

Evaluation of Intravenous vs. Oral Antibiotics at Discharge for the Treatment of Urinary Source Gram-Negative Bacteremia

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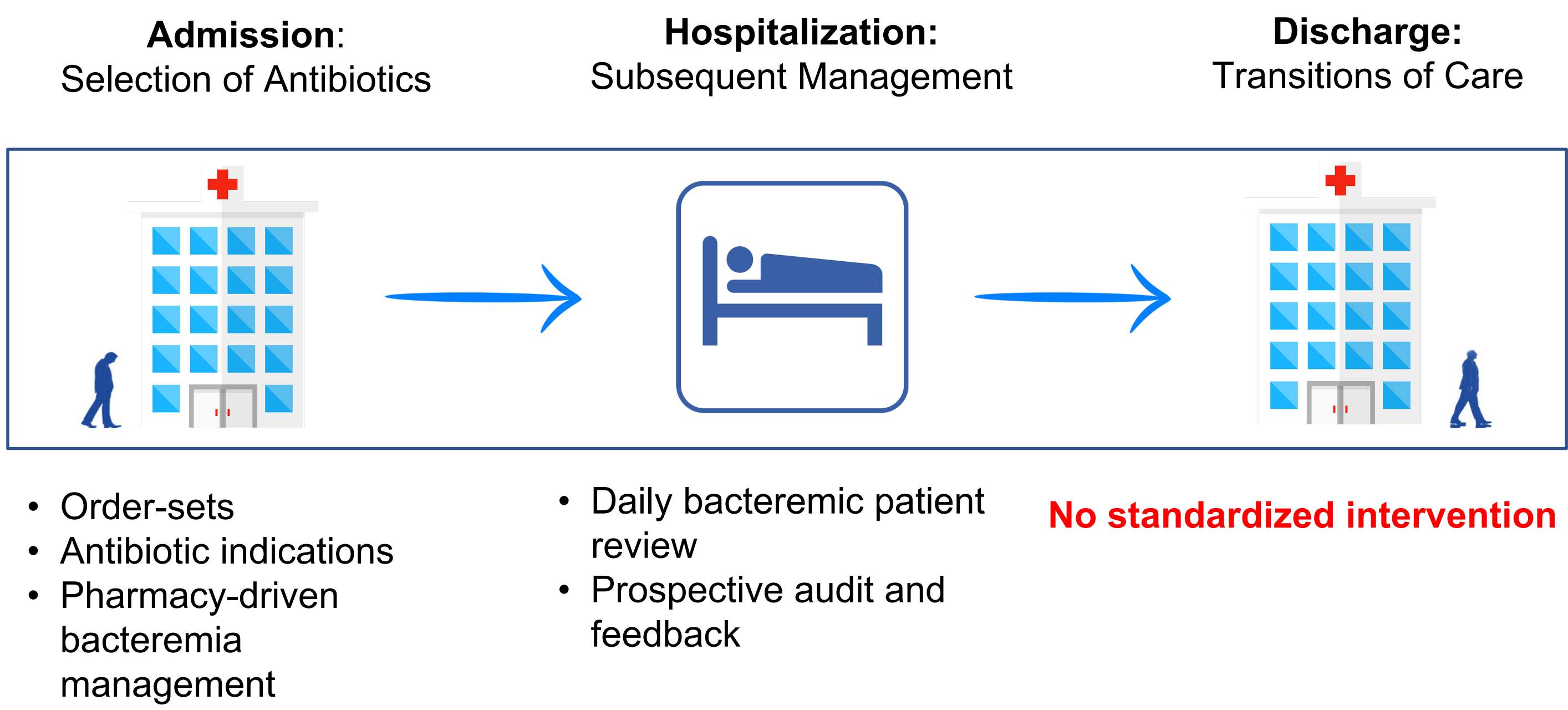
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BACKGROUND

Gram-Negative Bacteremia:

- ❖ Gram-negative bacteremia (GNB) continues to be a major cause of morbidity and mortality in the US. Most patients who are diagnosed receive Intravenous (IV) antibiotic therapy.
- ❖ Recent retrospective and prospective studies have suggested that oral (PO) therapy following initial IV therapy results in similar outcomes compared to a full course of IV therapy in GNB bacteremia especially in patients who have demonstrated adequate source control.
- Evidence for Oral Stepdown Therapy:** Tamma et al.
- ❖ Retrospective multicenter propensity score-matched cohort study
- ❖ Evaluated whether oral-stepdown therapy was utilized within the first 5 days of treatment of Enterobacterales bacteremia
- ❖ Study results:
 - ❑ 40% of patients had urinary source bacteremia
 - ❑ No differences in 30-day recurrence between groups
 - ❑ PO therapy was associated with decreased length of stay

Norton Antimicrobial Stewardship Program



PURPOSE

Clinical Question:

- ❖ What are the current prescribing patterns for urinary source GNB in terms of IV to PO step-down antibiotic therapy in a community healthcare system?

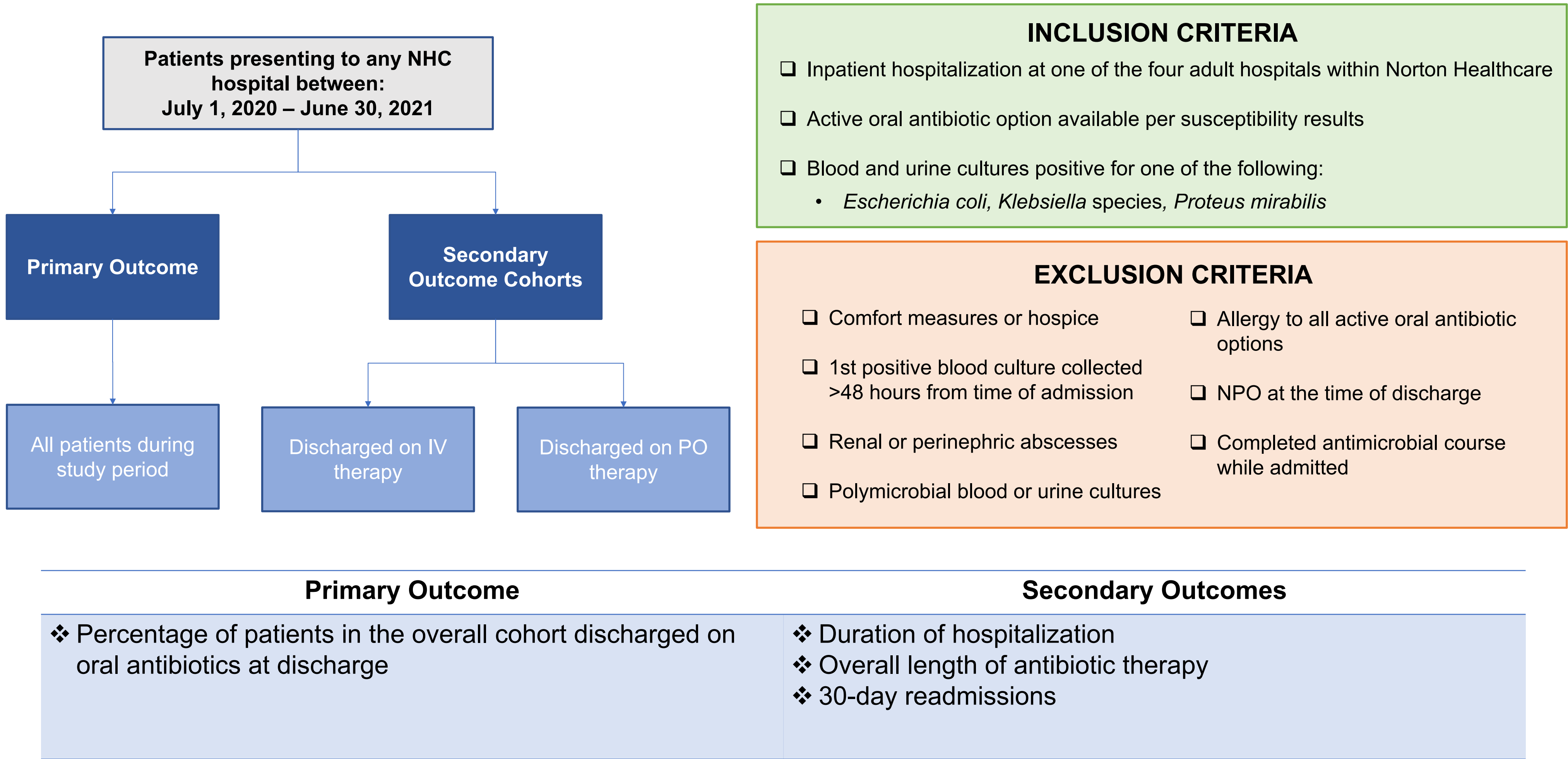
Purpose:

- ❖ Evaluate provider prescribing practices for antibiotics at discharge for urinary source gram negative bacteremia

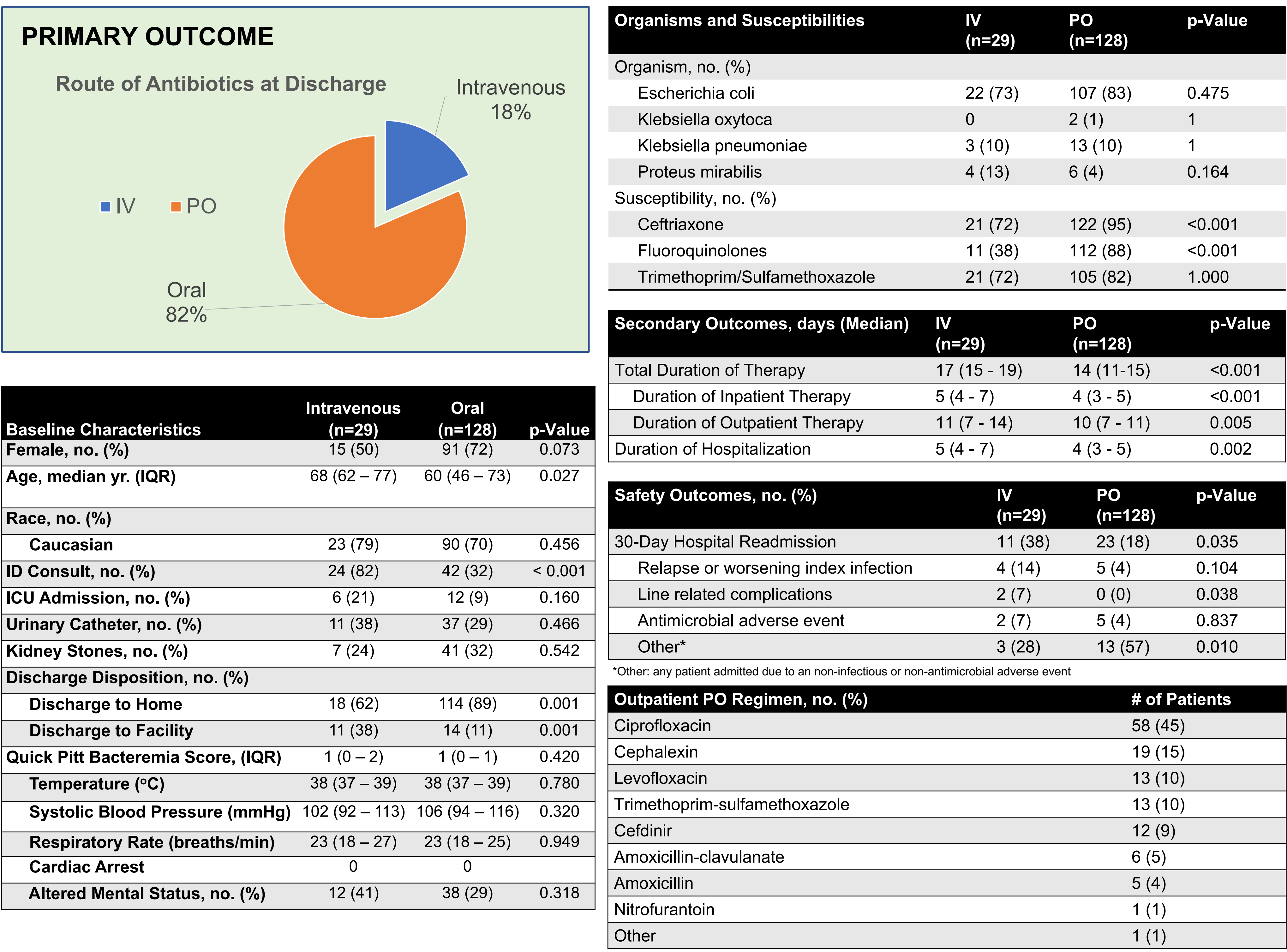
Disclosure

Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation

STUDY DESIGN & OUTCOMES



RESULTS



DISCUSSION

Primary Outcome: Comparisons to Existing Literature

- ❖ 82% of patients at Norton Healthcare discharged on oral antibiotics, this appears to be in line with or higher than rates reported in literature
- ❖ National survey found 87.8% of infectious disease providers self-reported they would transition a patient to oral antibiotics for treatment of GNB under certain conditions³
- ❖ Retrospective review at a tertiary academic center found 56% of patients with GNB were transitioned to oral agents¹⁰

Additional Discussion:

- Infectious Disease Consult
 - ❖ Selection bias vs. severity of illness

- Duration of therapy
 - ❖ Convention vs severity of illness

Organisms and PO Regimens

- ❖ Fluoroquinolones were most frequently chosen by providers
- ❖ Trimethoprim-sulfamethoxazole utilization fell behind beta-lactams even though > 70% of patients in the IV arm had a susceptible organism
 - ❑ Opportunity to increase trimethoprim-sulfamethoxazole use

CONCLUSIONS

Most patients with urinary source GNB were discharged on PO antibiotics

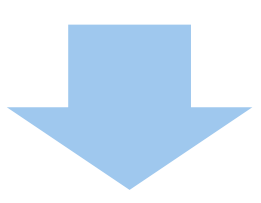
Patients discharged on IV antibiotics were more likely to be readmitted within 30 days

Future opportunities may include promoting PO TMP-SMX use

Future discharge stewardship efforts:

Prospective audit and feedback of discharge IV antibiotics

Selection	Duration	Route	Dose
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Outpatient Parenteral Antimicrobial Therapy (OPAT)

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