used as reference values. We used three different definitions as comparators: 1: TPPA reactive; 2: TPPA and RPR reactive and 3: TPPA reactive and RPR titer >1:4. Those with non-reactive TPPA and RPR results were considered seronegative. We calculated the sensitivity and specificity for definition 1 and sensitivity for definitions 2 and 3. We used the exact binomial method to determine 95% confidence intervals (CI).

Results. With definitions 1, 2, and 3, respectively, sensitivity was 83.3% (CI: 67.2, 93.6), 86.4% (CI: 65.1, 97.1), and 100% (CI: 71.5, 100). Specificity was 47.2% (CI: 36.5, 75.5).

Conclusion. The high sensitivity of the SD Bioline Syphilis 3.0 test using oral fluid suggests a strong potential for the development of accurate rapid oral syphilis tests. Sensitivity increased with higher RPR titer. False positive results may be due to the presence of non-venereal treponemal antibodies in oral fluid. Further research and development are needed to optimize specificity.

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250. Tigecycline Susceptibility Trends Among Pathogens Isolated from Complicated Skin and Soft-Tissue Infections in North and Latin America: 2012–2016

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Background. The Tigecycline Evaluation Surveillance Trial (TEST) monitors the activity of tigecycline and other antimicrobials against clinically-relevant pathogens collected globally. This study reports the activity of tigecycline (TGC) against Gram-positive and Gram-negative isolates collected in North and Latin America from patients with complicated skin and soft-tissue infections (CSSTI).

Methods. Hospital sites from North America (NA) and Latin America (LA) collected non-duplicate clinical Gram-positive and -negative isolates from various complicated skin and skin structure infection sources during 2012–2016. Organism identification and antibiotic susceptibility (S) testing was performed by the local laboratories. Susceptibility testing was determined using the broth microdilution method according to CLSI guidelines and categorical interpretation of results was done using CLSI or FDA (tigecycline) breakpoint criteria where appropriate. Cefoxitin disk testing was performed for all *S. aureus* to determine methicillin susceptibility (i.e., MRSA and MSSA).

Results. The table provides %S and MIC_{90} data for TGC against CSSTI isolates

	Region, n, %S, MIC90 (µg/ml)					
	North America			Latin America		
Organism	n	%S	MIC90	n	%S	MIC90
S. aureus	2270	100	0.12	310	100	0.25
Enterobacter spp.	925	96.4	1	159	92.5	2
P. aeruginosa	758	na*	> 8	165	na	> 8
E. coli	716	99.9	0.25	241	100	0.25
Enterococcus spp.	691	99.3	0.12	135	100	0.12
S. agalactiae	503	100	0.12	58	100	0.06
K. pneumoniae	471	94.9	2	152	91.5	2
S. marcescens	347	96.8	2	67	97.0	2
A. baumannii	310	na*	2	97	na	1
K. oxytoca	204	99.0	0.5	15	100	1

*na = not applicable or no breakpoints available for this species.

Conclusion. Based on %S and MIC_{90} data TGC exhibited potent activity against isolates of all organism groups from complicated skin and soft-tissue infections, regardless of the geographic region. However, given the potential many of these organisms have for developing resistance, continued and careful surveillance monitoring is warranted.

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251. Risk Factors for Pseudomonas aeruginosa in Diabetic Foot Infections

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Background. Infectious Diseases Society of America guidelines for the management of diabetic foot infections (DFIs) suggest 15 different antibiotic treatment options for moderate-to-severe infections. All treatment options provide coverage for Gram-positive cocci, and some provide coverage for Gram-negative pathogens, including Pseudomonas aeruginosa (PSA). However, there is minimal guidance in determining which patients require anti-PSA therapy.

Methods. This single-center retrospective case–control study included patients hospitalized between October 2013 and September 2015. Adult patients admitted with a DFI were identified using a combination of ICD-9 codes for diabetes with complications and cellulitis. The primary outcome was identification of risk factors associated with PSA DFIs. A multivariable model using logistic regression was constructed, and a receiver operator characteristic (ROC) curve was generated to assess the sensitivity and specificity of the model.

Results. 262 patients were included and 12 (4.6%) patients had cultures with PSA. Multivariable analysis yielded six risk factors for PSA DFIs (see Table). ROC construction yielded an area under the curve of 0.895.

Conclusion. The incidence of PSA from DFIs is low. A model with excellent performance characteristics demonstrated that risk factors for PSA DFIs include age > 65, BMI ≥ 35, former or current smoker, history of lower extremity bypass procedure, and cardiovascular disease. Future validation of these factors could help stewardship programs reduce unnecessary antibiotic utilization.

Risk factor for PSA DFI	Odds ratio (95% CI)	*P*
Age > 65 years	5.94 (1.40–25.28)	0.016
Body mass index ≥ 35 kg/m^2	7.53 (1.73–32.81)	0.007
Former or current smoker	9.27 (1.06–81.54)	0.045
History of a lower extremity bypass procedure	9.63 (1.52–61.15)	0.016
Cardiovascular disease	5.28 (1.22–22.86)	0.026
Severe infection	4.50 (0.97–20.95)	0.055

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

252. Less Is More: Surgical Procedure Time and Risk of Infections, Length-of-Stay, and Readmission across Three Distinct Surgeries

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Background. Longer surgical total procedure times (TPT) have been associated with increased postoperative complications. It is unclear what the effect of TPT is on length-of-stay (LOS) or 30-day readmission rate (RAR).

Methods. We performed a retrospective study of patients undergoing knee arthroplasty (KA), colectomy, and craniectomy at NorthShore University HealthSystem from 1/2007 to 12/2013. Clinical data were extracted from the Data Warehouse and charts were reviewed. We standardized surgery times for each procedure and categorized into two groups: times <75‰ (short procedures) vs. times >75‰ (long procedures). We used χ^2 and *t*-test to compare categorical and continuous variables. We performed multivariate logistic regression for predictors of surgical site infection (SSI).

Results. In univariate analyses, long procedures were associated with higher incidence of fevers, SSI, longer LOS, and 30-day RAR (Table 1). TPT was not associated with other postoperative complications. TPT remained an independent predictor of SSI in multivariate (MV) analysis (Table 2).

Conclusion. High TPT was associated with increased SSI, LOS, and 30-day RAR. Understanding variation in TPT may help decrease SSI and healthcare utilization.

Table 1: Variables Stratified by (TPT)

Characteristic *N* (%)	Short *N* = 5920	Long *N* = 1980	*P*-value
Fever ≥ 100.4	1042 (17.6%)	450 (22.7%)	*
Body mass index ≥ 35	1143 (19.7%)	519 (26.6%)	*
Female	3867 (65.3%)	1117 (56.4%)	*
Surgery			
KA	4788 (80.9%)	1604 (81.0%)	0.99
Colectomy	467 (7.9%)	155 (7.8%)	
Craniectomy	665 (11.2%)	221 (11.2%)	
Complication	420 (7.1%)	154 (7.8%)	0.31
Urinary tract infection	76 (1.3%)	26 (1.3%)	0.92
Pneumonia	75 (1.3%)	28 (1.4%)	0.62
SSI	67 (1.1%)	41 (2.1%)	*
Venous thromboembolism	174 (2.9%)	61 (3.1%)	0.75
SSI w/in 30 day of discharge	84 (1.4%)	48 (2.4%)	*
Mean LOS, days (SD)	3.69 (2.89)	4.05 (3.38)	*
30d RAR	277 (4.7%)	142 (7.2%)	*

*P-value < 0.01