

## Correspondence

### Trends in original research published from the United Kingdom in the antimicrobial literature

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Sir,

There is increasing concern about the problems of antimicrobial resistance. In the words of the House of Lords' report published in 1998, 'Resistance to antibiotics . . . constitutes a major threat to public health and ought to be recognized as such more widely than at present'.<sup>1</sup> Despite this, there is a feeling that the UK's contribution to the science of antimicrobial chemotherapy is still in decline. Five years ago a systematic review looking at the trends in original research over a 14 year period was published. It showed that over the study period the number of publications from the UK declined.<sup>2</sup> This is a follow-on study to assess the change over the 5 years since that publication.

Original articles published in this journal (JAC) and *Antimicrobial Agents and Chemotherapy* (AAC) in 1999 were reviewed. Information was collected on the country of origin of first author, type of paper published and the number of authors. For papers published from the UK first author, the name, number of groups and type of institution involved were noted, as well as the funding source. These data were then compared with data published in 1996, which looked at publications from 1980 to 1994.

Of the 805 papers published in 1999, 243 were from JAC and 562 from AAC. The percentage of papers with a UK first author in JAC was 18% (44/243) and in AAC 5.3% (30/562). This compares with 23% in JAC and 4.7% in AAC in 1994 and a total number of papers of 247 and 531, respectively. Using the first author to define country of origin, most papers in AAC were from the USA (41%), with France and Japan providing most of the rest. In JAC, although most papers were from the UK (18%), 16% were from the USA, and France, Japan, Spain and Italy together provided 26%.

The most common publication sub-type published in JAC was susceptibility testing (30%), experimental therapeutics was the next most common subtype (11%). In AAC the number of papers published on mechanisms of resistance was 30%, and susceptibility testing made up 21%. The proportion of papers published by JAC on susceptibility testing has decreased from 44.4, 36.9, 19.7 to 34.6% over the years 1980, 1985, 1990 and 1994; papers on mechanisms of resistance have increased marginally from 9.8, 10.8, 11.8, 11.5 to 15% over the same time periods. Of the papers published in JAC on susceptibility testing half were from the UK.

For the UK papers, the institution of origin was classified into four groups according to first author. In JAC, hospital-based research made up 61% of the papers, and university-based research 35%, whilst industry only 4%. This is similar to the previous findings where hospital-based research made up 61%, with a continued increase in university publications from 7% in 1980 to 30% in 1994 to 35% in 1999. Whereas in AAC, university-based research made up 60% of publications from the UK, an area previously dominated by hospital-based research. The categories of publication were similar from the hospital- and university-based departments.

The number of papers published by individual research groups was assessed for the first authors of the UK papers. In total, 30 groups published 73 papers; of this, 37% were published by two NHS groups. When number of groups involved in each project was assessed, 40% were from single groups or departments, 32% from two groups and 12% from four groups or more. The number of authors per paper was 4.3 in JAC and 4.5 in AAC. This is similar to the findings in 1994 (JAC 4.4 and AAC 5.1).

Funding, which was not assessed in the 1996 paper, was assessed on this occasion, and it was found that in JAC 52% of papers were funded by industry and in AAC 43% of papers.

Although these data are limited, they confirm a continued decrease in the proportion of publications from the UK in JAC and no increase in the publications in AAC. There are more papers coming from a larger number of institutions than previously, although more than a third of the papers are coming from only two institutions. Unfortunately the conclusions are similar to those reached 5 years ago. There is no room for complacency about the state of UK antimicrobial research and with increasing clinical workloads and difficulties in finding funding, this area continues to be a cause for concern; despite recent initiatives there is as yet no detectable strengthening of the UK research base in antimicrobial chemotherapy.

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### References

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