Seven steps for improving influenza vaccination rates in risk-groups: findings from a national cross sectional survey in UK general practice

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Influenza

- Common: 5% adults, 20% children
- Risk groups: 10 x mortality
- Vaccine 70% effective
- NNT: 9 (flu); 120 (death in high risk groups)
Flu vaccination rates 2010/11

- ≥65 years: 72.8%
- <65 years at risk: 50.4%
- Pregnancy: 36.6%
Flu vaccination uptake

- Patient
- Provider
- System/organisational
Aim

- Organisational factors associated with high practice flu vaccination rates
- For over 65s and under 65s at risk
- Good practice guide for practices
Methods

- Online survey: 1–15 August 2011
- Vaccination data: 2010-11
- Practice demographic and QOF data
Response

- 795 (of 2896) practices (28%)
- 569 practice managers, 335 nurses, 107 GPs

Box and whisker plots showing influenza vaccination uptake for 65+ years (blue boxes and bars) and at-risk patients < 65 years (red boxes and bars)

# Multivariate regression for all staff

<table>
<thead>
<tr>
<th>Significant factor</th>
<th>Regression coefficient</th>
<th>96% CI</th>
<th>P</th>
<th>Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥65 years</td>
<td></td>
<td></td>
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<tr>
<td><strong>Written report</strong> to review flu vaccine uptake rates</td>
<td>0.065</td>
<td>0.023-0.11</td>
<td>0.01</td>
<td>659</td>
</tr>
<tr>
<td><strong>Lead member</strong> of staff for planning practice's flu vaccination campaign</td>
<td>0.144</td>
<td>0.035 to 0.25</td>
<td>0.010</td>
<td>659</td>
</tr>
<tr>
<td><strong>Personal invitation</strong> to eligible patients</td>
<td>0.081</td>
<td>0.035 to 0.13</td>
<td>0.001</td>
<td>659</td>
</tr>
<tr>
<td>Only stopping vaccination when QOF targets reached</td>
<td>0.085</td>
<td>0.004 to 0.17</td>
<td>0.039</td>
<td>659</td>
</tr>
<tr>
<td>&lt;65 years</td>
<td></td>
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</tr>
<tr>
<td><strong>Written report</strong> to review flu vaccine uptake rates</td>
<td>0.11</td>
<td>0.042 to 0.18</td>
<td>0.002</td>
<td>783</td>
</tr>
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## Multivariate regression for managers

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</tr>
<tr>
<td>Identifying eligible patients using a modified manufacturer's search programme</td>
<td>0.12</td>
<td>0.056-0.18</td>
<td>&lt;0.001</td>
<td>395</td>
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<tr>
<td>Identifying eligible patients using an inhouse search programme</td>
<td>0.096</td>
<td>0.028-0.16</td>
<td>0.006</td>
<td>395</td>
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<tr>
<td>Having a lead member of staff for identifying eligible patients in the practice</td>
<td>0.086</td>
<td>0.001-0.17</td>
<td>0.046</td>
<td>395</td>
</tr>
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</table>
Results

- Written report + Lead member of staff:
  +8% (< 65 years: to 54%)

- Personal invitation + continuing until QOF targets:
  +7% (≥ 65 years to 78%)

- Practice lead + Search programme:
  +4% (≥ 65 years to 78%)

- Midwife for vaccinating pregnant women +4% (to 45%)
Conclusions: practice actions

When planning their flu vaccination campaign:
1. Identify lead member of staff responsible for running the vaccination campaign;
2. Identify a lead member of staff to identify eligible patients;
3. Use practice IT system to identify eligible patients more accurately, if necessary.

When inviting patients for flu vaccination:
4. Send personal invitation to all eligible patients;
5. Collaborate with their community midwives to offer/provide vaccination to pregnant women.

When providing flu vaccination:
6. Continue until QOF targets achieved

When reviewing their flu vaccination campaign:
7. Written report of campaign to review success and actions, especially those involved in the flu campaign.
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