

Development & preliminary results of a worldwide antimicrobial stewardship survey

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Objectives

Antimicrobial stewardship (AMS) has been surveyed at national and continental level, but never at a global level. At the 2011 ECCMID meeting, the ESCMID Study Group for Antimicrobial Policies (ESGAP) supported a worldwide survey of antimicrobial stewardship. The survey was to help us better understand:

1. the applicability, feasibility and limitations of a web based global AMS survey
2. to identify key objectives for ASP's globally
3. understand AMS capacity, resourcing, barriers and variation worldwide

Methods

A small multidisciplinary project group was established (England, France and Scotland). Volunteers were identified from each continent to be the development advisory group. A literature search was undertaken to identify published surveys and standards for antimicrobial stewardship. A draft survey was developed from these results using the good practice methodology for conduct and reporting survey research [1] [2] and CHERRIES criteria for improving internet surveys [3]. These suggested piloting the survey to ensure that questions could not be misinterpreted especially where English is not the predominant language, then pre-testing in a larger group. Pre-testing was planned in 11 countries in 6 continents (Asia: Hong Kong, China & India; Europe: UK, France, Switzerland, Austria and Slovenia; Africa: South Africa; Oceania: Australia; South America: Argentina, and USA in North America. SurveyMonkey® software was used to develop the survey. This allowed question order to be randomised for each respondent.

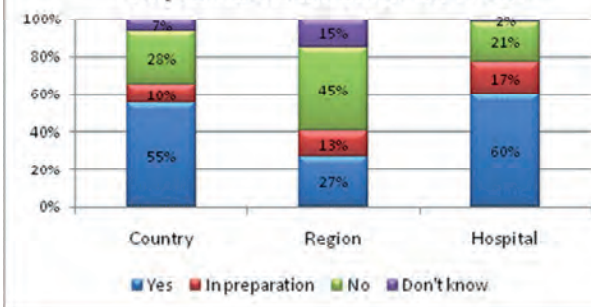
Do you have an AMS Programme?

Answer	Percent	Count
Yes	55%	171
No	19%	59
Planned	26%	81

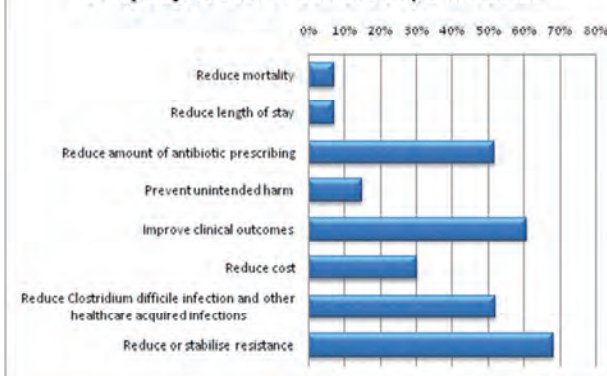
Summary of interim responses by continent

Africa	Asia	Europe	North America	Oceania	South America
29	24	178	32	26	35
9%	7%	55%	10%	8%	11%

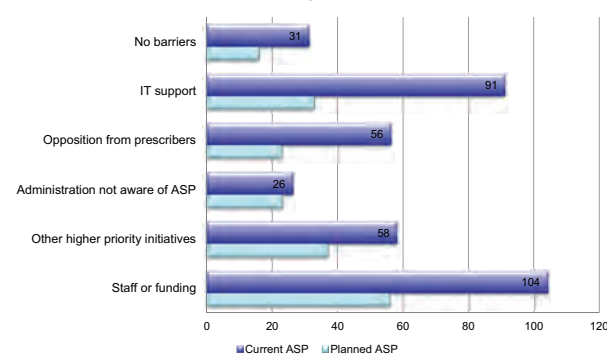
Do you have standards for AMS?



3 key objectives for current or planned ASP



What are the barriers to you providing a functional & effective ASP?



References

1. Kelley, K., et al., Good practice in the conduct and reporting of survey research. *Int J Qual Health Care*, 2003. 15(3): p. 261-6.
2. Burns, K.E., et al., A guide for the design and conduct of self-administered surveys of clinicians. *CMAJ*, 2008. 179(3): p. 245-52.
3. Eysenbach, G., Improving the quality of Web surveys: the Checklist for Reporting Results of Internet E-Surveys (CHERRIES). *J Med Internet Res*, 2004. 6(3): p. e34.

Results

The survey was piloted in 28 centres from 6 continents, and the questions were amended based on a consensus from the feedback. Co-ordinators were identified from ESGAP & ISC to distribute the survey globally. Internet links were put on the ESGAP, ISC, CDDEP, BSAC, BIA & UKCPA websites. It was distributed through the contacts, as well as through worldwide pharmacy networks. An initial deadline of 10 days for collection of data for presentation at ECCMID was used, with a final collection period of 28 days (10th April 2012). By the first deadline, there were 324 responses, with a 72.2% completion rate. Review of the data showed 7 hospitals with two entries, and 4 with no data, and another with data but identifiable to country level only. Respondents with incomplete data or duplicates were followed up.

The main reason hospitals stated for an ASP were to reduce antimicrobial resistance, improve outcomes & reduce prescribing. Over half the hospitals & countries have standards for AMS. 55% run an AMS programme & 26% are planning one.

Only 34% have formally assessed their ASP. Most showed a reduction in expenditure, inappropriate prescribing & the use of broad spectrum agents, but not length of stay

Summary

It is possible to develop a worldwide survey by engaging global partners, and piloting the survey in advance to test comprehension & optimize the questions. The preliminary results will be shared at the ESGAP meeting on 1st April, and the final results next year.

From the early results, the survey has shown the feasibility of doing a global survey, and identified the key objectives for ASP's globally