Enterobacteriaceae in the PLZ group with a PLZ MIC of 4 µg/mL (6/6) were eradicated by Enterobacteriaceae with PLZ MICs of ≤4 µg/mL. Including AP, caused by Enterobacteriaceae with PLZ MICs of ≤4 µg/mL.

**Conclusion.** PLZ demonstrated comparable or higher microbiological eradication rates compared with MEM for common Gram-negative uropathogens, including resistant pathogens. The results support PLZ as a potential treatment option for cUTI, including AP, caused by Enterobacteriaceae with PLZ MICs of ≤4 µg/mL.

**Methods.** In August 2017, select jurisdictions were funded to collect urogenital and extragenital specimens from men and women in participating STD clinics. Positive gonorrhea cultures were sent to regional laboratories for antimicrobial susceptibility testing (AST) by agar dilution. Isolates with elevated minimum inhibitory concentration (MIC) to azithromycin (AZI) (MIC ≥20 µg/mL) and/or cefixime (CFX) (MIC ≥20.25 µg/mL) and/or ceftriaxone (CRO) (MIC ≥20.125 µg/mL) were designated as Alert isolates. Clinical and epidemiological data were linked to AST results.

**Results.** From August 2017 to February 2018, 4 clinics in 4 jurisdictions submitted 468 positive gonococcal specimens for AST, 36.1% were from men who have sex with men (MSM), 51.9% from men who have sex with women (MSW), and 12.0% from women. Overall, 71.8% were urethral, 7.9% endocervical, 7.1% rectal, and 13.2% pharyngeal. Seventy-two isolates (15.4%) were Alerts: 97.2% (N = 70) had elevated MICs to AZI, 2.8% (N = 2) had elevated MICs to CFX, and none had elevated MICs to CRO. No isolate had elevated MICs to both AZI and CFX. Among MSM, 15.0% of urogenital isolates and 16.1% of extragenital isolates had an elevated AZI MIC. Among women, 24.3% of endocervical isolates and 26.3% of extragenital isolates had an elevated AZI MIC.

**Conclusion.** Preliminary eGISP data suggest that enhanced surveillance of pharyngeal, rectal, and endocervical isolates is feasible and that elevated MICs to azithromycin are common among men and females. Including isolates from extragenital locations, and women may help strengthen N. gonorrhoeae surveillance capacity.

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

126. Robust and Persistent Vaginal Colonization with LACTIN-V Vaginal Lactobacillus crispatus Probiotic in a Double-Blind, Placebo-Controlled (DBPC) Phase 2b Trial to Prevent Recurrent UTI (rUTI)

**Background.** We investigated vaginal colonization using repeatitive sequence PCR (repPCR) and 16S RNA sequencing in a Phase 2b DBPC trial of a L. crispatus vaginal suppository probiotic for prevention of rUTI in premenopausal women.

**Methods.** Twenty-four young women with a history of rUTI and current culture-confirmed symptomatic UTI were enrolled and treated (Visit 0), then randomized (Visit 1) to the Probiotic arm or Placebo arm. Participants were followed up during the 2-month probiotic/placebo intervention (Visits 2 to 4; active intervention) and during 2 weeks following the intervention (Visits 5 and 6; post-intervention). At each visit, vaginal swabs were collected for repPCR to determine the presence or absence of the probiotic strain and the duration of its presence in the vagina and for 16S RNA-based sequence analysis to determine relative abundance of any L. crispatus.

**Results.** LACTIN-V vaginal suppository induced selective and sustained colonization in the probiotic but not the placebo recipients, as follows. Pre-intervention: Probiotic lactobacillus strain, (a) Probiotic arm: 100% of participants positive at one or more visits and (b) Placebo arm: 0% of participants positive at any time. (2) L. crispatus relative abundance, (a) Probiotic arm: all specimens, all visits and (b) Placebo arm: 15% of all specimens, all visits. Post-intervention: (1) Probiotic lactobacillus strain, (a) Probiotic arm: 75% of participants positive at Visit 5, 58% at Visit 6 and (b) Placebo arm: 0% of participants positive at Visits 5 and 6. (2) L. crispatus relative abundance, (a) Probiotic arm: 70% to 100% and (b) Placebo arm: below 5%.

**Conclusion.** LACTIN-V L. crispatus vaginal probiotic achieved robust and persistent colonization throughout 2 months of weekly dosing and for 2 months after the last dose in most participants.

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

127. Urinary Tract Infection Incidence Is Associated with Recent Environmental Temperatures

**Background.** Urinary tract infections (UTI) are one of the most common infections and the incidence of UTIs is seasonal, peaking in summer months. Relative to other times of the year, incidence of UTIs during the summer months is approximately 10% greater. Prior work has suggested that a cause of this seasonality may be warmer temperatures during summer months. However, this work focused on inpatients and used average monthly temperatures.

**Methods.** We identified all UTI cases located in 1 of 397 metropolitan statistical areas (MSAs) in the contiguous United States between 2011 and 2016 using the Truven

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**Table 1. Per-Pathogen Microbiological Eradication at TOC** by Resistance Phenotype and Resistance Mechanism (Extended mITT Population)

| Pathogen | PLZ (N = 202) | MEM (N = 205) | Difference PLZ Minus MEM (95% CI) |
|----------|---------------|---------------|----------------------------------|
| Enterobacteriaceae | 193/213 (86.8%) | 164/222 (73.9%) | 0.15 (0.07 to 0.24) |
| Enterobacteriaceae | 2/172 (12.7%) | 2/172 (12.7%) | 0.00 (0.00 to 0.00) |

**Table 2. Per-Pathogen Microbiological Eradication at TOC** by Baseline PLZ MIC (Extended mITT Population)

| Pathogen | Baseline PLZ MIC (µg/mL) | PLZ (N = 202) | MEM (N = 205) | Difference PLZ Minus MEM (95% CI) |
|----------|--------------------------|---------------|---------------|----------------------------------|
| Enterobacteriaceae | ≤0.05 | 2/2 (100%) | 0/1 (0.0%) | 2.00 (2.00 to 2.00) |
| Enterobacteriaceae | 0.12 | 23/39 (59.5%) | 0/1 (0.0%) | 1.50 (1.50 to 1.50) |
| Enterobacteriaceae | 0.25 | 60/86 (69.8%) | 0/1 (0.0%) | 1.00 (1.00 to 1.00) |
| Enterobacteriaceae | 0.5 | 63/86 (73.2%) | 0/1 (0.0%) | 1.00 (1.00 to 1.00) |
| Enterobacteriaceae | 2 | 5/8 (62.5%) | 0/1 (0.0%) | 1.00 (1.00 to 1.00) |
| Enterobacteriaceae | 4 | 6/8 (75.0%) | 0/1 (0.0%) | 1.00 (1.00 to 1.00) |
| Enterobacteriaceae | 8 | 1/2 (50.0%) | 0/1 (0.0%) | 1.00 (1.00 to 1.00) |
| Enterobacteriaceae | 16 | 0/2 (0.0%) | 0/1 (0.0%) | 1.00 (1.00 to 1.00) |
| Enterobacteriaceae | 32 | 0/2 (0.0%) | 0/1 (0.0%) | 1.00 (1.00 to 1.00) |

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