The Acute Hospital at Home project at Dorset County Hospital

By Dr Peter Szedlak and Dr Paul Andrews
The problem

Hospitals on the edge

Changing population

Increasing demand – decreasing supply of beds

Fractured care

Hospitals on the edge
Hospital at home – the story so far

- Leff et al. Home Hospital Program: A Pilot Study – 1999
- NICE COPD guidelines (CG101)
- BTS guidelines
- Several RCTs and Systematic Reviews

- Largest evidence base for COPD exacerbations
- Admission avoidance vs. Early discharge
Our hospital

- Small DGH located in a rural community. Catchment population of 240,000, Renal services for 800,000.
- Beds: 368
- Staff: 3000
- Annual turnover of £150m
- Challenges:
  - Rural location
  - Aging population – 26% >65yrs
Aims

- Reduce acute hospital admissions by providing care in the community, saving 4 hospital beds.

- Reduce Emergency Department presentations by patients with long term conditions by 1%.

- Reduce placement of patients to residential care from hospital by 50%.
Methods

- Hospital at home (10 funded beds currently)
- Roaming Night service
- Alternative Offer
Hospital at home

Currently 10 beds in the community

Early discharge model (*admission avoidance for Bronchiectasis patients*)

Most patients admitted from EMU following PTWR

At least twice daily visits by nursing staff

Observations recorded and monitored electronically

Daily Virtual Ward Round

Medical review in person when necessary
The patient’s journey

GP or ED referral to Acute take

Patient admitted to ward

PTWR – AHAH suitability considered, management plan made

Referral to AHAH – Lead nurse assesses patient and gains consent

Daily Virtual Ward Round with Consultant and nursing staff – plan updated

Nurse visit for review and therapy daily

Patient returns home

Pharmacy prepares medications

Physician review and further investigations when needed

OT, Physiotherapy and dietetics input as needed

Discharge to GP
Staffing

- 1 X Band 6 Staff Nurse
- 2 X Band 5 Staff Nurses
- 2.5 X Health Care Assistants
- 1 X Band 5 OT
- 1 X Band 6 Physiotherapist
- 1 X Band 6 SALT
- 1 X Band 6 Dietician
- 0.4 X Band 7 Pharmacy
Patients by specialty

- Acute Medicine (49%)
- Respiratory (1%)
- Trauma and Orthopaedic Surgery (1%)
- Nephrology (1%)
- Other (1%)
- Gastroenterology (4%)
- Endocrinology (4%)
- Care of the Elderly (4%)
- Colorectal Surgery (12%)
- Upper GI surgery (5%)
- Vascular Surgery (2%)
- Cardiology (7%)
- Haematology (1%)
- Oncology (1%)
- Urology (6%)
Top 5 conditions managed

- Exacerbation of COPD
- Cellulitis
- Pneumonia
- Pulmonary embolus
- Bronchiectasis
Roaming Night/Alternative Offer

Roaming Night:

• 1 qualified nurse, 1 HCA covering the area
• Telephone advice or personal visit available overnight

Alternative Offer:

• For patients with long-term care needs
• Comprehensive assessment over 2 weeks in their own home
• Aim to prevent avoidable Residential Care admissions
Challenges

- Altering prescriptions – electronic prescribing
- Traffic – rural location
- Lack of regular, personal medical review
Outcomes

- **6** beds saved in the hospital during winter
- **75%** reduction in residential placements from hospital
- **1%** reduction in unplanned re-attendances to ED
**Acute Hospital at Home** commenced on 6th January 2014

<table>
<thead>
<tr>
<th>Project aim/objective</th>
<th>Type of measure</th>
<th>Expected</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid opening of 4 DCH beds.</td>
<td>Agreed KPI</td>
<td>4 beds</td>
<td>3.5 beds</td>
<td>5.8 beds</td>
<td>7.6 beds</td>
<td>5.8 beds</td>
<td>7.6 beds</td>
<td>7.4 beds</td>
<td>7.5 beds</td>
<td>7.5 beds</td>
<td>6.3 beds</td>
</tr>
<tr>
<td>Friends and family test: are they likely or extremely likely to recommend the service</td>
<td>Agreed KPI - Patient Experience</td>
<td>75%</td>
<td>100% (8 patients with survey results)</td>
<td>100% (5 patients with survey results)</td>
<td>100% (10 patients with survey results)</td>
<td>100% (12 patients with survey results)</td>
<td>92% (6 patients with survey results)</td>
<td>100% (3 patients with survey results)</td>
<td>95% (8 patients with survey results)</td>
<td>100% (10 patients with survey results)</td>
<td></td>
</tr>
<tr>
<td>Number of patients admitted to AHaH</td>
<td>N/A</td>
<td>21</td>
<td>24*</td>
<td>28*</td>
<td>73</td>
<td>22*</td>
<td>27</td>
<td>21*</td>
<td>70</td>
<td>25*</td>
<td>21*</td>
</tr>
<tr>
<td>Maximum length of stay on AHaH of patients admitted</td>
<td>N/A</td>
<td>21 days</td>
<td>39 days</td>
<td>60 days</td>
<td>60 days</td>
<td>32 days</td>
<td>28 days</td>
<td>24 days</td>
<td>32 days</td>
<td>15 days</td>
<td></td>
</tr>
<tr>
<td>Number of patients admitted as an acute inpatient from AHaH.</td>
<td>N/A</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>14</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3 (same patient twice)</td>
<td>1</td>
</tr>
<tr>
<td>Percentage of referred patients seen within 24 hours</td>
<td>Therapy Measure</td>
<td>80%</td>
<td>100%</td>
<td>100%</td>
<td>67%</td>
<td>89%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* A patient was discharged from AHaH and transferred to a DCH ward and readmitted to AHaH during the same month. Counted as 2 patients admitted.
The Future

- Increasing capacity to 15 beds
- Raising awareness of AHAH – new groups of patients
- Regular Consultant visits
Thank you!

- Any questions?
References


- Scottish Government SAH. Hospital at home [Internet]. 2013 [cited 2014 Sep 9]. Available from: http://www.scotland.gov.uk/News/Releases/2013/03/hospital-at-home05032013