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Abstract (poster session)

Enteric carriage of antibiotic-resistant bacteria in care homes in Wales: preliminary results from the PAAD Study

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Objectives: Care home residents may play a significant role in the epidemiology of antibiotic resistance, particularly MDR Enterobacteriaceae. The PAAD Study (Probiotics for Antibiotic-Associated Diarrhoea) is examining the role of probiotics in Care Homes, and baseline stool samples are taken to assess the prevalence of faecal pathogens. We are analysing these samples to assess the prevalence of carriage of Gram negatives resistant to ciprofloxacin (CIP), cefotaxime (CTX), Ceftazidime (CAZ), gentamicin (GEN), meropenem (MER), and vancomycin-resistant enterococci (VRE) among Care Home residents. **Methods:** Following consent/assent, baseline stool samples were obtained from 236 residents from 11 care homes in South East Wales. Stool was suspended in water and 0.05ml was inoculated using a spiral plater. Agars including Blood agar, VRE agar, Chromogenic UTI agar (CHROM), and CHROM incorporating different selective agents (CIP (0.25 mg/L), CTX (2 mg/L), CAZ (2 mg/L), GEN (4 mg/L), MER (1 mg/L)) were incubated aerobically prior to counting of colonies. **Results:** Summary results for Enterobacteriaceae carriage are shown in the table. 90.5% of CTX or CAZ resistant isolates were ESBL-producers, and no carbapenem-resistant Enterobacteriaceae were confirmed. VRE carriage was 1.3%, predominantly *E. faecalis*. Carriage of carbapenem resistant *Pseudomonas* spp. was 3.4%; no carbapenemase activity was detected. **Conclusions:** The carriage of resistant organisms is significant in this patient group, particularly for CIP-resistant Enterobacteriaceae. Carriage of 3rd generation cephalosporin-resistance is higher than published resistance rates for urinary isolates in Wales (4.8%), and should be considered when selecting empiric therapy for these patients.

Table: Enterobacteriaceae resistance in systematically obtained stool samples from care home residents

	Enterobacteriaceae		
	Number positive by screening agar	Confirmed resistance	% Resistance carriage
CIP	114	105	44.5
CTX	23	17	7.2
CAZ	23	17	7.2
GEN	26	18	7.6
MER	1	0	0