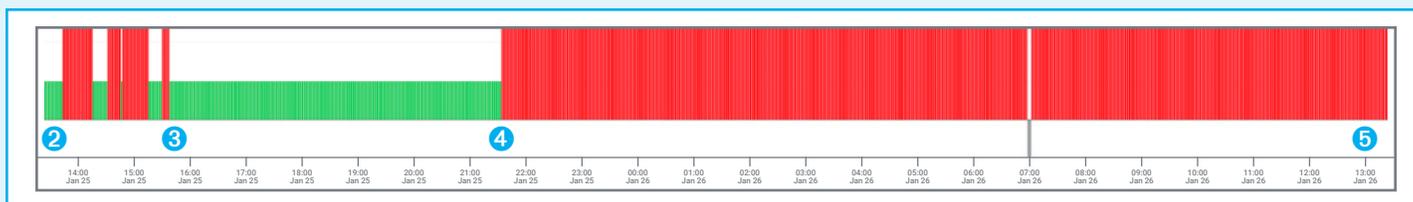


## Case Study: Sepsis



In the United States, over 970,000 sepsis cases are admitted annually. Hospital costs for sepsis are currently more than twice those of other conditions and continue to grow at three times the rate of other admissions. The average length of stay for sepsis patients in U.S. hospitals is approximately 75% greater than for most other conditions.<sup>1</sup>

### Clinical Story

- 1 Admitted to ICU for sepsis due to sarcoidosis complicated by gallstones and portal hypertension; intubated and placed on mechanical ventilation.
- 2 Day 2: 14:00 Vasopressors were initiated for hypotension.
- 3 Day 2: 16:00 Retrospective review showed that AHI transitioned from AHI Unstable (red) to AHI Stable (green) during vasopressor therapy and titrations.
- 4 End of day 2: 21:30 Blood pressure normalized vasopressors discontinued. Retrospective review shows that AHI promptly went from green (stable) to red (unstable) during this time.
- 5 Day 3: 13:30 Patient was removed from ECG. Paracentesis was performed for relief of peritonitis.
- 6 Post procedure: Patient remained under guarded status in ICU on mechanical ventilation.

### Patient

Age: 57  
Sex: Male  
Hospital: Michigan Medicine  
Reason for admission:  
Sepsis secondary to hepatic sarcoidosis  
Length of stay: 17 days

### Opportunity

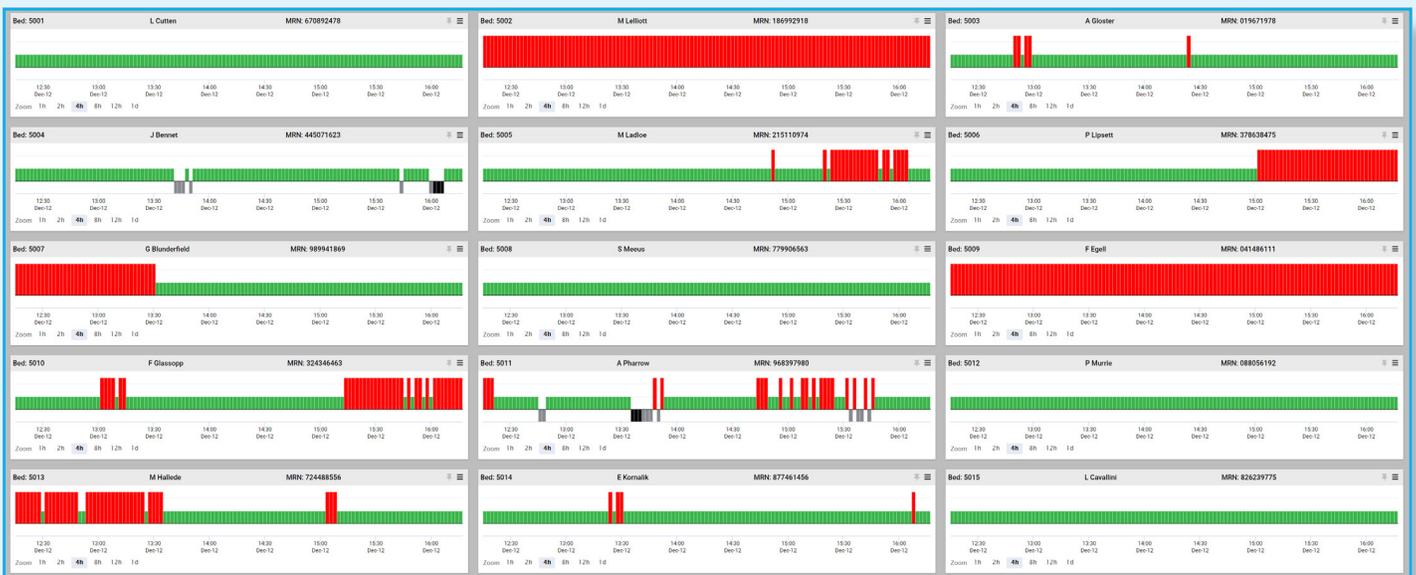
Through retrospective review, AHI provided clear and continuing real-time warnings of patient deterioration immediately in response to a medication change. If AHI was available, clinicians may have not elected to discontinue vasopressor therapy and positively impacted patient's overall length of stay in ICU.

**FIFTH EYE™ AHI** is the FDA De Novo granted Analytic for Hemodynamic Instability, easily implemented with existing non-invasive ECG monitors. AHI provides updated colored bars every two minutes, revealing signs of hemodynamic stability (green) or instability (red).

AHI was developed in collaboration with clinicians at the University of Michigan. AHI uses real-time computing based on pattern analysis of a Lead-II ECG waveform to give clinicians updated information within their existing workflow, without requiring manual data input, score calculations, or complex integrations. It can identify at-risk patients in any hospital setting that involves continuous ECG monitoring, not just the ICU.

AHI is intended to describe an adult patient's hemodynamic status and indicate if a patient is showing signs of hemodynamic stability or instability. Signs of hemodynamic instability are defined as hypotension (systolic blood pressure <90 mmHg or mean arterial pressure (MAP) <70 mmHg) combined with tachycardia (heart rate ≥ 100 bpm).

**STRENGTH IN NUMBERS:** In an FDA reviewed clinical study, AHI identified hemodynamic instability with 96% sensitivity and 85% specificity compared to traditional vital signs-based reference standard. The study population consisted of over 28,000 AHI outputs across 222 consecutive eligible hospitalized patients. Diversity in the population, ailments and treatments of the study supports external validity of testing for purposes of generalizing results beyond study site population.



### Multi-patient views help prioritize hospitalized adult patients to avoid failure to rescue.

- Prioritization of patients on nurse and physician rounds.
- Efficient shift-change huddle.
- Real-time feedback post-procedure and clinical interventions.
- Nurse empowerment with no nurse burden.
- Patient risk assessment at transfer to higher or lower level of care.
- Resource utilization (beds, clinicians).

### Experience the beauty of AHI:

- Non-invasive accessibility. More expedient, less complication. Remote monitoring.
  - One lead, multiple reads. Continuous monitoring to give rapid indication.
  - Confidence in assessment. 96% Sensitivity. 85% Specificity.
  - No additional work for clinicians. Easily integrated into existing ECG monitors and workflow.
  - Outside of patient room.
  - Less stress caused by the unknown. AHI provides clear/accurate assessment of patient trending.
  - Developed in collaboration with Clinicians at Michigan Medicine | University of Michigan Hospital.
- AHI was born in a hospital and trained by clinicians.

Learn how AHI can help you better manage clinical care.

Email [info@fiftheyeye.com](mailto:info@fiftheyeye.com) or visit [fiftheyeye.com](http://fiftheyeye.com)

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