Unplanned Care & Demand Management

David Lengu
University of Salford
| 1 | Context of the study |
| 2 | Initiatives for reducing inappropriate attendances at A&E - Overview |
| 3 | Proposed scheme - Patient deflection with primary care involvement |
| 4 | Model description and results |
Context of the study

- Study part of a research project on the management of unplanned care, where such care includes:
  - Emergency attendance at A&E
  - Emergency admissions to hospital
  - Unnecessary hospital bed stays
- Focus of study on ‘inappropriate’ attendances at A&E (patients who could have been advised/treated by pharmacist or GP, or could have looked after themselves at home).
- According to NHS North West, every attendance at A&E in the UK costs a minimum of £59. There were more 400,000 inappropriate attendances costing in North West England, costing an estimated £20.9m.
- Choose Well campaign; 3 new QoF indicators introduced in 2012 focusing on inappropriate A&E attendances.
Research objectives & approach

• Objectives:
  1. Review the evidence and case studies of interventions aimed at reducing or managing inappropriate attendances at A&E
  2. Identify/develop interventions that offer high impact combined with low implementation difficulty
  3. By using simulation models, comparing the performance of the various initiatives

• Study considers a proposed ‘hybrid’ scheme in which A&E triage nurses and primary care clinicians deflected patients with non-urgent needs away from A&E
Literature Overview

1. Deflection of patients away from A&E
   - A&E personnel can focus on acute cases
   - Inherent risk with urgent needs might be deflected and their safety compromised
   - Evidence on the effectiveness and safety of such initiatives mixed (Van Uden et al., 2005; Piehl et al., 2000; Washington et al., 2002)

2. Treating patients within A&E
   - GPs placed within A&E; patients may be triaged and streamed (e.g. fast-track)
   - Creates incentives for patients with primary care needs to attend A&E
   - Reduced risk that patients with urgent needs may be turned away
   - Evidence on effectiveness of such initiatives mixed (Van Uden et al., 2005; Jiménez et al., 2005)
3. Public education campaigns
   - Choose Well campaign
   - Some evidence that they are effective in managing A&E attendance of patients with chronic diseases (Gibson et al., 2003)
   - Little empirical evidence that general education campaigns aimed at reducing inappropriate A&E attendance are effective (Carson et al., 2010)

4. Better co-ordination between A&E and primary & social care
   - An agreed set of guidelines identifying conditions that warrant attendance at A&E across the system (Chew-Graham et al., 2004).
   - A clear clinical and operational governance process specifying the party that is responsible to provide care for a patient in any given case (Carson et al., 2010)
Literature Overview

5. Greater and more timely access to primary care
   • Walk in centres and minor injury clinics (Coleman et al., 2001; Salisbury et al., 2002; Chalder et al., 2003)
   • Longer GP out-of-hours services (Van Uden and Crebolder, 2004)
   • Telephone advice lines (e.g. NHS Direct) (Jones and Playforth, 2001; Munro et al., 2000)
Proposed hybrid scheme

- Arrival
- Registration
- Triage
- Paediatrics
- Majors/Resus
- Discharge/Admit
- Minors
- Primary Care Clinicians
- GP Referral / Discharge
Deflection away from A&E
- Lower patient throughput in A&E
- A&E personnel can focus on those areas in which they have expertise
- No incentive for patients with non-urgent needs to attend A&E

Managing patients within A&E
- Reduced risk of deflecting away patients with urgent needs

Public education campaigns
- Primary care clinicians inform patients of the costs of inappropriate attendance at A&E
- They also provide information on the primary care/social services available in the community

Better co-ordination between A&E and primary care/social services
- Primary care clinicians make appointments for non-urgent patients
- Greater understanding between A&E personnel and primary care/social services professionals
- Opportunity for having a more consistent definition of ‘inappropriate’ attendance
Simulation exercise - Overview

• Initiatives being compared:
  1) Benchmark: Managing patients within A&E
  2) Alternative: Proposed hybrid scheme

• Objective: To assess the benefits of the proposed initiative in terms of time spent by patients in A&E

• Methods: Discrete event simulation (using Simul8)

• Data used: Health episodes data (HES) of an A&E department in Greater Manchester
## Triage system

<table>
<thead>
<tr>
<th>Triage level</th>
<th>Description</th>
<th>Share of patient population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emergency</td>
<td>1%</td>
</tr>
<tr>
<td>2</td>
<td>Very urgent</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>Urgent</td>
<td>29%</td>
</tr>
<tr>
<td>4</td>
<td>Standard</td>
<td>Remainder</td>
</tr>
<tr>
<td>5</td>
<td>Non-urgent</td>
<td>5% to 20%, at intervals of 2.5%*</td>
</tr>
</tbody>
</table>

* Range based on findings in Carson et al. (2010)
Results

Level 1 Patients

Level 2 Patients
Results

Level 3 Patients

Level 4 Patients

[Graphs showing time spent in A&E (mins) vs. % of A&E attenders in Level 5 for both benchmark and proposed schemes for Level 3 and Level 4 patients.]
Results

Level 5 Patients

![Graph showing time spent in A&E vs. percentage of A&E attenders in Level 5]
Conclusions

- The proposed scheme may reduce time spent in A&E by patients requiring A&E treatment (i.e. Level 1-4 patients) at the expense of patients with non-urgent needs (Level 5 patients) who are deflected away from A&E

Limitations

- Assessing the clinical feasibility of the scheme
- Patient survey of the Level 5 patients
References

1. CARSON, D., CLAY, H. & STERN, R. 2010. Primary care and emergency departments, Lewes, U.K., Primary Care Foundation.


References


Thank you.

Email: D.Lengu@salford.ac.uk