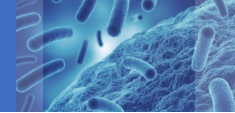


Discovering Disparities in Clinical Characteristics and Outcomes Among Patients Treated in US Hospitals for Carbapenem—resistant Infections

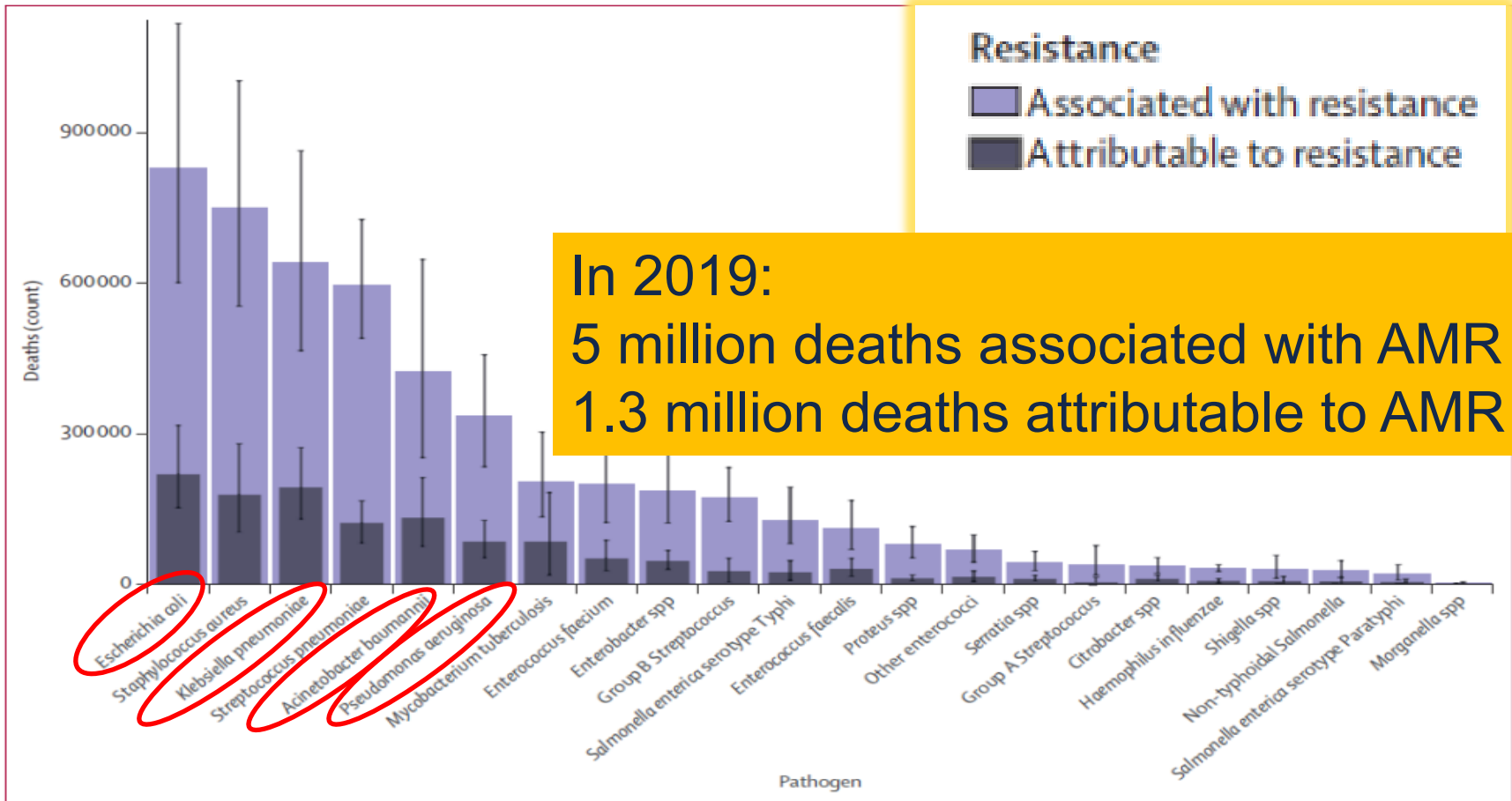
January 17 - 19, 2024
Houston, Texas

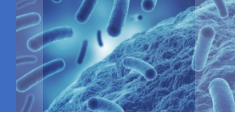
Felicia Ruffin, Ph.D., MSN, BSN, RN, BA





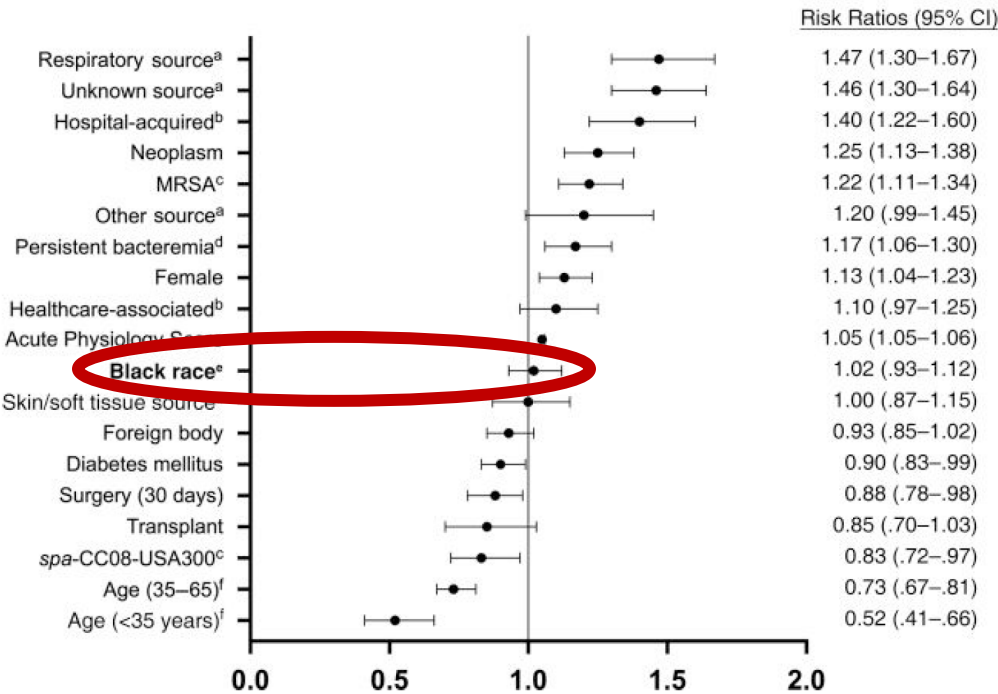
Global Burden of Drug-Resistant Bacteria





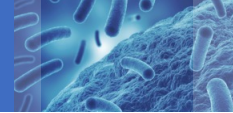
AMR and Health Disparities

90-Day All-Cause Mortality




Black race had no impact on mortality in *S. aureus* bacteremia


Black race was associated with higher MRSA rates and 5 times higher rates of underlying hemodialysis

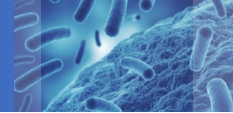


Objective



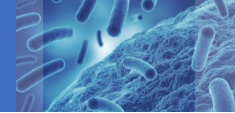
To identify risk factors or differences in clinical characteristics and outcomes among Black and White patients with infections caused by carbapenem-resistant (CR) organisms.

Decorative geometric shapes in the bottom left corner, including a grey triangle, a yellow triangle, and a grey triangle.



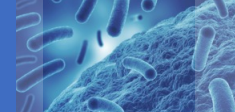
Design, settings, and participants

- Multi-drug Resistance Organism (MDRO) Network
- Prospective cohort study from 2016 to 2019
- Hospitalized patients with
 - Carbapenem-resistant Enterobacterales
 - Carbapenem-resistant *Pseudomonas aeruginosa*
 - Carbapenem-resistant *Acinetobacter baumannii*
- For these analyses we included
 - United States only
 - Black and White patients as per the medical record
 - Infections only



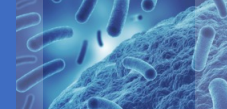
Results: Significant Baseline Differences (n=1518, 34% Black, 43% Female)

	Black Female 235 (16%)	Black Male 278 (18%)	White Female 415 (27%)	White Male 590 (39%)
Median (Q1, Q3) Age	63 (51, 73)	57 (44, 67)	64 (51, 73)	64 (53, 73)
Admit from home	41%	52%	49%	57%
Diabetes mellitus	45%	42%	37%	33%
Renal dysfunction	33%	30%	22%	22%
Liver disease	4%	8%	10%	13%
History of malignancy	17%	13%	27%	29%



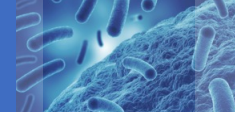
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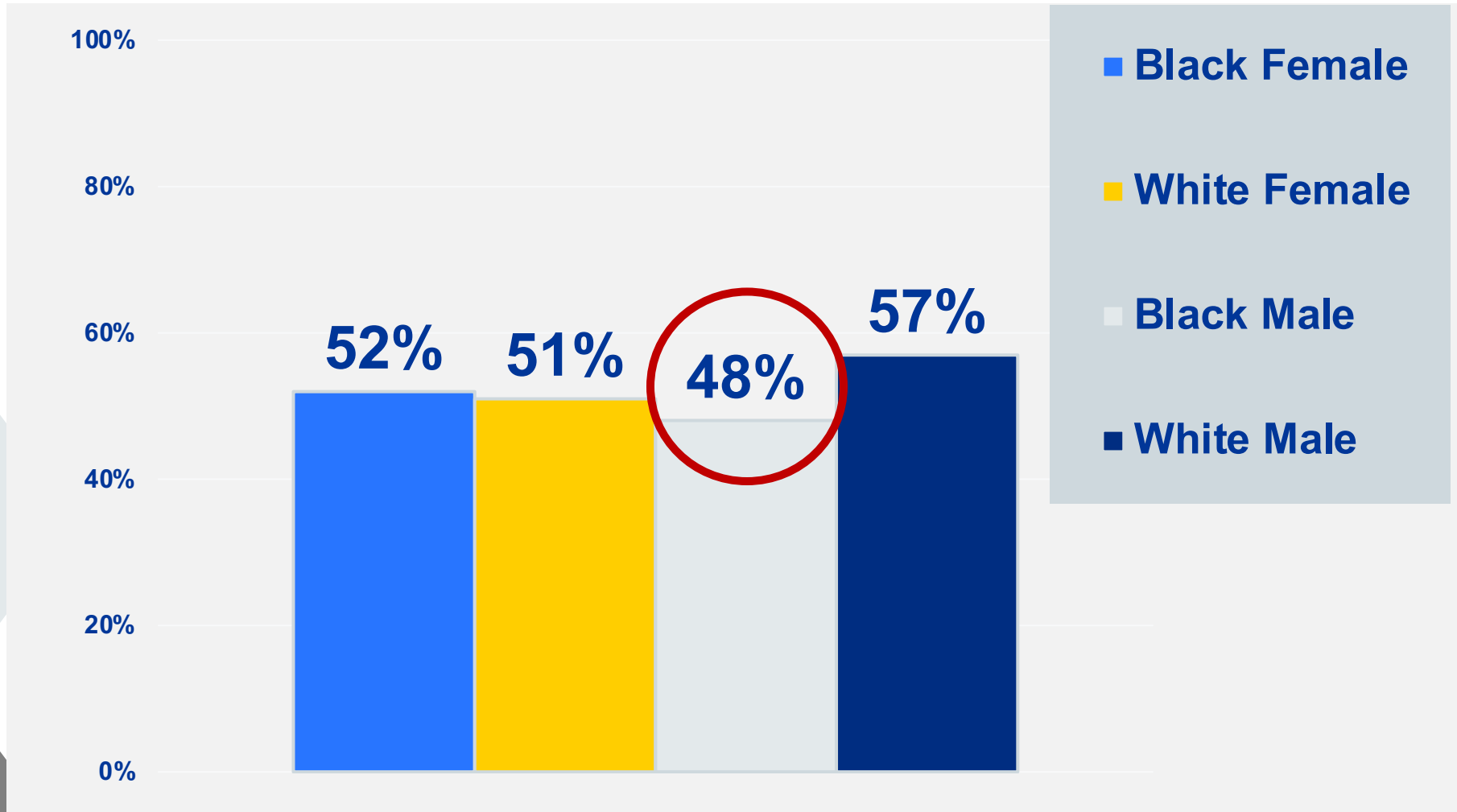


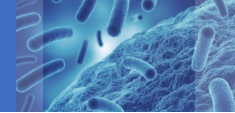
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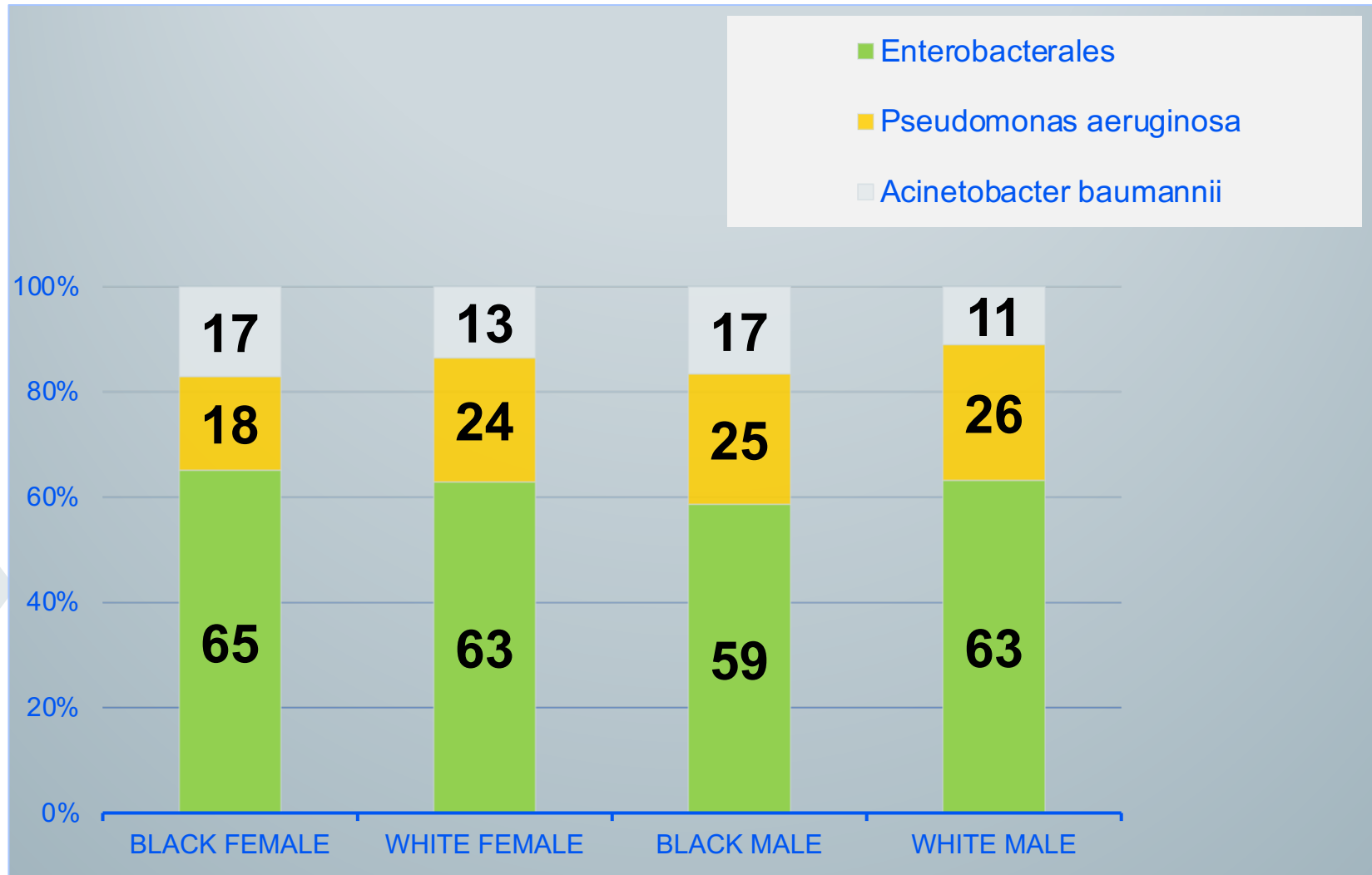


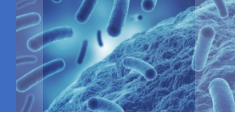
Hospital onset of Infection



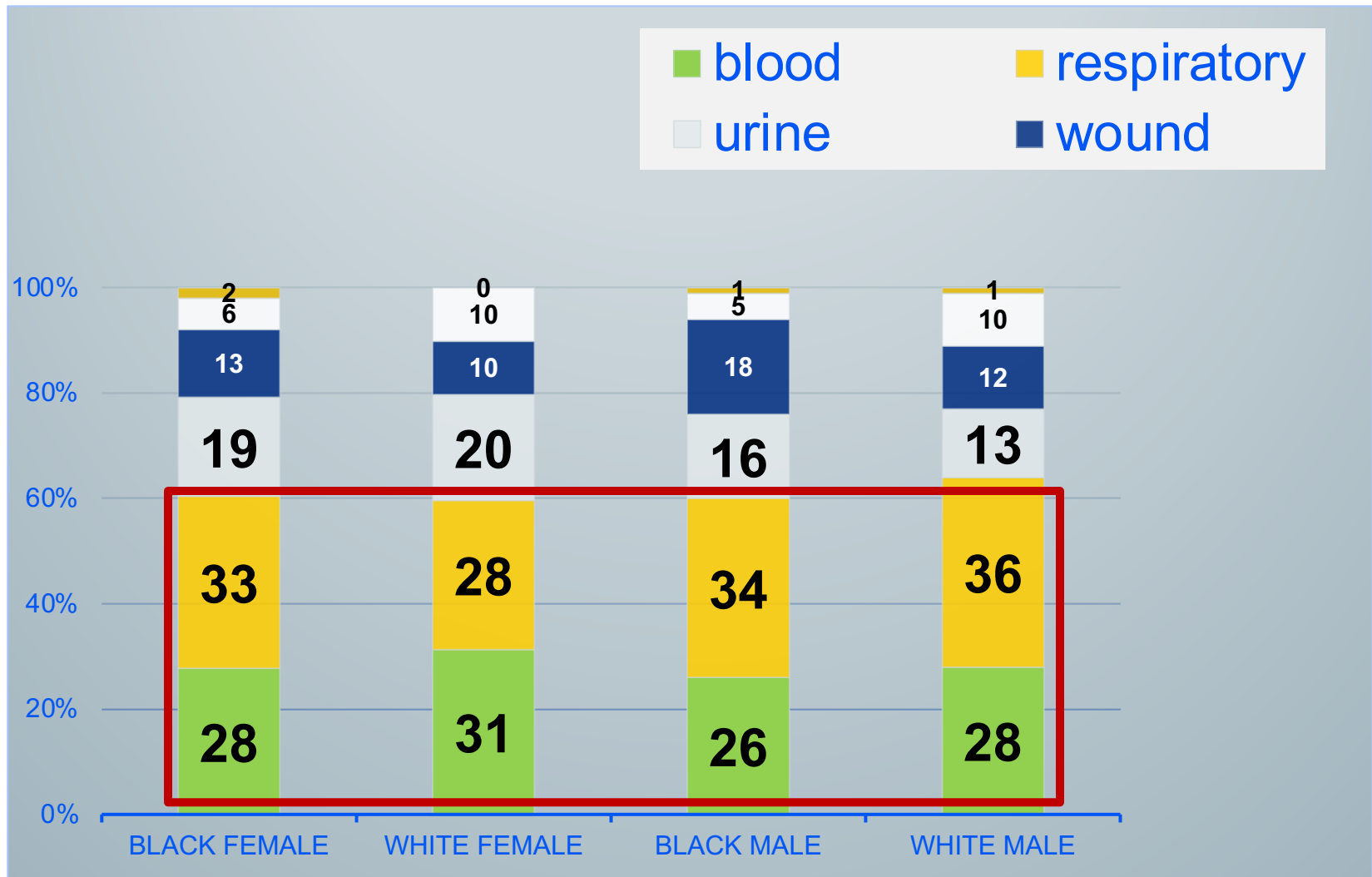


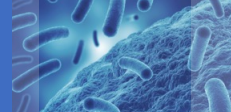
Carbapenem-resistant Species



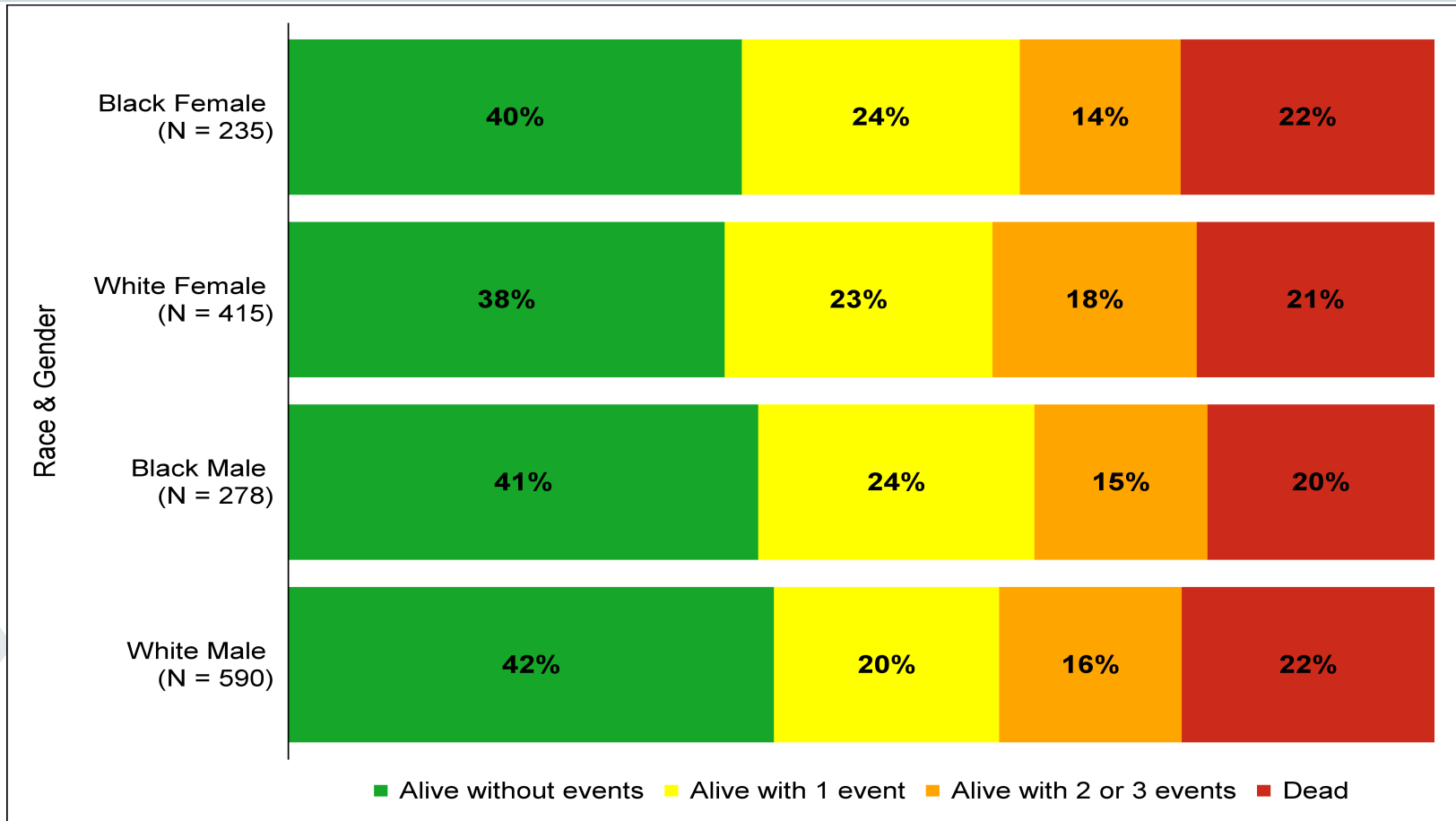


Culture Source





30 Day DOOR Categories by Race & Gender



The DOOR outcomes were similar among the groups of Black and White patients.

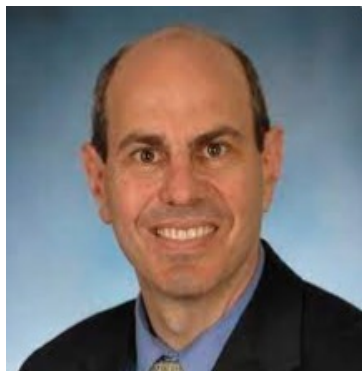
Conclusions

- ❑ In the US, Black males with CR bacterial infections are significantly younger
- ❑ Distribution of comorbid conditions different between Black and White patients
- ❑ Outcomes, including all-cause mortality were similar in spite of baseline differences
- ❑ More research is needed to explore baseline differences

Our team



Melinda Pettigrew



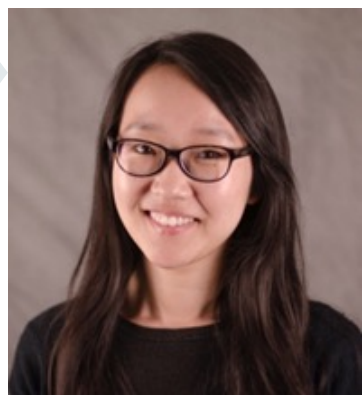
Anthony Harris



David van Duin



Vance Fowler



Lizhao Ge



Yike Wang



Lauren Komarow



Thank you



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