

# Leveraging insights to improve sepsis care

After joining a Vizient Performance Improvement Collaborative, UCLA Health streamlined care workflows to enhance SEP-1 compliance using the Vizient Clinical Data Base



Courtesy of UCLA Health

"I'm a big proponent of the Vizient PI Collaboratives," says Summer Gupta, RN, MSN. Gupta is the sepsis program manager at UCLA Health. UCLA Health has been active in several Vizient Performance Improvement (PI) Collaboratives that focus on sepsis care over the past few years. UCLA Health also uses Vizient tools, including the Clinical Data Base (CDB), to monitor performance and identify areas for improvement.

In 2019, the UCLA Health team joined the Vizient Sepsis Collaborative. Its goal was to improve organizational compliance with the SEP-1 bundle (a National Quality Forum measure adopted by CMS that consists of multiple components). Gupta says that networking and learning from like-minded organizations is valuable—and it's what she enjoys the most about Vizient's PI Collaboratives. "It's helpful to see that you're not alone...and helpful to see what similar institutions as yourself nationwide are doing as far as best practices and new tools," says Gupta.



**VITAL SIGNS** 

12%

improvement in SEP-1 bundle compliance since 2019 Compliance with the persistent hypotension element

2019 81%

2021 **100%** 

Mortality index for patients with sepsis present on admission

2019 0.72

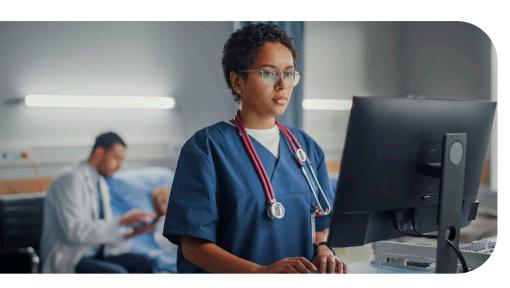
2021 **0.6** 

## vizient

#### **Processes and solutions**

When COVID-19 broke out, UCLA Health had to reallocate resources to manage the effects of the pandemic. Now that UCLA has learned to navigate the changing healthcare landscape, its focus has returned to improving sepsis care.

Ronald Reagan UCLA Medical Center, part of the UCLA Health system, recently hardwired several tools—like adding sepsis handover progression banners to its EHR—to help achieve its improvement goals. According to Russell Kerbel, MD, MBA, Medical Director of Sepsis Prevention at UCLA Health, the banners display the status of SEP-1 bundle orders, including blood cultures, initial and repeat lactate levels, antibiotics and IV fluid bolus. The banners use a red/orange/ yellow/green color scheme to indicate which tests and treatments have been ordered—and which are awaiting collection or results. With repeat lactate levels, the electronic health record (EHR) then calculates the dosage of normal saline and lactated ringers based on the formula of 30cc/kg (based on patients' body weight in kilograms).



UCLA uses the Vizient Clinical Data
Base (CDB) to incorporate comparative
benchmark data from the CDB into internal
dashboards, which enable continuous
monitoring of key sepsis metrics such
as expected length of stay (LOS),
readmissions and mortality risk index. This
helps identify when process adjustments
are needed.

#### **Process adjustments yield results**

The hospital has seen improvement in the care for sepsis patients. It improved its overall SEP-1 bundle compliance by 12% since the third quarter of 2019. It also improved compliance with the persistent hypotension element (a component within the larger SEP-1 bundle) from 81% in 2019 to 100% compliance in 2021. These process enhancements led to an improved mortality index for patients with sepsis present on admission (POA), moving from 0.72 in 2019 to 0.6 in 2021. The improvements noted above—and Ronald Reagan UCLA Medical Center's ongoing commitment to improve patient care—have also contributed to a higher ranking in the Vizient Quality and Accountability (Q&A) performance scorecard, jumping from No. 35 to No. 8 among academic medical centers nationwide.



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**Summer Gupta, RN, MSN** Sepsis Program Manager, UCLA Health



UCLA attributes the improvements to several key initiatives:

- The development of a Tissue Perfusion Smart Phrase in the EHR for providers to document the patient's history and physical (H&P).
- The addition of a sepsis lactate prompt for providers when a non-sepsis lactate is ordered.
- Including both recorded and ideal body weight in the IV fluid bolus portion of order sets.
- Updating provider order panels to add the nursing communication, "Document blood pressure every 15 minutes for 1 hour after the fluid bolus is completed."
- Having a dedicated Sepsis Program Manager is "essential," according to Dr. Kerbel, who also highlights having sepsis subcommittees such as education, nursing, data display and emergency room. This helps to ensure a multi-faceted approach to constant sepsis improvement.
- Conducting weekly case reviews for adverse sepsis events, sepsis mortalities with low expected mortalities (based on the Vizient Mortality Model), and all Vizient sepsis lactate fallouts, helping identify opportunities to improve their high reliability sepsis infrastructure. Every SEP-1 fallout and Patient Safety Indicator 13 (PSI-13) fallout (Post-Operative Sepsis rate) is also reviewed.
- Reviewing all SEP-1 bundle fallouts within 30 days of discharge to identify opportunities to optimize or clarify documentation.

#### Next steps for improving sepsis care

UCLA views improving sepsis care as a never-ending opportunity. In July 2021, RN screening tools that were

originally implemented in 2017 were optimized for accuracy in screening and to decrease unnecessary notifications to physicians. Nurse feedback on the screening tools has been favorable.

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**Russell Kerbel, MD, MBA**Medical Director of Sepsis Prevention,
UCLA Health

Building on its previous wins, UCLA Health joined the 2021 Vizient Sepsis Early Identification PI Collaborative to continue its sepsis care improvement journey. UCLA Health is currently considering a sepsis screening process for all patients, or a scoring system that would effectively guide staff to which patients need screening. This aligns to UCLA Health's inpatient RN best practice alert, which is being adjusted to be more specific to reduce alert fatigue among providers.



### **About UCLA Health**

UCLA Health is among the world's most comprehensive academic health systems, with a mission to provide state-of-the-art patient care, train top medical professionals and support pioneering research and discovery. It includes four hospitals on two campuses — Ronald Reagan UCLA Medical Center, UCLA Mattel Children's Hospital and the UCLA Stewart and Lynda Resnick Neuropsychiatric Hospital in the Westwood area of Los Angeles, and UCLA Santa Monica Medical Center – and more than 250 community clinics throughout Southern California. UCLA Health also includes the David Geffen School of Medicine at UCLA. UCLA Health hospitals ranked #1 in Los Angeles, #1 in California and #3 in the nation in the 2021-22 Best Hospitals assessment by U.S. News & World Report.



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290 E. John Carpenter Freeway Irving, TX 75062 (972) 830-0000

vizientinc.com

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