

BACKGROUND

- Antimicrobial resistance rates in the major pathogens of community-acquired lower respiratory tract (RT) infection in the UK and Ireland, have been monitored by the BSAC Respiratory Resistance Surveillance Programme, since 1999/2000.
- From October 2008, the programme was extended to include hospital-acquired lower respiratory pathogens.
- In 2009/10, the BSAC Respiratory Resistance Surveillance Programme collected 1278 community-acquired and 1179 hospital-acquired lower RT isolates from 23 laboratories across the UK and Ireland.

METHODS

- Hospital-acquired isolates are defined as those first obtained in hospital >48 hours after admission; all others are treated as community-acquired.
- Over 20 laboratories collect up to a defined quota of isolates in each surveillance season, now Oct-Sept (previously Oct-April).
- MICs are measured and interpreted by BSAC methods.
- For more detail see www.bsacsurv.org or JAC, 2008, 62, suppl 2 ii15 - ii28

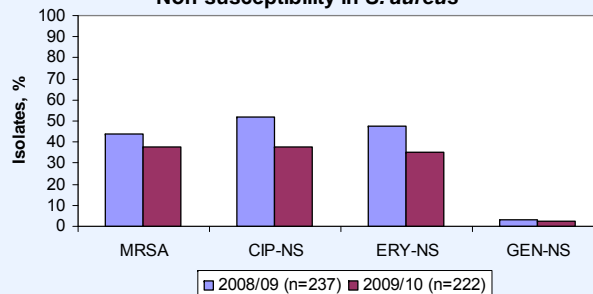
Community-acquired lower RT isolates

- The following community-acquired strains were collected:

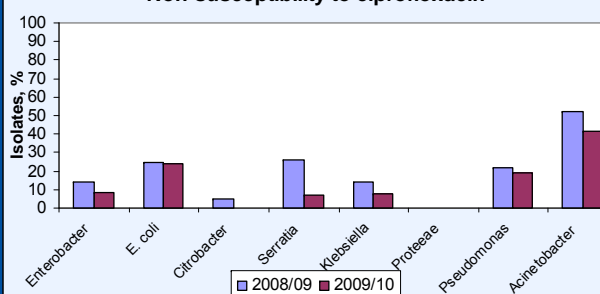
480 *S. pneumoniae*,
528 *H. influenzae*
270 *M. catarrhalis*.

- In 2009/10, 10% of *S. pneumoniae* were non-susceptible to penicillin but all with MICs ≤2 mg/L.
- Similarly to previous years, 18% of *H. influenzae* and 94% of *M. catarrhalis* produced β-lactamase.

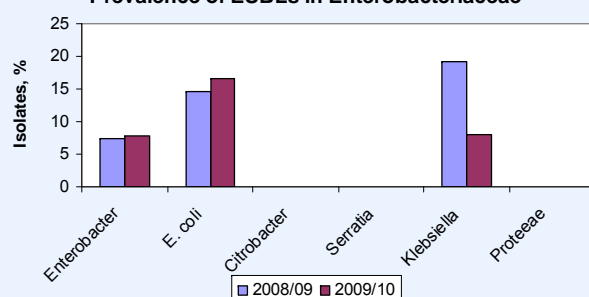
Non-susceptibility in *S. aureus*



Non-susceptibility to ciprofloxacin



Prevalence of ESBLs in Enterobacteriaceae

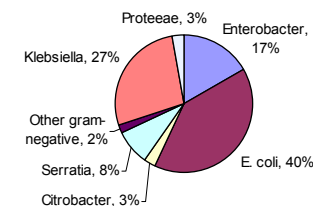


Hospital-acquired lower RT isolates

- The isolates from hospital-acquired lower RT infections collected in 2009/10 were :

222 *S. aureus*
690 Enterobacteriaceae
207 *Pseudomonas*
60 *Acinetobacter*

Enterobacteriaceae 2009/10 (n=690)



- The 690 Enterobacteriaceae included *E. coli*, *Klebsiella*, *Enterobacter* and *Serratia*.

- MRSA dropped to 37% of *S. aureus* isolates in 2009/10 from 44% in 2008/09. Similarly, ciprofloxacin, erythromycin and gentamicin non-susceptibility in *S. aureus* was lower in 2009/10 (vs. 2008/09).

- Non-susceptibility to imipenem in 2009/10 was similar to 2008/09:
 - 19% for *Pseudomonas* isolates
 - 33% for *Acinetobacter* isolates
 - 1% for *Klebsiella* (1 resistant and 1 intermediate isolate).

- Ciprofloxacin non-susceptibility was lower in 2009/10 than in 2008/09 for *Acinetobacter*, *Klebsiella* and *Serratia*.

- ESBLs were found in 17% of *E. coli*, 7% of *Enterobacter* and 8% of *Klebsiella*, similar to 2008/09.

CONCLUSIONS

- Antimicrobial non-susceptibility remained low for community-acquired isolates.
- For hospital-acquired lower RT isolates, non-susceptibility rates and prevalence of ESBLs were similar in 2008/09 and 2009/10.

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Organism ID and Susceptibility Testing: K. Maher⁷ and staff at Quotient BioResearch Ltd

Collecting Laboratories: See www.bsacsurv.org or White 2008, JAC 62 (Suppl 2) ii3 - ii14

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Sponsors 2009/10: Astellas, Janssen, Novartis and Pfizer

Support: BSAC

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