ADRs noted. Regarding inpatient resource utilization, 121 patients were admitted for MS-DRG 603 in 2017 vs. 167 patients in 2016, average length of stay was 3.88 days in 2017 vs. 3.92 days in 2016, and average cost per inpatient stay was $4,076 in 2017 vs. $6,314 in 2016. The total hospital cost for MS-DRG 603 was $555,000 in 2017 vs. $1 million in 2016.

Conclusion. A single dalbavancin infusion is a resource-effective option for patients with ABSSSI that would otherwise require inpatient admission for IV antibiotics.

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2371. Monomicrobial Gram-Negative Necrotizing Fasciitis: An Uncommon but Fatal Syndrome
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Background. Necrotizing fasciitis is a rapid progressive and potentially life-threatening infection. Although the relative emergence of non-synergistic single Gram-negative organisms as pathogen could be a therapeutic issue for clinicians, limited studies so far described the characteristics due to the low incidence.

Methods. We retrospectively reviewed clinical data of necrotizing fasciitis patients who were clinically diagnosed between May 2001 and December 2015 in university hospitals of three different cities of the Republic of Korea. We compared clinical characteristics and outcomes of patients with monomicrobial Gram-negative with those of the Gram-positive counterpart.

Results. A total of 115 patients with community acquired necrotizing fasciitis were identified. Among them, monomicrobial infections were 67 (58%) cases: 31 (27%) in the Gram-negative group and 36 (31%) in the Gram-positive group. The majority of Gram-negative group was E. coli followed by P. aeruginosa and V. vulnificus. There were more cases of the Gram-negative group showing liver cirrhosis (39% vs. 14%, P = 0.02) and bacteremia (52% vs. 16%, P = 0.02). A total of 23 (10%) patients died within 30 days, including 15 (19%) in the Gram-negative group and 8 (10%) in the Gram-positive group (P = 0.02). In multivariable logistic regression, liver cirrhosis (adjusted odds ratio [aOR], 13.7; 95% confidence interval [CI], 2.4–67.0), treatment with antibiotics without surgery (aOR, 10.2; 95% CI, 2.1–48.3), and lower level of albumin (aOR 4.9; 95% CI, 1.6–14.9) were significantly associated with 30-day mortality.

Conclusion. Our findings suggest that necrotizing fasciitis caused by Gram-negative pathogen more often associated with liver cirrhosis and has poorer outcomes than the Gram-positive counterpart.

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2372. Multidisciplinary Care Teams to Reduce Major Amputations for Patients With Diabetic Foot Ulcers: A Systematic Review
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Background. Approximately 2 million Americans develop a diabetic foot ulcer (DFU) annually; >50% die and 5% lose a limb within 5 years. IDSA guidelines recommend multidisciplinary team care for these patients (moderate evidence). Little is known about who should compose the team or how the team should function (low evidence). We conducted a systematic review following PRISMA guidelines to evaluate the effect of multidisciplinary team care on major amputation in patients with DFUs and describe team composition and function.

Methods. A medical reference librarian searched databases without date limits through May 26, 2017. Two independent reviewers screened abstracts and then full text using the following inclusion criteria: original article; reported the effect of multidisciplinary teams (≥2 specialties) on major amputation; included a control group; >50% of study patients had diabetes; in English. Abstracted data included study design, patient characteristics, team composition and function, and major amputation rates.

Results. We included 33 studies (Figure 1). Five (15%) were in the United States, and 27 (82%) were historically controlled trials. Thirty-two (97%) documented lower major amputation rates among patients cared for by a multidisciplinary team (Figure 2). Relative reductions ranged from 11 to 90%. A 12% relative increase was observed in the single study documenting increased rates of major amputation following multidisciplinary care. Thirty-six different specialties were represented in the 26 studies reporting team composition, including: endocrinology (58%), vascular surgery (73%), orthopedic surgery (65%), podiatry (54%), and infectious disease (50%). Teams functioned in the following settings: inpatient (30%), outpatient (15%), or both (53%). Among 12 studies reporting team function, the following topics were addressed: surgical debridement/offloading (66%), vascular disease (63%), infection (59%), and glycemic control (41%).

Conclusion. Care by multidisciplinary teams may help prevent major amputation for patients with DFUs. Team composition and function, and reductions in major amputation rates, varied considerably. Research directly comparing different models of multidisciplinary care is needed.

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2373. Evaluation of Delafloxacin Activity and Treatment Outcome for Phase 3 Acute Bacterial Skin and Skin Structure Infection Clinical Trial Anaerobic Isolates Dee Shortridge, PhD1; Sandra P. McCurdy, MS1; Paul R. Rhomberg, BS1; Michael Musuuza, BS2 and Robert K. Flamm, PhD1; 1JMI Laboratories, Inc., North Liberty, Iowa; 2Melinta Therapeutics, Lincolnshire, Illinois

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Background. Delafloxacin (DLX) is a broad-spectrum fluorquinolone (FQ) antibacterial; approved in 2017 by the Food and Drug Administration for treatment of acute bacterial skin and skin structure infections (ABSSSI). DLX is in clinical development for community-acquired bacterial pneumonia (CABP). In this study, in vitro susceptibility (S) for DLX and comparator agents for Gram-negative (GN) and
A total of 84 anaerobic isolates were collected during Phase 3 ABSSSI clinical trials and 9 additional *Bacteroides fragilis* (BF) were collected as part of the 2017 SENTRY surveillance program. The isolates tested included 11 BF, 13 *Clostridium perfringens* (CP), and other species with <10 isolates (table). Isolate identifications were confirmed by molecular methods. Susceptibility testing was performed according to CLSI agar dilution methodology (M11, 2012). Other antimicrobials tested included clindamycin (CD), metronidazole (MTZ), and moxifloxacin (MXF). In addition, the activity of DLX and MXF were compared at standard pH 7.0 and at pH 6.0.

**Results.** DLX had the lowest MIC <sub>MIC</sub> values against both GP and GN species and was 32-fold more active than MXF for all organisms. For BF, DLX was 4- to 16-fold more active than the other comparators. For CP, DLX was 32- to 64-fold more active than the 3 comparators. When comparing the activity of DLX and MXF at pH 6 vs. pH 7, DLX had the same MIC <sub>MIC</sub> values while MXF MIC <sub>MIC</sub> values were 2-fold less active at the lower pH (Table 1). Of the 84 clinical trial isolates, 21 were recovered from subjects in the microbiologically evaluable at follow-up (MEFU) population. All of the subjects had a favorable microbial response (presumed eradication) at FU.

**Conclusion.** DLX demonstrated potent in vitro antibacterial activity against anaerobic isolates tested, including BF and CP and was more active than MXF. For all isolates combined, DLX activity was unchanged at lower pH while MXF MIC values increased 2-fold. These data suggest that DLX activity remains potent at a lower pH common at sites of infection.

Table 1. Susceptibilities of DLX and comparators.

| Antimicrobial agent | MIC (mg/mL) | MIC (mg/mL) | MIC (mg/mL) |
|---------------------|-------------|-------------|-------------|
|                      | DLX         | MXF         | CLSP        |
| Clinda (mg/mL)       | 0.2         | 0.12        | 0.01        |
| Moxiflox (mg/mL)     | 0.0625      | 1           | 0.00625     |

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2374. Genomic Characteristics of Recurrent *Staphylococcus aureus* Skin and Soft-Tissue Infections Among US Army Trainees

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**Background.** Skin and soft-tissue infections (SSTI) are common among military recruits, and some experience recurrent SSTI (two infections ≥30 days apart) during training. We used whole-genome sequencing (WGS) to assess the relatedness of strains from recurrent S. aureus SSTI cases and their close contacts.

**Methods.** From 2010 to 2014, we prospectively identified SSTI cases among US Army Infantry trainees (Fort Benning, GA), obtaining infection swabs at the time of presentation for all SSTIs and multiple anatomic site colonization swabs at the time of presentation for the first infection. Thereafter, we selected cases of recurrent S. aureus SSTI with phenotypically concordant paired isolates (e.g., MRSA-MRSA). We also selected concordant colonization isolates from recurrent cases as well as constant infection isolates from SSTI cases in the same training class as the recurrent case. Isolates were characterized by WGS. The number of single nucleotide polymorphism (SNP) differences between isolates was calculated. Phylogenetic trees were constructed to identify patterns of intra- versus extra-host S. aureus acquisition among cases of recurrent infection.

**Results.** We identified 23 cases of recurrent S. aureus SSTI with concordant infection isolates (18 MRSA). The median (range) pairwise SNP difference for intra-host infection isolates was 15 (0–3,768); 12 (0–348), MRSA and 310 (3–3,768), MSSA. Nine (39%) were colonized with a concordant strain (5 MRSA), yielding 14 colonization isolates and 9 SNP differences between intra-host colonization and recurrent infection isolates was 57 (2–3,582); 5 (2–3,582), MRSA and 167 (2–313), MSSA. Infection isolates from 33 proximal cases (27 MRSA) were identified. The median pairwise SNP difference between recurrent infection isolates and that of a proximal case was 24 (1–531); 20 (1–216), MRSA and 307 (266–331), MSSA. Variant analysis showed no difference between the number of putative high impact SNPs between infection (µ = 11, σ = 20) and colonization (µ = 19, σ = 42) isolates.

**Conclusion.** WGS of S. aureus from recurrent SSTI suggests patterns of intra-host reinfection as well as intra-host acquisition/infection. Targeted decolonization may prevent recurrent S. aureus SSTI.

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