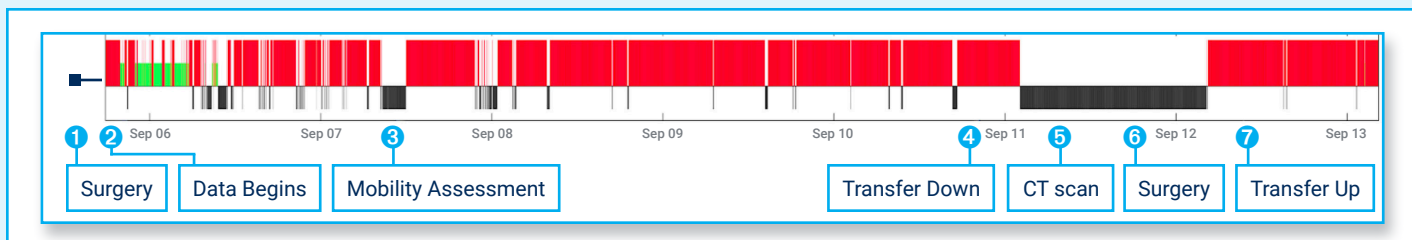


## Case Study: Bounceback



The study revealed that adverse events (AE) were common after the transition from ICU to hospital ward. 18% of ICU discharges experienced an AE within seven days (most within three days) of transfer from ICU to hospital ward. Six percent of those AEs resulted in permanent disability or death. More than one third of those AEs were considered to be preventable.<sup>1</sup>

### Clinical Story

- 1 Patient had colostomy surgery on September 3.
- 2 ECG data collection began on Sept 5 (6:00 PM) in Surgical Acute Care ICU.
- 3 Mobility test, patient was ambulatory.
- 4 Patient was considered stable and transferred to a lower level of care.
- 5 Patient deteriorated, was sent for a CT scan, internal bleeding detected.
- 6 Patient was transferred to surgery for an exploratory laparotomy. Two liters of blood and stool were found collected in abdominal cavity and a leak from internal surgical site.
- 7 Patient bounced back to post-surgical ICU within 24 hours of transfer to lower level of care.

Patient eventually was discharged home September 23.

### Patient

Age: 58  
Sex: male  
Hospital: Michigan Medicine  
Reason for admission: colon cancer  
Length of stay: 20 days

### Opportunity

With AHI, there was a potential opportunity to recognize the gradual patient deterioration well in advance, thereby avoiding failure to rescue, transfer to lower level of care, and eventual bounceback.

<sup>1</sup> - Sauro, Khara M, Andrea Soo, Chloé de Grood, Michael MH Yang, Benjamin Wiersta, Luc Benoit, Philip Couillard et al. "Adverse Events After Transition From ICU to Hospital Ward: A Multicenter Cohort Study." Critical care medicine 48, no. 7

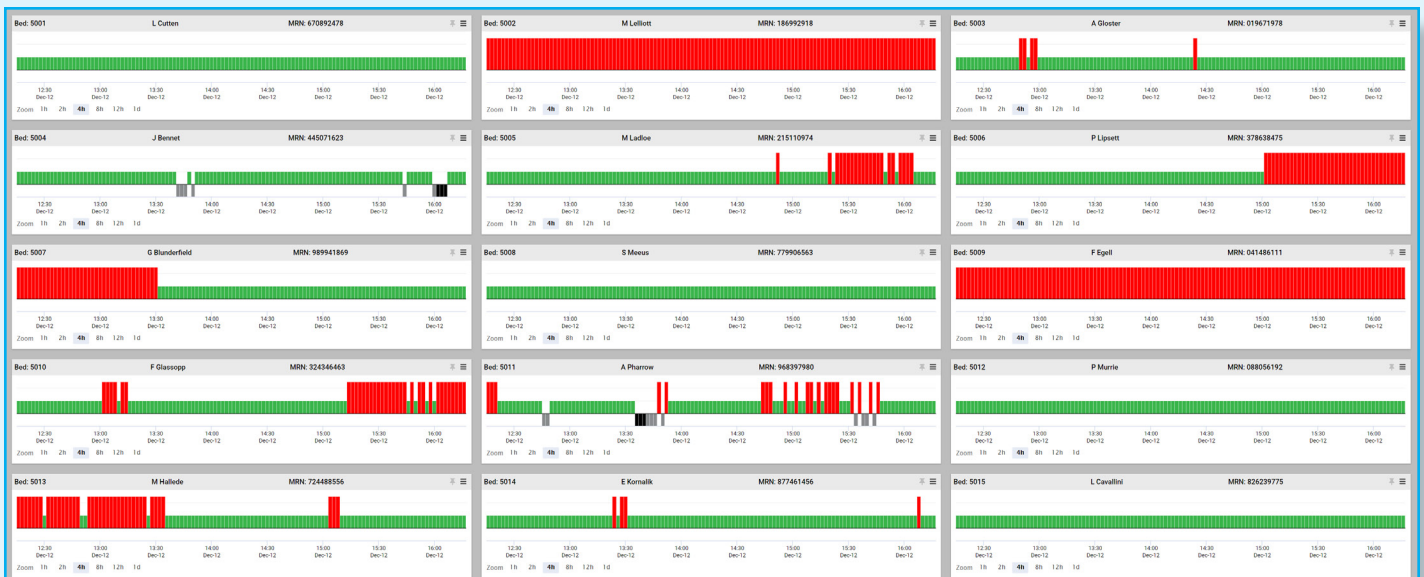
**FIFTH EYE™** and its FDA De Novo granted AHI (Analytic for Hemodynamic Instability) reveals trends that indicate if a patient is deteriorating, or responding well to care. It provides clinicians with the priceless opportunity to identify potential bounce back episodes.

Based on pattern analysis of a Lead-II ECG waveform, AHI provides colored outputs every two minutes, revealing signs of hemodynamic stability (green) or instability (red).

Hemodynamic instability is a life-threatening complication in critically ill or injured patients, defined as hypotension combined with tachycardia (low systolic blood pressure < 90 mmHg or mean arterial pressure (MAP) < 70 mm Hg and high heart rate ≥ 100 bpm).

**STRENGTH IN NUMBERS:** Study population consisted of 222 consecutive eligible hospitalized patients, average age 58.8 years (range 19 to 92 years), 56.3% male/43.7% female.

Roughly 9,082 hours of ECG data analyzed across study population including diverse set of ailments and treatments. Diversity in dataset 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:**

- Noninvasive 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@fiftheye.com](mailto:info@fiftheye.com) or visit [fiftheye.com](http://fiftheye.com)

