

Our enVision eICU Team

Medical Director

William L. Jackson Jr., MD

Tulane University School of Medicine, 1997
Board Certified in Internal Medicine and Critical Care Medicine

Operations Director and Patient Care Director

Theresa M. Davis, RN, MSN

Staff Physicians

Kaiser Ahmad, MD

Quaid-E-Azam Medical College, 1989
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

Prasad Betadpur, MD

Bangalore Medical College, 1995
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

Anish Desai, MD

University of Louisville, 2001
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

Sara Fleet, MD

University of Wisconsin, 2001
Board certified in Internal Medicine and Critical Care Medicine

Karen Johnson, MD

University of Virginia, 1992
Board Certified in Critical Care Medicine and Pulmonary Disease

Meredith McCauley, MD

St. Louis University, 2000
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

Jeffrey Mikita, MD

Uniformed Services University of the Health Sciences, 1999
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

The enVision eICU assures that patients have an experienced critical care team looking at real-time vital signs, and making corrections in care plans to help prevent emergencies. All of our physicians are board-certified or board-eligible intensivists, and our critical care nurses have more than 200 years of cumulative nursing experience.

Anne Rizzo, MD

SUNY Buffalo, 1989
Board Certified in General Surgery and Surgical Critical Care

Leelie Selassie, MD

Medical University of South Carolina, 2001
Board Certified in Internal Medicine and Critical Care Medicine

John Sherner, MD

University of Texas Southwestern Medical School, 1999
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

Oksana Shlobin, MD

Georgetown University School of Medicine, 1999
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

Elena Tilly, MD

Chicago Medical School, 1984
Board Certified in Internal Medicine

Michael Tsun, MD

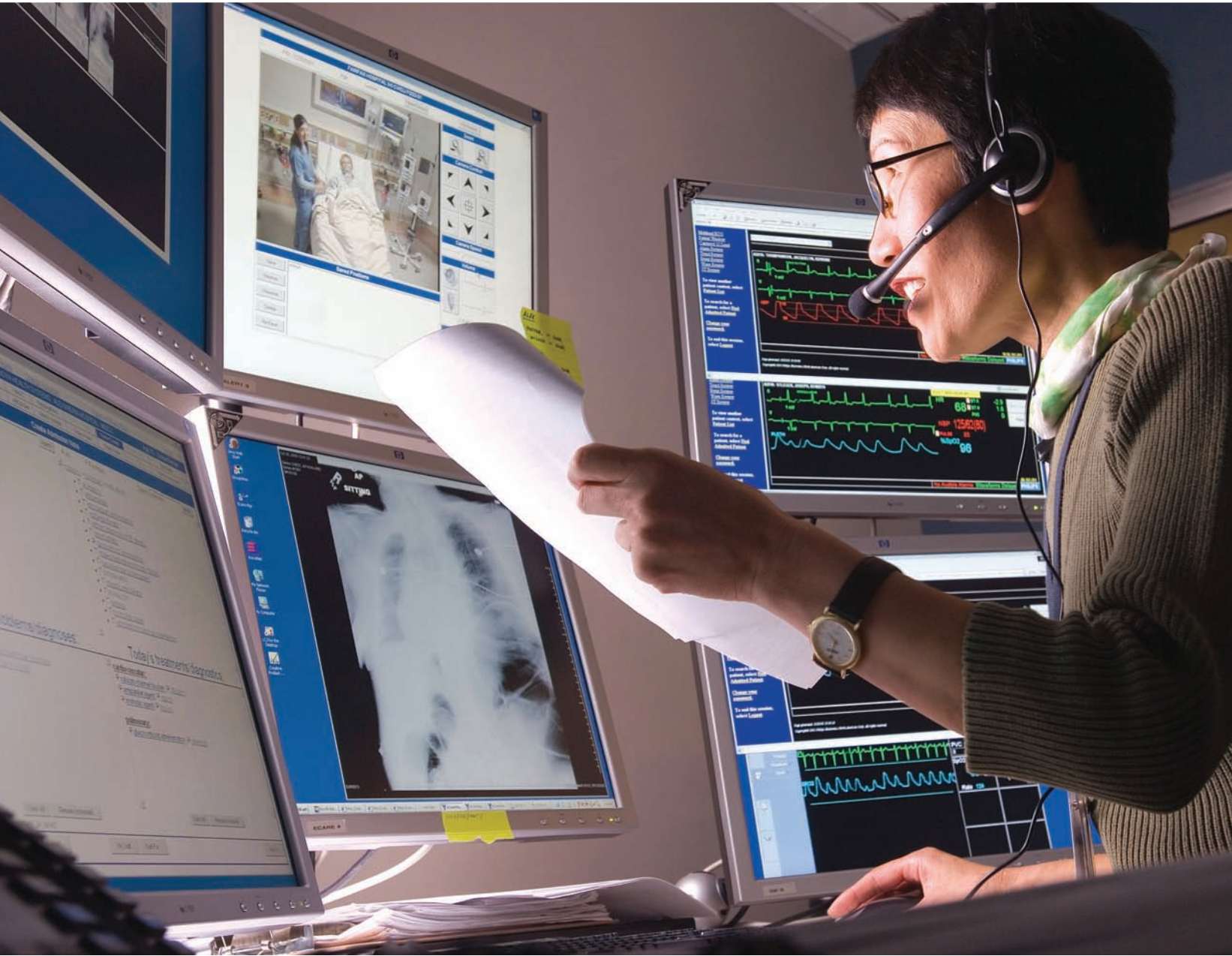
Georgetown University School of Medicine, 1979
Board Certified in Internal Medicine, Critical Care Medicine and Pulmonary Disease

Seife Yohannes, MD

Howard University, 2002
Board Certified in Internal Medicine, Critical Care Medicine and Infectious Disease

Inova Health System is a not-for-profit healthcare system based in NorthernVirginia that consists of hospitals and other health services, including emergency- and urgent-care centers, home care, nursing homes, mental health and blood donor services, and wellness classes. Governed by a voluntary board of community members, Inova’s mission is to improve the health of the diverse community we serve through excellence in patient care, education and research. Inova provides a healthy environment for its patients, families, visitors, staff and physicians by prohibiting tobacco use on its campuses.

inova.org



Inova enVision eICU
Progress Report 2009



To find out more about Inova enVision eICU, visit inova.org/eicu, or call 703-207-7860.



Letter from the Medical Director



William L. Jackson Jr., MD

Inova Health System’s enVision eICU® has been assisting with the care of critically ill patients since 2004, when it was one of the first hospital systems in the country to utilize the VISICU eICU technology. Today, we remain the only healthcare provider in the greater Washington, D.C., metropolitan area offering advanced teleICU services to patients and families. The commitment we made to patient safety and innovation six years ago continues just as strong today.

Currently, we monitor 129 ICU beds across Northern Virginia 24 hours a day with this remote care delivery system, and we plan to add additional ICU beds in the years ahead. In 2009, we partnered with the Northern Virginia Hospital Association (NVHA) to pilot an eICU Telemedicine Model utilizing eCareMobile® to leverage critical care intensivist physicians, trauma surgeons, and critical care eRNs in multiple hospital emergency rooms during a mass casualty incident. These new capabilities were tested in three pilot sites during a full-scale regional exercise in the fall of 2009.

As hospitals across the nation are confronting the increasing challenge of providing quality, cost-effective care for critically ill patients, Inova is meeting that challenge – and seeing results. With the enVision eICU system, an innovative, highly successful remote-care technology, a board-certified intensivist and skilled care team can accurately monitor and treat ICU patients from a remote location. In this report, you’ll come to see that the enVision eICU is not a replacement for traditional ICU care, but rather a supplement that integrates with the current care model, adding an additional level of monitoring, assessment, intervention and safety for ICU patients.

I encourage you to learn more about how Inova’s enVision eICU can assist with care of ICU patients – and add peace of mind for patients and physicians. Please visit www.inova.org/eicu or call **703-207-7860**.

Sincerely,

William L. Jackson Jr., MD, FACP, FCCP
Medical Director, enVision eICU
Inova Health System

Breathing laboredly and bleeding from his lungs, John ended up in the intensive care unit at an Inova community hospital. Throughout the night, the critical-care specialist on duty closely watched his vital signs, adjusting the mechanical ventilator, ordering blood products, and providing specialized therapy until his condition stabilized.

However, the doctor wasn’t at his bedside - or even in the hospital. Working from a command center at another location, he was remotely monitoring John and other critically ill patients in eight intensive care units in five different hospitals with the enVision eICU system.

An Extra Layer of Patient Safety

Inova’s enVision eICU is a remote monitoring system that offers a high-tech solution to the challenge facing a growing number of hospitals: how to care for the sickest patients amid a worsening shortage of intensivists, the physicians who specialize in critical care. This telemedicine technology allows an off-site intensivist to assess, evaluate and treat critically ill patients in multiple hospitals from a single remote location. Both potential and apparent problems are identified quicker, so interventions begin earlier.

The enVision eICU program provides additional support to the hospital-based care team; it does not replace the bedside physician or nurses. Because enVision eICU intensivists are expertly trained in critical care, they can communicate orders – via remote video and voice technology – from the enVision eICU location when the patient’s physician is not available; thus, adding an extra layer of safety.

All enVision eICU physicians are board-certified or board-eligible intensivists, and all nurses are critical care trained, with more than 200 years of cumulative nursing experience.

A Pioneer in eICU Technology

Inova’s enVision eICU was one of the first hospital systems in the country to utilize the VISICU eICU technology, and today, we remain the only healthcare provider in the greater Washington, DC, metropolitan area offering advanced teleICU services to patients and families. This technology was first implemented at Inova in October 2004 with 20 ICU beds. Today, the enVision eICU team provides coverage for 129 ICU beds at the five Inova hospitals, serving eight ICUs.

Through collaboration with Northern Virginia Hospital Alliance’s Regional Hospital Coordinating Center (NVHA-RHCC), we also provide three eCareMobile units that provide telemedicine disaster support to local emergency departments. This disaster support program is the first of its kind in the United States. The eCareMobile unit is a mobile version of an eICU workstation that enables a health system using the eICU Program to temporarily transform any bedside with network connectivity into a critical care location. Current plans call for deployment to nine additional regional EDs in 2010.

2009 Highlights

Inova’s enVision eICU represents a significant investment of time, resources and energy in the quality of care and level of safety that Inova offers its most critically ill patients. Key highlights of 2009 include:

Using Telemedicine Technology in Emergency Situations

In September 2009, Inova participated in a full-scale drill, supported by the Northern Virginia Hospital Alliance (NVHA), to simulate the eICU response to an emergency medical situation in the metropolitan Washington, D.C., region. The drill demonstrated the vital role advanced telemedicine programs like Inova’s enVision eICU can play in emergency triage and management of patients. The eICU Program enables remote access to intensivists and trauma surgeons outside the area of emergency impact. This helps meet the federal recommendation that healthcare providers be prepared to handle large volumes of critically injured burn and trauma patients without federal assistance for at least 96 hours.

Inova Receives Grant to Expand eCareMobile Units

Inova received a portion of a \$3.6 million grant from the Homeland Security UASI (Urban Area Security Initiative) to support an additional nine eCareMobile units for NVHA-member hospitals in the event of a disaster. The new capabilities were tested in three pilot sites during the full-scale drill in the fall of 2009.

During the 2009 drill, the eCareMobile units were shown to be a valuable addition to disaster response, based on pre- and post-evaluation scores and positive feedback from both evaluators and clinicians. The comprehensive training curriculum increased all outcome measures of the evaluation.



enVision eICU Receives Leadership Award

Terry Davis, RN, MSN, the Operations Director for Inova’s enVision eICU, was the 2009 recipient of VISICU’s Cindy Gregory eXcellence in Leadership Award. This award is given to nursing leaders in the eICU community who exude authentic leadership skills through their dedication to care transformation and collaboration with eICU partners. The recipients of this annual award receive a \$1,000 stipend to use towards eICU nursing research.

Increased Physician and Nursing Satisfaction

Healthcare providers are increasingly pressured by time constraints, patient numbers and documentation requirements. Inova’s enVision eICU improves physician and nursing satisfaction by:

- Leveraging intensivist expertise and scarcity by allowing remote monitoring care for patients in multiple locations.
- Providing intensivist coverage during off-hours. The enVision eICU solution virtually eliminates middle-of-the-night calls to bedside clinicians.
- Offering the bedside physicians the reassurance that in their absence a highly qualified expert is monitoring the patient’s clinical condition and executing the prescribed plan of care.
- Providing critical care nurses with intensivist support 24 hours a day.
- Reducing the physical demands and refining the intellectual challenge for critical care nurses.

Interventions and Quality Screening: Making a Difference

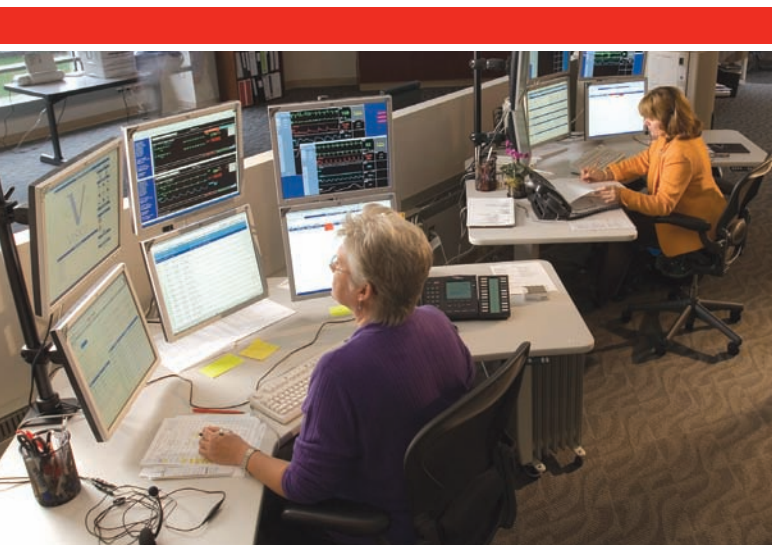
Improving Patient Safety

In 2009, the Inova enVision eICU monitored 8852 patients and provided 8942 interventions in eight ICUs.

Daily Quality Screening

Core measures are standardized performance measures put forth by the Joint Commission. These measures improve the quality of patient care by reducing the risk of complications and treating patients with best practices as evidenced by the latest medical research. The enVision eICU daily patient quality screening includes:

- Acute Myocardial Infarction
- Congestive Heart Failure
- Ventilator-Acquired Pneumonia
- Venous Thromboembolism (VTE)
- Stress Ulcer Prophylaxis
- Catheter-Associated Urinary Tract Infection
- Bloodstream Infection
- Glucose Control
- Acute Renal Failure
- Tidal Volume Limitation
- Ventilator Days
- Sepsis
- Falls Risk
- Clostridium difficile infection risk
- Virtual rounds by the enVision eICU intensivist.



Inova’s enVision eICU Supports:

- 3 Emergency Rooms (disaster support)
- 5 Hospitals
- 129 ICU beds
- 8852 Patients monitored in 2009

The enVision eICU team provides extra care by:

- Accurately monitoring and augmenting care delivery to ICU patients from a remote location
- Reducing the time between problem identification and intervention
- Helping to bring about better outcomes, reduced costs and shorter lengths of stay