Avoiding Hospitalizations by Moving Acute Care into the Community- Adoption of the *Hospital at Home* model at Summit ElderCare

David Wilner, MD, AGSF, FACP  
Vice-President and Medical Director  
Summit ElderCare and Fallon Health

Kris Bostek,  
Executive Director, Summit ElderCare  
Vice-President of Senior Services, Fallon Health

“Making our communities healthy”
Objectives

- Attendees will learn about the *Hospital at Home* model
- Attendees will understand the quality and financial benefits of managing participants with hospital level of care needs in the community
- Attendees will be able to initiate an analysis to determine if their program would benefit from using the *Hospital at Home* model
No Financial Disclosures

but

_Hospital at Home_ is a branded product from whom SE purchased a license
Summit ElderCare

- Established 20 years
- 5 centers
- ~1000 participants
- Central and Western MA
- Expanding to Eastern MA
Sharing the Care

Summit ElderCare serves residents of Hampden and Worcester counties as well as Easthampton, Granby, Hudson, Marlborough, South Hadley and Southampton.

★ Summit ElderCare locations
- 277 East Mountain St., Worcester
- 1369 Grafton St., Worcester
- 88 Masonic Home Road, Charlton
- 55 Cinema Blvd., Leominster
- 101 Wason Ave., Springfield
### The Challenge: SE Utilization - 2014

<table>
<thead>
<tr>
<th>Measure</th>
<th>Number</th>
<th>Rate (per thousand member months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ER visits</td>
<td>823</td>
<td>889</td>
</tr>
<tr>
<td>Acute Admissions</td>
<td>496</td>
<td>536</td>
</tr>
<tr>
<td>Acute Days</td>
<td>3,079</td>
<td>3326</td>
</tr>
<tr>
<td>SNF admits</td>
<td>615</td>
<td>664</td>
</tr>
<tr>
<td>SNF Days</td>
<td>8,223</td>
<td>8882</td>
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</tbody>
</table>

The ER and Acute admit rates are similar over past 4 years
What is *Hospital at Home*

- Developed by Johns Hopkins School of Medicine and Public Health
- Care Model to lower costs and reduce complications
- Premise: treat patients who meet an inpatient level of care at home with similar services with at least as good outcome
- Challenge: getting those services in place promptly and getting payers to pay them

http://www.hospitalathome.org/
Eligible Diagnoses

- Validated initially for 4 diagnoses
  - CHF exacerbation
  - Community Acquired Pneumonia
  - COPD exacerbation
  - Cellulitis

- New Diagnoses
  - UTI
  - Gastroenteritis
  - Dehydration
  - DVT/PE

- 3 models of enrollment:
  - Substitutive
  - Transitional
  - Home based
Demonstrated and Published Benefits

- 19% lower costs at Presbyterian HealthCare with comparable or better clinical outcomes
  - Savings from lower average LOS, fewer labs, and diagnostic testing
- Quicker patient functional recovery, greater patient teaching, increased communication with family caregivers
- More patients in HaH improved in function and fewer declined or had no change compared to those treated inpatient
- Stress for family members was significantly lower
- Greater satisfaction among patients and family members
- Less delirium, less use of chemical restraints, fewer sedatives

http://www.hospitalathome.org/news-resources/publications.php
Summit ElderCare Cost of Care 2013

- Member months: 10,807
- Census 894-923
- 442 Acute Hospital admissions
  - Acute Care Costs: $4,471,829
- 672 SNF admissions
  - SNF Costs: $2,859,208
- 95 acute hospital admissions with diagnoses of chf, copd, pneumonia, cellulitis
  - minus 8 who had ICU admissions
  - Subtotal 87 participants
## 2013 Costs for 87 participants

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Per case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient facility*</td>
<td>$ 893,910</td>
<td>$ 10,275</td>
</tr>
<tr>
<td>Inpatient facility professional**</td>
<td>$ 142,695</td>
<td>$ 1,640</td>
</tr>
<tr>
<td>SNF (44% discharged to SNF)</td>
<td>$ 196,786</td>
<td>$ 2,262</td>
</tr>
<tr>
<td>Ambulance</td>
<td>$ 48,728</td>
<td>$ 560</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 1,282,119</td>
<td>$ 14,737</td>
</tr>
</tbody>
</table>

*Facility plus ER fee
** hospitalists (+NPs and PAs), radiologists, specialty consultants, and ER doctor
Our Key Care Provisions for HaH

- 16-24 hrs of RN care over 5 days
- 72-84 hours of continuous HHA
- Daily SE MD or NP visit x 4 days
- Infusion therapies available within 4 hours of planned transfer to the home
- DME delivered within 4 hours
- In-home PT as needed
Day 0 – Day of enrollment

- Participant is identified, enrolled, and transferred to home via ALS ambulance
- RN involved with assessment and coordinates all deliveries to home: 4-6 hrs
- RN does initial teaching and treatments
- Provider visit
- HHA starts
Day 1

- RN visits x 3 (1-2 hours each visit)
- HHA continues
- Provider visit
- IV therapies administered
- RN and Provider briefs IDT
Day 2

- RN visits x 3
- HHA continues
- Provider visit
- IV therapies administered
- PT treatments if indicated
Day 3

- RN visits x 2
- HHA continues through day then leaves
- Provider visit
- Transition from IV to oral therapies
- Assessed for post discharge needs
- PT treatments if needed
Day 4

- RN Visit x 1-2
- HHA assistance intermittent x 1-2 times
- Provider visit
- IDT determines post discharge needs
  - Return to PACE center dates
  - Home care, PT, Skilled Nursing needs
- Discharged from HaH to usual/enhanced PACE care
Flow chart

ER admission to St. V or HAH

Symptoms indicate pneumonia, cellulitis, CHF, or COPD exacerbation? (1)

Yes

SE Doc checks NextGen demographics and chart to identify if the participant might meet eligibility criteria. (2)

SE Doc checks w/ER attending about HAH. Asks them to give the brochure to the patient or caregiver. (3a)

If eligibility criteria met, SE doc calls or visits the patient or caregiver to advise them of that option. May ask ER doc to discuss. (4)

Doc notifies AHC nurse about possible enrollee. SE faxes patient, package to AHC. (5)

No

Stop assessment for HAH. (2)

No

SE Doc texts AHC via group text to notify of possible admission.

Up front patient packet:
- Care Plan
- Home med list
- Equipment at home
- Advanced directives
Flow Chart - 2

A

SE Doc notifies SE Medical Director or designee of potential for a HATT candidate. (6a)

ER Doc confirms the diagnosis is one of four eligible. (7)

SE doc (PCP or on call) recommends the HATT program to ER doc and patient/caregiver via phone call. (8)

SE doc (PCP or on call) calls AHC nurse to confirm of the candidate. (9)

B

SE doc (PCP or on call) calls the SE Medical Director or designee of the candidate. (10)

C

SE doc arranges for a provider at home visit within 24 hours (target within 12 hours?) by calling the appropriate provider. (15)

B

AHC nurse goes to the ER within one hour to complete admit assessment, confirm eligibility, and enrolls the patient. (11)

SE doc (PCP or on call) arrives at ER within one hour to assess patient and assist in enrollment. (12)

SE doc (on call or PCP) completes the orders and either faxes or hands them to the AHC nurse. (13a)

SE Doc, escripts to pharmacy. (13b)

AHC nurse arranges logistics. (14)

SE Doc notifies SE Medical Director or designee of potential for a HATT candidate. (6b)

13a) fax order to Coram for IV
13b) escripts to retail pharmacy
13c) nurse calls pharmacy with heads up on script and pick up time
14a) nurse calls Vital to arrange pick up patient and meds for transport home
14b) nurse arranges DME
Flow chart -3

VNA nurse meets the patient at home within 1 hour of arrival at home. (16)

AHC administers meds, treatment, educates patient family re: HAN goals. Activates HHA, cancel regular HHA if appropriate. (17)

17a) Coram delivers infusion meds to home

VNA Nurse stays with patient for 8 to 12 hours. (18)

AHC Nurse and the SE Provider discuss the status before the nurse leaves the home. Determines HHA and nurse hours. (19a)

Rehab need assessed by Summit Eldercare in the patient’s home. (19b)

AHC Nurse calls into the site’s morning meeting between 8:30 and 9am Monday through Friday to update the team. Make changes to med. Changes PRN. Restart homecare on day of discharge. (21)

AHC Nurse gives a detailed report to site nurse the day of discharge. Identifies any additional services needed. (22)

AHC nurse brings documentation book back to AHC office. Documentation book scanned and sent to site via regular fax. (23)

AHC Nurse and HHA update documentation book. (20)

Note: Provide Conference line #.

End
IV drug Specifics

- IV infusion drug list:
  - Methylprednisolone
  - Furosemide
  - Ceftriaxone
  - Azithromycin
  - Ertipenim
  - Levofloxacin
  - Vancomycin
  - Normal Saline, ½ NS, with and w/o potassium
DME Menu

- Hospital Bed
- Specialty mattress
- Specialty cushion
- Oxygen
- Nebulizer
- Commode and/or urinal
- Infusion pumps
Goals

- Admit 44 participants to HaH instead of to an acute care hospital over next 12 months. (+ 10 more for new dx)
  - Others may be admitted to HaH in lieu of SNF admission but not counted here
- Start by April 1, 2015
Case 1

- 85 y.o. woman with COPD
- History of several acute admissions for COPD exacerbation; all followed by SNF
- Presented with SOB and cough to ER with w/u and plan to admit to hosp at 6 PM
- Offered HaH option at 7 PM
- PACE doctor and HaH nurse arrive at ER
- Home at 10 PM
Case 1 – slide 2

- Had DME at home including BIPAP and O2
- IV solumedrol and levofloxacin delivered to home
- Nursing and HHA and provider visits
- Discharged to usual care Day 4
- Successful outcome and no SNF stay
Cost of Program at SE for 44 participants*

<table>
<thead>
<tr>
<th></th>
<th>Total cost</th>
<th>Per case cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN and HHA</td>
<td>$ 162,800</td>
<td>$ 3,700</td>
</tr>
<tr>
<td>DME **</td>
<td>$ 22,044</td>
<td>$ 501</td>
</tr>
<tr>
<td>Infusion services</td>
<td>$ 15,180</td>
<td>$ 345</td>
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<tr>
<td>ER visit</td>
<td>$ 46,420</td>
<td>$ 1,055</td>
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<tr>
<td>ER physician charge</td>
<td>$ 6,498</td>
<td>$ 148</td>
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<tr>
<td>Ambulance to ER</td>
<td>$ 24,640</td>
<td>$ 560</td>
</tr>
<tr>
<td>Extra ambulance trip home</td>
<td>$ 17,820</td>
<td>$ 405</td>
</tr>
<tr>
<td>Totals</td>
<td>$ 295,416</td>
<td>$ 6,714</td>
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</tbody>
</table>

If HaH enrollment starts at the PACE center or at home, then the ER visit cost may be avoided but additional in-home diagnostic testing may be added

**DME = hospital bed, mattress, cushion, oxygen**
Financial Savings for 44 participants

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Per participant cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient Care Costs</td>
<td>$14,737</td>
<td>$14,737</td>
</tr>
<tr>
<td>Hospital at Home Costs</td>
<td>$6,714</td>
<td>$6,714</td>
</tr>
<tr>
<td>Savings</td>
<td>$362,516</td>
<td>$8,023</td>
</tr>
</tbody>
</table>

ROI: 119% (savings/costs)

Assumes: No SNF placements for those enrolled in HaH
Non-Financial Saving

- Less delirium
- Less deconditioning
- Lower SNF rate (included in financials)
- Less risk of Long Term Placement
- Less risk of nosocomial infections
- Less risk of other in-hospital complications (pressure sores, UTIs)
Other intangible costs

- Increased PACE staff time involvement?
- Care Coordination
- ER visits by SE Providers or RN
Challenges

- Vendor partner: prolonged negotiations with eventual drop-out
- Second vendor found but delay of 6 months in process
- IV therapy vendor could not bring oral drugs
- Large service area
Communication and Buy-In

- ER docs and nurses
- EMS partner
- Pharmacy vendor
Case 2

- 72 y.o. with COPD in the ER. Call for admission at 11AM
- Visit to ER at noon with nurse at 1 PM
- Patient and dtr interested in HaH.
- Received IV steroids and nebs in ER
- Home for 2:30 PM
- Nurse visit 3-4 hrs.
- HHA starts
Case 2

- RN returns 9-10 PM for assessment and IV steroids
- Day 1: Provider visit, RN visit x 3, ongoing HHA
- Day 2: Provider visit, RN Visit x 2, ongoing HHA
- Day 3: Provider visit, RN visit x 2, HHA finishes, discharged
Hospital at Home Licensing

- “Standard” licensing is $10,000 + $50/patient enrolled
- Tool kit includes brochures, care maps, admission orders for nurse and HHA, consent forms, etc.
- Open to negotiation depending on size of organization
- Need to follow their protocols to use name
Additional plans

- Mobile Integrated Health Care
- Assess need for HHA hours included in current price
- Leverage nurse and HHAs for other short term opportunities