A cross-sectional survey of antimicrobial stewardship strategies in UK hospitals

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Background
• Antimicrobial stewardship programmes describe strategies to optimise antimicrobial prescribing and utilisation, minimise resistance and improve patient outcomes.
• Programmes were established to combat increasing antimicrobial resistance and the need for a co-ordinated, strategic approach.
• Strategies in hospitals are usually implemented by multidisciplinary antimicrobial teams (AMTs).
• Study objectives were to describe the profile and activities of AMTs, their prescribing policies, and methods of monitoring and feedback to promote policy adherence.

Method
• Pre-piloted questionnaire mailed to the “Pharmacist in-charge” in all UK hospitals (n=836).
• Questionnaire comprised 5 sections on: the AMT, antimicrobial prescribing policies, measurement of policy adherence, non-medical prescribing of antimicrobials and hospital demographics.
• Non-respondents were mailed up to 2 reminders.
• Results analysed using SPSS and Minitab.

Results

Questionnaires mailed, n=856
Total number of questionnaire delivered, n=836
Total number returned n = 273
Response rate 33%
Total number analysed n=226
Mainly from English Hospitals (70%)
District General Hospitals (57%)

Most commonly reported members of AMT
Consultant medical microbiologists (97%)
Antimicrobial pharmacists (95%)
Infection control managers (80%)

Least commonly reported members of AMT
Specialist public health pharmacists (2.7%)
Patient representatives (5.9%)

Activities of teams
✓ All AMTs formulated an antimicrobial policy.
✓ Other activities were:
  ✓ Promoting adherence to the antimicrobial policy
  ✓ Reviewing and tailoring national policy for local use
  ✓ Reviewing new indications for antimicrobials available
  ✓ Restricting prescribing of specific antimicrobials
  ✓ Ensuring a strategy in place for education and training of healthcare professionals

Hospital antimicrobial prescribing policy
✓ 98% reported an antimicrobial prescribing policy, with aims of:
  ✓ Encouraging appropriate prescribing of indicated antimicrobials
  ✓ Encouraging prescribing of antimicrobials at correct dose, frequency and duration
  ✓ Reducing the incidence of C difficile.

Policy dissemination
✓ Policy mainly disseminated (98%) and updated (92%) electronically.
✓ Only 7% disseminated via portable devices such as mobile phones.

Policy adherence
✓ Monitored mainly via audits of appropriateness of antimicrobial prescribing (76%).
✓ Feedback on adherence provided mainly at the level of ward team prescribing (62%) rather than individual prescribers (33%).
✓ Only 29% reported feedback of local resistance patterns to prescribers.
✓ There was a significant association between presence of an AMT and audits taking place (p<0.001).

Profile of teams
✓ 82% (n=186) reported the presence of an AMT.

Profile

Background

Method

Results

Hospital antimicrobial prescribing policy

Policy dissemination

Policy adherence

Profile of teams

Conclusions

Generalisability may be limited by low response rate and bias of self-reported data

AMTs are likely to be providing the required expertise with prominent roles held by key stakeholders including microbiologists and antimicrobial pharmacists

There may be a need to review composition of teams in the light of independent and supplementary prescribing by non-medical prescribers such as nurses, physiotherapists and pharmacists

Almost all reported an antimicrobial policy but less reported an AMT. This indicates that further improvement in antimicrobial stewardship programmes are required, despite various government initiatives (1,2,3,4).

References

(1) DEPARTMENT OF HEALTH’S ADVISORY COMMITTEE ON ANTIMICROBIAL RESISTANCE AND HEALTHCARE ASSOCIATED INFECTION (ARHAI) 2011. Antimicrobial stewardship: “Start Smart – Then Focus.”
(3) PUBLIC HEALTH WALES 2011. Antimicrobial stewardship: “Start Smart – Then Focus.”

Most commonly reported members of AMT

Least commonly reported members of AMT

Activities of teams

Profile of teams

Conclusions

Generalisability may be limited by low response rate and bias of self-reported data

The most commonly reported members of AMTs were consultant medical microbiologists, antimicrobial pharmacists and infection control managers. The least commonly reported were specialist public health pharmacists and patient representatives.

There was a significant association between the presence of an AMT and audits taking place (p<0.001). AMTs are likely to be providing the required expertise with prominent roles held by key stakeholders including microbiologists and antimicrobial pharmacists.

There may be a need to review composition of teams in the light of independent and supplementary prescribing by non-medical prescribers such as nurses, physiotherapists and pharmacists.

Almost all reported an antimicrobial policy but less reported an AMT. This indicates that further improvement in antimicrobial stewardship programmes are required, despite various government initiatives (1,2,3,4).

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