Mount Sinai Health System at a Glance

Health System Assets

- **8** hospital campuses
- **7,400+** physicians on medical staff
- **400+** ambulatory care locations
- **38** research, educational, and clinical institutes
- **Icahn School of Medicine at Mount Sinai**
- **Mount Sinai Innovation Partners**
- **High Volume Specialty Pharmacies**

Key Statistics

- **~$9B** in revenue
- **3.4M+** outpatient visits, non-ED
- **570,000+** ED visits per year
- **158,000+** inpatient admissions
- **3,814** beds
- **42,000+** employees

World-Renowned Clinical Centers

- **Dubin Breast Center** of the Tisch Cancer Institute (TCI)
- **The Derald H. Ruttenberg Treatment Center** of the Tisch Cancer Institute
- The Corinne Goldsmith Dickinson **Center for Multiple Sclerosis**
- Mount Sinai – National Jewish Health **Respiratory Institute** Division of **Allergy and Clinical Immunology**
- The Susan and Leonard Feinstein **Inflammatory Bowel Disease Clinical Center**

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Background

- In March 2020, the Centers for Medicare & Medicaid Services (CMS) announced their Hospitals Without Walls program, which resulted in broader regulatory flexibility in providing services beyond hospital walls.
- This was later expanded in November 2020 to include the Acute Hospital Care at Home program, which allows eligible patients to be treated for acute illnesses in the comfort of their homes.
- CMS has outlined more than 60 acute conditions such as heart failure, asthma, pneumonia, and chronic obstructive pulmonary disease (COPD) that can be safely managed from a patient's home with proper monitoring and treatment protocols.
- For a patient to be eligible, they must be admitted directly from the emergency department or inpatient hospital bed. An in-person physician evaluation is also required to evaluate the patient prior to initiating at-home care. A patient must be seen at home at least twice daily.

WA2

- As of March 19, 2021, there are 48 health systems and 180 hospitals in 29 different states that are participating in the Acute Hospital Care at Home program

WA1

Slide 2

WA1 Its over 180 hospitals now
Wajnberg, Ania, 3/28/2022

WA2 This is a bit of a political issue, I changed the language to make more vague, happy to discuss but there is politics between nursing and paramedics nationally so would avoid if you can
Wajnberg, Ania, 3/28/2022

Mount Sinai Health System's History

- 2007 Mount Sinai received Center for Medicare & Medicaid Innovation award to create Hospitalization at Home. Received funding from The John A. Hartford Foundation.
- 2017 Building on initial award phase success serving over 700 patients, Mount Sinai & Contessa form a joint venture to increase patient access to our clinical models.
- 2020 Mount Sinai Hospitalization at Home admits patients from 4 Mount Sinai hospitals including Mount Sinai Hospital.

Objectives of Todays Presentation

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- Describe the CMS Acute Hospital Care at Home Program
- Describe the areas of opportunity for pharmacy services to support Program
- Discuss the compliance and operational lessons learned from pharmacy's perspective

Goals of the HaH Program

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- Provide safe high quality inpatient care in the home setting, expanding health system bed capacity
- Facilitate early hospital discharge for COVID-19 patients (in addition to other conditions)
- Reduce hospital complications – delirium, falls, ulcers, etc.
- Improve patient experience
- Improve value, reduce length of stay, cost of care

General Admission Criteria WA4

- Require inpatient hospitalization
- Have insurance that covers HaH or CHaH (Medicare and MSHS contracted commercial payers)
  - HaH is covered by four national providers and many regional providers
  - CHaH- All payors are covered except liability
- 18 years old; reside in NYC (excluding Staten Island)
- Have an eligible medical Diagnosis
- Pass the Home safety assessment

Common Eligible Medical Conditions

- Asthma
- Cellulitis
- CHF
- COPD
- Dehydration
- DVT/PE
- General Medical
- Pneumonia
- UTI

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Slide 6

WA4 Just FYI this is specific to Sinai, CMS waiver covers Medicare nationally if part of waiver, but the other payors we work with are contracts with Sinai directly

Wajnberg, Ania, 3/28/2022

Who gets admitted to HaH

1. Meeting utilization criteria for an inpatient admission (i.e., the patient's severity of illness excludes ambulatory treatment)
2. ≥ 18 years
3. Adequate home environment and support
4. Not a resident of SNF/SAR
5. Absence of need for acute inpatient surgical intervention
6. Absence of suspected cardiac chest pain or acute MI
7. Absence of need for ICU or telemetry services
8. Absence of hemodynamic instability
9. Patient was not discharged within 24 hours of an acute care facility
10. Not pregnant

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1. Data Source: Data system/report name from start date to end date representing sample size N obtained on date (filename.xls)

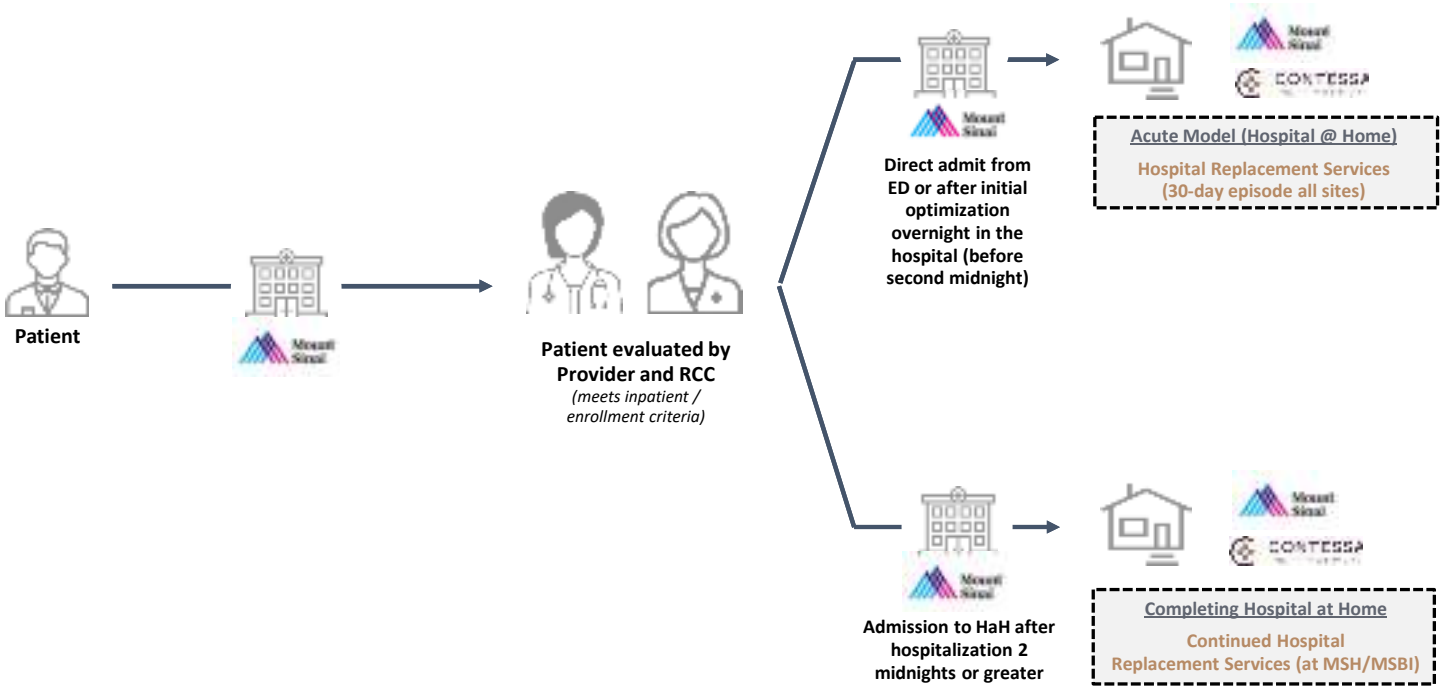
Challenge Question 1

Which of the following patients would eligible for hospital at home services

1. A twelve year old boy with cellulitis
2. A 47 year old homeless woman with a history of schizophrenia and CAP
3. A 70 year old male discharged yesterday from hospital after stent placement
4. 37 year old female dehydrated pharmacist with history of COPD

HaH clinical model delivers all the essential elements of institutional care in the safety and comfort of a patient's home

CLINICAL MODEL



Referring provider (ER Physician/Hospitalist): initial treatment/triage, history and physical, obtains consent, completes admission orders

Acute Care RN: visits 2x per day (2 hours each visit)

Treating Provider (HaH physician): rounds virtually or in person while acute care RN is in home

Care Coordinators: identifies patients, verifies insurance and clinical eligibility, oversees and coordinates care team, monitors biometric data and care plan adherence, arranges clinical services (DME, labs, infusions, etc), coordinates consults, identify gaps in care

- Admission: eligibility and home situation reviewed, services organized, transport to home
- Acute Care: 3-5 days, MD and RN visits, IV, oxygen, x-ray, lab tests, 24-7 support and discharge

WA5

- Post acute care: services available x 30 days, follow up visits by team, disease specific care management (specific to payer contracts and not part of the CMS waiver)

Slide 11

WA5 Note this 30 day bundle is specific to Sinai contracts and NOT part of CMS waiver
Wajnberg, Ania, 3/28/2022

What treatment modalities can be used in the home?

- Labs
- Imaging
- Arranging visits with consulting specialists
- Supplemental oxygen up to 4 liters per NC*
- Established CPAP/BiPAP patients
- Respiratory treatments
- IV diuretics
- IV antibiotics (continuous and intermittent)
- Continuous IV fluids
- PD patients with established treatment plan
- Managing Midlines/Ports
- Intermittent catheterizations

What treatment modalities can't be used in the home?

- Only able to deliver in hospital setting
  - Blood products
  - IV/IM narcotics
- Services requires > q6hours
  - labs, neuro checks, etc
- HD (for now)
- Other Considerations
  - New orders for CPAP/BiPAP
  - Cardiac/Heparin/Insulin drips
  - Supplemental oxygen greater than 4 liters per NC*
  - Continuous cardiac telemetry monitoring
  - Continuous pulse oximetry
  - Continuous bladder irrigation
  - NGT to suction

*Patients with baseline oxygen use above 4L can be considered for HRC admission based on their clinical presentation including past medical history

Challenge Question 2

Which of the following statements is True

1. HaH services offers the opportunity to discharge eligible patients from hospital to continue care at home
2. HaH patients can only be offered to patients being seen and discharged from ED into HaH care
3. HaH is mandated by insurance plans and has poor patient satisfaction scores
4. HaH typically requires > 7 days of care in home

HRC Performance Results

SAFE

- Well-defined clinical model
- Evidence based protocols
- Coordinated care delivery

QUALITY METRICS

90%+	44%	35%
PATIENT SATISFACTION	REDUCTION IN READMISSIONS	REDUCTION IN MEAN LOS

OPERATIONAL METRICS

3 days	93%	100%
AVG LOS IN ACUTE PHASE	ACCEPTANCE RATE	HEALTH ASSESSMENTS COMPLETED

SEAMLESS

- Administered with existing ancillary providers
- Coordinates with clinical initiatives
- No incremental administrative burden

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Extensive Focus on Clinical Protocol Development

HAH

- COPD
- CHF
- Pneumonia
- UTI
- Cellulitis
- DVT / PE
- Asthma
- Dehydration
- General Medicine Protocol for any patient that could be safely treated at home

Includes 44 episodes & 151 DRGs

Top DRGs Treated in HaH

Pneumonia	16%
Cellulitis	14%
CHF	13%
COPD	10%
UTI	10%
DVT/PE	5%
Asthma	5%
Gastro	4%
Renal Failure	2%
Other	21%

Policies and Procedures to Guide Growth of HaH Pharmacy Services WA6

- Patient education
- Control substances
- Self administered and infused medications
- Storage of medications at home
- Labeling requirements
- Documentation of medication administration
- Disposal of unused medications
- Inpatient vs outpatient prescribing guidelines

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Slide 16

WA6 Inpatient vs Outpatient orders/billing etc

Wajnberg, Ania, 3/28/2022

Optimization of EHR

- Develop HaH specific order sets
  - Avoid off processes to optimize pharmacy operating efficiencies and minimize provider disruptions to EHR workflow with adherence to formulary
- Develop workflows and documentation to accommodate decentralized pharmacy services
- Capture pharmacy charges upon med administration or dispensation

Medication Administration Records

- Patients self reports oral self administered meds
  - RN documents upon visit
- RN administers and documents infused/injected meds
- Mobile Health Technologies
  - Dose alerts, drug education, administration documentation, symptoms and side effects reporting

Storage of Medications

- Consider OTC meds and Rx meds already in home

- Refrigerated Meds
  - Ideal: temperature monitored refrigerator dedicated to meds
  - Practical: segregate meds in home fridge (protect in plastic food storage bags)

- Room Temp Meds
  - Cool, dry space (not in bathroom), room temp (68-77 F) with excursions permissible (59-86 F)

Challenge Question 3

Which of the below statements is true?

1. Health System Pharmacy organizations have opportunity to extend hospital pharmacy care beyond the walls of hospital inpatient settings

2. Legal and regulatory considerations have a significant role in the continued development of pharmacy services for HaH patients

3. Inpatient and outpatient hospital pharmacy services play a role on the care of patients in HaH units

4. Pharmacy can play a role in the customization of EHR workflows as HaH programs grow and expand

Commonly Used HaH Meds

Antibiotics

- Aztreonam: Administer by slow IV push over 3 to 5 minutes
- Cefazolin: administer 1 gram by slow IV push over 3 to 5 minutes
- Ceftriaxone: administer by slow IV push over 3 to 5 minutes
- Cefoxitin: Administer by slow IV push over 3 to 5 minutes
- Cefepime: Administer slow IV push over 3 to 5 minutes
- Cefuroxime: Administer by slow IV push over 3 to 5 minutes
- Daptomycin: Administer by IV push over 2 minutes
- Meropenem: administer by slow IV push over 3 to 5 minutes

Diuretics

- Bumetanide: Administer by IV push at a rate of 0.5 to 1 mg over 1 to 2 minutes
- Furosemide: Administer IV push 4 mg/min

Steroids

- Dexamethasone: IV push max 10 mg; over 1-2 mins
- Hydrocortisone: IV push max 500 mg; max rate 100 mg/min
- Methylprednisolone: IV push max 125 mg; max rate 20 mg/min

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IVP Opportunities for HaH Antibiotics

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- Aztreonam - Administer by slow IV push over 3 to 5 minutes
- Cefazolin - Administer 1 gram by slow IV push over 3 to 5 minutes
- Ceftriaxone - Administer by slow IV push over 3 to 5 minutes
- Cefoxitin - Administer by slow IV push over 3 to 5 minutes
- Cefepime - Administer slow IV push over 3 to 5 minutes
- Cefuroxime - Administer by slow IV push over 3 to 5 minutes
- Daptomycin - Administer by IV push over 2 minutes
- Meropenem - Administer by slow IV push over 3 to 5 minutes

Legal and Regulatory Pharmacy Considerations

- Labeling requirements differ for inpatient and outpatient Rx's
- State boards of pharmacy requirements may evolve differently for HaH patients
- Consider "outpatient" labels for self administered meds
- Inpatient labeling requirements for infused meds are probably adequate
- Err on the side of caution for controlled substances and adhere to outpatient labeling requirements
- Consider need for courier/transportation, rapid timing of delivery with acute needs

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Gray Areas and Payer Considerations

- Pharmacy Benefit Administrators (Outpatient Rx Benefit) prohibit billing for outpatient meds while patients are hospitalized
- Billing Rx benefit for HaH patients may be a gray area for Medicare patients with Part D
- May be appropriate to avoid use of outpatient pharmacy benefit for patient receiving HaH services due to PBM restrictions
- Joint Commission/BOP considerations

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Pharmacy Services for Medicare Part D Patients

- Send Prescriptions and email to Outpatient Pharmacy 830am-5pm (cutoff to transmit orders 3pm)
- Ensure timely provision of insurance info and prescriptions pick up/delivery
- Control substances 3 days only
- TaT goal 2 hours
- Signature requirement (payer requirement)
- Staff member/courier pick up and sign
- Prescriptions will be billed via patient's PBM, if not available at that time will be billed cash plan
- Infused meds provided by external vendor
- Pushed meds administered by visiting ACRN

Pharmacy Services for Commercial and Medicare MA Patients

WA7

- Majority of patients
- Serviced by Inpatient pharmacy
- No control substances
- 2 hour TaT goal
- Pre admission orders written before release to pharmacy
- 3 days limits for all meds
- Infused meds provided by external vendor
- IVP meds administered by ACRN

Slide 26

WA7 Again, specific to Sinai/contracts with certain payors I think still worth mentioning
Wajnberg, Ania, 3/28/2022

In Summary

- COVID has given HaH programs an opportunity to free up beds during the pandemic
- Commercial payers and Medicare now reimburse when patients are treated in the home
- Patients are carefully screened for participation in HaH care
- Hospital inpatient and outpatient Pharmacy has a critical role in developing HaH programs