A specialist nurse led liaison model of care reduced unscheduled care for acute asthma in a deprived multiethnic area


Methods

Design: cluster randomised controlled trial.

Allocation: concealed.

Blinding: blinded (outcome assessors and data analysts).

Follow up period: 1 year.

Setting: 44 general practices in east London, UK.

Patients: 324 patients who were 4–60 years of age (mean age 23 y, 50% men, 51% South Asian), had physician diagnosed asthma, and were admitted to or attended hospital or general practitioner after-hours services with acute asthma.

Intervention: general practices were stratified by partnership size, training practice status, hospital admission rate for asthma, and employment of a practice nurse and whether he or she was trained in asthma care. 22 practices (175 patients) were allocated to a liaison model of care: two 1 h asthma specialist nurse visits to each practice to discuss acute asthma management guidelines; specialist nurse review of patient asthma control and drugs (identification of high risk asthma, assessment of inhaler technique and peak expiratory flow, and self management advice); liaison with general practitioners and practice nurses; and ongoing clinical support. 22 practices (149 patients) were allocated to usual care and a single nurse visit to the practice to discuss standard asthma guidelines and check inhaler technique.

Outcomes: attendance and time to first attendance for unscheduled asthma care (consultation in primary, secondary, or after-hours care with signs and symptoms of acute asthma). Secondary outcomes included self management behaviour (increase in use of bronchodilators, inhaled corticosteroids, or peak flow meter) and quality of life.

Patient follow up: 98% (intention to treat analysis).

Main Results

 Fewer patients in the intervention group than the usual care group had unscheduled asthma care at 1 year (table). The intervention delayed time to first attendance for unscheduled asthma care (median 194 v 126 d, adjusted hazard ratio for time to first unscheduled attendance 0.73, 95% CI 0.54 to 1.00, borderline significance), but did not affect self management behaviour.

Conclusion

A specialist nurse led intervention reduced unscheduled care for acute asthma in a deprived multiethnic area.

Specialist nurse led liaison model of care (LMC) v usual care (UC) for acute asthma*

<table>
<thead>
<tr>
<th>Outcome at 1 year</th>
<th>LMC</th>
<th>UC</th>
<th>RRR (95% CI)</th>
<th>NNT (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unscheduled asthma care</td>
<td>58%</td>
<td>68%</td>
<td>17% (0.3 to 34)</td>
<td>9 (5 to 459)</td>
</tr>
</tbody>
</table>

*Abbreviations defined in glossary; RRR, NNT, and CI calculated based on adjusted odds ratio and control event rate reported in article.