SCT, including readmissions for sepsis and number of days of antibiotics therapy, was assessed. Controls were matched for time and type of SCT in a three controls to one case ratio. T-test was performed to analyze differences between groups (statistical significance attributed when $P < 0.05$).

Results. The case sample had 20 SCT CPE-positive patients, of which allograft ($n = 9$) and autograft ($n = 11$). The control sample was made up of 59 SCT CPE-negative patients, allograft ($n = 27$), and autograft ($n = 32$). All patients had antibiotic therapy post SCT. Average LoS for the case sample was significantly longer in the autograft group (41.7 vs. 23.6 days, case vs. control, $P = 0.01$), but not significant in the allograft group (75.1 vs. 58 days, $P = 0.12$). Both autograft and allograft case samples had significantly longer duration of meropenem therapy, 24.8 vs. 14.4 days for allograft ($P = 0.03$) and 9.4 vs. 5.5 days for autograft ($P = 0.03$), cases vs. control. Colistin therapy was longer in both case samples ($P = 0.03$ in autograft and $P = 0.006$ in allograft). Tigecycline therapy was significantly longer in the autograft case vs. control sample ($P = 0.006$), with teicoplanin and piperacillin–tazobactam therapy significantly longer in the autograft case vs. control sample, $P = 0.015$ and $P = 0.03$, respectively.

Conclusion. The LoS post SCT and duration of antibiotic therapy were found to be key proxy measures of worsening outcomes for CPE-positive patients vs. CPE-negative patients who had undergone SCT. Although reasons for CPE colonization vary, there appears to be an overall negative impact on patient outcomes and increased use of more toxic agents, demonstrating the need for early directed CPE decontamination therapy of these at-risk patients, such as use of Faecal Microbiota Transplant (FMT).

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1172. Travel-Associated Multidrug-Resistant Organism Acquisition and Risk Factors Among US Military Personnel

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Background. International travel is a risk factor for incident colonization with extended spectrum β-lactamase (ESBL)-producing organisms. These and other multidrug-resistant (MDR) bacteria are major pathogens in combat casualties. We evaluated risk factors for colonization with MDR bacteria in US military personnel traveling internationally for official duty.

Methods. TravMil is a prospective observational study enrolling subjects presenting to military travel clinics. We analyzed surveys, antimicrobial use data, and pre- and post-travel self-collected perirectal swabs in military travelers to regions outside the continental United States, Canada, Western or Northern Europe, or New Zealand presenting to one clinic from December 2015 to December 2017. Gram-negative isolates recovered from swabs underwent real-time identification and susceptibility testing (BD Phoenix). Characteristics of trip and traveler were analyzed to determine risk factors for MDR organism colonization.

Results. One hundred ten trips were planned by 99 travelers (74% male, median age 38 years [IQR 31, 47.25]); 72 trips were completed by 64 travelers. Median trip duration was 21 days (IQR 12.75, 79.5). Of those with trips completed, 17% traveled to Mexico/Caribbean/Central America, 15% to Asia, 57% to Africa, and 10% to South America; 56% stayed in hotels and 50% in dormitories/barracks. Travelers used doxycycline (15%) for malaria prophylaxis, 11% took an antibiotic for travelers' diarrhea (TD) treatment (fluoroquinolone 7%, azithromycin 4%). Incident MDR organism colonization occurred in eight travelers (incidence density 3.5/1,000 travel days; cumulative incidence 11% of trips [95% CI: 4%–19%]), all ESBL-producing *E. coli*. A higher incidence of ESBL-producing *E. coli* acquisition was associated with travel to Asia (36% vs. 7%, $P = 0.02$) but not with travel to other regions, TD, or use of antimicrobials. No relationship was seen between fluoroquinolone or doxycycline exposure and resistance to those antimicrobials.

Conclusion. Consistent with other studies of US military personnel travelers, incident colonization with MDR organisms following official travel occurs at a lower rate in this population compared with civilian travelers, with no identified modifiable risk factors. The highest incidence of ESBL acquisition was observed during travel to Asia.

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1173. A Cluster of Carbapenemase-Producing *Acinetobacter baumannii*

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Background. Carbapenem-resistant *A. baumannii* (CRAB) is reportable in Colorado with three to 11 cases detected annually. Between December 2017 and February 2018, Denver Health Medical Center (DHMC) detected two inpatients with CRAB in urine. The hospital and the Colorado Department of Public Health and Environment (CDPHE) conducted an investigation to determine epidemiologic links and molecular relatedness of the isolates.

Methods. We reviewed medical records and performed infection control observations among staff. Pulsed-field gel electrophoresis (PFGE) was performed at CDPHE; antimicrobial susceptibility (AST) and carbapenemase testing was performed at CDC.

Results. *Epidemiologic investigation*: Both patients had neurogenic bladders managed by suprapubic catheters, stage IV decubitus ulcers, and recent surgery. Neither had traveled outside of Colorado. Although both received recent antibiotics, neither received a carbapenem in the 6 previous months. Both isolates were regarded to be asymptomatic bacteriuria. In November 2017, the patients overlapped for 7 days at DHMC on different units. During this week, the same nurse provided wound care for both patients on the same day. Observations of the wound care team revealed opportunities to improve hand hygiene prior to donning and after doffing gloves, the use of single-use scissors on multiple patients, and inconsistent cleaning of a mobile device used to photograph wounds. *Microbiologic and molecular investigations:* Isolates from the two patients were indistinguishable by PFGE. AST found both isolates susceptible to colistin, but resistant to all other antimicrobials tested (Table 1); both harbored OXA-23-like genes by a Research Use Only assay performed at CDC.

Conclusion. These are the first carbapenemase-producing *A. baumannii* strains identified in Colorado. We suspect that they were transmitted during the overlapping hospital admission, although we could not determine where the organism originated or the route of transmission. Opportunities to improve hand hygiene and low-level disinfection were identified. The emergence of previously undetected carbapenemases in Colorado is of great public health concern; collaboration between public health and healthcare facilities is critical to halt transmission of novel regional pathogens.

Table 1. Extended antimicrobial susceptibility testing performed by CDC.

Antimicrobial	Patient #1		Patient #2	
	MIC (μg/mL)	Interpretation	MIC (μg/mL)	Interpretation
Amikacin	>64	R	>64	R
Ampicillin-sulbactam	>32/16	R	>32/16	R
Cefepime	>32	R	>32	R
Cefotaxime	>64	R	>64	R
Ceftazidime	>128	R	>128	R
Ceftriaxone	>32	R	>32	R
Ciprofloxacin	>8	R	>8	R
Colistin	1	S	1	S
Doripenem	>8	R	>8	R
Gentamicin	>16	R	>16	R
Imipenem	64	R	64	R
Levofloxacin	8	R	>8	R
Meropenem	>8	R	>8	R
Minocycline	≤4	S	8	I
Piperacillin-tazobactam	>128/4	R	>128/4	R
Tetracycline	>32	R	>32	R
Tigecycline	1	NA	4	NA
Tobramycin	>16	R	>16	R
Trimethoprim-sulfamethoxazole	>8/152	R	>8/152	R

MIC, mean inhibitory concentration; S, susceptible; I, intermediate; R, resistant; NA, not available

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1174. Epidemiology of Carbapenem-Resistant Enterobacteriaceae, a 5-Year Experience at a Tertiary Care Hospital

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Background. Carbapenem-resistant Enterobacteriaceae (CRE) has been increasing worldwide. Our objectives were to study the epidemiology of CRE and compare risk factors and mortality of carbapenem nonsusceptibility to ertapenem alone Enterobacteriaceae (NSEE) with nonsusceptibility to other carbapenems (imipenem, meropenem, or doripenem) Enterobacteriaceae (NSOCE) at a tertiary care hospital in Thailand.

Methods. All CRE isolated from clinical and surveillance cultures were identified from December 2011 to December 2016. Quarterly incidence rate per 100,000 patient-days was estimated. Hospital-wide carbapenem consumption were calculated as defined daily doses (DDD) per 1,000 patient-days. Relationships between hospital-wide carbapenem consumption and incidence of CRE were tested using Poisson regression. Comparative analysis of factors associated with NSEE and NSOCE, and risk factors associated with 14- and 30-day mortality in patients with CRE infection was conducted in adult patients.

Results. The quarterly CRE incidence of unique patients increased significantly from 3.37 per 100,000 patient-days in the last quarter of 2011 to 32.49 per 100,000 patient-days in the last quarter of 2016. Quarterly CRE incidence increased 1.07 per 100,000 patient-days (95% confidence interval [CI], 0.49–1.06; *P*-value for trend <0.001). Quarterly hospital-wide carbapenem consumption increased 1.58 DDD per 1,000 patient-days (95% CI, 0.56–2.59; *P*-value for trend = 0.004). The expected increase of CRE incidence was 1.02 per 100,000 patient-days for a one DDD per 1,000