Evaluation of the Antibiotic Guardian campaign to help tackle antimicrobial resistance

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INTRODUCTION

• Aim of European Antibiotic Awareness Day (EAAD): Raise awareness and change behaviour towards antibiotic use
• Additional aim of EAAD 2014: Measure the impact on the engagement of public and healthcare professionals – For that reason, an online pledge system was created
• Purpose of Antibiotic Guardian (AG) campaign: Increase engagement with the rising threat of AMR
  Concrete personal and collective action to help keep antibiotics active
  Provide a system to measure behaviour change
• First example of online pledge system to improve AMR related knowledge and behaviour amongst healthcare professionals and the general public
• Total number of Antibiotic Guardians (AGs) 2014: 11,833
• Aim of current evaluation: Look at changes in knowledge and behaviour

RESULTS

• 2478 AGs responded: 27.5% response rate (68% healthcare professionals – 32% members of public) – similar to proportions at total population of 11,833 AGs (figure 1)
• 76.9% were connected to the healthcare system
• 96.3% had prior knowledge of AMR
• 73.5% were female and 27.5% were between 45-54 years old

Behaviour (table 1)

- 43.9% remembered completely the meaning of their pledge
- 63.4% reported always acting according to their pledge (OR=2.37, CI: 2.17 – 2.58)
- Respondents without positive pre-campaign pledge behaviour less likely to have positive post campaign pledge behaviour (OR=0.24, CI: 0.16 – 0.35)
- AGs that remembered the pledge more likely to have positive post campaign behaviour (OR=1.97, CI: 1.63 – 2.37)

Knowledge (table 2)

- 44.5% acquired more knowledge about AMR post campaign
- Sense of personal responsibility towards tackling AMR increased by 12.2% post campaign
- People confused about AMR prior to the AG campaign acquired more knowledge after the campaign (OR=3.10, CI: 1.86 – 5.29)
- Respondents without pre-campaign knowledge more likely to acquire knowledge on AMR post campaign (OR=4.20, CI: 2.04 – 8.66)
- Members of the public less likely to have acquired more knowledge post campaign than healthcare professionals (OR=0.80, CI: 0.66 – 0.97)

<table>
<thead>
<tr>
<th>Covariate</th>
<th>N</th>
<th>Crude OR (95% CI)</th>
<th>Adjusted OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pledge group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare Professionals</td>
<td>1696</td>
<td>1.0 (ref)</td>
<td>1.0 (ref)</td>
</tr>
<tr>
<td>Members of Public</td>
<td>782</td>
<td>3.02 (2.48 – 3.69)</td>
<td>3.65 (2.89 – 4.55)</td>
</tr>
<tr>
<td>Act according to pledge before becoming AG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2287</td>
<td>1.0 (ref)</td>
<td>1.0 (ref)</td>
</tr>
<tr>
<td>No</td>
<td>111</td>
<td>0.31 (0.22 – 0.45)</td>
<td>0.26 (0.16 – 0.35)</td>
</tr>
<tr>
<td>Remember the pledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completely</td>
<td>1087</td>
<td>1.64 (1.38 – 1.94)</td>
<td>1.97 (1.63 – 2.37)</td>
</tr>
<tr>
<td>Somewhat</td>
<td>1286</td>
<td>1.0 (ref)</td>
<td>1.0 (ref)</td>
</tr>
<tr>
<td>No</td>
<td>105</td>
<td>0.24 (0.16 – 0.37)</td>
<td>0.23 (0.14 – 0.36)</td>
</tr>
<tr>
<td>Age</td>
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<tr>
<td>&lt;34 years old</td>
<td>596</td>
<td>0.94 (0.77 – 1.13)</td>
<td>0.86 (0.71 – 1.06)</td>
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<tr>
<td>35-64 years old</td>
<td>1548</td>
<td>1.0 (ref)</td>
<td>1.0 (ref)</td>
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<tr>
<td>65 years old</td>
<td>114</td>
<td>1.54 (1.0 – 2.37)</td>
<td>1.11 (0.68 – 1.79)</td>
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<tr>
<td>Sex</td>
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<td></td>
</tr>
<tr>
<td>Female</td>
<td>1657</td>
<td>1.0 (ref)</td>
<td>1.0 (ref)</td>
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<tr>
<td>Male</td>
<td>598</td>
<td>0.98 (0.81 – 1.19)</td>
<td>1.09 (0.89 – 1.33)</td>
</tr>
</tbody>
</table>

Table 1: Crude and Adjusted Odds Ratios from ordinal logistic regression model for associations with AGs acting according to their pledge

CONCLUSIONS

- Good response of an overall representative sample
- Effective in achieving changes in positive behaviours and an increase in knowledge amongst people with prior awareness of the topic
- Less successful in engaging people without previous professional or personal experience of AMR
- Majority thought the campaign was well promoted but most materials were not seen

RECOMMENDATIONS

- Regular communication with pledgees via e-mails or newsletters to remind their pledge and provide information
- Engage wider members of public: → initiatives for alternative promotion methods to get the public aware and engaged with the campaign
- Adopt the lessons learnt from other similar campaigns: Allow pledgees to create personalised pledges
  Set pledges that are easier to achieve
  Get individuals to make pledges in public
- Evaluations should be built into the design of future campaigns → capture pre and post campaign effects

ACKNOWLEDGEMENTS

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REFERENCES

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