

Figure 1. CRE Colonization - Study Sites

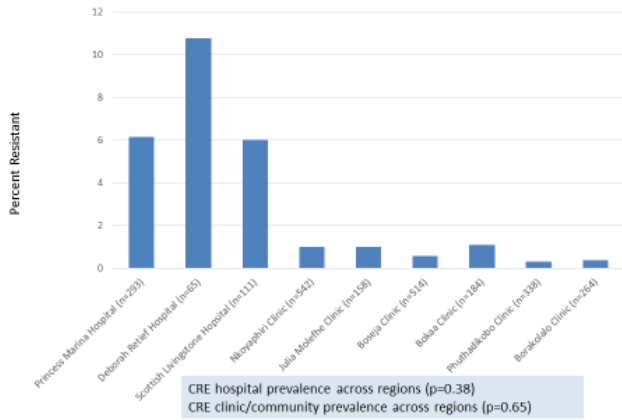


Figure 2. CRE Colonization - Temporal Trends

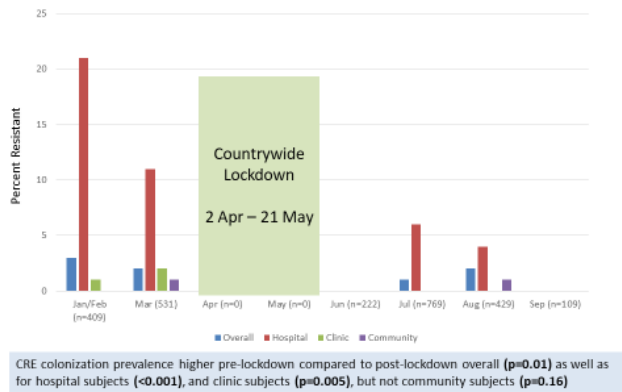


Figure 3. CRE Genotypic Analyses

Organism	# CREs	# (%) VIM+	# (%) NDM+	# (%) KPC+	# (%) IMP+	# (%) OXA+	# (%) no gene
<i>Escherichia coli</i>	17	2 (12%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	14 (82%)
<i>Klebsiella pneumoniae</i>	20	1 (5%)	2 (10%)	0 (0%)	0 (0%)	0 (0%)	16 (80%)
<i>Klebsiella oxytoca</i>	4	1 (25%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	4 (100%)
<i>Enterobacter cloacae complex</i>	11	2 (22%)	1 (11%)	0 (0%)	0 (0%)	0 (0%)	10 (91%)
<i>Proteus mirabilis</i>	2	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)
Non-Freundii <i>Citrobacter</i>	2	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (50%)
<i>Citrobacter freundii</i>	1	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)

Among those isolates with no gene identified, carbapenemase activity via mCIM noted in: *E. coli* (1); *K. pneumoniae* (8); *K. oxytoca* (2)

Conclusion. CRE colonization was significantly higher in hospital vs community settings in Botswana. CRE prevalence varied by region and decreased significantly following a countrywide lockdown. With CRE prevalence still modest, elucidating risk factors for CRE colonization holds promise in developing strategies to curb further emergence of CRE. Additional investigation of the CRE isolates without identified resistance genes is warranted.

Disclosures. Robert Gross, MD, MSCE, Pfizer (Other Financial or Material Support, Serve on DSMB for drug unrelated to HIV) Ebbing Lautenbach, MD, MPH, MSCE, Merck (Other Financial or Material Support, Member of Data and Safety Monitoring Board (DSMB))

734. Abnormal Lipid Profiles in Human Babesiosis

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Session: P-35. Global Health

Background. Babesiosis has gained attention as an emerging protozoal zoonotic disease with an expanding known incidence and geographical range in the US. The infection is caused by *Babesia microti* in the US and is transmitted by the bite of *Ixodes* ticks, and occasionally by blood transfusion. The diagnosis is usually established by microscopic examination of a stained blood smear to see intraerythrocytic organisms. The level of parasitemia is only loosely correlated with clinical severity. Anecdotal reports suggest that HDL cholesterol levels decline during acute babesiosis. In this study, we report cholesterol levels in a series of patients with acute babesiosis with the hypothesis that HDL levels may be a potential biomarker for more severe infections.

Methods. A retrospective chart review was performed at Stony Brook University Hospital and Stony Brook Southampton Hospital between 2013 and 2018. Inclusion criteria was defined as a case of acute Babesia infection proven by peripheral blood smear microscopy and who had a lipid profile drawn during presentation to the emergency department. Cholesterol levels that were measured either before or after the infection (at least 1 month apart) were also recorded to compare to the levels reported during acute infection.

Results. A total of 40 patients (27.5% female) met criteria for acute Babesia infection. Fifteen (37.5%) had a history of splenectomy. The patients were divided into two groups for comparisons based on the treating physician's clinical decision: 32 patients who were admitted to the hospital and 8 patients who were not-admitted. History of hypertension was more common in admitted than non-admitted patients (37% vs. 17%, Chi-square test p=0.02); the median levels of LDL and HDL were more reduced in admitted than non-admitted patients (46 vs 76 mg/dL, p=0.04 and 9 vs 28.5 mg/dL, p=0.03, based on t-test respectively)

Conclusion. LDL and HDL levels are significantly reduced in acute babesiosis, and LDL levels are inversely proportional to the parasitemia, suggesting that low levels of LDL may predict worsening disease in babesiosis. The mechanism of this phenomenon is unknown. Further prospective studies are needed.

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735. Malaria Chemoprophylaxis Adherence Among U.S. Active Duty Service Members during Deployment to Endemic Regions

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Background. Military members frequently deploy to malaria-endemic regions. Most cases of travel-related malaria occur due to prophylaxis non-adherence, impacting mission readiness. Factors assessing adherence are described in outbreak settings; we prospectively assess adherence in military travelers.

Methods. TravMil is a prospective, observational cohort study of US military beneficiaries traveling outside the US (2010-2019). Our analysis includes only active-duty service members traveling with a military purpose to malaria-endemic regions, who were prescribed malaria prophylaxis, and who completed a pre- and post-deployment survey; they could also enroll after return from deployment. All travelers received pre-travel counseling. Survey responses were assessed using descriptive statistics and multivariate regression to determine risk factors for adherence.

Results. 1504 travelers were included (85% male; median age 28 years; 73% white). Median duration of travel was 77 days (12% traveled ≤ 14 days). Africa was the most common destination (33%). Primary prophylaxis included doxycycline (54%) and atovaquone/proguanil (43%). 969 (64%) were fully adherent to their regimen. The frequency of prophylaxis did not match expected values, as 3.6% of subjects reported taking prophylaxis weekly, and 2.9% did not know how often they took it. 103 (6.9%) did not take any of the prescribed regimen. On multivariate analysis, deployers were more likely to adhere if they traveled for ≤ 14 days or to Africa or practiced other mosquito-avoidance behaviors. Study enrollment post-deployment was associated with decreased odds of adherence, as was use of a tent. The use of daily versus weekly prophylaxis was not associated with a difference in adherence, though we had limited subjects prescribed weekly regimens.