

# 5-year Trends in Resistance among Community-acquired Lower Respiratory Tract Isolates of *S. pneumoniae* from the UK and Ireland

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**Methods.** A total of 27 centres in the UK and Ireland contributed 3584 lower respiratory tract isolates of *Streptococcus pneumoniae* to the BSAC Respiratory Resistance Surveillance Programme<sup>1</sup> over five winters (1999-2000 to 2003-04). Isolates were excluded if they were duplicates within 2 weeks, or from samples collected >48hours after hospitalisation, or from patients with cystic fibrosis. MICs were determined centrally using the BSAC agar dilution method and interpreted by BSAC criteria. Logistic regression models for penicillin-non-susceptibility and tetracycline-, erythromycin- and ciprofloxacin-resistance (PEN-NS, TET-R, ERY-R & CIP-R) were fitted by a stepwise method.

<sup>1</sup>Reynolds, R., Shackcloth, J., Felmingham, D. et al. (2003). *JAC* 52, 931-943. Antimicrobial susceptibility of lower respiratory tract pathogens in Great Britain and Ireland 1999-2001 related to demographic and geographical factors: the BSAC Respiratory Resistance Surveillance Programme.

**Results.** Sex, care setting (hospital / community / nursing home) and isolate source (sputum / other) did not contribute significantly and were not included in any final models. Final models included centre, age or age group, and year. (See P1454 for detail on effect of age.)

Ciprofloxacin resistance (MIC>2mg/L)			
Ireland	N	mean %R	95% CI
1999-2000	66	3.0	0.4, 10.5
2000-2001	59	3.4	0.4, 11.7
2001-2002	68	16.2	8.4, 27.1
2002-2003	89	15.7	8.9, 25.0
2003-2004	76	13.2	6.5, 22.9

UK	N	mean %R	95% CI
1999-2000	595	5.7	4.0, 7.9
2000-2001	608	5.3	3.6, 7.3
2001-2002	631	7.9	5.9, 10.3
2002-2003	683	2.2	1.2, 3.6
2003-2004	709	11.7	9.4, 14.3

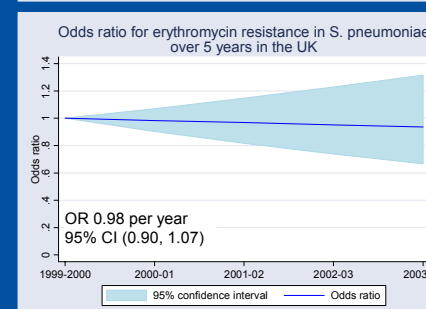
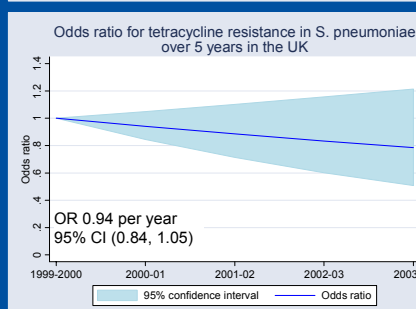
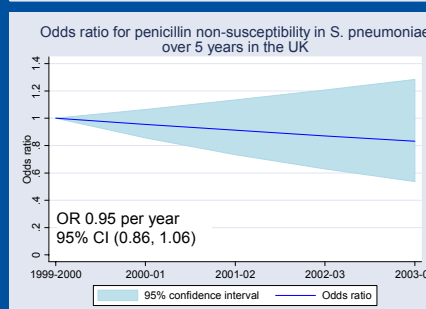
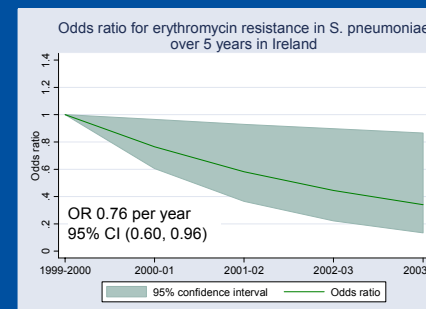
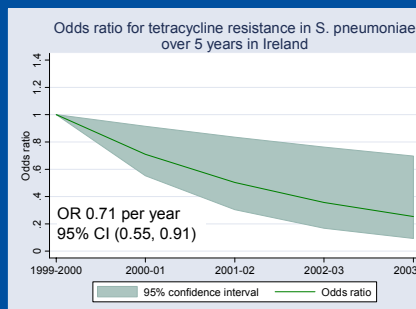
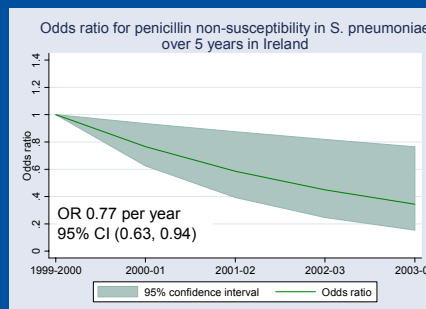
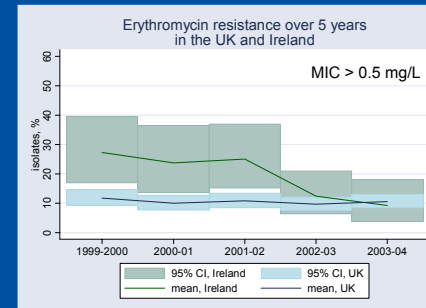
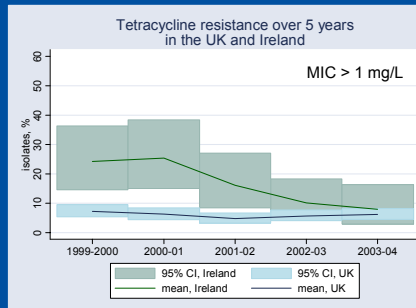
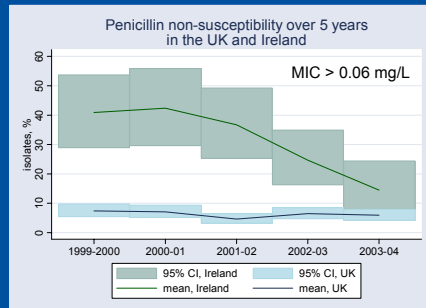
## Acknowledgements

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**Organism ID and Susceptibility Testing** J. Shackcloth<sup>4</sup>, A. Williams<sup>4</sup>, L. Williams<sup>4</sup>

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**Results** The prevalence of PEN-NS, TET-R and ERY-R fell significantly in Ireland but not in the UK (England, Wales, Scotland and Northern Ireland) over the five years studied. CIP-R varied between years but with no consistent trend over time in Ireland or the UK.

**Conclusions** Cautious interpretation is needed as there were few contributing centres in Ireland. Nonetheless, the differences seen in trends of resistance between Ireland and the UK and between classes of antimicrobials were marked: reasons should be sought.

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