



A COMPARISON OF 427 KLEBSIELLA SPP AND 180 ENTEROBACTER SPP SURGICAL AND BLOOD STREAM INFECTIONS FROM A RURAL HOSPITAL IN THE APPALACHIAN REGION

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Background: Klebsiella & Enterobacter spp

- Amongst the most common Gram-negative rods
- Both cause surgical, urinary tract, respiratory tract and blood stream infections
- Recent advances in microbiology (MALDI-TOF): shifts in assignment of subspecies
- AIM: In light of reclassifications and changing patient demographic, we mapped types of infections the two closely related pathogens cause in a rural hospital (Appalachian region)

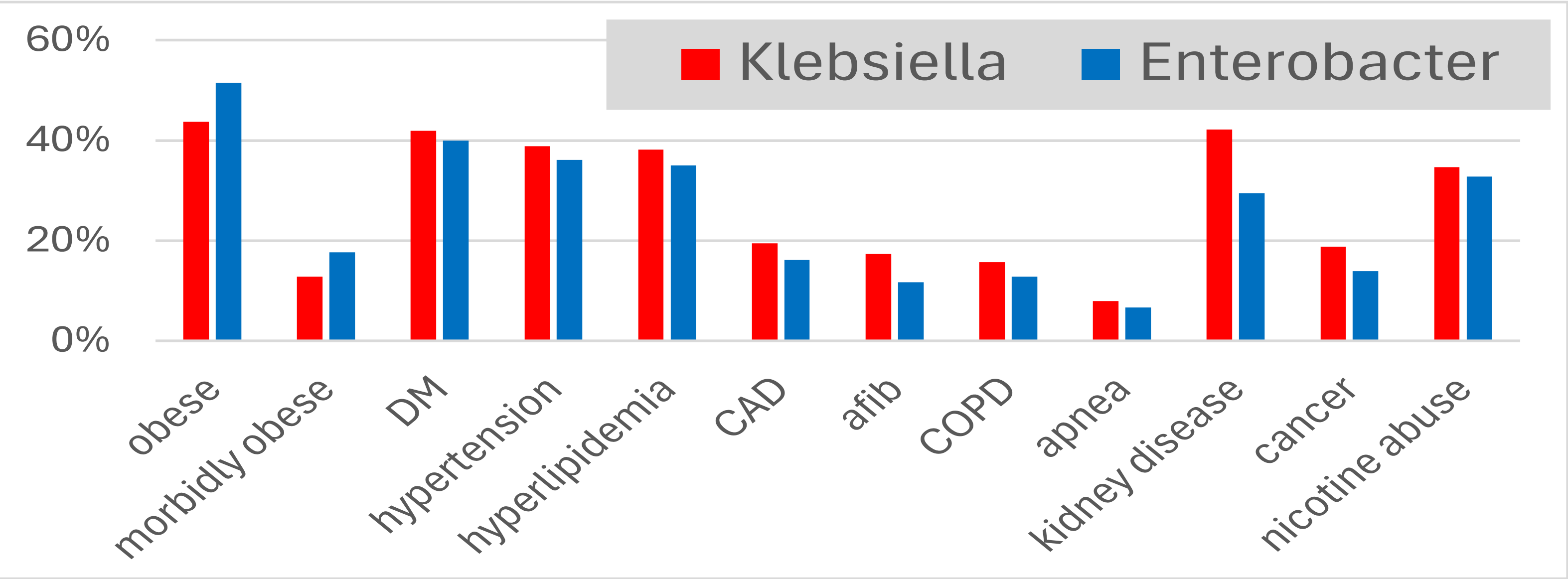
Patients and Methods

- Institutional database searched for all cases of surgical and blood stream infections from 2018 to 2022: 15565 isolates in 8614 patients
- Klebsiella (4.4%), Enterobacter (1.5%) of all isolates

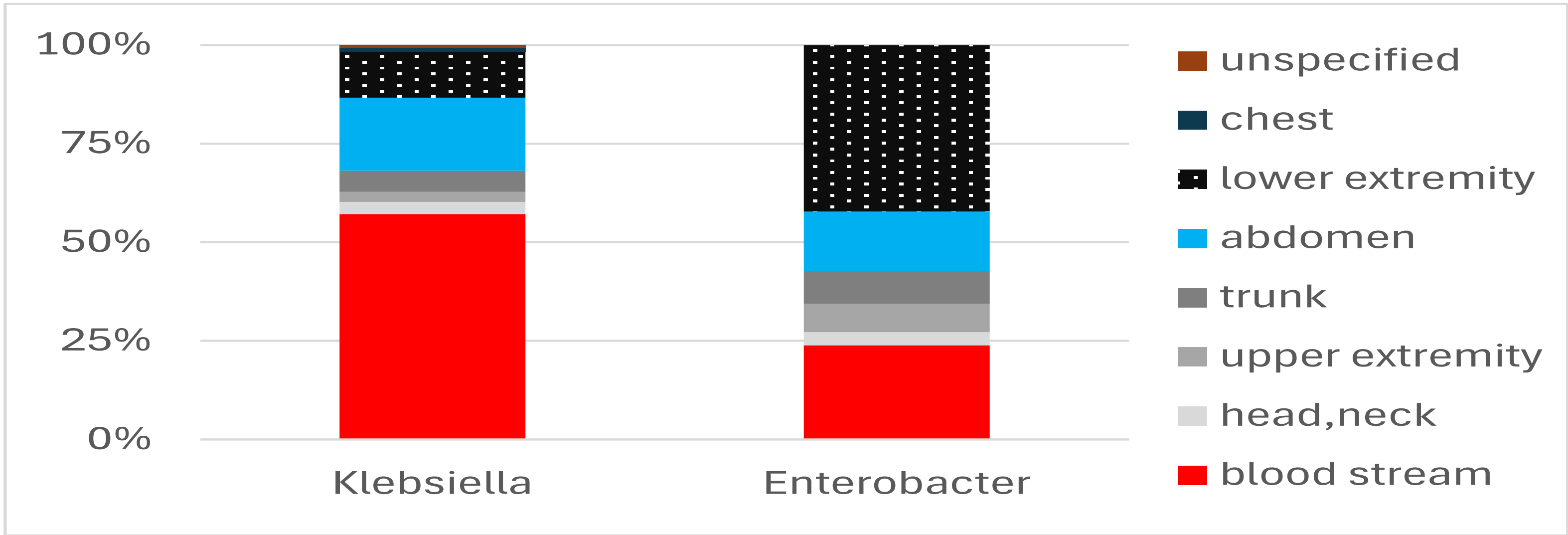
Results

	Klebsiella	Enterobacter
n isolates	687	238
n patients	427	180
% ped	1%	2%
% male	51.3%	55.6%
median age (range): years	67.3 (0.1 -106)	63.7 (10.7 -95.9)
median BMI: kg/m2	29.0	30.1

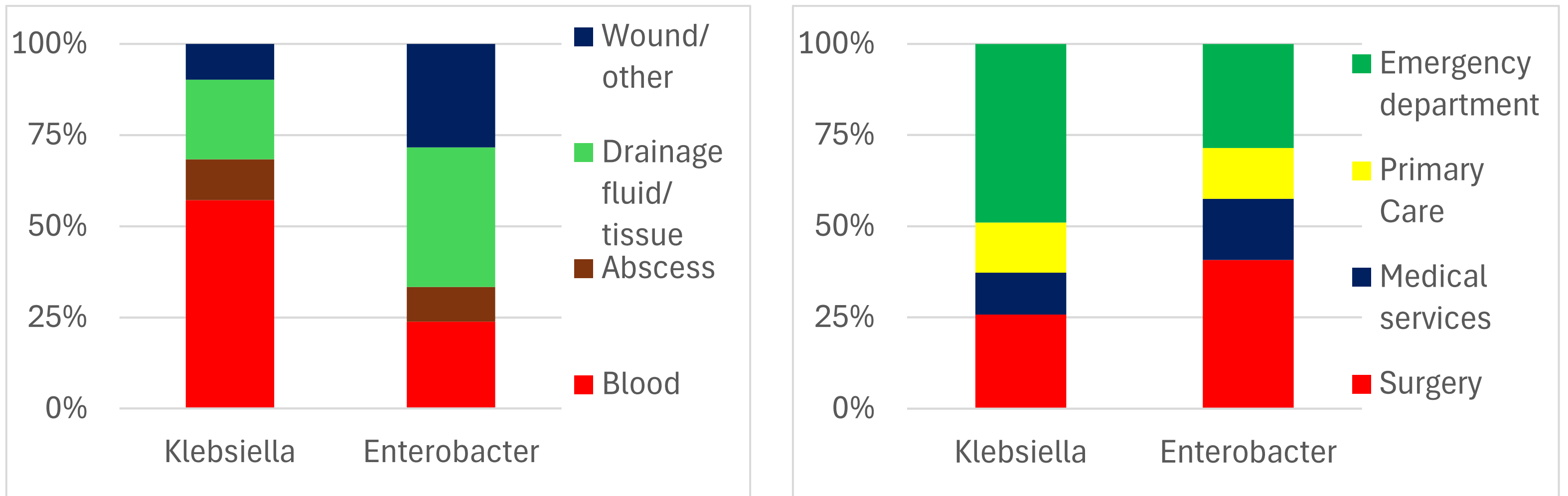
Comorbid conditions: no major differences



Type of infection: Klebs. >50% blood stream (LRTI, UTI)

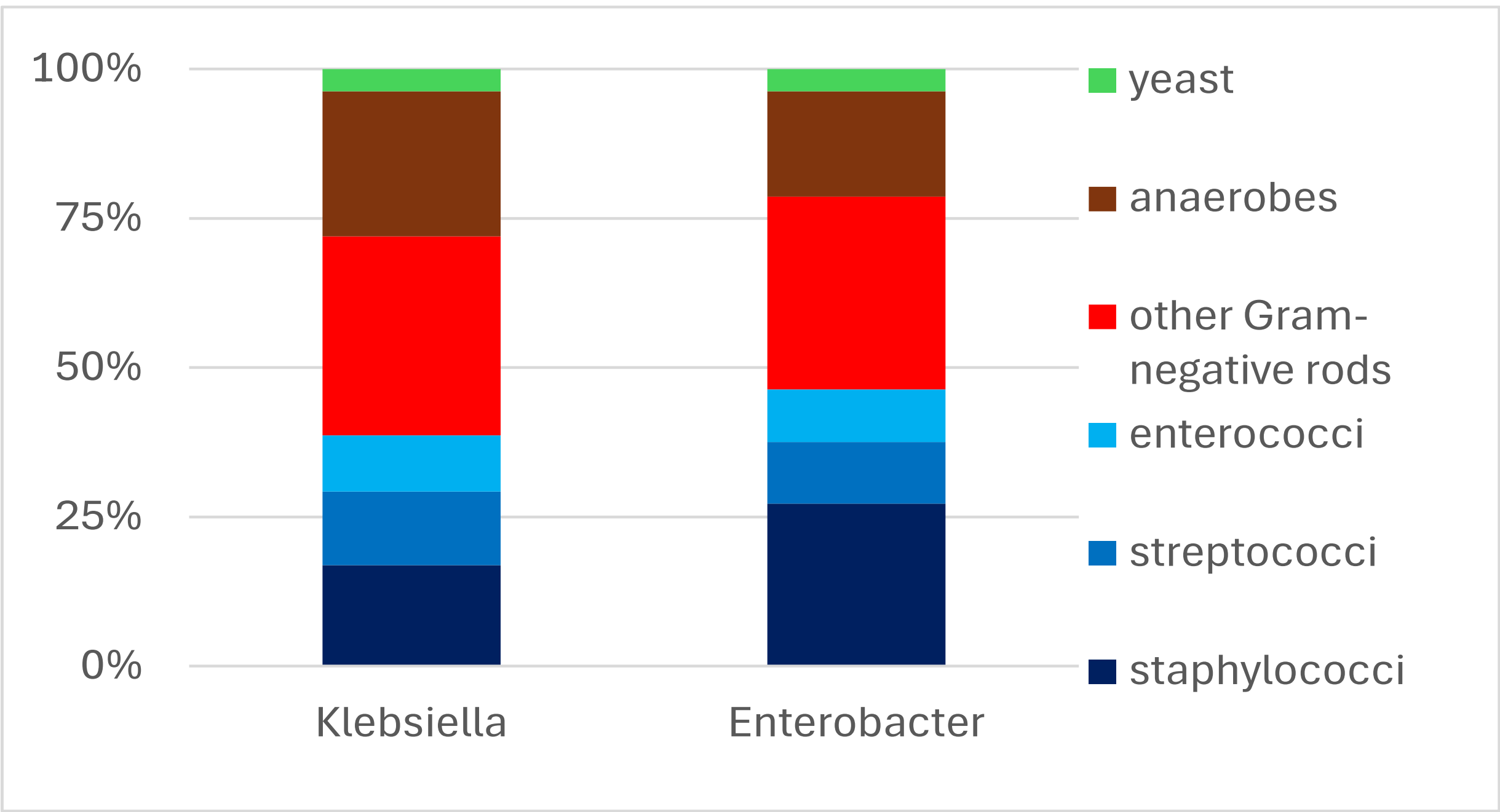


Specimens and submitting departments



51% (EB) versus 37% (K) infections polymicrobial

Co-pathogens



Treatment

- Source control: I&D, amputation, debridement, appendectomy/cholecystectomy/colectomy etc
- Antibiotics: Betalactam/betalactamase inhibitor, 3rd/4th gen cephalosporins, carbapenems

	Klebsiella	Enterobacter
Follow up alive (2 years)	79%	87%

Summary and Conclusions

- Multiple differences between patients with Klebsiella and Enterobacter spp infections
 - Demographics, clinical presentation, outcome
- Klebsiella higher rates of IAI & blood stream infections
- Antibiotic resistance concerning in both bacteria!