

No. (%)	Control Group (n=100)	Pharmacist Group (n=100)	P-value OR [95% CI]
Percentage of Levels within Goal	54.18%	66.8%	<0.0001 1.77 [1.31-2.21]
• Number of Vancomycin Levels within Goal Range	272	312	
• Number of Vancomycin Levels Drawn	502	467	
Adverse Drug Events	43 (43)	39 (39)	0.66 0.84 [0.48-1.48]
Number of patients with a vancomycin level \geq 25	29 (29)	24 (24)	0.52 0.77 [0.41-1.45]
Number of patients with Serum Creatinine \geq 50% baseline	13 (13)	5 (5)	0.08 0.35 [0.12-1.03]

Disclosures. All authors: No reported disclosures.

757. Impact of a Sepsis Improvement Team with Prospective Audit and Feedback on SEP-1 Core Measure Adherence in an Urban Community Hospital

Alfredo J. Mena Lora, MD¹; Sue Sim, RN²; Sherrie Spencer, RN, MSN²; Yolanda Coleman, RN, PhD²; Candice Krill, RN, MBA²; Eden Takhs, MD²; Susan C. Bleasdale, MD¹; ¹University of Illinois at Chicago, Chicago, Illinois; ²Saint Anthony Hospital, Chicago, Illinois

Session: 69. What's New in Clinical Practice?

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Background. Adherence to the CMS sepsis core measure (SEP-1) has been a challenge for facilities nationwide. Checklists, electronic medical record (EMR) alerts and order sets have been shown to improve compliance. We implemented a comprehensive SEP-1 guideline with order sets, checklists and EMR alerts at an urban community hospital. Subsequently, a SEP-1 improvement team with an infectious disease physician and a nurse led a prospective audit and feedback (PAF) program to help improve adherence and reduce errors. We seek to understand the impact of PAF on SEP-1 compliance.

Methods. Quasi-experimental pre- and post-intervention study of SEP-1 compliance at a 151-bed urban community hospital from January 2015 to December 2018. PAF intervention was started on July 2017. Cases were reviewed, SEP-1 failures identified, and feedback given to nurses and clinicians involved within 48 hours of admission. Gaps in adherence are identified, education given, and corrective actions taken. SEP-1 adherence before and after PAF implementation was reviewed.

Results. A total of 307 cases met the SEP-1 inclusion criteria. PAF was successfully implemented. There were 169 SEP-1 cases before and 138 after implementation of PAF. The success rate increased from 44% to 52% with PAF (Figure 1). The most common reasons for failure were initial and repeat lactic acid on both groups (Figure 2).

Conclusion. Prospective audit and feedback for SEP-1 improved compliance rates at our facility. Prospective audit can help identify core measure failures early and provide immediate feedback to clinicians, nurses and laboratory personnel. Immediate feedback by the SEP-1 improvement team may help increase SEP-1 awareness, strengthen existing protocols and promote a culture of safety. SEP-1 is a complex core measure that may transition to pay-for-performance. An ID physician-led SEP-1 improvement team with PAF may be an area for future value-based care opportunities for ID physicians.

Figure 1. SEP-1 Adherence before and after PAF

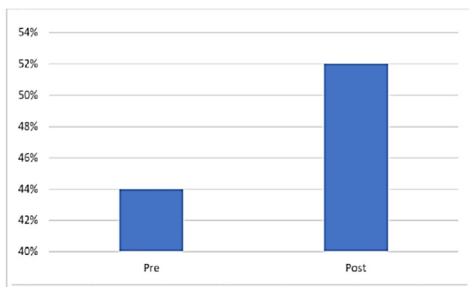
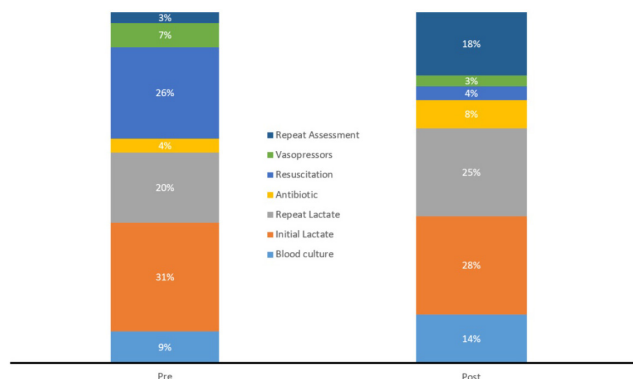


Figure 2. SEP-1 core measure component failures pre and post intervention



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758. High-Throughput Mining of Electronic Medical Records Using Generalizable Autonomous Scripts

Ryan H. Rochat, MD, PhD, GEMS¹; Gail J. Demmler-Harrison, MD²; ¹Texas Children's Hospital, Baylor College of Medicine, Houston, Texas; ²Baylor College of Medicine and Texas Children's Hospital, Houston, Texas

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Background. The electronic medical record (EMR) has become a modern compendium of health information, from broad clinical assessments down to an individual's heart rate. The wealth of information in these EMRs hold promise for clinical discovery and hypothesis generation. Unfortunately, as these systems have become more robust, mining them for relevant clinical information is hindered by the overall data architecture, and often requires the expertise of a clinical informatician to extract relevant data. However, as the information presented to the clinician through the digital workspace is derived from the core EMR database, the format is well structured and can be mined using text recognition and parsing scripts.

Methods. Here we present a program which can parse output from Epic Hyperspace[®], generating a relational database of clinical information. To facilitate ease of use, our protocol capitalizes on the familiarity of Microsoft Excel[®] as an intermediary for storing the raw output from the EMR, with data parsing and processing scripts written in SAS V9.4 (Cary, North Carolina).

Results. As a proof of concept, we extracted the diagnosis codes and standard laboratories for 190 patients seen in our Congenital Cytomegalovirus Clinic at Texas Children's Hospital in Houston, Texas. Manual extraction of these data into Microsoft Excel[®] took 1 hour, and the scripts to parse the data took less than 5 seconds to run. Data from these patients included: 3800 ICD-10 codes (along with their metadata) and 33,000 individual laboratory values. In total, more than 850,000 characters were extracted from the EMR using this technique. Manual review of 10 randomly selected charts, found the data in perfect concordance with the EMR, a direct reflection of the fidelity of the parsing scripts. On average, an experienced user was able to enter three ICD-10 codes each minute, and six individual laboratory values per minute. At best, this same process would have taken at least 110 hours using a conventional chart review technique.

Conclusion. High-throughput data mining tools have the potential to improve the feasibility of studies dependent upon information stored in the EMR. When coupled with specific content knowledge, this approach can consolidate months of data collection into a day's task.

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759. High-Dose Daptomycin Is Well Tolerated via 2-Minute Infusion

Christian Mark. Gill, PharmD¹; Rachel Kenney, PharmD¹; Charles Makowski, PharmD¹; Susan L. Davis, PharmD²; ¹Henry Ford Hospital, Detroit, Michigan; ²Wayne State University / Henry Ford Hospital, Detroit, Michigan

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Background. Intravenous (IV) base solution shortages pose issues in the administration of IV antimicrobials and necessitate alternative administration strategies. Safety data supports 2-minute infusions of IV daptomycin up to the labeled dose of 6 mg/kg. The purpose of this study was to evaluate the safety of administering high-dose daptomycin (HDD) (>6 mg/kg) as a 2 minute IV infusion compared with traditional 30-minute infusion.

Methods. IRB-approved, retrospective cohort in a five-hospital health system admitted 9/1/17-9/1/18. Inclusion criteria: Patients receiving HDD as either a rapid 2 minute IV push (IVP) or a traditional 30-minute infusion (IVI) while inpatient. Exclusion criteria: <2 doses of HDD, pregnant, age <18, concomitant medication associated with infusion reactions (e.g., amphotericin B or monoclonal antibody). Primary outcome: proportion of patients with infusion-related reactions (IRR) after daptomycin administration. Infusion-related reactions were assessed using the Naranjo algorithm and adjudicated by 2 reviewers blinded to administration strategy. Bivariate statistical tests were used to compare patient characteristics and outcomes between groups. Data were reported using descriptive statistics and measures of central tendency.

Results. 300 patients included: IVP n = 200, IVI n = 100, representing a total of 1697 administrations. Median age IVP 61 (49, 71), IVI 63 (52, 74). Median BMI IVP 28 (23, 35), IVI 27 (23, 32). Median daptomycin dose IVP 700 (550, 900), IVI 700 (600, 900) with mg/kg doses of 8.2 (7.9, 10) and 8.3 (8, 10), respectively. Administration site was similar in both groups with the most common central venous catheters. Potential IRR occurred in 4% of the IVP arm and 1% of IVI arm, P = 0.28. After adjudication, IRR occurred in 1% of both treatment groups. Descriptions of IRR are in Table 1 and only 1 patient in the IVI arm required discontinuation. CPK elevations: 3% of entire cohort.

Conclusion. Administering HDD as an IVP was not associated with increased risk of IRR compared with IVI. This administration may be advantageous during fluid shortages and in outpatient administration.