Alternatives to Hospital: Models of Integrated Care

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Projects taking ‘whole systems’ approach

Sheffield
- Designed community services for proactive care of chronic diseases and frailty

Wexham Park Hospital
- Redesigned discharge planning process

Oxfordshire
- Design of Community Hospital and Community Staffing requirements

North Hampshire
- Reduction in number of beds by 60 through identification of nursing and therapy staffing needs
# Rich Picture of Process Flow

## Stage
- Pre-admission
- Admission
- Diagnosis
- Treatment
- Discharge

## Data Collected
- Identification of vulnerable people
  - Social factors (housing, informal care)
  - Risk factors (drugs, comorbidity, dementia, etc)
- Source of referral
  - Time of admission
  - Route
  - Referral Source
  - Reason for admission
- Admission diagnosis
  - Inpatient diagnosis
  - Delays in diagnosis
  - Chronic disease
- Delays in therapy
  - Alternative sites for discharge
- Delays in planning

## Opportunities
- Preventive care
- Chronic disease management
- Alternatives to admission to acute setting
- Alternative sites for diagnosis
- Diagnostics Required
- Alternative settings for therapy (especially rehab)
- Alternative sites for discharge
Point Prevalence Surveys

- All inpatients in selected specialties on a single day
- Acute and elderly medicine, & orthopaedics
- Data collected from casenotes by clinical staff
- Use *Appropriateness Evaluation Protocol (AEP)* to identify possibly 'non-acute' patients
- Also survey non-acute hospitals
- Follow up discharge outcomes to provide basis for demand analysis
AEP Criteria

On admission

• Severity of illness
  eg unconscious, unable to move (fall), acute bleeding

• Intensity of service
  eg surgery + gen anaesthesia, regular monitoring, IV therapy

On day of care

• Medical services
• Nursing services
• Patient condition
  eg acute confusion, other acute states, coma, fever
Results from Typical Acute Hospital

- 12% of all patients admitted outside AEP criteria
- 43% of all patients outside AEP criteria on day of survey
- Clinicians assess preferred alternative type and location of care
## AEP comparison for medical patients

<table>
<thead>
<tr>
<th></th>
<th>Outside AEP on admission</th>
<th>Outside AEP on the day</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Berkshire</td>
<td>15%</td>
<td>47%</td>
</tr>
<tr>
<td>Cambridge</td>
<td>16%</td>
<td>47%</td>
</tr>
<tr>
<td>Oxfordshire</td>
<td>20%</td>
<td>49%</td>
</tr>
<tr>
<td>East Surrey</td>
<td>15%</td>
<td>50%</td>
</tr>
<tr>
<td>NW Surrey</td>
<td>16%</td>
<td>57%</td>
</tr>
</tbody>
</table>
Acute Medicine - Alternatives for Patients admitted outside AEP Criteria (N = 146)
Acute Medicine - Alternatives for Patients outside AEP on the Day (N = 364)
Acute Medicine - Alternatives for Patients not 'Discharged Quickly' (N = 229)
Potential Change in Service Usage
Acute Medicine & Orthopaedics

Acute beds
- +143 Home based care packages
- +48
  - +88 Care Home (short term beds)
  - +5
    - +17 Care Home (long term beds)
  - +24
    - EMH
Some implications

• Change to the clinical process is needed if service development to deliver benefits
• AEP values characterise the nature of the UK hospital service, and potential to develop – can we model this?
• Is there an analogous approach that would allow us to model alternatives for long term conditions?