What is the Clinical Model for AEC? Setting the Tempo

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“...the provision of same day emergency care for patients being considered for emergency admission.”

‘AEC is for patients who would have arrived that day, would have been admitted and would have a high probability of at least one overnight stay’ – seeing any other patients is NOT AEC

The biggest risks to AEC as a model are the ‘supply side driver’ risk and ‘inappropriate clock stops’.
What are we trying to achieve?
Safer, Faster, Better – ‘Pull vs Push’

Improving outcomes
IoM Six Domains of Quality

• Safe
• Effective
• Efficient
• Timely
• Patient Centric
• Equitable

+ Sustainable

• NOT - ‘Hitting the target but missing point’

Will + ideas + Execution = Delivery
Managing the Admitted Streams

The streams ‘overlap’ – very many can have fore-shortened
Allocate early (Day 0) to teams skilled in that stream

- Short stay/Ambulatory
- Sick specialty
- Sick Frail
- Complex

**Clarity of specialty criteria**
Specialty case management plan at Handover – no delays
Green bed days vs red bed days

**Short stay – manage to the hour**
Maximise ambulatory care

**Frailty - Minimise handover**
Deconditioning risk
Early assertive management
Green bed days vs red bed days

**Hyper-complex**
Model of Acute Care

Discharge plan and case management

Measuring Standards – Publicise Performance

www.ecip.nhs.uk  @ECIProgramme  @ECIST @ECISTNetwork
www.fabnhsstuff.net – ECIST Network Tab
The Goal – Eliyahu M. Goldratt
Pride and Joy – Alex Knight
The Patient’s Perspective
Patient’s time – the most important currency – Eliminate waste

4 key questions all patients can answer on day 0:

• What is wrong with me or at least what are you looking for?
  = Competent assessment
• What is going to happen today and tomorrow?
  = End to end case management plan
• What needs to be achieved to get me home?
  = Clinical criteria for discharge
• When is this going to happen?
  = Expected date of discharge

Team’s Perspective

• All team members:
  – can describe the CASE MANAGEMENT PLAN = THE ‘GOAL’
  – actively identify and eliminate all internal and external waits
• Flattened hierarchy
  – Supportive challenge
  – Accountability within the team
• Create expectation akin to enhanced recovery
Admitted emergency care comprises ‘parallel processes’ with dependent steps in series. Unnecessary waits/variation in lead times, additional unnecessary steps etc create errors and harm.

Red bed days vs Green bed days

In AEC – Red hours vs Green Hours

Unnecessary Waiting + Sleep Deprivation = Deconditioning

By reducing the waiting time overall LOS is reduced without changing the clinical care received by the patient.
Key Principles for an Effective AAU
AAU/AMU/ASU - a waiting area or a ‘decision and delivery area’?

1. Understand and align capacity for the predictable demand profile
2. Design internal professional standards/SOP and ‘floor manage’ to these standards
3. Primary care calls discussed with senior clinician
4. Key added value step = construction of case management and discharge including EDD + CCD
5. 2\textsuperscript{nd} Key added value step = assertive delivery of that case management plan
6. Do not ‘dissociate’ discharge planning from case management plan
7. Early Senior Review with rolling reviews with twice daily rounding + Board rounds
8. Design in continuity of care – at least for AEC/Short Stay – manage handovers if they have to occur – avoid ‘systemic carveoutosis multiforme’
9. 7 day services internal and external for flow – implement internal professional standards – to minimise variation
10. Stream patients to AEC/Short Stay or Sick general/specialty or acute frailty – AEC = default
11. Measure the effect and impact of interventions using SPC and follow up with further improvements – Set impact/outcome/process/balancing measures for improvement
12. Align operational management to the principles BUT remember this will all be delivered by people so talk, engage, lead, follow & LISTEN
1. Timely senior assessment
2. Timely case management plan
   – What, where, when, and communication
3. Timely delivery of ‘inputs’
   – Diagnostics
   – Interventions
4. Maintaining the tempo
   – Regular review against plan

‘Assess to admit’, ‘today’s work today’, ‘home first for discharge’
Clinical Team for AEC

- Demand Capacity analysis
- Consultant led
- Advanced Practitioner roles
- Training roles – not just ‘clerking machines’
- Aim to deliver a minimum of 12hrs per day – ideally 16 hrs.
Consultant Role in AEC

- Leadership
- Early Senior Assessment
  - Streaming
  - Delivery
- Maintaining the tempo – ‘floor management’
- Gold standard – receives GP calls
- Preventing ‘supply side driver’ risk
6 As Audit to identify potential for AEC

- **Advice** – following the clinical conversation a suggested clinical management plan that allows the patient to return home, perhaps with follow up in primary care
- **Access** to out-patient services – patients may require a specialist assessment or ongoing management of a long term condition
- **Ambulatory** Emergency Care – patients that are clinically stable who require further specialist evaluation, diagnosis or treatment including surgical procedures
- **Acute** Frailty Unit – to provide comprehensive geriatric assessment for frail older patients
- **Acute** Assessment Units – to stabilise, monitor & diagnose and manage patients likely to need to admission
- **Admission** to specialty ward directly – for agreed clinical pathways, specialised clinical presentations, need for critical care support
How Far to Push the Envelope

- Do not exclude older people with frailty
- ‘Ambulant’ – to restrictive – If I had my time again!
- 5-10% of patients should end up being admitted – not because of unnecessary waits – just didn’t improve enough in time
- Oxford – same day ‘peer review’ across AMU
6 As Audit

- Consecutive admissions – number
- Across the week and weekends

<table>
<thead>
<tr>
<th></th>
<th>Actual outcome</th>
<th>Ideal outcome</th>
<th>Reason preventing ideal outcome</th>
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</thead>
<tbody>
<tr>
<td>Advice</td>
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<tr>
<td>Access to out-patients</td>
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<tr>
<td>Ambulatory emergency care</td>
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<td>Acute frailty unit</td>
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<tr>
<td>Acute assessment unit</td>
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<tr>
<td>Admission to specialty ward</td>
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Scoring Systems for Admission

1. Glasgow Admission Prediction Score

<table>
<thead>
<tr>
<th>Variable</th>
<th>Points</th>
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<tbody>
<tr>
<td>Age</td>
<td>1 point per decade</td>
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<tr>
<td>NEWS</td>
<td>1 point per point on NEWS score</td>
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<tr>
<td>Triage category:</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>2 (or 3+)</td>
<td>10</td>
</tr>
<tr>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Referred by GP</td>
<td>10</td>
</tr>
<tr>
<td>Arrived in ambulance</td>
<td>5</td>
</tr>
<tr>
<td>Admitted &lt;1 year ago</td>
<td>5</td>
</tr>
</tbody>
</table>

AMB Score - Modified

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>1 if applicable</th>
<th>0 if not applicable</th>
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</thead>
<tbody>
<tr>
<td>Female sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age &lt; 80 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has access to personal / public transport</td>
<td></td>
<td></td>
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<tr>
<td>IV treatment not anticipated by referring doctor</td>
<td></td>
<td></td>
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<tr>
<td>Not acutely confused</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEWS score = 0</td>
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<td></td>
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<tr>
<td>Not discharged from hospital within previous 30 days</td>
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<tr>
<td><strong>TOTAL Amb Score (Maximum 7)</strong></td>
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None of these should be used as a clinical decision tool alone
## Patient Selection for AEC

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<thead>
<tr>
<th></th>
<th>Managed in AEC</th>
<th>Not managed in AEC</th>
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</thead>
<tbody>
<tr>
<td><strong>Conversion</strong></td>
<td></td>
<td></td>
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<tr>
<td>Appropriate for AEC</td>
<td><strong>Group 1: Success</strong></td>
<td><strong>Group 3: Missed opportunity</strong></td>
</tr>
<tr>
<td></td>
<td>(expect about 10% conversion rate)</td>
<td></td>
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<tr>
<td>Not appropriate for AEC</td>
<td><strong>Group 4a: Waste</strong></td>
<td><strong>Group 2: Success</strong></td>
</tr>
<tr>
<td></td>
<td>(patient could be managed in another</td>
<td>(appropriate inpatient care)</td>
</tr>
<tr>
<td></td>
<td>outpatient service)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Group 4b: Risk</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(patient too sick/complex at time of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>selection)</td>
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Clinical Conversations for AEC

- With Primary Care and A+E
- Aim is to ‘minimise’ supply side driver’ and ‘clock stops’
- Offer alternatives – eg the 6As approach
- A ‘supportive/developmental’ discussion – not a block
- Mutually respectful
Primary Care Referrals

Clarity of the offer:

1. Value the referrers time
2. Offer real alternatives
3. Up to 30% of GP referrals can be managed via alternative pathways
4. Of the remaining 70% optimise the AEC opportunity – clarity of the AEC offer
5. Design for early transfer in of ‘accepted’ – optimise the chance of early discharge
Safety Net After AEC

- Virtual ward
- Telephone/email/text
- Virtual consultations - Skype/Zoom
- Clinic - ? – if necessary ideally away from AEC area
- Community/outreach process
- Primary care – integrated systems
Approach to AEC

Models of AEC - the 4Ps

**Passive**
Receive referrals

**Pathway driven**
Restricted to particular agreed pathways

**Process driven**
All patients considered for AEC

**Pull**
Senior clinician takes calls for emergency referrals
The 4 Ps of AEC

Models of AEC – 4Ps

- Limited AEC
- Optimal AEC
- Restricted AEC
- Constrained AEC

- Push
- Pull

Pathway

Process
What is the expected impact of AEC?

An ‘Aim Statement’ (IHI):

• How much improvement, by when, by how measured.
  • Impact measure
  • Quality measures
  • Balancing measure
Impact Metric for AEC/Short Stay

**Current State**

- ED Attends per week: 1400
- Admitted patients + Direct admits: 350
- Admitted patients with LOS ≥ 1: 300
- Admitted patients with LOS > 2 midnights: 220

**Future State**

- ED Attends per week: 1400
- Admitted patients + Direct admits: 105
- Admitted patients with LOS ≥ 1: 102
- Admitted patients with LOS > 2 midnights: 143

**Not admitted**

- Ambulatory Emergency Care Patients (LOS=0): 1100
- Short Stay Patients Excl 0 LOS (LOS < 2 midnights): 350

**Patients to Base Wards**

- Patients Excl 0 LOS (LOS < 2 midnights): 102

**Beware**

Supply Side Drivers – AEC should only do AEC work

55 fewer patients per week with an overnight stay and 77 fewer patients/week moving to long stay (> 2 days) through optimising AEC/SS
Quality Measures

• Patient experience – the 4 questions!
• Mortality and harm
• Delivery of Internal Professional Standards (IPS)
• Stream characteristics
• Readmissions seven days
• A&E flow
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