**Figure 3|** Monthly rate of (**a**) non-reflex urine cultures and (**b**) total urine cultures ordered per 1,000 patient-days before and after intervention (red dashed line). Data points represent monthly urine culture rates. Blue lines depict autoregressive interrupted time series models.

network that already uses conditional (e.g. reflex) urine testing. **Methods:** In October 2022, four hospitals within one academic healthcare network transitioned to a new electronic health record (EHR). We developed an embedded CDS tool that provided guidance on ordering either a urinalysis (UA) with reflex to urine culture or a non-reflex urine culture (e.g. for pregnant patients) based on the indication for testing (Figure 1). We compared median monthly UA with reflex culture and non-reflex urine culture order rates pre- (8/2017–9/2022) and post- (10/2022–9/2023) intervention using the Wilcoxon rank-sum test. We used interrupted time-series analyses allowing a one-month time window for the intervention effect to assess changes in monthly UA with reflex culture, non-reflex urine culture, and total urine culture order rates associated with the intervention. Using SAS 9.4, we generated Durbin-Watson statistics to assess for autocorrelation and adjusted for this using a stepwise autoregressive model. **Result:** The median monthly UA with reflex culture order rates per 1000 patient-days were similar pre- and post- intervention at 36.7 (interquartile range [IQR]: 31.0–39.7) and 35.4 (IQR: 32.8–37.0), respectively (Figure 2). Non-reflex and total urine culture rates per 1000 patient-days decreased from 8.5 (IQR: 8.1–9.1) to 4.9 (IQR: 4.7–5.1) and from 20.0 (IQR: 18.9–20.7) to 14.4 (IQR: 14.0–14.6) post-intervention, respectively. Interrupted time-series analyses revealed that the intervention was associated with a decrease in the monthly non-reflex urine culture by 4.8 cultures/1000 patient-days (p< 0.001) and in the total urine culture monthly order rates by 5.0 cultures/ 1000 patient-days (p < 0 .001) [Figures 3a and b]. The UA with reflex order rate did not significantly change with the intervention (not pictured). **Conclusion:** In an academic healthcare network that already employed conditional urine testing, the implementation of an EHR-based diagnostic stewardship tool led to additional decreases in both non-reflex and total urine cultures ordered.

**Presentation Type:**
Poster Presentation - Poster Presentation
**Subject Category:** Diagnostic Stewardship
**Inpatient Hospice Impact on Blood Culture Practices Near the Time of Death, Tertiary Center, Northern California, 2019–2023**

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**Introduction:** Many central line-associated bloodstream infections are identified in patients nearing the end of life. Stanford Health Care recently introduced the General Inpatient Hospice program. This program offers inpatient hospice care for patients who, due to uncontrolled symptoms, cannot be discharged to a hospice facility or receive home hospice care. We investigated whether this program would impact blood cultures practices near the time of death. **Methods:** We performed a retrospective cohort study at Stanford Health Care using records of blood culture events from May 2019 to October 2023. We defined a blood culture near-death as those collected within 2 days before the date of death. We performed an interrupted time series linear regression before and after the implementation of the General Inpatient Hospice program on July 1, 2022 to assess blood culture intensity near-death. Blood culture intensity was defined as the proportion of cultures collected near-death in relation to the total number of blood cultures. Additionally, we calculated blood culture positivity rate, which was defined as the proportion of positive blood cultures among all those collected during our study period. **Results:** Out of 220,269 blood cultures from 24,955 unique patients, a total of 6,147 cultures (9%) were obtained near the time of death. Among these subjects, the median age was 65 years (range 20–102), with 43% identifying as being of White race-ethnicity and 57% as male. Of these cultures, 3044 were positive (49.5%), with Escherichia coli (618, 24%), Klebsiella pneumoniae (341, 13%), and Staphylococcus aureus (166, 10%) being the most common organisms. After the implementation of the General Inpatient Hospice program, the median enrollment was 12 patients (range 3–18) and the median mortality rate was 2.3% (range 2–3%). The blood culture intensity near death decreased by 0.81%, a change that was not statistically significant (95% CI -2.4% to 0.8%, p=.32; Figure 1). Subsequently, the blood
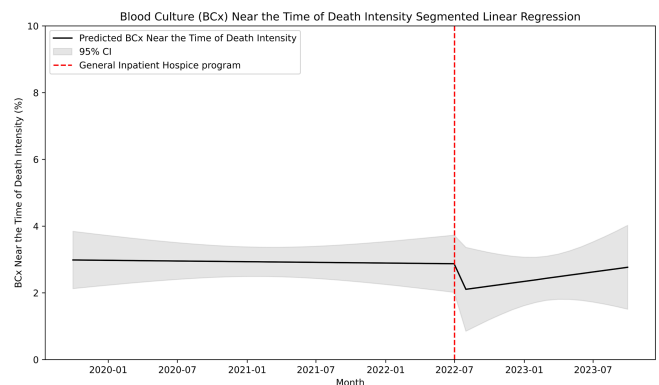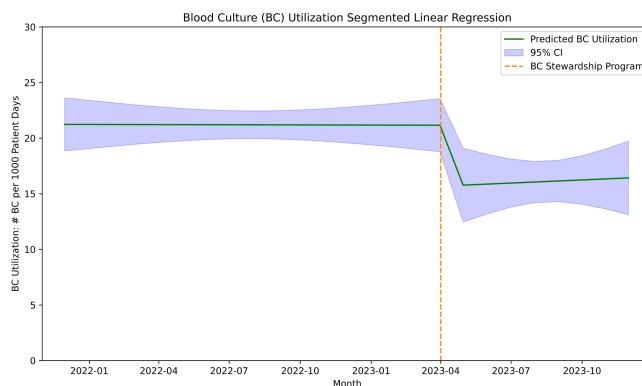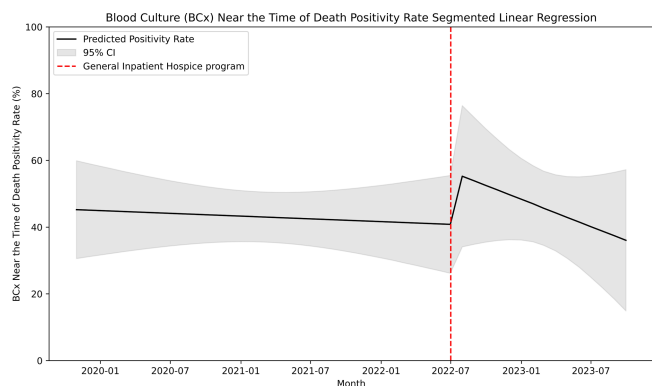
culture intensity showed a non-significant increasing trend of 0.05% (95% CI -0.1% to 0.2%, p=0.53). The blood culture positivity rate near the time of death increased by 16% following the intervention, but this increase was not statistically significant (95% CI – 11.8% to 43.3%, p=.26; Figure 2), and it was followed by a non-significant downtrend of 1.9% (95% CI -3.9% to 1.4%, p=.36). **Conclusion:** We found no significant association between the implementation of an inpatient hospice program and blood culture practices near the time of death, likely due to low patient enrollment.

**Presentation Type:**
Poster Presentation - Poster Presentation
**Subject Category:** Diagnostic Stewardship
**Reduced Blood Culture Use in High-Volume Lung Transplant MICU Following a Stewardship Program, Northern California, 2021–2023**
Guillermo Rodriguez Nava, Stanford University School of Medicine; Javier Lorenzo, Stanford University; Mindy Sampson, Stanford University; Valeria Fabre, Johns Hopkins University School of Medicine; Sara Cosgrove, Johns Hopkins University School of Medicine and Jorge Salinas, Stanford University

**Introduction:** There is a need to optimize blood culture (BC) utilization among hospitalized adults. A previous study showed an evidence-based BC algorithm improved BC utilization in a medical intensive care unit (MICU) at a large academic center. Our aim is to evaluate the impact of an intervention based on this algorithm on blood culture utilization in the MICU at Stanford Health Care, a referral center known for its high volume of solid organ transplants. **Methods:** We conducted a before-after study evaluating the impact of a BC diagnostic stewardship program in the MICU at Stanford Health Care, a 20-bed unit with an average of 20% lung transplant patients per day. All patients ≥18 years of age admitted to the unit during the study period were included. We adopted a previously published evidence-based algorithm detailing syndromes with low and high risk for bacteremia, which was referenced during patient rounds. Additionally, education and feedback to providers about BC utilization and indication inappropriateness was performed during leadership meetings every other month. We performed an interrupted time series analysis using historical data 17 months before the implementation of the blood culture stewardship program on April 1, 2022 and 8 months after. We assessed changes on BC utilization adjusted to patient days and crude mortality rate during the same period as a balancing measure. **Results:** Before the implementation of the program, the median BC utilization was 216 per 1,000 patient days (range 150–250 per 1,000 patient days). Following the
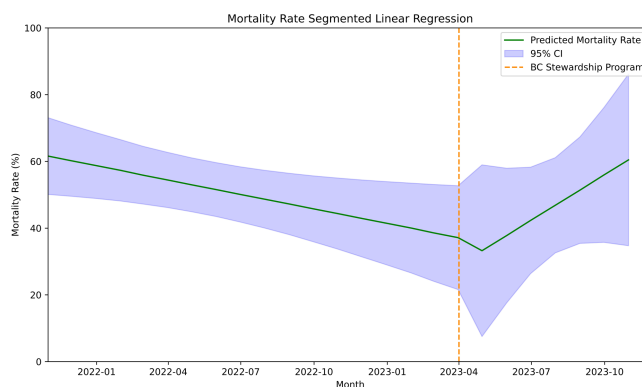
introduction of the program, there was a significant decrease in blood culture utilization by 5% (95% CI -10% to -1%, p=.02; Figure 1). Post-intervention, the blood culture stabilized, with no significant increase observed (0.09% increase, 95% CI -0.7% to 1%, p=.81). The mortality rate, prior to the implementation of the program, had shown a significant downward trend of 1.4% over time (95% CI -3% to -0.2%, p=.02). After the intervention, a nonsignificant decrease of 8% was observed (95% CI -44% to 27%, p=.62; Figure 2), followed by a nonsignificant upward trend of 6% (95% CI -1% to 13%, p=.10). **Conclusion:** We observed a significant reduction in BC utilization after implementing the BC diagnostic stewardship program in a MICU frequented by a high number of lung transplant patients.

**Presentation Type:**
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**Subject Category:** Diagnostic Stewardship
**Clinical Utility of Follow-Up Blood Cultures Among Adult Cancer Patients with Gram-Negative Bacilli Bacteremia**
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