow that can be used as a model for clinical build? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, please list the department: <a href="#">Click here to enter text.</a>	
<b>Service Access</b>	
Patient Age Range: <b>18-110</b>	
Accepting Chronic Infectious Disease Patients?: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Accepting Medicaid for Pregnant Women?: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Enrolled as Carolina ACCESS PCP Clinic?: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
Will department share check-in Staff with another department? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	
If Yes, what DEP(s): Comment: Department requested here will follow registration in the DRAH ED	
Who is responsible for updating registration, guarantor, coverage, and authorization information <b>before</b> billing? (example: REG, Pre-reg, FCC, and Estimates work queues) <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Service Access (PRMO) <input type="checkbox"/> Clinic Staff <input type="checkbox"/> Other	
Subtasks are automatically created for Reg, FCC, and Pre-reg and Reg Claim Edit work queues; if other custom patient work queues are needed, e.g., estimates work queue, submit a separate ServiceNow request once the DEP has been created and direct it to Maestro Care-Service Access Operations.	
<b>Clinic Pool Management</b>	



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What type of Clinic Communication Pools are needed and who will manage? (check all that apply)

- |  |  |
|--|--|
| <input type="checkbox"/> Anti-Coag Manager: <a href="#">Click here to enter text.</a>          | <input type="checkbox"/> Referrals Manager: <a href="#">Click here to enter text.</a>              |
| <input type="checkbox"/> Electronic Refills Manager: <a href="#">Click here to enter text.</a> | <input type="checkbox"/> Triage Manager: <a href="#">Click here to enter text.</a>                 |
| <input type="checkbox"/> Front Desk Manager: <a href="#">Click here to enter text.</a>         | <input type="checkbox"/> Lab (only applies to LabCorp Clinics doing their own collection) Manager: |
| <input type="checkbox"/> Providers Manager: <a href="#">Click here to enter text.</a>          |  |

Comments: Not applicable

### Imaging Information

\*\*\* IF YOU ARE PLANNING TO OFFER NEW/EXISTING/TRANSFERRING IMAGING SERVICES PLEASE COMPLETE BELOW \*\*\*

- Will providers at this site be ordering imaging procedures?  No  Yes  
If yes, will imaging modalities be located in this new DEP?  No  Yes  
If yes, specify which modalities:  Diagnostic X-Ray  Fluoroscopy  
 Ultrasound  Other: [Click here to enter text.](#)  
If yes, how many modalities will be located at this site? [Click here to enter text.](#)

Who will capture/obtain the images?  Technologist  Provider  Other: [Click here to enter text.](#)

Who will be resulting these studies?

- DUH Radiologists  DRH Radiologists  DRAH Radiologists  
 Other Specialty/Provider: [Click here to enter text.](#)

How will imaging services be billed?

- Separate professional and technical charges  One global professional charge

If this is a new Radiology Department, in what type of location will it be built?

- Physician Office Location  DUHS Hospital Location  Independent Diagnostic Testing Facility (IDTF) Location  
 Other Please explain: [Click here to enter text.](#)

Will this site require training from the Radiant trainer?  No  Yes

Radiant will need an imaging contact person for additional questions. Please provide contact information:

### Lab Information

Will this department be ordering labs?  No  Yes

If yes, who does the collecting?

- Outpatient:  Clinic staff  Patient sent to lab for collection  
Inpatient:  Nurse collect  Lab phlebotomy draw list

What laboratory(ies) do you use for processing and/or collection of specimens?

- DUH labs  DRAH labs  DRH labs  Kernodle labs  Onsite lab  LabCorp  
 Other (please specify): [Click here to enter text.](#)

If there is another department with similar lab workflows, please specify: [Click here to enter text.](#)

If there is an onsite lab, please provide staff contact information: [Click here to enter text.](#)

Does this department perform lab tests billed under the same cost center?:  No  Yes

If yes, please specify CLIA Number (DEP item # 4855):

Additional lab comments: [Click here to enter text.](#)

### EKG and Other Diagnostic Services

Will EKG Services be provided in this department?  No  Yes

If Yes, who reads/interprets any EKGs? [Click here to enter text.](#)



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Will GE Muse be used for interpretation and billing purposes? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
Will any other diagnostic services be provided in this department? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, please describe: <a href="#">Click here to enter text.</a>
<b>Medication / Pharmacy Information</b>
Will this department utilize e-prescribing? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Will this department give Medications? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes      Vaccines? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Where will administered medications/vaccines be obtained (check all that apply)? <input checked="" type="checkbox"/> DUHS Pharmacy <input type="checkbox"/> Omnicell <input type="checkbox"/> Floor stock    Comments: DRAH inpatient pharmacy If DUHS Pharmacy, please list the pharmacy: Duke Raleigh Hospital Pharmacy
Will this department use barcode medication scanning? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
Will this department be in a location with existing department(s) that dispense medications? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes    If yes, please list a department in the same location with a similar Pharmacy workflow: <a href="#">Click here to enter text.</a>
<b>Document Management</b>
Will this department perform scanning of documents? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, is equipment already in place? <input type="checkbox"/> No <input type="checkbox"/> Yes    If yes, specify Scanner Model? <a href="#">Click here to enter text.</a>
Are there other departments in the same location that scan using Duke Solarity Scanning? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, please list the department(s) and location. <a href="#">Click here to enter text.</a>
Is there another Department with a similar workflow? <a href="#">Click here to enter text.</a>

<b>Section 2 – Billing Information (to be completed by submitter)</b>		
<input checked="" type="checkbox"/> Yes – This department will generate charges. <b>This section must be completed.</b>		
<input type="checkbox"/> N/A – this department will not generate charges or this change does not affect charges.		
Default Place of Service (DEP item # 4400): Duke Medicine - Inpatient Hospital [1000000002] Place of Service Type (EAF item # 5000): <input type="checkbox"/> 11 (Office) <input type="checkbox"/> 19 (HBC >250 Yards*) <input type="checkbox"/> 20 (Urgent Care) <input checked="" type="checkbox"/> 21 (Inpatient) <input type="checkbox"/> 22 (HBC) <input type="checkbox"/> 24 (ASC) <input type="checkbox"/> Other: Patient Residence <small>(* per Medicare guidelines, hospital-based clinics greater than 250 yards from a DUHS hospital must be POS 19)</small>		
Revenue Location (Facility in which department is located) (DEP item # 4001): <input checked="" type="checkbox"/> Existing (specify): <a href="#">DUKE RALEIGH HOSPITAL [1000303]</a> <input type="checkbox"/> New, specify DUHS Hospital Parent (EAF item # 360): <input type="checkbox"/> DUH <input type="checkbox"/> DRH <input type="checkbox"/> DRAH <input type="checkbox"/> DASC		
<b>Select all applicable patient classes</b> (DEP item # 7040):		
<input checked="" type="checkbox"/> Inpatient	<input type="checkbox"/> Outpatient	<input type="checkbox"/> Observation
Special classes:	<input type="checkbox"/> Series Outpatient (specify type: <a href="#">Click here to enter text.</a> ) <small>(note: if billing for all appointments is done monthly, then select only one patient class in this section)</small> <input type="checkbox"/> Rehab or Psych (specify type: <a href="#">Click here to enter text.</a> ) <input type="checkbox"/> Other (specify: <a href="#">Click here to enter text.</a> )	
<b>Billing Claim Forms (select all applicable):</b>		



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<input checked="" type="checkbox"/> Professional (HCFA 1500)	<input checked="" type="checkbox"/> Technical (UB04)	
Professional – Bill Area(s): (DEP item # 17025) (not applicable for inpatient unit) N/A	Technical – Performing Hospital: <input type="checkbox"/> DUH <input checked="" type="checkbox"/> DRAH <input type="checkbox"/> DRH <input type="checkbox"/> DASC	
Note: if a new bill area is needed, please submit a new <a href="#">Bill Area Maintenance Form</a> separately Who will be requesting the new Bill Area? <a href="#">Click here to enter text.</a>	Hospital Cost Center - (name, number, associated VP) 607120000	
Professional Fee Schedule Group: <input type="checkbox"/> PDC <input type="checkbox"/> DPC <input checked="" type="checkbox"/> DUH	If a new Cost Center is needed, who will request? Rodney Green	
<b>Special Billing Arrangements:</b> Please indicate if any of the following apply to this new DEP: <input type="checkbox"/> IDTF Department <input type="checkbox"/> ASC Department <input type="checkbox"/> Special Lab Billing(DPC) <input type="checkbox"/> Global-Billing Radiology Department (Report Grouper 16 (item #4315)) If this is a PT/OT or SLP Clinic, please indicate the billing model: <input type="checkbox"/> Hospital-based (UB04 All Payors) <input type="checkbox"/> Office-based (CMS 1500 All Payors) <input type="checkbox"/> Split-billing (1500 Gov't/UB04 non-Gov't) (Report Groupers 3 (item #4302) 13 (item #4312) and 16 (item #4315)) Package Pricing Arrangements? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, describe: <a href="#">Click here to enter text.</a> Will any retail products be stocked/sold? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, describe: <a href="#">Click here to enter text.</a>		
Optional comments regarding billing: PT/OT provided through Duke Home Care and Hospice, sending charges to the DRAH Hospital Cost Center: 607120000		
<b>Payment Collection</b>		
Collect co-payments or outstanding insurance balances? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes		
Collect pre-payments for services to be rendered (special handing process needed)? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes, please communicate with your Revenue Manager and have them submit a separate SN Ticket to create needed WQs, Pay codes and to ensure process is in place prior to go-live.		
Should Point of Service Collections post to HB or PB? (DEP item # 41911) <input type="checkbox"/> HB <input type="checkbox"/> PB		
Comment: <a href="#">Click here to enter text.</a>		
Will this DEP need a new Elavon (credit card merchant) account? (if DEP is sharing front desk staff, then typically, they will not need a new merchant account) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If no, what departments(s) will share the same credit card merchant? <a href="#">Click here to enter text.</a>		
<b>Billing Work Queue Information</b>		
Who is responsible for updating account, charge, and DNB items <b>after</b> visit (example: account, charge review, charge edit, credit work queues)? <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Service Access (PRMO) <input type="checkbox"/> Clinic Staff <input type="checkbox"/> Other Subtasks are automatically created for PB Charge Review, PB Backend Claim Edits and PB Follow-up. If additional custom billing work queues are needed, submit a separate ServiceNow request once the DEP has been created and direct it to Maestro Care PB or Maestro Care HB as applicable.		
<b>Select all applicable charging methodologies:</b>		
<input type="checkbox"/> Medications - FAM	<input checked="" type="checkbox"/> Medications – Willow	<input type="checkbox"/> OpTime/Anesthesia
<input checked="" type="checkbox"/> Orders	<input checked="" type="checkbox"/> Preference List/Charge Navigator	<input checked="" type="checkbox"/> Supplies - EAP
<input type="checkbox"/> HCC Coding*	<input checked="" type="checkbox"/> Charge Router Charge Entry	

\* separate work request needed to specify charge router logic

**Section 3 – Scheduling / Patient Engagement Information (to be completed by submitter)**

Yes - This request impacts who, when, where or how appointments are scheduled (**section must be completed**)  
 N/A

**Scheduling**

**Number of staff associated with the move or new clinic:**

MDs	Non-MDs	Clerical Staff	Clinical Staff
6			

Physician/Providers Requiring Updated Schedules in this Department:  
[Click here to enter text.](#)

Is this the only location this Physician/Provider(s) will require new schedule?  No  Yes  
[Click here to enter text.](#)

Physician/Provider(s) No Longer Practicing at This Clinic:  
[Click here to enter text.](#)

Who is responsible for scheduling appointments in this department? *(list appointment phone # on page 2)*  
 N/A  Central Scheduling (DHAS)  Clinic Staff  Other [Click here to enter text.](#)

Who is responsible for maintaining the templates of provider schedules in this department?  
 N/A  Access Services  Clinic Staff  Other [Click here to enter text.](#)

Holidays: which holidays should automatically populate on provider schedules in this department?  
 N/A  Health System Staff Holidays  Custom [Click or tap here to enter text.](#)

Will this department ask patients to arrive at an “arrival time” before the scheduled appointment?  
 Yes  No (DEP item # 3700)
 

- What time is your front desk open for patients (DEP item 3701)? [Click or tap here to enter text.](#)
- How many minutes before the appointment time should patients arrive? (DEP item # 3702)  
 15 minutes  30 minutes  45 minutes (note: all DPC departments standardized on 15 minutes)

Special visit types or scheduling instructions:
 

- Will video visits be offered by providers at this location?  No  Yes
- Other special scheduling needs: [Click or tap here to enter text.](#)

Effective Date: [Click here to enter a date.](#)

**Patient Engagement / MyChart**

**Hours of Operation:** Patients enrolled Monday through Friday between 8:00 AM and 3:00 PM. Patient visits occur between 8:00 AM to 5:00 PM any day of the week. A Hospitalist will respond to patients at any hour of the day and week.

**Automated phone reminder/notification systems:**  
(DEP item #'s 4307 and 4318)

- Appointment reminder/confirmation?  No  Yes\* *(if ‘yes’, list appointment phone # on page 2)*
- Central severe weather auto-cancel system?  No  Yes *(for DUH immediate vicinity only)*
- Appointment Recall letters?  No  Yes
- Estimate / Co-pay calls?  No  Yes

**Onsite hardware for patient engagement: Does this location ALREADY have....**  
 RightPatient cameras for biometric patient identification?  No  Yes



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<p>Welcome kiosks deployed to support patient check-in at time of arrival? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes</p> <p>Welcome questionnaire tablets onsite? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes</p> <p>Armbanding equipment for patient identification? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes</p>
<p><b>MyChart eCheck-In:</b> Is this location live with eCheck-In for patient registration? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes</p>
<p><b>MyChart Direct Scheduling / Cancelling:</b>  <u>For return visits at this clinic....</u></p> <ul style="list-style-type: none"> <li>Patients have the ability to <b>schedule</b> their own appointments directly via MyChart: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</li> <li>Patients have the ability to <b>cancel</b> their own appointments directly via MyChart: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</li> </ul>
<p><b>MyChart Appointment Requests:</b>          Which scheduling pool should receive MyChart Appointment Requests? This pool will schedule patient appointments in your department for your Clinicians, (sometimes the schedulers' pool or front desk pool).</p> <ul style="list-style-type: none"> <li>Please provide pool name and pool number, if known: <a href="#">Click here to enter text.</a></li> </ul>
<p><b>MyChart Prescription Renewal Requests:</b>          Who should receive MyChart Prescription Renewal Requests? This pool will route the Rx requests to the appropriate Provider, (sometimes a Triage pool).          NOTE: The Rx Renewal &amp; Get Medical Advice have to be sent to the same pool, configuration ONLY allows for linking to 1 pool to this field. If set to "self" then providers get all messages and Rx requests.</p> <ul style="list-style-type: none"> <li>Select one: <input checked="" type="checkbox"/> Providers directly OR <input type="checkbox"/> Clinical Support via a pool</li> <li>Please provide pool name and pool number if known: <a href="#">Click here to enter text.</a></li> </ul>
<p><b>MyChart Get Medical Advice:</b>          This pool will answer questions, within their scope of practice and route the questions to the appropriate Clinicians as needed, (sometimes an MA pool or a Triage pool).          NOTE: The Get Medical Advice &amp; Rx Renewal have to be sent to the same pool, configuration ONLY allows for linking to 1 pool to this field. If set to "self" then providers get all messages and Rx requests.</p> <ul style="list-style-type: none"> <li>Select one: <input checked="" type="checkbox"/> Providers directly OR <input type="checkbox"/> Clinical Support via a pool</li> <li>Please provide pool name and pool number if known: <a href="#">Click here to enter text.</a></li> </ul>
<p><b>History Questionnaires:</b>          Who should receive the In-Basket notification for the History Questionnaires, submitted by the patients?          NOTE: The Rx Renewal &amp; Get Medical Advice have to be sent to the same pool, configuration ONLY allows for linking to 1 pool to this field. If set to "self" then providers get all messages and Rx requests.</p> <ul style="list-style-type: none"> <li>Select one: <input checked="" type="checkbox"/> Providers directly OR <input type="checkbox"/> Clinical Support via a pool</li> <li>Please provide pool name and pool number, if known: <a href="#">Click here to enter text.</a></li> </ul>

<b>Section 4 – Facility Record Change Information (to be completed by submitter)</b>		
<input type="checkbox"/> Yes - Creating new Place of Service or new Facility (physical location) <b>(section must be completed)</b>		
<input type="checkbox"/> Yes - Information about an existing facility record needs to be updated <b>(section must be completed)</b>		
<input checked="" type="checkbox"/> N/A		
Facility name (EAF item # .2):		
Facility abbreviation (EAF item # 5005): <a href="#">Click here to enter text.</a>		
Address: <a href="#">Click here to enter text.</a> (EAF item # 400)		
City: <a href="#">Click here to enter text.</a> (EAF item # 410)	State: <b>North Carolina</b> (EAF item # 420)	ZIP Code: <a href="#">Click here to enter text.</a> (EAF item # 430)
Type of Location (EAF item # 27): <input checked="" type="checkbox"/> Location <input type="checkbox"/> Place of Service		
Hospital Parent Location (EAF item # 360): <input type="checkbox"/> DUH <input type="checkbox"/> DRH <input checked="" type="checkbox"/> DRAH <input type="checkbox"/> DASC <input type="checkbox"/> Other		
Comments: <a href="#">Click here to enter text.</a>		



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Section 5 – Room and Bed Configuration (to be completed by submitter)				
<input checked="" type="checkbox"/> Yes - Surgery or HOD units requiring a pool bed (section must be completed) <input type="checkbox"/> Yes - Inpatient unit with rooms and beds (section must be completed) <input type="checkbox"/> N/A				
Type of bed(s) needed: <input checked="" type="checkbox"/> Pool Room/Bed <input type="checkbox"/> Standard Room/Bed <small>Note: standard rooms and beds are needed if specific bed assignments are needed for a patient, such as association of telemetry and monitoring or if specific bed services such as bed planning, housekeeping, or meal service are required</small>				
Accommodation Codes allowed on this unit: <input checked="" type="checkbox"/> Private <input type="checkbox"/> Semi-Private <input type="checkbox"/> General <input type="checkbox"/> ICU <input checked="" type="checkbox"/> Stepdown <input type="checkbox"/> Neonatal / ICN				
For hospital census availability counts to the CDC, how should beds on this unit be classified? <small>(DEP item # 7180)</small> <input checked="" type="checkbox"/> non-ICU <input type="checkbox"/> ICU <input type="checkbox"/> Neither (don't show on availability reports)				
Bed assignment paging: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Pager number: <a href="#">Click here to enter text.</a> <small>Note: when a clean bed in this unit is assigned to a patient, this pager will be notified (usually charge nurse)</small>				
<u>List of room(s) and bed(s)</u> <small>(including phone number, default accommodation code, housekeeping responsibility, size of pool bed)</small> <small>Note: length of room name plus length of bed name cannot exceed 20 characters due to CBORD limitations</small>				
Room	Bed (size of pool bed)	Phone	Default Acc code	EVS
<small>Examples:</small> DUH: 2101 DRH: 4101 DRAH: 3213 DASC: DASC Periop	<small>Examples:</small> DUH: 2101-01 DRH: 4101-1 DRAH: 3213-A DASC: DASC Periop (150)	<small>Examples:</small> DUH: 618-2101 DRH: none DRAH: 576-8714 DASC: N/A	<small>Examples:</small> DUH: Private DRH: Semi-Private DRAH: General DASC: N/A	<small>Examples:</small> DUH: Central DRH: Central DRAH: Central DASC: N/A
n/a At Home – DRAH, DRAHCAH, 3055	n/a At Home Pool Room – DRAH, 9431	Click or tap here to enter text.	DRAH: Private, DRAH: Stepdown	n/a

Section 6 – Department / Facility / Clinic Inactivation Request (to be completed by submitter)
<input type="checkbox"/> Yes - Department or facility exists in system, but has never been used (record will be hidden) <input type="checkbox"/> Yes - Department or facility exists in system, and has been used (record will be soft-deleted) – If the Department has been used, it should not be deleted for 3-6 months. Once that time has elapsed, please submit a separate request to inactivate the Department.
Type of Department: <input type="checkbox"/> Inpatient (i.e., patients are in a bed) <input type="checkbox"/> Outpatient <input type="checkbox"/> Other (please explain below) Comments: <a href="#">Click here to enter text.</a>
List the record number (DEP/EAF item # .1) <b>and</b> name (DEP/EAF item # .2) of each department /facility: <a href="#">Click here to enter text.</a> <small>(soft deletion and hiding are control by item 5 in the DEP and EAF)</small>
Last Date Record(s) Should Be Active: <a href="#">Click here to enter a date.</a>

## Hospital at Home Patient-Eligible Conditions

Thank you for your support of the Hospital at Home program! We are seeking patients visiting the Emergency Department who would be admitted to a hospitalist's care and eligible according to the conditions below.

Adult Medicare patients are eligible for this program if they will be treated for **COPD, Asthma, UTI, Pneumonia, Cellulitis, or Heart Failure without complications**. You may receive notification about these patients if they reside within Zip Codes near Duke Raleigh Hospital (27609, 27608, 27607, 27606, 27604, 27603, 27601, 27610), preferably within 5 miles.

CONDITION	GUIDING VISIT REASONS, PRESENTING CONDITIONS	DIAGNOSTIC REFERENCE*	MS-DRG*
<b>Cellulitis</b>	Abscess; Blood infection; Fever; Decreased PO; Hyperglycemia; Insect Bite; Rash; Wound Check or Infection; Pain, Swelling or Injury	<b>L03</b> (L03.9, L03.1, L03.2, L03.3, L03.8, L03.9);	603
<b>UTI</b>	Abdominal/Groin/Flank Pain, Urinary Retention, Dysuria, Hematuria, Urinary Frequency, Urinary Retention, Chills, Emesis & Nausea, Fever	N39.0, N99.531	690
<b>Asthma (exacerbation)</b>	Asthma; Shortness of Breath; Allergic Reaction; Flu-like Symptoms (Chills, Cough, Fever, Generalized Weakness, Fatigue, Headache, Sore Throat)	<b>J45</b> (J45.2x, J45.3x, J45.4x, J45.5x, J45.90x)	203
<b>COPD (exacerbation)</b>	Abdominal, Chest, or Back Pain; Shortness of Breath; Asthma; Bradycardia; Flu-like Symptoms (Chills, Cough, Fever, Generalized Weakness, Fatigue, Headache, Sore Throat)	<b>J44</b> (J44.0, J44.1, J44.9)	191 192
<b>Pneumonia</b>	Abdominal, Chest, or Back Pain; Shortness of Breath; Bradycardia; Flu-like Symptoms (Chills, Cough, Fever, Generalized Weakness, Fatigue, Headache, Sore Throat)	<b>J18</b> (J18.0, J18.1, J18.2, J18.8, J18.9)	194 195
<b>Heart Failure without complication</b>	Abdominal, Chest, or Back Pain; Shortness of Breath; Bradycardia, Leg pain, Leg Swelling, Generalized Weakness, Dizziness, Fatigue	<b>I50</b> (I50.1, I50.2, I50.3, I50.4, I50.9)	293

### ADDITIONAL GUIDANCE FROM THE HOSPITAL AT HOME TEAM

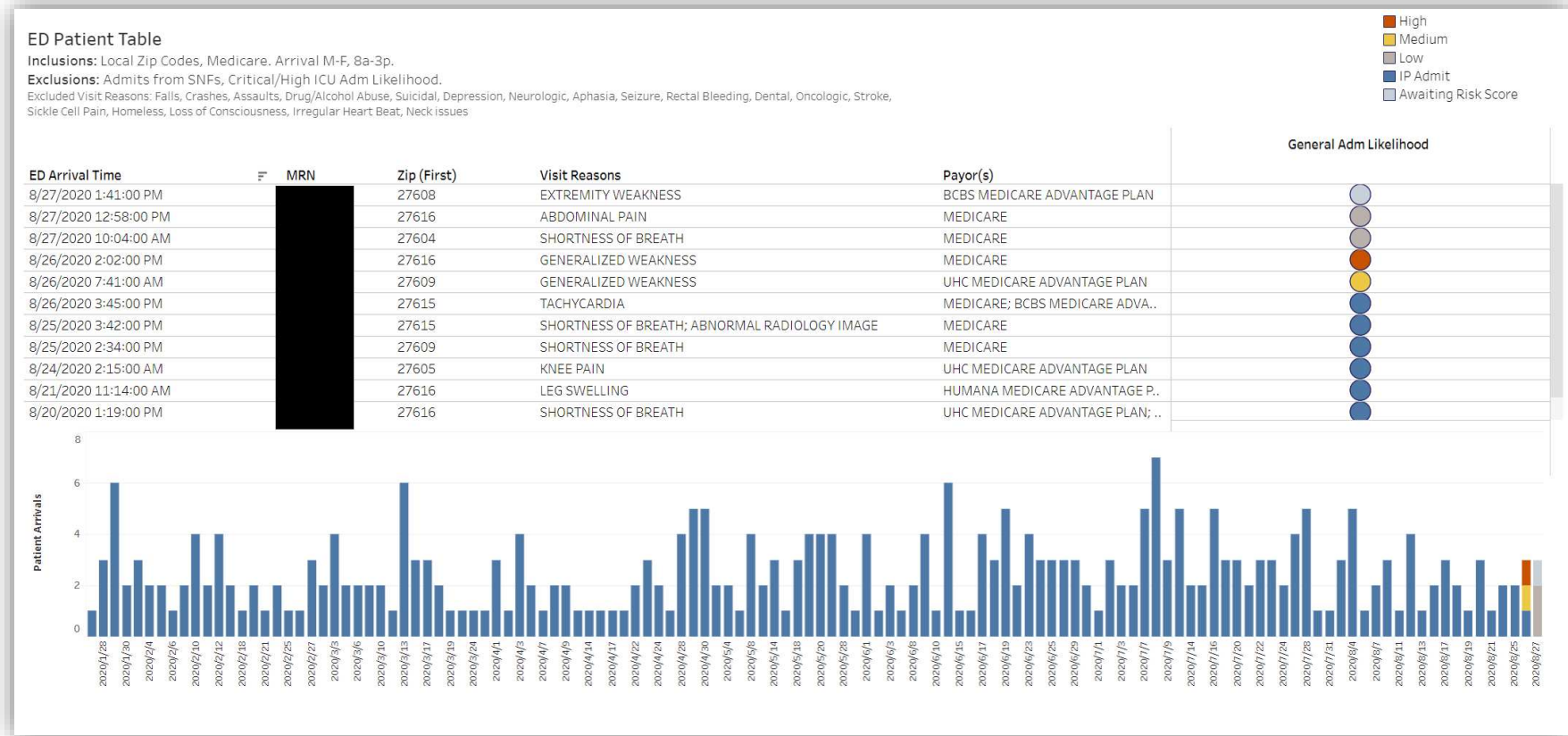
Patients may also not be eligible if they visit for reasons such as aphasia, assault, crash, seizure, dental needs, depression, drug abuse, fall, homelessness, irregular heartbeat, loss of consciousness, neck pain or injury, neurologic symptoms, numbness, oncologic care, rectal bleeding, risk of or attempted suicide, stroke, or sickle cell pain. Communication with the patient must not require an interpreter.

Patients must have a caregiver and a safe home environment according to the Case Management Home Assessment. Patients are ineligible if they are undomiciled, are in police custody, reside in a facility providing on-site medical care, or require durable medical equipment (DME) other than oxygen.

Please communicate whether patients are likely to require IV steroids or antibiotics, have an acute concomitant condition, cannot independently ambulate to a bedside commode, or peripheral intravenous access could not be obtained.

*\*For eligibility guidance, identifying comparable patient samples, and estimating hospital input direct cost.*

## EARLY PROTOTYPE of a DRAH Hospital to Home ED Patient Eligibility Tool



### Features:

Page presents a list of patients meeting cohort definitions and excludes patients that do not.

Median Patients per Day = 2. Graphs retrospective count of eligible inpatients per day in **blue**.

Updates every 15 minutes, displaying patients admitted to the DRAH ED in real-time with colors in gray, yellow, or red.

Likelihood of admission is presented for current DRAH ED patients, via the Duke Institute for Health Innovation ED Admission model.

**DRAH Hospital to Home Safety Assessment (Dot Phrase: .HOSPITALATHOMESAFETYASSESSMENT)**

Access to Home	Notes	Meets Reqs. (Circle)
<b>Access to Home:</b>		
Driveway		Yes / No
Lighting		Yes / No
Access to entryway/ Stairs - # /railing		Yes / No
Animals		Yes / No
<b>Heating/ Air/Water/Refrigeration:</b>		
Heat source		Yes / No
Air source		Yes / No
Water		Yes / No

Food/perishable storage/Food availability		Yes / No
<b>Patient Care area:</b>		
Bedroom/Bed Accessibility		Yes / No
Outlets		Yes / No
Flooring		Yes / No
Lighting		Yes / No
<b>Bathroom:</b>		
Accessibility:		Yes / No
Shower:		Yes / No
<b>DME needs (Ex. walker, 3 in 1 commode. If 3-in-1 needed, does not meet requirements):</b>		
DME need low, patient eligible		Yes / No
DME currently in the home		Yes / No

DME recommendations		Yes / No
<b>Communication:</b>		
Internet Access		Yes / No
Landline/Cell phone working		Yes / No
English fluency (ineligible if interpreter needed)		Yes / No
<b>Additional Needs</b>		
Isolation needs		Yes / No
Transport needs		Yes / No
<b>Caregivers</b>		
Persons living in home, # of people/smokers		Yes / No
Caregiver Name		Yes / No
Hours Available		Yes / No
Type of care they can render		Yes / No
HCPOA/Contact Person		Yes / No

Pharmacy ID:	
PCP / Next Appointment Date:	
Health Insurance / Drug Coverage:	

Current HH / Private Duty Services:	
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**Signed:** \_\_\_\_\_

## **Clinical Consent: Duke Raleigh Acute Hospital Care at Home Pilot Program**

### **Introduction and Purpose**

The Duke Raleigh Acute Hospital Care at Home Pilot Program (“Pilot Program”) offers the choice to receive health care services in the comfort of your own home rather than be admitted to the hospital. Our aim is to provide care that is as effective as what you would receive in the hospital, yet safely in your own home and to your high satisfaction. Several large health systems and hospitals across the country have successfully adopted this method of providing care. Dr. Michael Spiritos and Dr. Vidhya Aroumougame oversee this Pilot Program at Duke Raleigh Hospital. The Pilot Program has been approved under a Centers for Medicare and Medicaid Services (“CMS”) waiver program.

We are asking if you are interested in this Pilot Program because you have been diagnosed with a condition that is eligible for participation in the Pilot Program. Diagnoses that qualify for participating include urinary tract infection, chronic obstructive pulmonary disease, asthma, pneumonia, congestive heart failure, or cellulitis.

If you agree to take part in this Pilot Program you will have your initial testing/treatments in the Duke Raleigh Hospital Emergency Department (“ED”) as part of the normal standard of care. You will be enrolled as a Duke Raleigh Hospital Pilot Program patient and transported to your home via Basic Life Support (“BLS”) ambulance. At home you will be provided with remote monitoring devices and seen daily by a physician and 2-3 times a day by nursing staff who will draw lab work and administer appropriate medications and treatments for the length of time you are admitted. Visits to you may be a combination of in person visits as well as remote telemedicine visits. If at any time you have questions, you will have the ability to contact the Pilot Program physicians directly and nurses through the Duke HomeCare and Hospice’ toll free 24-hour answering service. You will be discharged from the DRaH Pilot Program when your condition improves. You will receive follow up instructions, prescriptions, and recommendations for future care with your primary care just as you would when you are discharged from a hospital. Once you are discharged from the Pilot Program, we will ask for your feedback about your experience.

As the physician discusses this consent form with you, please ask him/her to explain any words or information that you do not clearly understand. We encourage you to talk with your family and friends before you decide to take part in this Pilot Program. The nature of the Pilot Program, risks, inconveniences, discomforts, and other important information are listed below.

**It is important to note that participation in this Pilot Program is voluntary.** Declining participation will not result in any penalty or loss of benefits to which you are otherwise entitled. If you do not agree to participate in the Pilot Program, you will continue to receive care as an inpatient at Duke Raleigh Hospital. If you do agree to enroll in the Pilot Program but later decide to stop participating, you must let your program physician know. You will be transported back to Duke Raleigh Hospital for direct admission to the inpatient floor.

## **Clinical Consent: Duke Raleigh Acute Hospital Care at Home Pilot Program**

### **What are the risks of participating in this Pilot Program?**

The risk of taking part in this Pilot Program include the risks associated with receiving your care in the hospital as part of the normal standard of care. Please refer to the Conditions of Treatment/Admission consent form. Some risks include:

#### **Risk of Worsening Medical Condition:**

It is possible that whether you are admitted to the hospital or you enroll in the Pilot Program, your medical condition may worsen. If you are in the Pilot Program and this were to occur, you would be evaluated by the program physician either by an in person or remote telemedicine visit. If you need to come back to the hospital, your physician will coordinate communication with Emergency Services (“911”). Emergency Medical Services (“EMS”) will bring you back to Duke Raleigh Hospital for direct admission to the inpatient floor for further treatment.

#### **Drug and Food Interactions:**

For your safety, you must tell the Pilot Program physician or nurse about all the prescribed medical foods and drugs, herbal products, over the counter (“OTC”) drugs, vitamins, natural remedies, and alcohol that you are taking before you start the Pilot Program. In your home you may consume foods, drinks, vitamins, or natural remedies that were not prescribed, and these may lead to side effects or drug interactions.

#### **Other Risks:**

You are responsible and liable for your own acts and omissions, including negligent acts and omissions, which are outside the scope of services of the Pilot Program. By signing this consent form you accept liability for all such acts and omissions, including, but not limited to injuries, accidents, and events, foreseeable and unforeseeable, that occur outside the parameters of the Pilot Program or if you choose to leave your home. Duke Raleigh Hospital is not responsible for the acts or omissions of others, including your caregivers, who may be in your home or otherwise with you during participation in the Pilot Program.

### **What are the benefits to participating in this Pilot Program?**

If you agree to take part in this Pilot Program, there may be direct medical benefit to you. Some benefits that have been noted in other health systems are better patient satisfaction, improved sleep, decreased risk of exposure to hospital acquired infections, and decreased risk of physical weakness post hospitalization.

### **What are the alternatives to participating in this Pilot Program?**

Instead of being in this Pilot Program, you can receive traditional inpatient care in the hospital setting. You also have the option to decline admission altogether.

### **Declining to Participate or Withdrawing from the Pilot Program:**

You may choose not to be in the Pilot Program, or, if you agree to participate, you may withdraw at any time. Your decision not to participate or to withdraw will not involve any penalty or loss of benefits to

### **Clinical Consent: Duke Raleigh Acute Hospital Care at Home Pilot Program**

which you are entitled and will not affect your access to health care at Duke Health. If you withdraw from the Pilot Program, you will be transported back to Duke Raleigh Hospital to continue your hospital admission in a traditional inpatient hospital setting. If you do decide to withdraw, you should contact Dr. Michael Spiritos or Dr. Vidhya Aroumougame to let them know that you are withdrawing from the Pilot Program. You will be asked to return your remote monitoring devices and any other equipment that is the sole property of Duke Raleigh Hospital.

Your Program Physician may decide to withdraw you from this Pilot Program and transfer you back to Duke Raleigh Hospital if your condition gets worse, if you have serious side effects, or if a program physician determines that you need diagnostic and/or therapeutic methods that are not available in the home environment.

#### **Confidentiality:**

In addition to receiving tests and imaging as per the normal standard of care, your health data will also be collected using remote monitoring devices. We are committed to protecting the privacy of your “protected health information”, as that term is defined in the privacy regulations issued under the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”). The transmission of information in the Pilot Program has been evaluated, meets our security standards and is HIPAA compliant.

#### **Medication Administration:**

You will receive all your necessary medications while you are enrolled in the Pilot Program from the Duke Raleigh Hospital Pharmacy. Your home prescription medications will be collected and stored at the Duke Raleigh Hospital Pharmacy during your stay to avoid duplicate administration. They will be returned to you upon discharge from the Pilot Program. You will receive a daily supply of your necessary medications prepackaged and labeled from the Duke Raleigh Hospital Pharmacy. Your medications will be delivered in non-child resistant packaging to your home. By agreeing to participate in the Pilot Program, you agree to: 1) allow Duke Raleigh Hospital to store your home prescription medications; and 2) allow Duke Raleigh Hospital to administer medications to you that are prescribed by your physician in non-child resistant packaging; and 3) keep the medication out of reach from children in order to avoid accidental ingestion by children that could be injurious to them.

#### **Cost:**

We anticipate that you will owe the same costs and your insurance will be charged the same amount as if you were receiving your inpatient care in the hospital.

You or your insurance provider will be responsible and billed for all costs related to your routine medical care, including copayments and deductibles. Routine medical care services are those that you would have received for your condition if you were not participating in this Pilot Program. Not all services are covered by insurance, even if you receive services as an inpatient at Duke Raleigh Hospital. We will notify you if we learn that a service is not covered by your insurance plan as part of the pre-authorization process. The amount of your out-of-pocket expense will depend on your insurance plan. For beneficiaries with Medicare Advantage Plans, traditional Medicare is billed for the routine cost of an inpatient admission. You may have more or higher co-pays than with a Medicare Advantage plan.

**Clinical Consent: Duke Raleigh Acute Hospital Care at Home Pilot Program**

Transportation services to your home and back to Duke Raleigh Hospital, if needed, will be covered by Duke Raleigh Hospital. At your request, a financial counselor may provide you with an estimate of costs for routine services. We will monitor your Duke Health patient care charges to make sure that costs are directed appropriately. If you have any questions or concerns about appropriate billing, contact your Pilot Program physician and he/she will direct you to the appropriate person from the billing department.

**Pilot Program Related Injuries:**

Immediate necessary medical care is available at Duke University Health System/ Duke Raleigh Hospital in the event that you are injured while enrolled in this Pilot Program. There is no commitment by Duke University, Duke University Health System, Inc., or your Duke physicians to provide monetary compensation or free medical care to you in the event of a Pilot Program-related injury. You and your insurance company will be responsible for the cost of care. DUHS is not liable for any injuries arising from a patient’s willful, reckless, or negligent acts or omissions inside or outside the home.

**Contact Information:**

For questions about the Pilot Program, your care at home, or if you have problems, concerns, or suggestions, contact Dr. Michael Spiritos at (XXX) XXX-XXXX or Dr. Vidhya Aroumougame at (XXX) XXX-XXXX. Nurses may be reached through the Duke HomeCare and Hospice’ toll free 24-hour answering service: 1-800-XXX-XXX.

**Statement of Consent**

The purpose of this Pilot Program, procedures to be followed, and the risks and benefits of participating have been explained to me. I have been allowed to ask questions, and my questions have been answered to my satisfaction. I have been told whom to contact if I have questions, to discuss problems, concerns, or suggestions related to the Pilot Program, or to offer input about the Pilot Program. I have read this consent form and agree to be in this Pilot Program, with the understanding that I may withdraw at any time. I have been told that my written agreement to participate in this Pilot Program will serve as my consent and that I will be given a copy of this consent form if I want it.

\_\_\_\_\_  
Signature of Patient/Legal Representative                      Date                      Time

\_\_\_\_\_  
Signature of Physician Obtaining Consent                      Date                      Time

## How can I be a patient in the Hospital at Home program?

1. Ask your Emergency Department doctor if you qualify for this program.
2. Talk to a social work case manager about your home environment.
3. Wait to meet your Hospital at Home doctor.
4. Ask your Hospital at Home doctor for consent forms.
5. Learn how to use the Medtronic InterView device.
6. Ask questions!

This information comes to you with thanks to:

Duke Raleigh Internal Medicine  
Duke Institute for Health Innovation  
Duke HomeCare & Hospice

### Duke Raleigh Hospital Emergency Department

3400 Wake Forest Rd.  
Raleigh, NC 27609

Approved by Patient Education Governance  
Council January 2021



## Patient Education



## Hospital at Home Program

Seeking Participants



## Who is eligible for the Hospital at Home program?

You might be eligible for the program if you live within 5 miles of Duke Raleigh Hospital, and you have 1 of the following conditions:

- Asthma getting worse
- Skin Infection (Cellulitis)
- Congestive Heart Failure (CHF)
- Chronic Obstructive Pulmonary Disease (COPD) getting worse
- Pneumonia
- Urinary Tract Infection (UTI)

## What happens at the hospital?

- The Emergency Department (ED) provider checks your medical condition. If the program is an option for you, then the ED provider will talk to the Hospital at Home team to see if you meet our other safety rules.
- A case manager speaks with you about your home safety.

- Hospital at Home doctors teach you about the program and review consent forms with you.
- Once in the program, a medical transport vehicle, such as an ambulance, takes you to your home where the medical care continues until it is complete.
- You are encouraged to ask any questions you might have.

## What is different about this program?

In the past, you would be admitted to the hospital for inpatient care and monitoring.

With the Hospital at Home program:

- Your care and medicines are all given at home
- A doctor will visit your home once a day
- A nurse will visit your home twice a day
- We will check on you with secure digital devices
- Devices will alert us to changes in your health
- When we're done, we hope you can stay home!

## What happens at home?

A Hospital at Home doctor will visit you every day to assess your health needs and care plan.

Nurses will visit at least two times a day to:

- Give medicine
- Change bandages on wounds
- Draw blood for labs
- Provide other needed medical care

Secure digital devices will help us track your:

- Blood pressure
- Heart rate
- Weight
- Oxygen level

You can call your doctor any time. If your condition gets worse during treatment, we will help you quickly return to the hospital with Emergency Medical Services (EMS).

We bring the hospital to you!

## Duke Raleigh Acute Hospital Care at Home Patient Guide

### General Instructions:

In addition to your daily nursing visits, please attach your Medtronic Device and check your vital signs at the following times:

- 9:00 AM
- 3:00 PM
- 9:00 PM

Write down/ keep track of the medications that you administer on your own.

### Important Numbers:

Duke HomeCare and Hospice: 919-620-3853  
Food Service/ Room Service: 919-XXX-XXXX  
Dr. Vidhya Aroumougame: ----  
Dr. Michael Spiritos: ----  
Angela Hammonds: ----

Dr. \_\_\_\_\_ will be your Home Doctor and can be reached at the following number: \_\_\_\_\_

### Please talk with your nurse or call Duke HomeCare and Hospice with:

- Concerns associated with your IV; IV beeping, arm swelling, pain at the IV site.
- Issues with wound care/dressings
- If you have any issues with your Medtronic Device, call Angela Hammonds

### Please contact your doctor if:

- Your blood pressure's top number is more than 160 or less than 100
- Your temperature is greater than 100.4° F
- Your oxygen saturation is less than 88%
- Your weight has increased more than 2 pounds from the following day: \_\_\_\_\_
- You have a rash or other allergic reaction
- You are vomiting or have nausea
- You have diarrhea
- If you have shaking chills
- You fall or feel confused
- You have pain or other worsening of your clinical condition.

Questions about medications, lab results (These will be shared with you during your visit and you can talk about them with your nurse or doctor).

**You are always encouraged to call 911 if you or your family member is feeling worse and needs immediate attention.**



## DRAH AHCAH NURSING TOOLKIT FOR DIHI PILOT OF 10 PATIENTS

Supply Item	Material or SAP#	Count/Unit	Unit	Price	Order Quantity	Total Cost
<b>IV Supplies</b>						
KIT, DSG CHANGE PICC W/3M SECURE DEVICE	326262	100	EA		10	
SET, EXT STANDARD INVISION-PLUS LL 7IN	329755	100	EA		100	
SYRINGE, PRE-FILLED NORMAL SALINE 10ML	15171	30	PK		19	
KIT, DSG CHANGE CENTRAL LINE ADULT	326263	1	EA		10	
TOURNIQUET, LF BLU DISP .75X18IN - ROLL	326263	25	Case		10	
KIT, IV START CUSTOM	334807	100	EA		50	
PORT, IV INVISION-PLUS GREEN TF	329538	200	EA		70	
Kit, VAD Vascular Access Kit (for port-a-cath changes)	323180	24	Case		1	
Cath, IV Safety Wing Blue (IV needle, 22g)	41678	1	EA		30	
Cath IV Safety Wing Pink (IV needle, 20g)	41679	1	EA		30	
Huber needle .1.0 inch	340502 P/N 142010	25	EA		4	
Huber needle .75 inch	340501 P/N 142075	25	EA		4	
<b>Medication Admin</b>						
NEEDLE, BLUNT-FILL 18GAX11/2IN	330081	200	BX		17	
SYRINGE, TB LL W/DETACH SAFETY 27GAX.5IN	11115	50	BX		3	
SYRINGE, LUER-LOCK TIP DISP 10CC ST	11097	200	BX		2	
SYRINGE, LUER-LOCK DISP 3ML ST	11912	200	EA		400	
NEEDLE, HYPODERMIC SAFETY 21GAX1.5IN	11074	100	BX		1	
IV labels with date/time RN initial, 1 roll with 345 labels	13515	345	roll		2	
<b>PPE</b>						
GLOVE, EXAM NIT ESTEEM CHEMO READY LRG	17391	200	BX		20	
GLOVE, EXAM NIT ESTEEM CHEMO READY MED	17390	200	BX		20	
GLOVE, EXAM NIT ESTEEM CHEMO READY SM	17389	200	BX		20	
WIPE, DISINFECTANT AVERT 6X7	354867	12	CAN		10	
MASK, FACE PROCEDURE PLEATED EARLOOP LF	16057	50	BX		3	
PP blue Univ P/N 521 PG - Disposable Gowns	42100	25	Bag		8	
Face Shield, Surgical P/N Cust-Bind-001	194302	1	Ea		10	
Small bottles Hand Sanitizer		12	Case		1	
<b>Labs</b>						
SET, BUTTERFLY PUSHBUTTON SAFETY 21GA - GREEN	311256	50	BX		1	
SET, BUTTERFLY PUSHBUTTON SAFETY 23GA - LIGHT BLUE	311255	50	BX		1	
DEVICE, BLOOD TRANSFER F/THIN NCK BOTTLE	302750	1	EA		75	
TOURNIQUET, LF BLU DISP .75X18IN - ROLL	326236	25	BX		5	
PAD, ANTISEPTIC SKIN PREP ALCOHOL LRG ST (200 pads)	338991	200	BX		10	
TUBE, VACUTAINER PLUS 13X75 3ML LAVENDER	13860	100	PK		2	
TUBE, VACUTAINER SST+ PLAST GOLD 5ML	316899	100	PK		1	
BAG, PLASTIC BIO ZIPPER 6X9IN	12061	100	PK		2	
BANDAGE, ADHESIVE FABRIC LF 1X3IN	11458	50	BX		2	
DRESSING, GAUZE VERSALON 2"X2" 4PLY 2/PK	12645	25	PK		60	
75 each per bag 4 bags per case from	352699	1	EA		5	
LiHep PST (4.5 ml) *Light Green Top	89268	100	PK		2	
Citrate (2.7 ml) *Light Blue Top	49205	100	PK		2	
Vacutainer Sleeve	12027, P/N 364815	1	EA		100	
<b>Wound Change Kit</b>						
APPLICATOR, SKIN PREP 2% CHLORAPREP 1ML	330063	60	EA		100	
DRESSING, FRAME TEGADERM 7X6CM - DHSP	322920	100	EA		100	
TAPE, SURG MICROPORE PAPER LF 2INX10YD	11442	6	BX		2	
TAPE, SURG DURAPORE SILK LF 1INX10YD (Small)	11445	12	EA		1	
Normal Saline Bottle (250 ml)	69327	24	EA		5	
Tape, Surgical Transport Clr 1mX10yd (roll)	40057	1	roll		10	
APPLICATOR, SKIN PREP 2% CHLORAPREP 1ML	11243	50	BX		1	
Sterile Scissors	42076	1	EA		25	
Dressing, Gauze - solid one piece (4" x 4")	41820	25	EA		20	
BANDAGE, ROLL KERLIX AMD 4.5INX4.1YD ST	13298 P/N 33332	100	EA		4	
<b>Storage and Transport</b>						
Basins/Grey Wash Plastic Basins	11313	1	EA		20	
Ergodyne Arsenal 5215 Large Trauma Bag, Orange (13438)		1	EA		2	
Vaultz Locking Medicine Box with Combination Lock, 7 x 5 x 5.25 Inches, Black (VZ00266). Temperature controlled					2	
<b>Disposal and Misc</b>						
Hefty Slider Storage style bag - quart (Box with 40)		40	BX		2	
Hefty Slider Storage bag = gallon size (Box with 30)		30	BX		2	
Sharps Box	25922	60	EA		11	
SPIROMETER, INCENTIVE ADULT 4000ML	12174	1	EA		10	
Disposable Shoe Covers	195202	80	Box		4	
INNER, TRAY SPUNGUARD 19.5IN P/N AT31019B (Substitute for Polytowels)	47224	400	Case		2	
Lab Labels for lab specimens	346971	6	Case		1	
Hat for measuring uring	25210	1	EA		10	
Male urinal	11319	1	EA		10	
BLADE, TONGUE DEPRESSOR 6IN ST	11262	100	BX		1	
Applicator, cotton tip (Q Tip)	11247	100	BX		1	
Cup, plastic, small, 30 ML	11534	50	Sleeve		3	
						<b>\$3,070.79</b>

Special thanks to Pam Porter, RN

## Notes on Patient Decompensation plans

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### Communication Plan in Nurse and Hospitalist' Absence

**Share mobile number of hospitalist for response in 15 minutes. 911 call may be initiated at any time. A project clinical lead will be available as back-up to the pager.**

To facilitate an interactive and safe patient care experience outside of daily visits from the hospitalist and nurses, patients will be provided with the mobile number of the hospitalist and or covering hospitalist that is caring for them that day and night.

If the patient pages the care team, they will receive a call back within 15 minutes of the page, at which time they can speak to a covering provider over the phone or a video call can be initiated. If the patient does not receive a call back within 15 minutes of the original page, they will also have the pager and/or cell phone number of one of the clinical leads as a backup, and can contact them.

Patients and family members will also be educated about symptoms concerning for active decompensation or symptoms that would warrant in hospital emergency evaluation. If the aforementioned symptoms are to arise, a 911 call can be initiated by either the patient or the treatment team.

---

### Communication During Visit

**Hospital and DHCH Nurse visits. Remote monitoring, Zoom video calls. Clinical judgment.**

A Duke Raleigh hospitalist will visit the patient daily. A Duke Home Care and Hospice nurse will visit the patient twice a day. Medtronic remote monitoring devices will communicate and store vitals data for the clinical team. Patients may communicate with the team through the mobile phone number given to them, a pager number, or MyChart.

---

**Home to DRAH according to care plan: Transfer** (Ex. If mobile imaging unavailable)

**Home to DRAH for decompensation, escalated care: Transfer**

**Emergency acute decompensation: 911. Wake County EMS contacts hospitalist and takes the patient to the ED. Transfer.**

**How did they get from the ED to the Home at the start? Admit from ED**

**A patient who decompensates in the Hospital at Home and is transferred to the hospital will not be transferred back to the home, but will stay in the hospital.**

---

# Tip sheet for Medtronic

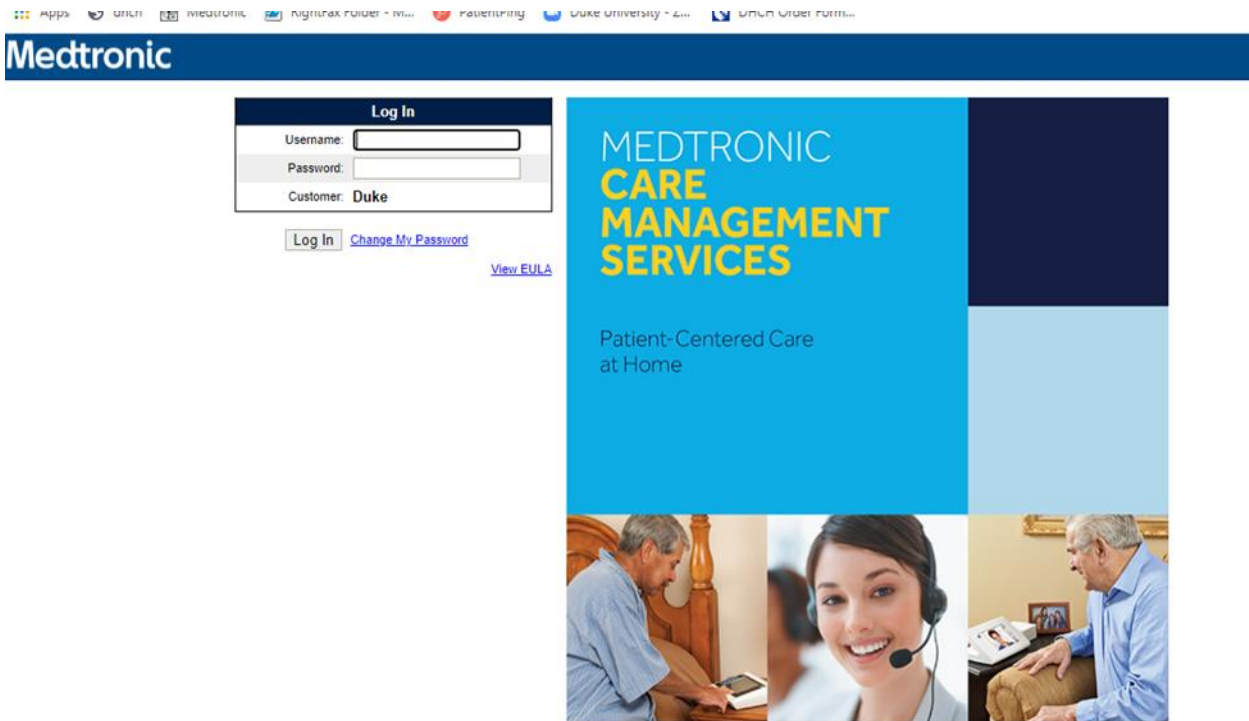
## Link to Medtronic:

<https://client.medtronic.com/duke>

Please save the link in Google Chrome in order to use the video chat.

\*\*\*\*May need to turn off Pop up Blocker\*\*\*\*

## SIGN ON PAGE



The screenshot shows the Medtronic website's sign-on page. At the top, there is a blue navigation bar with the Medtronic logo. Below the navigation bar, on the left, is a "Log In" form with fields for "Username:", "Password:", and "Customer: Duke". Below the form are buttons for "Log In" and "Change My Password", and a link for "View EULA". To the right of the form is a large blue banner with the text "MEDTRONIC CARE MANAGEMENT SERVICES" in white and yellow. Below the banner, the text "Patient-Centered Care at Home" is displayed. At the bottom of the page, there are three small images: an elderly man sitting at a desk, a woman wearing a headset, and an elderly man sitting at a desk with a laptop.

THE 2<sup>ND</sup> PAGE IS THE HOME PAGE WITH ALERTS.

**Medtronic Omnivisor Pro Home**

Alert Date View: 1/4/2021 | 1/5/2021 | 1/6/2021 | 1/7/2021 | 1/8/2021 | 1/9/2021 | Today

**Acute : 0**

Alert	Score	Date Time	Name
No Acute Alerts			

**Symptoms : 1**

Alert	Score	Date Time	Name
Sx	8	1/10/2021 9:57 AM (EST)	[REDACTED]

**Biometrics/Symptoms : 5**

Alert	Score	Date Time	Name
+2	8	1/10/2021 7:11 AM (EST)	[REDACTED]
+1	4	1/10/2021 9:00 AM (EST)	[REDACTED]
	2	1/10/2021 1:21 PM (EST)	[REDACTED]
+1	0	1/10/2021 11:27 AM (EST)	[REDACTED]
X	0	1/10/2021 12:06 PM (EST)	[REDACTED]

**Images : 0**

Date Time	Name	Type
No Image Alerts		

Summary Statistics:

- Not Reported : 5
- First Reported : 51
- Follow Ups Due : 0
- Messages : 0
- Incomplete Interventions : 10
- Unknown Devices : 1

▲ Top © 2021 Medtronic. All rights reserved. App: v6.1.5.1097 DB: v6.1.4.815 Medtronic Care Management Services Support: 1-888-243-8881

CLICK ON THE PEOPLE AT TOP OF PAGE TO VIEW ALL PATIENTS

**Medtronic Daily Activity Overview**

Managed Group: DUH HatH

[Edit Active Transmission Columns](#)

Daily Panel (2) Active Transmissions (0) Not Reported (1) First Reported (1) Follow Ups Due (0) Messages (2) Incomplete Interventions (0) Unknown Devices (1)

All (2) Red (1) Yellow (0) Green (0) Not Reported (1) Transmission Date: Jan 09 | Jan 10 | Jan 11 | Jan 12 | Jan 13 | Jan 14 | Today

Status	Name	Managed Group	DMP	Transmitted	Acute	Sx	Sx Var	Comp	Weight	BP	HR	Glu	SPO2	PEFR	Mood	Pain	Temp	Last Transmission	Days
✓	[REDACTED]	DUH HatH	Resp Inf	1/15/2021 8:07 AM (EST)	No	0	-16	0	OK	Alert	OK	OK					OK		
	DUHTest, DUH	DUH HatH	Resp Inf															1/14/2021 1:14 PM (EST)	1

CLICK ON PATIENT TO VIEW TRENDS AND SYMPTOMS. IF ADDING A NOTE, CLICK ON "ADD HEALTH CHECK", THIS WILL BRING VS IN ON A NOTE TO COPY AND PASTE INTO THE PATIENT CHART. THEN CLICK POST MY NOTE TO FINALIZE IT.

**Medtronic**

Video Chat | **Anthony, Robert** (43 Y/O) | Programs: Resp Inf | Phone: 010-207-0044 | My View | Managed Group: DUH Hath

Data | Contacts | History | Labs | Status | Follow Ups | Communications | Medications | Interventions | Notes | Verify | Setup | Documents

**14-Day Device Logs**

Today's Transmissions : 1

Alert	Score	Time (EST)	Transmit Type	Verified	Referred	Acknowledged	Reviewed
B	0	8:07 AM		✓	✓		✓

**Device Data - InterVIEW**

	1/15/2021 8:07 AM (EST)	1/14/2021 10:38 PM (EST)	Change	Trigger
Acute	N	N/A		
Sx Score	0	N/A	N/A	6
Sx Variance	-16	N/A		4 / 2 Days
Weight (lbs)	181.6	N/A	N/A	N/A
BP High	126 / 96	120 / 89	+6 / +7	171 / 96
BP Low	126 / 96	120 / 89	+6 / +7	88 / 59
HR High (BP)	80	74	+6	101
HR Low (BP)	80	74	+6	49
SPO2	89	95	-6	88
HR High (SPO2)	78	75	+3	101
HR Low (SPO2)	78	75	+3	49
Temp °F	96.9	95.3	+2	100.0

**Question Detail - Score: 0** | View Health Check

Exception	Question
<input type="checkbox"/>	Not more SOB today
<input type="checkbox"/>	Not coughing more than usual
<input type="checkbox"/>	Does not feel feverish or have the chills
<input type="checkbox"/>	Does not get dizzy when stands up
<input type="checkbox"/>	Not urinating less than usual
<input type="checkbox"/>	Does not feel nauseated or like throwing up

**Medications : 0**

Name	Dose	Unit	Route	Freq
No Medications				

**Last 14 Notes**

Date	Text	Entered By
1/15/2021	Jan 15, 2021 8:20 AM (EST) - Alerts generated: blood pressure. Biometric data: weight is 181.6 lbs, blood pressure is 126/96, heart rate is 80 for 1/15/2021 at 8:04 AM, heart rate is 78 for 1/15/2021 at 8:02 AM, SpO2 is 89, temp is 96.9 °F and Transmit date/time was Jan 15, 2021 8:07 AM (EST).	

**Intervention**

Type: Select A Type --

Action: Select An Action --

Result: Unknown

[ ]

**Add**

[Add Health Check](#) [Add Timestamp](#) [Add My Signature](#) | [Post My Note](#)

Change Note Display Size: [A](#) [A](#)

**Tasks**

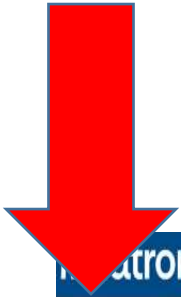
Open Interventions: 0

Follow Ups Due: 0

[Perform A Manual Health Check](#)

Active Status: N

TO VIDEO CHAT, CLICK ON VIDEO CHAT ON TOP LEFT OF PAGE BESIDE PT NAME. THE PATIENT MUST ACCEPT ON HIS/HER TABLET THEN YOU ARE ABLE TO DO THE VIDEO CHAT.



**Electronic**

Video Chat (43 Y/O) Programs: Resp Inf Managed Group: DUH HatH

Data Contacts History Labs Status Follow Ups Communications Medications Interventions Notes Verify Setup Documents

**14-Day Device Logs**

Today's Transmissions : 1

Alert	Score	Time (EST)	Transmit Type	Verified	Referred	Acknowledged	Reviewed
B	0	8:07 AM		✓	✓		✓

**Device Data - InterVIEW**

	1/15/2021 8:07 AM (EST)	1/14/2021 10:38 PM (EST)	Change	Trigger
Acute	N	N/A		
Sx Score	0	N/A	N/A	6

**Intervention**

Type: -- Select A Type --

Action: -- Select An Action --

Result: .....

**Policy/Procedure: DRAH Patient Self-Administration of Medications and Bedside Medications**

Document ID:2132	Revision Number: 1	Status: Published
Origination Date:	Effective Date:	
Entity: <input type="checkbox"/> DHCH <input type="checkbox"/> DHTS <input type="checkbox"/> DPC <input checked="" type="checkbox"/> DRAH <input type="checkbox"/> DRH <input type="checkbox"/> DUH <input type="checkbox"/> PDC <input type="checkbox"/> PHMO <input type="checkbox"/> SOM		

**Definitions:**

**Level:** Interdependent - asterisked [\*] items require an order from a health care practitioner licensed to prescribe medical therapy.

**Personnel:****Competencies/Skills:****Required Resources:****Policy Statement:****Inpatients**

REMOVED BECAUSE CONFIDENTIAL & PROPRIETARY

**Policy/Procedure: DRAH Patient Self-Administration of Medications and Bedside Medications**

Document ID:2132	Revision Number: 1	Status: Published
Origination Date:	Effective Date:	
Entity: <input type="checkbox"/> DHCH <input type="checkbox"/> DHTS <input type="checkbox"/> DPC <input checked="" type="checkbox"/> DRAH <input type="checkbox"/> DRH <input type="checkbox"/> DUH <input type="checkbox"/> PDC <input type="checkbox"/> PHMO <input type="checkbox"/> SOM		

D. CONFIDENTIAL & PROPRIETARY

**PROCEDURE:**

**Patient Self-Administration of Medication**

1. CONFIDENTIAL & PROPRIETARY

**Bedside Medications**

Electronic versions of documents will always supersede printed versions.

**Policy/Procedure: DRAH Patient Self-Administration of Medications and Bedside Medications**

Document ID:2132	Revision Number: 1	Status: Published
Origination Date:	Effective Date:	
Entity: <input type="checkbox"/> DHCH <input type="checkbox"/> DHTS <input type="checkbox"/> DPC <input checked="" type="checkbox"/> DRAH <input type="checkbox"/> DRH <input type="checkbox"/> DUH <input type="checkbox"/> PDC <input type="checkbox"/> PHMO <input type="checkbox"/> SOM		

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Page 3 of 3

**Estimated Pilot and Organizational Costs.**
**\$49,967**

Item	Units	Item Cost	Cost
<b>Remote Monitoring Devices</b> DHCH Medtronic InterView, Scale, BP Cuff, Pulse Ox Aiva Health device (final decision, DUA pending)			
<b>Travel time for staff and physicians</b> Nurses: 5 mile drive between patient home & hospital (\$0.XXX per mile, 10 patients, high LOS of 7 days) Physicians: 5 mile drive between patient home & hospital (\$0.XXX per mile, 10 patients, max LOS 7 days)			
<b>Nurse Kit</b> Standard Labs (Kit and specimen tubes) Wound Changes Medication Disposal Sharps Box IV Supplies Needles (IV Mar, Bags, Tubing) PPE Transportation Equipment Miscellaneous			
<b>Patient Transport Cost</b> Wake non-emergency vehicle EMS ambulance			
<b>Physician Services Estimate</b> CPT 99222 – 50 min initial inpatient visit CPT 99232 – 25 min subsequent inpatient care CPT 99251 - >30 minute inpatient discharge			
<b>Direct Costs of Hospital Services</b> Direct cost per case from sample of 65 patients in CY19. Excluding average radiology and PT/OT/Speech costs of \$XXX. Excluding overhead of fixed cost.			

**Funding:** Duke Institute for Health Innovation provided a grant of \$XX,000 in April 2020. Duke Raleigh Hospital leadership generously committed \$XX,000 at the time of project approval.



## Thank you!

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