vasculitis which may be causative of LF sequelae. A subset of LF survivors (n=80) and IgG negative controls (n=9) were tested for ANCA proteins, of these 20 (25%) survivors vs 5 (55%) tested positive with mean concentrations of 202.4 µg/ml and 135.7 µg/ml (p=0.449), respectively.

Conclusion. This data further characterizes the sequelae of LF and suggests mechanisms of pathogenesis of symptoms.

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730. Ocular Involvement Associated with Rickettsial Infection

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Session: P-35. Global Health

Background. Rickettsiosis, a re-emerging disease, is characterized with a myriad clinical symptoms and various manifestations. Ocular involvement is often misdiagnosed since it's rarely symptomatic. It especially involves the posterior segment. We aimed to study the clinical, laboratory and therapeutic features of ocular involvement associated with rickettsial infection.

Methods. We encountered a retrospective study including all patients hospitalized for rickettsial infection with ocular involvement in the infectious disease department between 2007 and 2020. The diagnosis was confirmed based on serology (seroconversion) and/or positive polymerase chain reaction for *Rickettsia* in skin biopsy.

Results. A total of 24 patients were included with a mean age of 40±12 years. There were 13 women (54.2%). Sixteen patients sought medical care during the warm months, from June to October (66.6%). The revealing clinical signs were febrile maculopapular skin rash (79.2%), cephalalgia (54.2%) and arthralgia (33.3%). Five patients had visual loss (20.8%). Physical examination revealed conjunctival hyperemia (37.5%) and pathognomonic eschar (29.1%). Laboratory investigations revealed elevated liver enzymes (79.1%), thrombocytopenia (75%) and cholestasis (58.3%). Ocular involvement was unilateral in 14 cases (58.3%). Retinitis was the most common manifestation (70.8%), followed by anterior uveitis (20.8%). Retinal fluorescein angiography, performed in ten cases (41.6%), confirmed retinitis in 8 cases (80%). Both retinal vasculitis and papillary hyperfluorescence were noted in two cases (20%). Patients received doxycycline in 21 cases (87.5%) and fluoroquinolones in three cases (12.5%). The median duration of treatment was 7[6-15] days. The disease evolution was favourable in all cases (100%). No ocular sequelae were noted. Complications were noted in two cases (8.2%) represented by thrombophlebitis (one case) and recurrent seizures (one case).

Conclusion. Systematic fundus examination should be performed in front of suspected rickettsiosis, even in the absence of ocular symptoms and signs. It provides clinical clues to promptly diagnose and treat rickettsiosis.

Disclosures. **All Authors**: No reported disclosures

731. Puerperal Sepsis Among Women with In-facility Births in Western Tanzania

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Background. Puerperal sepsis is an important cause of maternal mortality worldwide. As access to emergency obstetric services expands in resource-limited settings, rapid recognition and treatment of sepsis, and prevention of nosocomial infections that might lead to sepsis, is critical. We describe puerperal sepsis cases among women with in-facility births in the Kigoma region of Tanzania.

Methods. Demographic, obstetric history, pregnancy complication and outcome, as well as mortality data were collected for women who delivered in hospitals, health centers and dispensaries in the Kigoma region, Tanzania 2016 – 2018. Up to 3 maternal complications were recorded as free text. Puerperal sepsis included women where 'sepsis' was recorded as a complication during hospitalization. We calculated rates of puerperal sepsis and completed a descriptive analysis of patients.

Results. 203,604 women delivered infants in 197 participating facilities during the data collection period. Of these, 2228 (1.1%) had sepsis recorded, for an overall rate of 10.9 sepsis cases per 1000 deliveries. Although 48% of births occurred in dispensaries, sepsis complications were reported almost exclusively in hospitals and health centers (37.7 and 10.3 per 1000 deliveries, respectively). Sepsis rates varied across individual facilities, from 15.5 to 45.2 cases per 1000 deliveries in hospitals and 0 to 38.6 cases per 1000 deliveries in health centers. Women who developed sepsis had a median age of 25 (IQR 22 – 30) years and 1113 (56%) were nulliparous. 1763 (90%) of women who had sepsis delivered by caesarian delivery. Obstructed labor (827; 42%) was a common co-complication of sepsis; obstetric hemorrhage and uterine rupture were seen in 93 (5%) and 77 (4%) women with sepsis, respectively. 49 women with sepsis (3%) died prior to hospital discharge. Stillbirths and pre-discharge neonatal deaths complicated 107 (5%) and 74 (4%) deliveries to women with sepsis.

Conclusion. In the Kigoma region of Tanzania puerperal sepsis frequently occurs in women with obstructed labor and caesarian delivery. Further evaluation of both facility-level and individual factors that contribute to the incidence of sepsis in this population, particularly those related to invasive procedures, is critical for early recognition and prevention. issue

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732. Sensitivity and Specificity of Point of Care Lung Ultrasound vs. Chest X-Ray for the Diagnosis of Pediatric Pneumonia in Limited resource settings: The Zambia Experience

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Background. Pediatric pneumonia is the leading cause of child mortality in low-income countries. Pneumonia diagnosis is a challenge. Chest x-ray (CXR) is considered the gold standard, but it exposes children to ionizing radiation, and access to CXR is limited to hospital settings. Lung Point of Care Ultrasound (POCUS) is a portable and non-radiating alternative to CXR.

Methods. We enrolled 200 children aged 1-59 months from the University Teaching Hospital (UTH) Emergency Department (ED) in Lusaka, Zambia who met the WHO (World Health Organization) case definition for severe pneumonia. From each child, we collected demographic and clinical data, a CXR, and a set of ultrasound images using a Butterfly ultrasound probe. Images were independently interpreted by two radiologists blinded to the results of the other imaging modality. Using CXR as the gold standard, we determined the sensitivity and specificity, positive and negative predictive values, and likelihood ratios for pneumonia using lung POCUS.

Results. This preliminary analysis included 50 children seen between May-October 2020. Median age (9 months) (Range 4-15). 58% were male, (29/50). Median temperature was 37.3°C (range 36.5-38.0); median respiratory and pulse rates were 41 breaths/min (range 31-50) and 139 beats/min (range 124-160) respectively; median SpO_2 on RA was 91% (range 89-95). 50% of cases had difficulty breathing (82%, 41/50); chest retractions (70%, 35/50) and grunting (62%, 31/50). Ultrasound images for 49/50 (98%) cases and CXRs for 50/50 (100%) of cases we analyzed. Sensitivity of lung POCUS in the detection of CAP was 61% (95% CI: 0.52-0.84). The specificity was 77% (95% CI: 0.56-0.91). Positive predictive value (PPV) 70% (95% CI: 0.62-0.94) and negative predictive value (NPV) 69% (95% CI: 0.56-0.79).

Conclusion. Preliminary findings of this study demonstrated the lower diagnostic accuracy of lung POCUS versus CXR in the detection of pneumonia in children 1- 59 months. The high specificity of the test will aid in ruling out severe pneumonia in children. Due to its availability, ease of interpretation, and absence of radiation exposure, lung POCUS should still be considered as an important initial imaging tool for the diagnosis of CAP in children in limited-resource settings.

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733. Carbapenem-Resistant Enterobacterales (CRE) Colonization Prevalence in Botswana: an Antibiotic Resistance in Communities and Hospitals (ARCH) Study

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Session: P-35. Global Health

Background. Although CRE are a global threat, data in low- and middle-income countries are scarce. Colonization data are vital for informing antibiotic resistance strategies. We characterized the colonization prevalence of CRE in various settings in Botswana.

Methods. This study was conducted in 3 districts in Botswana (1 hospital and 2 clinics per district). Adult inpatients and clinic patients were randomly selected for enrollment. Community subjects were enrolled by inviting each enrolled clinic subject to refer up to 3 adults. Each adult clinic or community subject was also asked to refer their children. All subjects had rectal swabs obtained and inoculated on selective chromogenic media for preliminary identification of CRE. Final identification and susceptibility testing were performed using MALDI-TOF MS and VITEK-2, respectively. CRE underwent genotyping for carbapenemase genes.

Results. Subjects were enrolled from 1/15/20-9/4/20 with a pause from 4/2/20-5/21/20 due to a countrywide COVID lockdown. Of 5,088 subjects approached, 2,469 (49%) participated. Enrollment by subject type was: hospital – 469 (19%); clinic – 959 (39%); community adult – 477 (19%); and community child – 564 (23%). Of 2,469 subjects, the median (interquartile range) age was 32 years (19-44) and 1,783 (72%) were female. 42 (1.7%) subjects were colonized with at least one CRE; 10 subjects were colonized with multiple strains. *E. coli* (n=17), *K. pneumoniae* (n=20), and *E. cloacae* complex (n=11) were most common. CRE colonization prevalence was 6.8% for hospital subjects, 0.7% for clinic subjects, 0.2% for adult community subjects, and 0.5% for child community subjects (p< 0.001)). CRE prevalence varied across regions (Figure 1) and was significantly higher pre- vs post-lockdown (Figure 2). VIM and NDM were the most common carbapenemase genes (Figure 3).
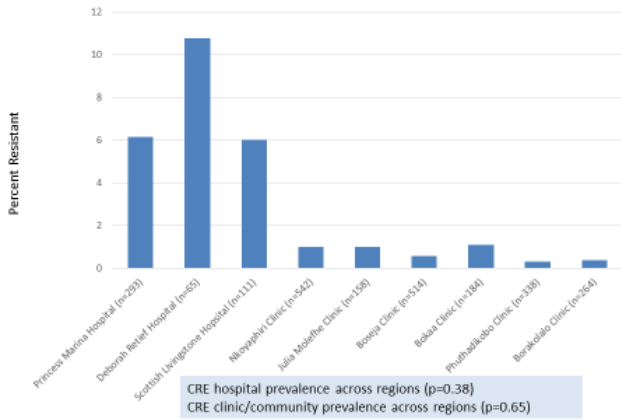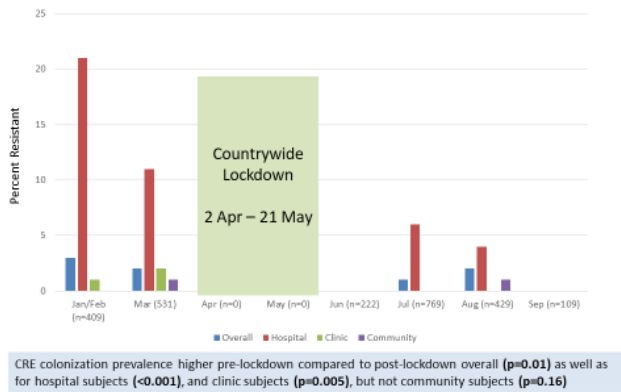
Figure 1. CRE Colonization - Study Sites

CRE hospital prevalence across regions (p=0.38)
CRE clinic/community prevalence across regions (p=0.65)

Figure 2. CRE Colonization - Temporal Trends

CRE colonization prevalence higher pre-lockdown compared to post-lockdown overall (**p=0.01**) as well as for hospital subjects (**<0.001**), and clinic subjects (**p=0.005**), but not community subjects (**p=0.16**)

FIgure 3. CRE Genotypic Analyses

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

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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.