



Hospital Video Auditing: The New Standard in Patient Safety.

“Auditors can now pinpoint risks and provide video documentation of events—giving us the level of information necessary to minimize errors, reduce risk and lower costs across the institution.”

*—Alan Lisbon, M.D., FCCP, Vice Chair for Critical Care, Department of Anesthesia and Critical Care,
Beth Israel Deaconess Medical Center and Associate Professor of Anesthesia, Harvard Medical School*

Patient Safety is your hospital's most important initiative.

It has been almost a decade now that the health care industry has heightened its awareness of and attention to preventable medical errors. The statistics remain disheartening. Almost two million patients fall victim to hospital infections annually, with 90,000 dying as a result, according to the Centers for Disease Control and Prevention. Preventable medical errors cost the health care system from \$17 billion to \$29 billion annually, according to the Institute of Medicine.

While there has been much activity to improve the safety and quality of health care, one of the biggest challenges is sustaining improvement. An innovative new tool and service from Arrowsight Medical uses video to measure adherence to safety and quality protocols and provide ongoing feedback on performance to clinical staff — with long-lasting effects. Hospital Video Auditing (HVA) provides nurse managers, attending physicians and hospital administrators with insight into areas of performance they could previously only estimate, such as adherence to hand hygiene protocols and other essential patient safety practices.

Using HVA, clinical and administrative leaders gain a set of tools that provide consistent, sustainable data and feedback on their own guidelines, as well as those required by external regulators and public reporting programs. Arrowsight reports help coach team members in positive ways that improve and sustain both their performance and morale. The service helps train caregivers on best practices and instituting new processes, leading to improved adherence to protocols and teamwork.

More specifically, HVA's scorecard reports deliver quality analytics tied to actual video events. Arrowsight sends automated intra-shift emails to nurse managers and attending physicians that rank current shift performance metrics room by room. Additionally, Arrowsight automates the delivery of aggregate team metrics to LED boards at the work site, which can be updated as often as every ten minutes 24/7/365.

Prior published studies have demonstrated that other efforts and interventions — such as employing human observers or posting educational signage — achieve short term, but not sustainable improvements in compliance. That's why the new standard in patient safety — HVA — is your quality advantage.



HVA introduces an ongoing, performance-based system that:

- **Ensures compliance:** Increases adherence to patient safety protocols and procedures.
- **Reduces medical errors:** Promotes best practices on a wide range of clinical and non-clinical processes.
- **Decreases risk:** Reduces preventable errors by monitoring critical points in the patient-care process.
- **Improves staff processes:** Provides hospitals with a tool for training and coaching on best practices.
- **Institutes new patient-safety benchmarks:** Introduces new tools for monitoring, measuring and maintaining care at the highest levels of quality.

“Not only does hospital video auditing provide assurance that best practices, as outlined by JCAHO, IHI, and advocated by CMS and Leapfrog, are instituted; the service complements existing care initiatives and hospital technologies.”

— Mark Aronson, M.D., Professor of Medicine, Harvard Medical School,
Vice Chair, Quality Department of Medicine, Beth Israel Deaconess Medical

“Monitoring, measuring
and maintaining healthcare's
highest levels of patient safety and
quality performance have always
been the goals. Now, we
have the tools.”

– Dr. Charles Safran, M.D.,

FACP, Associate Clinical Professor
of Medicine, Harvard Medical School,
Past-Chairman, American Medical
Informatics Association



HVA monitors a wide range of clinical and non-clinical processes, including:

Infection Safety:

- Compliance with hand-hygiene policies and protocols
- Consistent use of isolation procedures
- Use of sterile barriers and other infection control steps during invasive procedures
- 'Traffic' flow through high-risk areas (OR rooms, reverse isolation rooms)

Critical Care/ICU Safety:

- Central line insertion safety procedures (IHI 'central line bundle')
- Processes to prevent ventilator-acquired pneumonias (IHI 'ventilator bundle')
 - Optimal management of ventilator circuits
 - Positioning of head-of-bed
 - Performance of daily ventilator 'wake up'
 - Performance of daily RISB-rapid-shallow-breathing index
- Rotation of patients to limit skin breakdown
- Correct and continuous use of Sequential Compression Devices (effectiveness of DVT prophylaxis interventions)

Timing and Responsiveness to Alarms and Events:

- Telemetry alarms
- Infusion pump alarms
- Code Team and Rapid Response Team (Medical Emergency Team) response times

Fall Reduction and Prevention:

- Adherence to fall-reduction strategies/protocols
- Response times to bed alarms
- Screen for inactivation or 'silencing' of bed alarms
- Performance of "sitters"
- Compliance with restraint policies

OR and Surgical Safety:

- Timing of peri-operative antibiotic prophylaxis (CMS Quality Improvement Program)
- 'Traffic' in OR rooms during procedures
- Turnover times and room readiness
- Pre-procedure anesthesia equipment and circuit checks
- Tissue specimen transfers and specimen 'chain-of-custody'

Pharmacy Process Safety:

- Safety and protocol compliance for batch processing (e.g., TPN, CVVH solutions)
- Safe performance of serial dilutions in high-risk drugs

Audited video is summarized in formal video audit reports that are delivered daily, weekly or monthly. Reports provide hyperlinks to video examined by auditors. By clicking the hyperlinks you have immediate access to actual video of each incident.

Top line statistical scores for each medical unit, including a summary of scores from all rooms in a unit.

Overview Table

Unit	Current Period Compliance 11/06/2005-11/12/2005	Previous Period Compliance 10/31/2005-11/05/2005	Average Compliance 10/16/2005-11/12/2005
Unit Rating #1			
SICU ↑	92%	89%	87%
Average Score	92%	89%	87%
Unit Rating #2			
OR ↓	84%	80%	82%
Average Score	84%	80%	82%
Total Average Compliance - All Units	88%	84%	85%

Category summary scores for each unit, including a summary of scores by category within each multi-room unit.

Audit Category Summary

Unit	Category Procedure	Current Period Compliance 11/06/2005-11/12/2005	Previous Period Compliance 10/31/2005-11/05/2005	Average Compliance 10/16/2005-11/12/2005
Unit Rating #1				
SICU	↑ ↓			
	Central Line-Hand Hygiene	100%	95%	93%
	Central Line-Barrier Protection	96%	94%	91%
	Central Line-Use of Chlorhexidine Agent	97%	93%	93%
	Central Line-Sterile Dressing	93%	79%	80%
	Central Line-Assistant Present	90%	64%	80%
	Ventilator Safety-Alarm Response Time	89%	88%	86%
	Ventilator Safet-Proper Physician Actions Upon Alarm	86%	79%	86%

Breakdown of scores within a category on a room-by-room basis.

Audit Category Details

Sort by Category, Unit, then Audit Procedure

Category	Unit	Audit Procedure	Current Period Compliance 11/06/2005-11/12/2005	Previous Period Compliance 10/31/2005-11/05/2005	Average Compliance 10/16/2005-11/12/2005
Central Line-Hand Hygiene					
	SICU	↑ ↓			
		Room 1	99%	100%	96%
		Room 2	100%	90%	90%
Average Category Score			100%	90%	93%
Central Line-Barrier Protection					
	SICU	↑ ↓			

Hyperlinks to video examined by auditors. By clicking the hyperlinks you have immediate access to actual video of each incident.

Audit Procedures

Unit	Audit Procedure	Dates
SICU ↑	Sun 11/6/2005	Ved 11/9/2005 Thu 11/10/2005 Fri 11/11/2005 Sat 11/12/2005
Central Line-Hand Hygiene	Room 1	Rating #1
Central Line-Hand Hygiene	Room 2	Rating #1
Central Line - Barrier Protection	Room 1	Rating #1
Central Line - Barrier Protection	Room 2	Rating #1

Notes:
Proper barrier protection
10:05:17 AM -
10:06:17 AM

© 2006 Arrowsight, Inc. This document contains proprietary, confidential information of Arrowsight, Inc., and may not be distributed or discussed beyond the original recipient without permission from Arrowsight.

About Arrowsight



Arrowsight (www.arrowsight.com), a Web-based Application Services Provider, is the leading developer of remote viewing services and software. Arrowsight has helped improve practices, compliance and employee morale in safety-sensitive industries, such as food processing, food services, manufacturing and health care. Go to <http://www.arrowsight.com/public/as/html/medical/videos.asp> for a brief introductory video on hospital video auditing.

Contact

For more information please contact:

Suzanne Delbanco, Ph.D., President, Healthcare Division, Arrowsight, Inc.

Telephone: 510.435.2364 • **e-mail:** suzanne.delbanco@arrowsight.com