Guideline implementation safely and successfully reduced the use of carbapenems by providing alternative antibiotic regimens encouraging the use of third generation cephalosporins and reduced antibiotic pressure in our NICU. There were no differences in the incidence of Candida infections, organisms, or resistance patterns. Implementation of this guideline resulted in safe decreases in antibiotic use in the NICU.

Cotton CM, McDonald S, Stoll B, et al. The association of third-generation cephalosporin use and invasive candidiasis in extremely low birth-weight infants. Pediatrics. 2006;118(2):717-22.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S2):s49–s50

doi:10.1017/ash.2025.252

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship

Incidence and Microbiology of Infectious Complications in Civilian Trauma Laparotomy Patients

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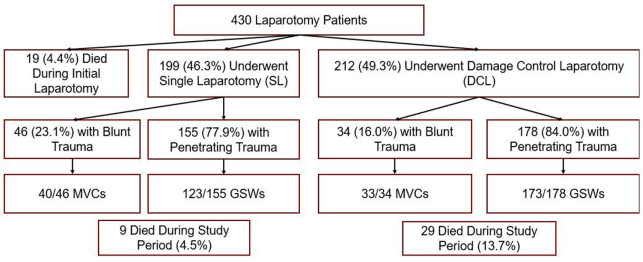
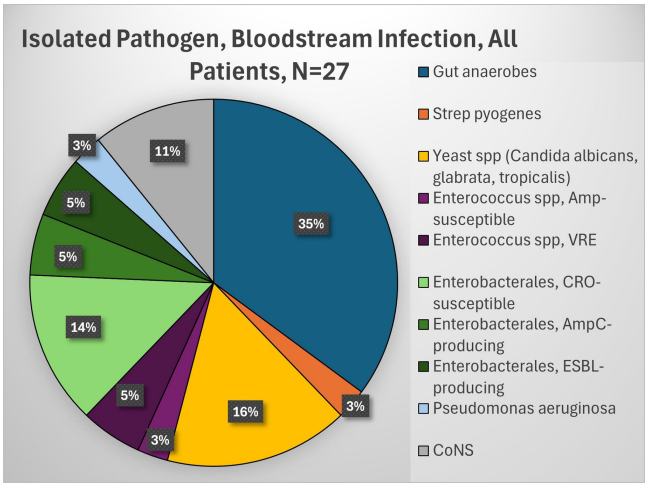
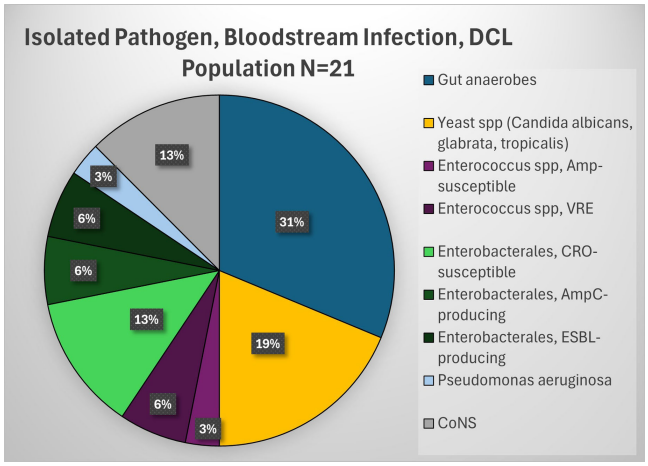
Background: Infection is a common and highly morbid postoperative complication in victims of physical trauma. Current literature analyzing the infectious sequelae of physical trauma predominately comes from military data, where blast trauma, rather than blunt or penetrating trauma, is most common. The epidemiology and management of infectious sequelae of civilian trauma are poorly understood, as is perioperative antimicrobial management of trauma laparotomy. **Methods:** We performed a single-center retrospective chart review using data from University of Chicago's electronic medical record (Epic) and the National Trauma Registry. Patients 16 years and older admitted for level 1-2 trauma who underwent laparotomy between 5/1/2018-3/18/2023 were included. Using informatics and manual chart review, we analyzed patient demographics, rates of infection, sites of infection, timing of infection from initial trauma event, and causative organisms. We compared patients based on mechanism of injury (blunt versus penetrating) and whether patients underwent damage control laparotomy (DCL)–where the abdomen is left in discontinuity after the initial laparotomy–or single laparotomy (SL). **Results:** 430 patients met criteria. The median age was 30. Patients were majority Black (80.9%) and male (80.9%). 80.5% of patients had penetrating trauma, of which 90% were gunshot wounds (GSW). 19.8% had blunt trauma, of which 89% were motor-vehicle crashes (MVC). 19 (4.4%) died during initial stabilization, 199 (46.3%) underwent single laparotomy, and 212 (49.3%) underwent DCL (Figure 1). Of patients that survived initial







Pathogen	N=	%
All Bacterial, Total	**105**	
All Bacterial, DCL	71	67.6%
All Bacterial, SL	34	32.4%
Enterobacterales, Total	**51**	
Enterobacterales, DCL	36	70.6%
Enterobacterales, SL	15	29.4%
Enterobacterales, AmpC-producers, Total	**7**	
Enterobacterales, AmpC-producers, DCL	4	57.1%
Enterobacterales, AmpC-producers, SL	3	42.9%
Enterobacterales, ESBL-producers, Total	**6**	
Enterobacterales, ESBL-producers, DCL	5	83.3%
Enterobacterales, ESBL-producers, SL	1	16.7%
Gut anaerobes, Total	**26**	
Gut anaerobes, DCL	18	69.2%
Gut anaerobes, SL	8	30.8%

Pathogen	N=	%
Enterococcus spp., Total	**37**	
Enterococcus spp., DCL	28	75.7%
Enterococcus spp., SL	9	24.3%
Enterococcus spp., VRE, Total	**7**	
Enterococcus spp., VRE, DCL	4	57.1%
Enterococcus spp., VRE, SL	3	42.9%
Pseudomonas spp., Total	**11**	
Pseudomonas spp., DCL	8	72.7%
Pseudomonas spp., SL	3	27.3%
Staph aureus, Total	**15**	
Staph aureus, DCL	8	53.3%
Staph aureus, SL	7	46.7%
Staph aureus, MRSA, Total	**6**	
Staph aureus, MRSA, DCL	5	83.3%
Staph aureus, MRSA, SL	1	16.7%

Pathogen	N=	%
Yeast, Total	**51**	
Yeast, DCL	44	86.3%
Yeast, SL	7	13.7%
Yeast, Fluconazole-resistant, Total	**2**	
Yeast, Fluconazole-resistant, DCL	2	100%
Yeast, Fluconazole-resistant, SL	0	0%

Pathogen	DCL, N (%)	SL, N (%)
Enterobacterales	36 (41.9%)	15 (50%)
Yeast	44 (51.2%)	7 (23.3%)
Enterococcus spp	28 (32.6%)	9 (30%)
Anaerobes	26 (20.9%)	8 (26.7%)
Total	86	30

Above, % indicates percentage of culture-positive patients in laparotomy category (Total)

stabilization, 27 (6.6%) developed a bloodstream infection (BSI), of which 21 (77.8%) came from the DCL group (Figures 2, 3). 19% of BSI in the DCL group were caused by yeast. 30.7% of patients developed a culture-positive surgical site infection (SSI) or intra-abdominal infection (IAI), with a rate of 40.6% in the DCL group (Table 2). Yeast were isolated in 40.5% of patients with positive cultures, 86.3% of which were isolated in the DCL group, with an overall incidence of 20.8% in the entire DCL group. Median time from arrival to infection diagnosis was 11 days. Patients generally received empiric Piperacillin-tazobactam while the abdomen was in discontinuity. **Conclusions:** Infection in civilian trauma laparotomy often arises as SSI or IAI, and is most pronounced in the DCL population. Yeast represents an unexpectedly high proportion of causative organisms. Further research is required to assess whether yeast burden can be mitigated by either incorporating antifungal prophylaxis at time of initial laparotomy, or by shortening empiric post-laparotomy antibiotic courses.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S2):s50–s51

doi:10.1017/ash.2025.253

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship
Barriers and Enablers to Penicillin Allergy Delabeling in Pediatric Primary Care: Findings from a Multisite Qualitative Study

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Background: Up to 10% of children have penicillin allergy labels, although, when tested, >95% tolerate penicillin. These labels expose children to increased risks of harm through adulthood. Professional allergy societies recommend the proactive removal of low-risk penicillin allergy labels among children by history alone or following direct oral drug challenges. However, access to subspecialty allergy testing is limited and recent studies have demonstrated that direct oral amoxicillin challenges in low-risk populations can be safely performed in pediatric primary care settings. We aimed to identify prescribers' attitudes towards penicillin allergy delabeling and barriers and enablers to penicillin allergy delabeling in pediatric primary offices. **Method:** We conducted a multisite qualitative study consisting of interviews and/or focus groups with 29 primary care prescribers at 10 primary care practices of two health systems in the northeast U.S. We analyzed data using conventional content analysis and grouped barriers and enablers to penicillin allergy delabeling according to the Capability, Opportunity, and Motivation domains of the COM-B Behavior Change Wheel. **Results:** Prescribers agreed that unnecessary penicillin allergy labels in children should be avoided and shared their experiences delabeling penicillin allergies from history alone and collaborating with parents to trial amoxicillin in children with low-risk penicillin allergies. Predominant barriers among prescribers to penicillin allergy delabeling included insufficient capability (suboptimal knowledge and skills in penicillin allergy delabeling), poor social and environmental opportunity (parent unwillingness to trial penicillin, lack of time, inadequate office space and resources), and poor motivation (tendency to accept reported penicillin allergies due to perception that consequences of penicillin allergy are rare and distant, inherent logistical difficulties to delabel, and lack of reasons to delabel). To facilitate penicillin allergy delabeling, participants recommended the implementation of a protocol and training in penicillin allergy delabeling, interventions to engage parents in delabeling, innovative approaches to address insufficient resources and infrastructures, and amplification of reasons for primary care prescribers to delabel. We provide representative quotes of the barriers and corresponding enablers to penicillin allergy delabeling in pediatric primary care in Table. **Conclusion:** There is precedent for penicillin allergy delabeling in pediatric primary care. Findings indicate that prescribers are inclined to delabel low-risk penicillin allergies if given the necessary education/training, parent support, resources, and infrastructure.

Antimicrobial Stewardship & Healthcare Epidemiology 2025;5(Suppl. S2):s51

doi:10.1017/ash.2025.254

Table. Representative Quotes of Barriers and Corresponding Enablers to Primary Care Prescribers' Delabeling Penicillin Allergies Using the COM-B Behavior Change Wheel

Barriers	Corresponding Enabler
CAPABILITY – Primary care prescribers' knowledge and skills to delabel penicillin allergies.	
Providers expressed suboptimal knowledge and skills in penicillin allergy delabeling *"I honestly think there needs to be more provider education for this…Maybe even though the child's itchy, should I've just continued them today on -- to complete their ten days?…I usually go to the national conferences. That's not usually something that comes up. And so provider education would be helpful." – Interviewee 2*	**Provide education and training (e.g., pathway) to guide penicillin allergy delabeling** *"We have so many clinical pathways at [Facility], but, um, like, a kind of decision tree that would help providers feel confident if, you know, these are the symptoms that they hear, then they can feel comfortable removing it. I feel like that kind of guided decision-making can-can help people feel more comfortable with those types of decisions." – Interviewee 8*
OPPORTUNITY – Primary care prescribers' social and environmental ability to delabel penicillin allergies.	
Visits are not amenable to penicillin allergy delabeling *"Some of our patients…the very complex…are 40 minutes, but everybody else is 20…it's not-not really conducive to doing a lot of other stuff. We can't even figure out how to do fluoride varnish in a timely way, which is so easy and quick. It's-it's—there's a lot we wish we could do, but we-we are not in a position to do it right now. I love the idea. It'd be great, you know, but those are the barriers that I see." – Interviewee 7*	***Develop innovative approaches to facilitate penicillin allergy delabeling*** *"It might be technically feasible, um, especially, you know, we could consider structuring that on days when the office doesn't have all the providers there. So we have some space." – Interviewee 12*
Parent resistance to penicillin allergy delabeling *"I'd say it goes about like, 50/50 how um, whether a family is interested in delabeling or not. Some families are like, "No. They are allergic to penicillin. We are all allergic to penicillin, and we are always going to be allergic to it." – Interviewee 13*	***Engage parents in penicillin allergy delabeling*** *"I think [parents] would be pretty receptive, you know, especially if you explain how you're giving them, you know, broader spectrum antibiotics or-or antibiotics that may not be the best choice because of the allergy. Um, I think, again, if-if you can convey expertise that it is okay and safe to de-label them based on the history, I think parents—most-most parents, I think, would be okay with it." – Interviewee 10*
MOTIVATION— Primary care prescribers' intrinsic and extrinsic motivation to delabel penicillin allergies.	
Poor infrastructure and resources to delabel *"I think, one, the primary care visits are short, and the idea of creating these lengthy visits where we would have one room occupied with this patient for a very long time just kinda logistically doesn't seem like it would be met with a lot of, um, agreement. And, two, um, like, it—I just don't think we are equipped to be managing somebody who ends up having anaphylaxis and-and kind of setting up the possibility that they would have that reaction in primary care." – Interviewee 8*	**Harness the necessary infrastructure and resources to delabel** *"If there was a separate physical space. Because like I said, they're gonna have to be there for a little bit to observe. Um, uh, and the staffing that goes with that. But, you know, if you could align everything together I think it would be—I would be okay with that." – Focus Group 5, Speaker 2*
Lack of reasons to delabel *"There's just more and more things that we, as primary care providers…are expected to do…We don't actually have to put all this pressure on our primary care doctors…There's other ways to do this…" Interviewee 12*	**Greater awareness of reasons to delabel** *"I mean, time is limited, but I see this as you put in time ahead of time, which saves you time in the end. Does that make sense? Because it's important for patients, especially -- I've seen over and over again, a kid gets labeled for whatever reason they have an amoxicillin allergy and now they're working on their like fourth ear infection. And then you're -- you don't even -- you're like, well, what do I do? You know, what do I do now? You're kind of running out of options. And I think I'm concerned about antimicrobial resistance." – Interviewee 2*

Presentation Type:
Poster Presentation
Subject Category: Antibiotic Stewardship
Does Purple Reign? PCR versus grams stain for critical result reporting for blood cultures growing gram positive cocci

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Background: Gram positive cocci (GPC) in blood cultures (BLCX) can represent pathogens or contaminants. Many laboratories notify care teams of a positive BLCX with the gram stain (GS) as a critical results report (CRR). However, PCR results are available about 90 minutes later and can provide useful information to distinguish a contaminant from a pathogen. This study aimed to investigate the effects of changing CRR from Gram Strain Results (GSR) to PCR Results (PCRR) on anti-MRSA coverage (AMC) and other healthcare utilization for GPC. **Methods:** Retrospective observational study of adult patients with BLCX growing GPC. Clinical and healthcare utilization information was collected using the electronic medical record. A "true pathogen" (TP) was defined as: MRSA, MSSA, Enterococcus, Streptococcus pyogenes, Streptococcus agalactiae and Streptococcus pneumoniae. We also defined TP as a coagulase-negative staphylococci or other Streptococcus species with 2/2 positive BLCX with intraarticular or endovascular hardware present and modified Pitt score (mPitt) greater than or equal to 4. A "likely contaminant" (LC) was defined as coagulase negative staphylococci or Streptococcus species (not included in the initial TP definition) with 1-2 BLCX positive, with or without intraarticular or endovascular hardware present, mPitt < 4. CRR protocol was changed from a call from the laboratory to the floor upon GSR to a call with the PCRR to relay both the GS and the PCR data. **Results:** Of 167 patients included, 91 had CRR with GSR and 76 had CRR with PCRR. For GSR, 56 were classified as TP and 25 were classified as LC. For PCRR 38 were classified as TP and 37 were classified as LC. Overall, there was more use of AMC for patients with GSR (63%) compared to PCRR (42%) $p < 0.05$. There was a significant difference in AMC for TP after PCRR (42%) compared to GSR (74%) $p < 0$ .05. There was no significant difference AMC for LC in PCRR (41%) from GSR (56%) $p = 0.37$. For LC, there was a decrease in echocardiograms 21% compared to 28% and ID consults 24% compared to 60% respectively with PCRR compared to GSR. **Conclusion:** PCR CRR decreased AMC for TP and for total patients after PCR CRR indicating that changing CRR to PCR