

QUALITY

LEADING THE QUEST FOR QUALITY:

2007 PROFILES IN QUALITY
AND PATIENT SAFETY



HANYS



HANYS Quality Institute

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
SELECTION COMMITTEE MEMBERS	3
AWARD-WINNING INITIATIVES	5
CLINICAL CARE MANAGEMENT	
FROM GUIDELINES TO LIFELINES: IMPROVING QUALITY BY EMBRACING CLINICAL GUIDELINES . . . <i>Albany Medical Center</i>	9
IMPLEMENT ALL SIX 100,000 LIVES CAMPAIGN INITIATIVES AT TWO ACUTE CARE HOSPITALS WITH THE GOAL TO DECREASE RAW MORTALITY AT EACH HOSPITAL	11
<i>Albany Memorial and Samaritan Hospitals</i>	
SUSTAINED REDUCTION AND ELIMINATION OF CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTIONS ACROSS A HOSPITAL SYSTEM	12
<i>Beth Israel Medical Center</i>	
EFFECTIVE APPLICATION OF GLYCEMIC CONTROL IN A RURAL HEALTH CARE SETTING: SMALL TESTS OF CHANGE STIMULATE A HOSPITAL-WIDE CULTURE SHIFT IN MANAGEMENT OF HYPERGLYCEMIA	13
<i>Claxton-Hepburn Medical Center</i>	
IMPLEMENTATION OF A VENTILATOR BUNDLE IN A RURAL HEALTH CARE COMMUNITY: THE EFFECT ON TOTAL VENTILATOR HOURS/PATIENT	14
<i>Claxton-Hepburn Medical Center</i>	
THE POWER OF PERFECT CARE	15
<i>Clifton Springs Hospital and Clinic</i>	
CONGESTIVE HEART FAILURE—EDUCATION PROMOTES COMPLIANCE	16
<i>Columbia Memorial Hospital</i>	
QUALITY MEASURES: HEART ATTACK, HEART FAILURE, AND PNEUMONIA	17
<i>Delaware Valley Hospital</i>	
PREVENTING VENTILATOR-ASSOCIATED PNEUMONIA	18
<i>Finger Lakes Health</i>	
REDUCING CENTRAL LINE-RELATED CANDIDA INFECTION IN PARENTERAL NUTRITION PATIENTS .	19
<i>John T. Mather Memorial Hospital</i>	
IMPROVING CORE MEASURE OUTCOMES	20
<i>Mercy Hospital of Buffalo</i>	
TIME=BRAIN: A REGIONAL COLLABORATION TO IMPROVE STROKE CARE	21
<i>NewYork-Presbyterian Healthcare System</i>	
MULTI-DISCIPLINARY APPROACH TO ACHIEVE EXCELLENCE IN SURGICAL CARE	22
<i>NYU Hospitals Center</i>	

TABLE OF CONTENTS (CONTINUED)

CLINICAL CARE MANAGEMENT (continued)

EXTENDING A HAND: IMPLEMENTING A UNIQUE PROGRAM THAT SUPPORTS NURSES ON GENERAL CARE UNITS WITH AN EARLY NURSE INTERVENTION TEAM	24
<i>Rochester General Hospital</i>	
PREVENTION OF KNEE BUCKLING AFTER TOTAL KNEE REPLACEMENT WITHOUT COMPROMISING PAIN MANAGEMENT	25
<i>Saint Francis Hospital and Health Centers</i>	
ADVANCED ILLNESS/PALLIATIVE CARE	26
<i>Seton Health</i>	
HOSPITAL-WIDE IMPLEMENTATION OF RAPID RESPONSE TEAM	27
<i>South Nassau Communities Hospital</i>	
IMPROVEMENT OF UNCONTROLLED HYPERTENSION IN A PRIMARY CARE OFFICE	28
<i>South Nassau Communities Hospital</i>	
IMPROVING BREASTFEEDING OUTCOMES THROUGH A LACTATION RESOURCE PROGRAM	29
<i>South Nassau Communities Hospital</i>	
SAVING LIVES THROUGH RAPID RESPONSE TEAMS	30
<i>St. Barnabas Hospital</i>	
BEYOND THE BUNDLE: ZERO IS IN SIGHT	31
<i>St. Catherine of Siena Medical Center</i>	
SURGICAL CARE IMPROVEMENT PROJECT	32
<i>St. Charles Hospital</i>	
IMPLEMENTING BEST PRACTICES—REDUCING DOOR-TO-WIRE TIME	33
<i>St. Joseph's Hospital Health Center</i>	
EXCELLENCE IN PATIENT CARE: CREATING A SUSTAINABLE CULTURE OF SAFETY	34
<i>St. Luke's Cornwall Hospital</i>	
IMPROVE PATIENT SATISFACTION THROUGH TARGETING ZERO BIRTH TRAUMA BY IMPLEMENTING PERINATAL SAFETY INITIATIVES	36
<i>St. Mary's Hospital</i>	
EVALUATION OF THE EFFECTIVENESS OF A RAPID RESPONSE TEAM	37
<i>Staten Island University Hospital</i>	
ENHANCING PATIENT SAFETY AND IMPROVING OUTCOMES WITH A RAPID RESPONSE TEAM	38
<i>Stony Brook University Medical Center</i>	
MODIFYING AND APPLYING BEST PRACTICES RECOMMENDED BY THE SOCIETY OF CRITICAL CARE MEDICINE AND EMBRACED BY THE INSTITUTE FOR HEALTHCARE IMPROVEMENT FOR THE TREATMENT OF SEVERE SEPSIS	39
<i>Stony Brook University Medical Center</i>	
THE THREE R'S: RESCUE, RESUSCITATION, AND RAPID RESPONSE	40
<i>Saratoga Hospital</i>	

TABLE OF CONTENTS (CONTINUED)

CLINICAL CARE MANAGEMENT (continued)

DECREASING LENGTH OF STAY IN AN INTENSIVE CARE UNIT: A STANDARDIZED APPROACH TO INSULIN MANAGEMENT	41
<i>The Kingston Hospital</i>	
OPERATING ROOM-FOCUSED IMPROVEMENT TEAM	42
<i>ViaHealth of Wayne—Newark-Wayne Campus</i>	
TWO-MINUTE INTERVENTION FOR TOBACCO CESSATION	43
<i>WCA Hospital</i>	

CLINICAL OPERATIONS

PROJECT PATIENT-CENTERED CARE	44
<i>Amsterdam Memorial Hospital</i>	
EMPLOYEE RECRUITMENT AND RETENTION AS A QUALITY AND SAFETY STRATEGY	45
<i>Bassett Healthcare</i>	
IMPROVING EARLY DIAGNOSIS OF MYOCARDIAL INFARCTION USING TROPONIN I	47
<i>Cayuga Medical Center at Ithaca</i>	
CLOSING THE LOOP ON CRITICAL VALUES	48
<i>Columbia Memorial Hospital</i>	
EDUCATIONAL ADVANCEMENT FOR NURSING RECRUITMENT AND RETENTION	49
<i>Community Memorial Hospital</i>	
NURSE GREETER PROGRAM	50
<i>Coney Island Hospital</i>	
IMPROVED LABORATORY RESULT AVAILABILITY FOR CLINICIAN MORNING ROUNDS: POTASSIUM AND HEMATOCRIT VALUES MONITORED	51
<i>Crouse Hospital</i>	
EMERGENCY DEPARTMENT PATIENT THROUGHPUT: DECOMPRESSION OF AN OVERCROWDED EMERGENCY DEPARTMENT	52
<i>Erie County Medical Center</i>	
IMPLEMENTATION OF A CONCURRENT REVIEW MODEL FOR THE NATIONAL HOSPITAL QUALITY INITIATIVE	53
<i>Erie County Medical Center</i>	
BUILDING A SAFE PATIENT- AND FAMILY-CENTERED ENVIRONMENT OF CARE	55
<i>Forest Hills Hospital</i>	
IMPLEMENTATION OF TICKET TO RIDE HAND-OFF POLICY	56
<i>Highland Hospital of Rochester</i>	
REDUCTION OF MISLABELED SPECIMENS IN THE EMERGENCY ROOM	57
<i>Lawrence Hospital Center</i>	
NETWORK HCAHPS INITIATIVE	58
<i>Long Island Health Network</i>	

TABLE OF CONTENTS (CONTINUED)

CLINICAL OPERATIONS (continued)

PERINATAL SAFETY INITIATIVE: HANDLING ALL NEONATAL DELIVERIES SAFELY (HANDS)	59
<i>Mount St. Mary's Hospital and Health Center</i>	
FLU POINT-OF-DISPENSING (POD) VACCINATION CAMPAIGN	60
<i>NYU Hospitals Center</i>	
SAFE TRANSPORT OF PATIENTS ON OXYGEN BETWEEN EMERGENCY SERVICES AND DIAGNOSTIC IMAGING	61
<i>Rochester General Hospital</i>	
IMPROVE PATIENT OUTCOMES FOR WOMEN'S BREAST HEALTH	62
<i>Saratoga Hospital</i>	
THE BEST "LIFE LINE" FOR THE BEST OUTCOMES: INCREASING THE NUMBER OF DIALYSIS PATIENTS WITH ARTERIO-VEINUS FISTULAS	63
<i>South Nassau Communities Hospital</i>	
DEVELOPMENT AND USE OF PATIENT SEVERITY INDEX INDICATOR FOR PARTIAL HOSPITAL PROGRAMS	65
<i>South Nassau Communities Hospital</i>	
IMPROVE PATIENT SATISFACTION THROUGH TEMPERATURE CONTROL OF FOOD	66
<i>St. Mary's Hospital</i>	
LEADING A CULTURE OF PATIENT SAFETY THROUGH A PATIENT SAFETY CERTIFICATE COURSE FOR HEALTH CARE PROFESSIONALS	67
<i>Strong Memorial Hospital</i>	
PROMOTING PATIENT PARTICIPATION IN HEALTH CARE: THE PARTNERS PROGRAM	68
<i>The Kingston Hospital</i>	
IMPLEMENTING CREW RESOURCE MANAGEMENT IN THE SURGICAL SERVICE	69
<i>Vassar Brothers Medical Center</i>	

INFECTION CONTROL

REDUCTION OF NOSOCOMIAL PRESSURE ULCERS FOR INPATIENTS, WITH A SPECIFIC EMPHASIS ON THE INTENSIVE CARE UNITS	70
<i>Brookhaven Memorial Hospital Medical Center</i>	
DECREASE IN NOSOCOMIAL SURGICAL SITE INFECTIONS THROUGH PROPER HAND HYGIENE	71
<i>Columbia Memorial Hospital</i>	
A MULTI-DISCIPLINARY HIV POINT-OF-CARE TESTING PROGRAM IN AN ACUTE CARE HOSPITAL	72
<i>Coney Island Hospital</i>	
COMPREHENSIVE STRATEGY FOR REDUCING INFECTION RATES AND CONTAINING MRSA IN THE NEONATAL INTENSIVE CARE UNIT	73
<i>Crouse Hospital</i>	
A SYSTEMS APPROACH TO IMPROVING IMMUNIZATION STATUS FOR THE HOSPITALIZED ADULT PATIENT UTILIZING THE ELECTRONIC MEDICAL RECORD	74
<i>Eastern Long Island Hospital</i>	

TABLE OF CONTENTS (CONTINUED)

INFECTION CONTROL (continued)

HOW LUTHERAN MEDICAL CENTER COMBINED TWO CRITICAL SAFETY PROCESSES: CMS SURGICAL INFECTION PREVENTION AND THE JOINT COMMISSION UNIVERSAL PROTOCOL <i>Lutheran Medical Center</i>	75
INCREASING PATIENTS' KNOWLEDGE OF THEIR HIV STATUS THROUGH A PROVIDER-DRIVEN RAPID HIV SCREENING AND TESTING MODEL IN THE EMERGENCY DEPARTMENT <i>Metropolitan Hospital Center</i>	77
ENHANCING TIMELINESS AND ACCURACY OF CHEMOTHERAPY ORDERS THROUGH CREATION OF AN ELECTRONIC E-FORMS PROCESS <i>NYU Hospitals Center</i>	78
DECREASING THE INCIDENCE OF NOSOCOMIAL PRESSURE ULCERS IN A LONG-TERM CARE FACILITY <i>Our Lady of Consolation Nursing Home</i>	79
PREVENTION OF NOSOCOMIAL PRESSURE ULCERS <i>Seton Health</i>	80
WOUND HEALING INITIATIVE <i>South Nassau Communities Hospital</i>	81
A BUNDLE APPROACH TO REDUCTION OF POST-OPERATIVE CARDIOTHORACIC SURGERY WOUND INFECTIONS AT A COMMUNITY HOSPITAL <i>St. Elizabeth Medical Center and Mohawk Valley Heart Institute</i>	82
HEALTH CARE WORKER ACCOUNTABILITY FOR HAND HYGIENE <i>United Memorial Medical Center</i>	83
MEDICATION MANAGEMENT	
INTEGRATING THE MEDICATION RECONCILIATION PROCESS INTO THE PHYSICIAN H&P AND ORDERS <i>Albany Medical Center</i>	84
IMPROVING THE MEDICATION NIGHT CABINET <i>Bertrand Chaffee Hospital</i>	85
DEVELOPMENT OF A MEDICATION RECONCILIATION PROCESS IN AN INSTITUTIONAL HEALTH CARE SETTING <i>Maimonides Medical Center</i>	86
PAIN MANAGEMENT PROGRAM <i>McAuley-Seton Home Care Corporation/Catholic Health System</i>	87
A MULTI-HOSPITAL IMPLEMENTATION OF AN ELECTRONIC MEDICATION ADMINISTRATION RECORD TO IMPROVE NURSING WORKFLOW AND ENHANCE MEDICATION SAFETY <i>New York City Health and Hospitals Corporation</i>	88
IMPROVING PATIENT SAFETY BY IMPLEMENTING BAR-CODED MEDICATION TECHNOLOGY <i>Vassar Brothers Medical Center</i>	89

TABLE OF CONTENTS (CONTINUED)

PATIENT SAFETY

A PEDIATRIC SAFETY CHAMPION TEAM IN AMBULATORY PEDIATRICS <i>Beth Israel Medical Center—Milton and Carroll Petrie Division</i>	90
PATIENT SAFETY FALL TEAM <i>Delaware Valley Hospital</i>	91
THE PSYCHIATRY TASK FORCE TO DECREASE THE USE OF SECLUSION AND RESTRAINT AND PATIENT-RELATED EMPLOYEE INJURIES <i>Erie County Medical Center</i>	92
RE-CREATING THE MODEL OF CARE: ESTABLISHING A TEAM APPROACH <i>Good Samaritan Hospital Medical Center</i>	93
IMPLEMENTATION OF A NO-LIFT PROTOCOL <i>Highland Hospital of Rochester</i>	95
FALLS PREVENTION PROGRAM WITH A GOAL TO IDENTIFY PATIENTS AT RISK TO DECREASE THE NUMBER OF FALLS AND PREVENT SERIOUS INJURIES <i>NYU Hospitals Center</i>	96
ACHIEVING AN OPTIMAL SLEEP-WAKE CYCLE IN A DEMENTIA PATIENT RESIDING IN A CHRONIC CARE SETTING <i>Our Lady of Mercy Life Center</i>	97
BEHAVIORAL HEALTH SENTINEL EVENT PREVENTION/PATIENT SAFETY PROJECT <i>Samaritan Hospital</i>	98
REDUCTION IN DOOR-TO-BALLOON TIME IN PATIENTS PRESENTING WITH AN ACUTE ST-ELEVATION MYOCARDIAL INFARCTION <i>South Nassau Communities Hospital</i>	99
RESTRAINT REDUCTION IN BEHAVIORAL HEALTH <i>South Nassau Communities Hospital</i>	100
MINIMAL LIFT PROGRAM <i>St. Mary's Hospital</i>	101
IMPROVE PATIENT SAFETY THROUGH THE STANDARDIZATION OF EMERGENCY RESPONSE EQUIPMENT (CODE CARTS) <i>St. Mary's Hospital</i>	102
FALLS PREVENTION INITIATIVE <i>St. Vincent's Hospital and Medical Center—Westchester Division</i>	103
FALLS PREVENTION PROGRAM "HOURLY ROUNDING" <i>Unity Hospital</i>	105
REDUCING EMPLOYEE INJURIES RESULTING IN LOST WORK TIME <i>WCA Hospital</i>	106
ACRONYMS USED OFTEN IN THE PROFILES IN THIS BOOK	107

INTRODUCTION

The Healthcare Association of New York State (HANYS) and its members are committed to innovative practices and implementing continuous improvements in quality, safety, and effectiveness of care. HANYS' Pinnacle Award for Quality and Patient Safety recognizes organizations that are playing a leading role in promoting health care delivery.

2007-2008 Profiles in Quality and Patient Safety is a compendium of 89 submissions for HANYS' Pinnacle Award. Each initiative includes a program description, information about the team that led the initiative, lessons learned, and achievements.

This year, HANYS included one category for multi-entity or large organizations and one for unit-based or small organizations. This enables HANYS to better recognize the wide range of quality improvement and patient safety initiatives.

Albany Medical Center is the winner in the multi-entity or large organizations category for its *From Guidelines to Lifelines: Improving Quality by Embracing Clinical Guidelines* initiative, and Unity Hospital received the unit-based or small organization award for its *Falls Prevention Program: Hourly Rounding*.

Once again, the quality of the nominations was outstanding and the selection committee identified two initiatives for honorable mentions. These went to Northeast Health for *Implement All Six 100,000 Lives Campaign Initiatives at Two Acute Care Hospitals with the Goal to Decrease Raw Mortality at Each Hospital* and to Beth Israel Medical Center for *Sustained Reduction and Elimination of Central Line-associated Bloodstream Infections Across a Hospital System*.

HANYS congratulates and thanks these organizations and all of its members for their willingness to share their ideas, execution skills, and successes. HANYS encourages all members to take advantage of the information in this publication to inform and accelerate efforts for improving quality and patient safety.

A brief list of acronyms is available at the end of this publication.

For general feedback or questions about the Pinnacle Award for Quality and Patient Safety, contact Nancy Landor, HANYS' Director of Strategic Quality Initiatives, at (518) 431-7685 or at nlandor@hanys.org.

COMMON THEMES

The 2007 profiles are categorized into six themes:

- **Clinical Care Management**—*Improving Patient Care*
- **Clinical Operations**—*Improving Systems and Processes*
- **Infection Control**—*Preventing and Reducing Infections*
- **Medication Management**—*Safe and Effective Medication Practices*
- **Patient Safety**—*Reducing Incidents and Improving Safety*



SELECTION COMMITTEE MEMBERS

NANCY FOSTER

Nancy Foster is the Vice President for Quality and Patient Safety Policy at the American Hospital Association (AHA). In this role, she is AHA's point person for the Hospital Quality Alliance, a public-private effort to provide information to consumers on the quality of care in American hospitals. Ms. Foster is AHA's representative to the National Quality Forum, serves as a member of the National Heart Attack Coordinating Council, and co-chairs the Agency for Healthcare Research and Quality's (AHRQ) Patient Safety Coordination Center Advisory Committee. She serves as the key national advocate on quality-related issues at AHA, and provides advice to hospitals and public policymakers on opportunities to improve patient safety and quality.

Before joining AHA, Ms. Foster was the Coordinator for Quality Activities at AHRQ. In this role, she was the principal staff person for the Quality Interagency Coordination Task Force, which brought federal agencies with health care responsibilities together to jointly engage in projects to improve quality and safety. She also led AHRQ's patient safety research agenda and managed a portfolio of quality and safety research grants in excess of \$10 million. A graduate of Princeton University, Ms. Foster completed graduate work at Chapman University and Johns Hopkins University. In 2000, she was chosen as an Excellence in Government Leadership Fellow.

MAULIK S. JOSHI, DR.P.H.

Dr. Maulik Joshi is Senior Advisor for the Office of the Director for AHRQ. He was formerly the President and Chief Executive Officer of the Delmarva Foundation. Before that, Dr. Joshi was Vice President for the Institute for Healthcare Improvement (IHI), co-founder and Executive Vice President for DoctorQuality, Senior Director of Quality for the University of Pennsylvania Health System, and Executive Vice President for The HMO Group.

Dr. Joshi is Co-editor of *The Healthcare Quality Book: Vision, Strategy, and Tools*, a graduate-level textbook. He is a member of the Board of Trustees and Quality and Patient Safety Committee for Catholic Healthcare Partners, the Board of Governors for the National Patient Safety Foundation, the National Advisory Board for U.S. Preventive Medicine, and the Advisory Committee of the Association of American Medical Colleges Institute for Improving Clinical Care. Dr. Joshi has a Doctor of Public Health and a Master of Health Services Administration degree from the University of Michigan and a Bachelor of Science degree in Mathematics from Lafayette College.

SELECTION COMMITTEE MEMBERS (CONTINUED)

ANDREA KABCENELL, R.N., M.P.H.

Andrea Kabcenell is an Executive Director at the Institute for Healthcare Improvement where she serves as Deputy Director for Pursuing Perfection, a national program sponsored by The Robert Wood Johnson Foundation and designed to demonstrate that near-perfect, leading-edge performance is possible in health care. In addition, Ms. Kabcenell teaches in topic areas including collaborative improvement methods, improving office practice, improving chronic illness care, end-of-life care, and eliminating disparities in health care. Ms. Kabcenell has been a key faculty member in the Breakthrough Series College and has directed 13 IHI Breakthrough Series Collaboratives. Before joining IHI, Ms. Kabcenell was a senior research associate at Cornell University's Department of Policy, Analysis, and Management, and before that she served for four years as Program Officer at The Robert Wood Johnson Foundation. Ms. Kabcenell received her Master's degree in Public Health from the University of Michigan School of Public Health.

DR. VAHE KAZANDJIAN, M.D.

Dr. Vahe Kazandjian is President of the Center for Performance Sciences, Senior Vice President for the Maryland Hospital Association, and Co-Chair of the Board for the Maryland Patient Safety Center. He is the original architect and continues to be responsible for the largest indicator project worldwide, the Maryland Quality Indicator Project.

Dr. Kazandjian has published extensively on indicator development and quality of care and is the author of four textbooks on these topics. He is an epidemiologist by training, and has served as Advisor to the World Bank for Latin America, USAID for Africa, and currently is an advisor to the WHO Europe office in Barcelona.

Dr. Kazandjian received his Master's degree in Public Health from the University of Beirut, Lebanon and his Doctorate in Health Services Organization and Policy from the University of Michigan. Dr. Kazandjian is Adjunct Professor of the Health Policy and Management Department of the Johns Hopkins Bloomberg School of Public Health.

LYNN GURSKI LEIGHTON, R.N., M.H.A.

Lynn Gurski Leighton is Vice President of Professional and Clinical Services at the Hospital and Healthsystem Association of Pennsylvania. In this position, she is responsible for the management of issues related to professional licensure and practice, workforce development, health care quality, patient safety, public use of quality data, and delivery system accountability. Ms. Gurski Leighton works most directly with clinical personnel in hospitals and health systems, various state agencies, AHA, The Joint Commission, and other associations, to advocate for and represent Pennsylvania hospital and health system interests and positions on various regulatory and legislative matters. Ms. Gurski Leighton served in nursing administrative positions in both acute care and surgical services and as a director for medical management in a provider-sponsored managed care organization. She graduated with a Bachelor of Science degree in Nursing from Pennsylvania State University and a Master's degree in Health Administration from the University of Pittsburgh.

From Guidelines to Lifelines: Improving Quality by Embracing Clinical Guidelines

Albany Medical Center

From Guidelines to Lifelines: Improving Quality by Embracing Clinical Guidelines was initiated at Albany Medical Center to improve care provided to patients with acute myocardial infarction, stroke, and heart failure. The medical center integrated clinical care measures and program expectations established by the Centers for Medicare and Medicaid Services, American College of Cardiology, and American Heart Association



2007 Pinnacle Award Winner: Albany Medical Center

First row: James O'Brien M.D., Edward Philbin, M.D., Dawn Fischer, Steven Fein, M.D., Daniel Sisto, Steve Frisch, M.D., Gary Bernardini, M.D., Ph.D, Frances Cavanaugh, Lucy Siegel, Marci Wall, Donna Dibble. *Back row:* Todd Scrimme, Karen Houston, Bernadette House, Richard Ketcham, Wanda McGowan, and Allison Goodell.

“Get With The Guidelines” (GWTG) program and The Joint Commission requirements. The teams utilized the GWTG project for data collection, benchmarking, and analysis.

Multi-disciplinary quality improvement teams, championed by physician leaders, work closely with clinical coordinators to establish program goals, develop broad consensus, and design and test change strategies. The teams utilize the Plan-Do-Study-Act methodology for testing and implementing change in rapid cycles and adopted a series of traditional and innovative techniques to implement and sustain the changes throughout the medical center. The teams reviewed and amended clinical protocols and used pre-printed admission/discharge order sheets and standardized care plans to facilitate adherence. Concurrent case management and coding provided ongoing support and a Web-based software tool was developed to assist with data tracking and analysis. Comprehensive education programs, open communications, and data feedback were essential program components.

Albany Medical Center has effectively converted its data into “radar charts” for all levels of the organization including nursing units and individual physician results. After studying almost 12,000 patients in the pre- and post-intervention periods, Albany Medical Center composite scores in all three clinical areas were nearly 93% for the relevant CMS indicators, GWTG specifications, and The Joint Commission requirements, and exceeded 94% for stroke care. Albany Medical Center was recognized by the American College of Cardiology/American Heart Association as one of only two hospitals in the country that achieved 85% or better annual performance on all three GWTG modules, is accredited by The Joint Commission for stroke care, and is a New York State Designated Stroke Center.

2007 PINNACLE AWARD FOR QUALITY AND PATIENT SAFETY WINNER
(Unit-based or Small Organization)

Falls Prevention Program: Hourly Rounding

Unity Hospital

The hospital established an initiative on two medical-surgical nursing units with the primary focus of reducing patient falls through a comprehensive program that addressed patient safety, patient satisfaction, and operational efficiency. Armed with research from national experts, the team conducted a proactive Failure Mode and Effects Analysis and root cause analysis to establish the primary causes leading to patient falls

and subsequently developed a program of consistent hourly rounding on patients in the pilot units. The concept is to focus on those things for which patients most frequently use call bells and address them before the patient needs to call.

During rounds, which are rotated between nurses and care technicians, staff assess patients for comfort, safety, environmental, and other needs. Before leaving, staff ask patients if there is anything else they can do and reassure them that someone will be back to check on them within the hour.

The hospital provided significant education, data, and frequent communications for staff on the pilot units, and included patients, families, and visitors in the program. An automated data-tracking system was used and the teams developed checklists and log sheets to facilitate the process. The rounding program was supplemented with a comprehensive falls prevention program incorporating the nine key components identified by the Agency for Healthcare Research and Quality.

The pilot units demonstrated a 75% reduction in their patient fall rate, a 20% reduction in hospital-acquired patient skin integrity problems, and a decrease of 500 call lights per two-week period (approximately 16%). The program was embraced by patients, resulting in a 17% increase in overall patient satisfaction scores, and nursing staff say it has enabled a more efficient and controlled environment. Based on these successes, Unity Hospital is incrementally spreading the unit-based rounding model throughout the hospital.



2007 Pinnacle Award Winner: Unity Hospital. Pictured (from left): Daniel Sisto, Kathy Ciccone, Richard Ketcham, Stewart Putnam, Candace Smith, Katie O'Leary.

Implement All Six 100,000 Lives Campaign Initiatives at Two Acute Care Hospitals with the Goal to Decrease Raw Mortality at Each Hospital

Albany Memorial Hospital and Samaritan Hospital

Northeast Health's board and executive team embraced the Institute for Healthcare Improvement's 100,000 Lives Campaign initiative as a strategy to standardize and unify quality initiatives across both of its acute care hospitals. These interventions were supplemented with innovations and improvements in critical care areas based on evidence-based practices included in the IHI IMPACT community. A team was created for each of the interventions, led by a senior executive with front-line coordination by a unit director. The executive team received weekly reports, and the chief executive officer and vice president of medical affairs led monthly oversight meetings to review information about program gains and obstacles and to facilitate shared learning across both hospitals.

The teams used the Plan-Do-Study-Act (PDSA) methodology to roll out the program, which enabled problems and obstacles to be identified and improved upon early, and facilitated a rapid tempo for change across the two hospital sites. The project led to an improved safety culture across the system and surpassed its initial goals. The overall raw mortality rates decreased by 13% and 15% at the two hospitals, and there was 100% bundle compliance in interventions addressing care of patients with ventilators, central lines, acute myocardial infarction, and surgical site infections. They also saw a decrease in non-critical care cardiac arrests, and ventilator-associated pneumonia cases, and had no central line infections for 20 months. The system credits its achievements, which have been sustained for more than a year, to leadership involvement and support, staff input and testing, and the disciplined use of the PDSA methodology.

Sustained Reduction and Elimination of Central Line-associated Bloodstream Infections Across a Hospital System Beth Israel Medical Center

Recognizing the significant impact that central line-associated bloodstream (CLAB) infections have on patient morbidity, mortality, length of stay, and cost, Beth Israel Medical Center developed a program to rapidly eliminate and sustain a reduction in these device-associated infections. Beth Israel aggressively implemented a series of clinical steps, known as the CLAB bundle, and achieved 100% compliance with the protocols and requirements within 61 days. Key to the accomplishments was leadership support, adoption of a philosophy that was intolerant of infections, weekly program coordination and oversight, and the disciplined use of the Plan-Do-Study-Act methodology.

Physician and nurse champions were instrumental in implementing changes in clinical practice and collecting data that were analyzed by Beth Israel's infection control department. Beth Israel uses the Centers for Disease Control and Prevention's National Healthcare Safety Network. Root cause analyses were conducted when any patient developed a central line infection. Teams were charged with generating sustainable corrections to identified problems. Collaborative dialogue, shared learning, and education were important program components. The medical center developed standardized pre-packaged central line insertion kits that effectively built in functions for compliance and sequential supply use.

Beth Israel achieved a significant decrease in CLAB rates (from 4.5 to 1.2 per 1,000 line days and from 2.0% to 0.6% of patients with a central line) enabling some units to sustain a zero central line infection rate for as long as 432 days, and an average of 301 days across the organization. Beth Israel estimated that, at the time of the award submission, the improvements contributed to saving approximately ten patient lives and \$1,330,000 in avoided costs.

CLINICAL CARE MANAGEMENT

From Guidelines to Lifelines: Improving Quality by Embracing Clinical Guidelines

Albany Medical Center

PARTNERS

Multi-disciplinary quality improvement teams led by physician champions and backed by hospital leaders consisted of staff from various areas across the organization including nursing, quality improvement and risk management, emergency medicine, cardiology, hospitalists, neurosciences, cardiac catheterization laboratory, laboratory services, physical medicine and rehabilitation, radiology, pharmacy, health information services, and various medical education residency training programs.

CONTACT

Greg McGarry

Vice President for Communications
Albany Medical Center
43 New Scotland Avenue
Albany, NY 12208
(518) 262-3421
mcgarrg@mail.amc.edu

PROJECT DESCRIPTION

As part of an overall cardiovascular and stroke quality plan, Albany Medical Center focused on evidence-based standards and proven methodologies to improve the care process and outcome in three high-volume diagnoses: acute myocardial infarction, stroke, and heart failure.

The project tools and methods included a focus on leadership, rapid cycle continuous quality improvement approaches, protocol review and amendment, revision of pre-printed admission and discharge order sets, establishing standardized plans of care, execution of new processes, use of data to demonstrate efficacy of quality improvement methods, and ongoing education and communication.

Albany Medical Center used tools from the American Heart Association and American Stroke Association (ASA) quality improvement program, "Get With The Guidelines." The team employed a Web-based program to track and report compliance concurrently and retrospectively for ongoing enhancements and to provide feedback to providers and hospital teams. Albany Medical Center's quality "radar charts" have been a powerful tool for the staff to visualize the relationship between process and outcome data. Reward and recognition for improved and sustained performance was an important element.

OUTCOMES

Albany Medical Center was recognized as the second hospital in the country and the first in New York State to earn annual performance achievement awards in all three categories of the Get With The Guidelines program.

- **Acute Myocardial Infarction/Coronary Artery Disease:** Across a set of 11 performance measures aligned with the American College of Cardiology (ACC)/American Heart Association guidelines and Centers for Medicare and Medicaid Services specifications, overall performance increased from 71.6% in the pre-intervention period to 92.5% in the post-intervention period.
- **Heart Failure:** Across a set of five performance measures aligned with ACC/ American Heart Association guidelines and CMS specifications, overall performance increased from 64.3% in the pre-intervention period to 92.9% in the post-intervention period.
- **Stroke:** Across a set of 13 performance measures aligned with American Heart Association/ASA guidelines and The Joint Commission specifications, overall performance increased from 86.4% in the pre-intervention period to 94.2% in the post-intervention period.

From Guidelines to Lifelines: Improving Quality by Embracing Clinical Guidelines

Albany Medical Center
(CONTINUED)

LESSONS LEARNED

- Culture change can be brought about by quality initiatives supported by upper-level administration and strong physician champions, who not only stress proven clinical guidelines, but also empower a multi-disciplinary team to help implement them.
- A culture of non-judgment and open communication fosters consensus building leading to ownership, collaboration among colleagues, creativity, and sustainable system changes.
- Steadfast monitoring of data and ongoing feedback to staff regarding the data is essential to attain quality improvement targets.
- Recognition and rewards help to sustain performance improvement.

Implement All Six 100,000 Lives Campaign Initiatives at Two Acute Care Hospitals With the Goal to Decrease Raw Mortality at Each Hospital

Albany Memorial and Samaritan Hospitals

PARTNERS

External partners include IHI, Hospital Medical Group, Capital Cardiology, and Albany Associates in Cardiology. Internal partners include the hospitals' critical care units, surgery department staff, pharmacy staff, obstetric/gynecology department, cardiovascular service line, pulmonary and critical care services, education and resources, and front-line staff.

CONTACT

Susan Vitolins, R.N., C.P.H.Q.

Director, Performance Improvement
Albany Memorial and Samaritan Hospitals
2215 Burdett Avenue
Troy, NY 12180
(518) 271-3246
vitolins@nehealth.com

PROJECT DESCRIPTION

The board and senior team of the hospitals challenged staff to implement all six initiatives of the Institute for Healthcare Improvement 100,000 Lives Campaign. Leading each initiative is a vice president, along with a unit director responsible for implementation with front-line staff. The senior team receives weekly results on all initiatives, and monthly steering committee meetings are held with team leaders and senior executives. The hospital and board quality committees receive monthly reports. This leadership strategy is being used for the implementation of all IHI 5 Million Lives initiatives as well. The board and senior leadership direction has brought a unified structure and focus to the quality initiatives at both hospitals. This has led to an improvement in the safety culture within the organizations.

OUTCOMES

- Raw mortality rates decreased 13% and 15% at the two hospitals.
- Ventilator bundle compliance is at 100%, with only two ventilator pneumonia cases in 2006 at each hospital.
- The number of codes outside the intensive care unit decreased with the increase in the number of rapid response team calls.
- There has been 100% acute myocardial infarction bundle care for the past 12 months.
- There were no central line infections in the critical care area for the past 20 months.

LESSONS LEARNED

- Starting with a pilot area, identifying barriers, and spreading change is the most successful way to implement this type of initiative.
- Having a physician champion makes implementation easier.
- Frequent accountability to senior leaders provides an incentive to maintain focus.
- A small number of patients in a month causes large swings in bundle compliance.
- The best suggestions for improvement come from front-line staff.
- Small tests point out defects in education and processes.

Sustained Reduction and Elimination of Central Line-associated Bloodstream Infections Across a Hospital System

Beth Israel Medical Center

PARTNERS

Championed by the chief executive, medical, and financial officers, the medical directors and nursing leadership work with multi-disciplinary teams composed of physicians, nursing staff, infection control professionals, and house staff, as well as representatives from the emergency medicine, nursing education, and materials management departments.

CONTACT

Brian Koll, M.D.

Chief, Infection Control
Beth Israel Medical Center—
Milton and Carroll Petrie Division
317 East 17th Street
8 Fierman Hall
New York, NY 10003
(212) 420-2853
bkoll@chnpnet.org

PROJECT DESCRIPTION

Due to the impact of central line-associated bloodstream infections on morbidity and mortality, increased length of stay, and resource utilization, Beth Israel Medical Center undertook an initiative to rapidly eliminate and sustain the reduction in this infection. The goal was to improve quality of care and patient safety by ensuring compliance with evidence-based practices validated by national programs. Beth Israel Medical Center utilized the Plan-Do-Study-Act method to eliminate the gap between performance and best practices regarding CLAB prevention. The Centers for Disease Control and Prevention's National Healthcare Safety Network definitions were used and data were reported back to the unit-based teams monthly.

A root cause analysis (RCA) was conducted within 24 hours of each CLAB. The RCAs were collaborative, non-punitive, and expected to identify a solution for each CLAB that generates a sustainable fix and avoids "workarounds." The knowledge gained from each RCA was shared across the organization.

OUTCOMES

- Beth Israel Medical Center achieved 100% compliance with the CLAB bundle of interventions within 61 days and sustained elimination of CLABs within 90 days.
- There was a significant decrease in the overall CLAB rate, from 4.5 to 1.2 per 1,000 line days and from 2.0% to 0.6% of patients with a central line. Four units were without a CLAB for over one year; the median duration without a CLAB was 274 days.
- An estimated ten lives were saved through prevention of CLABs.
- The initiative resulted in a savings of \$1,330,000 in avoided costs.

LESSONS LEARNED

- Support of hospital leaders and identification of physician and nursing champions was the key to rapid and sustained success.
- Introducing simple, evidence-based patient care practice bundles significantly reduces the incidence of CLABs across a hospital system.
- The PDSA methodology was applicable across Beth Israel's two hospitals and on a variety of units.
- Limited additional resources were necessary for the success of this initiative.
- Culture change regarding the goal of zero CLABs infections is applicable for all hospital-acquired infections and patient safety issues.

Effective Application of Glycemic Control in a Rural Health Care Setting: Small Tests of Change Stimulate a Hospital-Wide Culture Shift in Management of Hyperglycemia

Claxton-Hepburn Medical Center

PARTNERS

The glycemic control team included the chief of anesthesia, diabetic educator, ICU director and manager, and key physician and nurse leaders.

CONTACT

Jennifer Shaver, R.N.
Nurse Manager, ICU
Claxton-Hepburn Medical Center
214 King Street
Ogdensburg, NY 13669
(312) 393-8880 ext. 5337
jshaver@chmed.org

PROJECT DESCRIPTION

Senior leadership at Claxton-Hepburn Medical Center created an environment in which clinical excellence and quality are priorities. Nursing leadership saw an opportunity to improve patient care in relation to glycemic control in the intensive care unit and throughout the hospital. With approval from Claxton-Hepburn Medical Center's Pharmacy and Therapeutics Committee, a team was formed that included staff nurses and physician champions. The team had frequent, short, goal-oriented meetings that included exhaustive reviews of current literature.

The team developed and implemented a subcutaneous insulin protocol. Although physicians were not mandated to implement the protocol, they quickly accepted it for its simplicity and its intrinsic safety features. This early success allowed the team to take a more aggressive approach to achieve tight glycemic control in the ICU with an intravenous insulin protocol. Champions continued the education process via one-to-one and group settings, and ultimately both subcutaneous and IV insulin protocols were embraced, leading to reduction in blood glucose in diabetic patients throughout the entire facility without a concomitant increase in hypoglycemia.

OUTCOMES

- The hospital achieved cultural change regarding glycemic control.
- From 2004 to 2006, there was a 12% increase in medical-surgical patients with glucose in the 60-120 range and a 20% reduction of patients with glucose higher than 180.
- From 2004 to 2006, there was a 31% increase in ICU patients with glucose in the 60-120 range and a 40% reduction of patients with glucose higher than 180.
- From 2004 to 2006, there was no clinically significant hypoglycemia throughout the hospital.

LESSONS LEARNED

- Evidence-based clinical initiatives can be successfully applied in rural health care settings.
- Small, vested teams increase the likelihood of success. When supported, they are able to move forward and promote positive practice changes throughout the hospital.
- Small tests of change can be frustrating for staff and require patience on the part of the team. By focusing on the ultimate endpoints, teams are more likely to reach stated goals.
- Success requires leadership, commitment, and passion on all levels.

Implementation of a Ventilator Bundle in a Rural Health Care Community: The Effect on Total Ventilator Hours/Patient

Claxton-Hepburn Medical Center

PARTNERS

Physician and nurse leadership, including the ICU medical director, nurse manager of the ICU and respiratory therapy, chief medical officer, and chief of medicine engaged with the critical care and respiratory teams and the department of medicine.

CONTACT

Jennifer Shaver, R.N.
Nurse Manager, ICU
Claxton-Hepburn Medical Center
214 King Street
Ogdensburg, NY 13669
(315) 393-8880 ext. 5331
jshaver@chmed.org

PROJECT DESCRIPTION

Claxton-Hepburn Medical Center experienced a culture change that has been challenging yet rewarding, and which has laid the groundwork for implementing the ventilator bundle of interventions to improve patient care.

Intensive care unit patient management was traditionally based on individual physician preference, which created challenges for consistent employment of evidence-based strategies. The hospital took incremental steps to improve different aspects of patient and ventilator care in the ICU. These small steps enabled the hospital to achieve buy-in from the physician, nursing, and respiratory therapy staff. The team relied on formal and informal education, and continually gave feedback to providers regarding successes. Where appropriate, nursing and respiratory staff were allowed to make clinical decisions and ultimately, due to the support of medical staff, the bundle was implemented quickly.

OUTCOMES

- Claxton-Hepburn Medical Center achieved culture change in the ICU regarding management of ventilated patients.
- From 2004 to 2006, there was a 55% reduction in the hours per ventilated patient.
- From 2004 to 2006, there was a 27% reduction in the hours per ventilated patient, in patients ventilated less than one week.
- From 2004 to 2006, there was a 250% reduction in the number of patients ventilated for more than a week.
- The hospital achieved an increase in ventilator bundle compliance from 35.1% in first quarter 2006 to 95.5% in fourth quarter 2006.
- There were no occurrences of ventilator-associated pneumonia for over two years (ten-bed ICU).

LESSONS LEARNED

- Evidence-based clinical initiatives can be successfully applied in rural health care settings.
- Select clinical initiatives can be driven by non-physicians (nursing and respiratory therapy in this instance).
- Physicians are more likely to embrace change that is evidence-based and provider-friendly.
- Success requires leadership, commitment, and passion at all levels.

The Power of Perfect Care

Clifton Springs Hospital and Clinic

PARTNERS

The internal team for this initiative included the board of trustees, administrative staff, physicians, nurses, and pharmacy.

CONTACT

Susan Pettis

Director, Performance Improvement
Clifton Springs Hospital and Clinic
2 Coulter Road
Clifton Springs, NY 14432
(315) 462-1464
susan.pettis@cshosp.com

PROJECT DESCRIPTION

Like most hospitals, Clifton Springs Hospital and Clinic has collected, analyzed, and submitted data to internal and external entities for years. Additionally, the facility adopted practices used throughout the health care field including standing orders, cheat sheets, memory aids, educational programs, and data displays. However, the hospital's quality objectives were not met. When data began to be displayed in terms of the percent of patients who received perfect care, there was a heightened level of interest among caregivers to understand which indicators needed attention. The "perfect care" bundle of interventions was used in four clinical areas that submit data to The Joint Commission and Centers for Medicare and Medicaid Services. Numerous achievements were realized in both process and outcomes of care.

OUTCOMES

- Perfect care in congestive heart failure went from an average of 74% of patients to 92% of patients after introduction of the perfect care bundle.
- CHF patients receiving complete discharge instructions increased from 68% to 93%; smoking cessation information for the same patients went from 50% to 100%.
- Perfect care in pneumonia increased from 82% to 90% after introduction of the perfect care bundle.
- Total joint replacement patients receiving antibiotic within one hour of surgical incision increased from 72% to 90%.

LESSONS LEARNED

- Data, displayed in meaningful ways, can be a powerful catalyst for change.
- Make the desired action the default. Make it more work to do it wrong!
- Alignment between the board, senior leaders, and the medical and nursing staff is essential to change old habits.
- Real-time root cause analysis reduces risk of failure.
- Consequences must be stronger than just words.

Congestive Heart Failure—Education Promotes Compliance

Columbia Memorial Hospital

PARTNERS

Partners for this initiative include members from the medical staff, cardiopulmonary department, nursing, food service, administration, quality management, and information systems.

PROJECT DESCRIPTION

Columbia Memorial Hospital recognized a greater emphasis needed to be placed on patient education with regard to congestive heart failure. Since discharge instructions are crucial in promoting continued patient well being and decreased hospital visits, a multi-disciplinary task force reviewed the CHF program, examined the current discharge instruction forms, and identified areas for improvement.

A standardized discharge instruction form was revised and then implemented. The revisions included a medication list with patient-friendly dosages and times, and instructions for weight monitoring and what to do if symptoms worsen. The discharge instructions also included fields for activity, diet and fluid restrictions, and follow-up care. A quality improvement coordinator concurrently reviews all CHF records for compliance.

OUTCOMES

- Discharge instructions compliance rose from 4% in 2003 to 97% in the second quarter of 2006.
- Continued monitoring is an ongoing process to ensure sustainability and allow for appropriate changes to standardized discharge forms, if necessary.

LESSONS LEARNED

- Brainstorming by the CHF task force increased awareness of components needed for patient compliance and identified ways to streamline documentation while providing patients with the pertinent information for a safe discharge.
- Concurrent reviews and interaction with staff and physicians are key to achieving success.

CONTACT

Christine King

Director

Columbia Memorial Hospital

71 Prospect Avenue

Hudson, NY 12534

(518) 818-8222

cking@cmh-net.org

Quality Measures: Heart Attack, Heart Failure, and Pneumonia

Delaware Valley Hospital

PARTNERS

The partners include the medical and nursing staff, along with the quality improvement department.

CONTACT

Christina Jones, R.N.

Quality Improvement/Environmental
Program Manager
Delaware Valley Hospital
1 Titus Place
Walton, NY 13856
(607) 865-2113
christina_jones@uhs.org

PROJECT DESCRIPTION

The goal of this initiative was to increase compliance with heart attack, heart failure, and pneumonia quality measures benchmarks. Delaware Valley Hospital reports ten indicators within these three measures. Baseline data proved that reaching compliance goals would be a challenge, as eight out of the ten measures did not meet the quality benchmark.

The medical and nursing staff instituted improvement strategies to increase compliance with the quality measures benchmarks. The most efficient process improvement came with the use of standing orders when admitting a patient for heart attack, heart failure, or pneumonia. There are now two, single-page standing orders for pneumonia and acute coronary syndrome, which have the quality of care elements included (e.g., medications, testing, and oxygen assessment).

The medical and nursing staff worked as a team to improve the care delivered to the patients with these admission diagnoses. The quality improvement department provided supporting data and identified trends through the chart abstraction for each case. As data became available, feedback was given, and changes to the improvement strategy occurred.

OUTCOMES

- In 2004, two out of ten indicators met the benchmark. Now, ten out of ten meet the benchmark.
- Compliance with quality benchmarks for left ventricular failure (LVF) assessments increased from 13% in 2004 to 100% in 2007.
- All indicators except antibiotic administration meet or exceed the national average, and all but LVF assessment and antibiotic administration exceed the New York State average.

LESSONS LEARNED

- The use of standing orders is the key to success for this organization.
- It is necessary to keep the importance of this initiative at the forefront. Everyone needs to work together to maintain the now expected top scores for compliance.
- It is each team member's responsibility to ensure compliance.
- Each shift must follow through to ensure all actions are taken.

Preventing Ventilator-associated Pneumonia

Finger Lakes Health

PARTNERS

The partners for this initiative include physicians, critical care nurses, respiratory care practitioners, and critical care technicians.

CONTACT

Barbara Weinberg, R.N.

Nurse Manager
Finger Lakes Health
196 North Street
Geneva, NY 14456
(315) 787-4662
barb.weinberg@flhealth.org

PROJECT DESCRIPTION

Finger Lakes Health made a commitment to preventing ventilator-associated pneumonia by establishing an interdisciplinary group. From the beginning, the hospital's success in this endeavor was contingent upon interdisciplinary collaboration and mutual accountability. The first step was to collect and gather educational programs pertaining to ventilator-associated pneumonia. All team members involved in this important patient safety initiative mutually agreed to implement the ventilator bundle as a standard of care for patients. Simultaneously, the group developed an aggressive hand hygiene campaign and a detailed oral care protocol. The team strictly monitored compliance with all of these safety measures. The organization worked closely with family members by providing them with information on the hospital's commitment to patient safety and incorporating the family into the process of care.

OUTCOMES

The organization achieved 39 consecutive months with zero cases of ventilator-associated pneumonia. Ventilator bundle data for 2006 showed the following compliance rates:

- weaning trials—90.8%
- head of bed elevation—100%
- appropriate sedation—92.2%
- peptic ulcer disease prophylaxis—96%
- deep vein thrombosis prophylaxis—99%

LESSONS LEARNED

- Using the multi-disciplinary approach allows the best knowledge and skills of various disciplines to come together to improve patient outcome and quality of services.
- Comprehensive education to families is crucial in improving patient outcomes.

Reducing Central Line-related Candida Infection in Parenteral Nutrition Patients

John T. Mather Memorial Hospital

PARTNERS

Key partners for this initiative include the hospital administration and members of the infectious disease, critical care, nutrition care, pharmacy, nursing education, and nursing department staff.

CONTACT

Linda Altenburger, R.D., C.D.N.
Clinical Nutrition Manager
John T. Mather Memorial Hospital
75 North Country Road
Port Jefferson, NY 11777
(631) 473-1320 ext. 4176
laltenburger5@matherhospital.org

PROJECT DESCRIPTION

This initiative, started by John T. Mather Memorial Hospital's Department of Nutrition, sought to identify the prevalence of central line-related fungal infection (candida) in parenteral nutrition (PN) patients and enhance the prevention process. Trend analysis reports were reviewed during 2003 and 2004 to define baseline data for candida infection in patients receiving total parenteral nutrition (TPN). There are no national baseline standards specific to this population; therefore, the improvement target was to reduce the incidence of candida by 50%.

An interdisciplinary team and key personnel were brought together to brainstorm a plan and implementation strategies. With administration and medical board support, strides to implement best practice standards and protocols were embraced and shared with the medical, infection control, pharmacy, and nursing staff. For example, to ensure a dedicated line, a label is placed on one pigtail of the triple lumen catheter stating, "use for TPN only." John T. Mather Memorial Hospital's Nutrition Care Committee became the pivotal link guiding change along the continuum. Continuing education programs for physicians, nurses, and other health care professionals were successfully presented to reinforce "buy-in."

OUTCOMES

- John T. Mather Memorial Hospital achieved a 3.2% reduction in the number of patients identified with positive fungal cultures who received TPN.
- Other improvements include reduced spiking of the TPN bag by converting to a two-liter bag, which increased the rate of lipid infusion time, thereby reducing run time to 12 hours.
- The hospital improved medical record documentation to accurately identify line insertion date, site, etc., as evidenced by routine medical record chart reviews.
- In early 2005, hand hygiene compliance was 42%. By the fourth quarter of 2005, the hospital achieved 69% compliance, which was maintained throughout 2006.
- The cost savings per year was calculated to be in excess of \$450,000, post-intervention.

LESSONS LEARNED

- Physician champions are necessary to achieve goals.
- An interdisciplinary approach builds a strong sense of teamwork.
- Instilling an environment that supports change can prove challenging.
- Despite a lack of published data in this area, Centers for Disease Control and Prevention guidelines, or PN infection rates, significant improvement in patient care and safety can be achieved.

Improving Core Measure Outcomes

Mercy Hospital of Buffalo

PARTNERS

External partners include local insurance carriers, while internal partners include administration, medical staff, nurse managers, and other key ancillary departments.

CONTACT

Laura Verbanic

Performance Improvement Manager

Mercy Hospital of Buffalo

565 Abbott Road

Buffalo, NY 14220

(716) 828-2824

lverbani@chsbuffalo.org

PROJECT DESCRIPTION

Mercy Hospital of Buffalo established a large, interdisciplinary core measure team to act as a clearinghouse for all ideas related to core measures. Core measures are now ingrained into the agendas of the departments of medicine and emergency medicine, operating room committee, clinical care committee, and performance improvement coordinating committee. Data review, re-education, and updates on changes or new additions to the measures are completed at these meetings.

The department of medicine completed an educational review of core measures as part of the peer review process. A cardiac nurse practitioner and gastrointestinal unit nurses assisted with concurrent core measure chart reviews. In 2007, the committee began sending non-compliant providers a letter indicating their non-compliance, and medical staff who provide perfect care are recognized with “good provider” letters. Every month, personal thank-you notes and “Kudos cards” are written to staff members who provide congestive heart failure education, making them eligible for certain monthly rewards. Units that obtain 100% compliance with CHF education receive special awards.

OUTCOMES

The improvements in compliance with core measures benchmarks from 2003 to 2006 are as follows:

Acute Myocardial Infarction:

- angiotensin converting enzyme inhibitor or angiotensin receptor blocker left ventricular systolic dysfunction, 79% to 97%
- beta blocker at discharge, 87% to 97%

Heart Failure:

- smoking cessation, 61% to 97%
- discharge instructions, 38% to 70%

Community-acquired Pneumonia:

- influenza vaccination, 37% to 81%
- antibiotic selection/intensive care unit, 36% to 69%
- recognized as a Blue Cross Center of Distinction for Cardiac Care

LESSONS LEARNED

- Make core measures an ingrained part of meeting agendas.
- Give continuous feedback to physicians and staff.
- Get as many disciplines involved as possible.

Time=Brain: A Regional Collaboration to Improve Stroke Care

NewYork-Presbyterian Healthcare System

PARTNERS

The external partner is the American Heart Association, and internal partners include the stroke directors from 27 acute care institutions across the system, along with the three Council co-chairs.

CONTACT

Marcia Brinson, M.P.H., R.D.

NewYork-Presbyterian Healthcare System

161 Fort Washington Avenue

Suite 1470

New York, NY 10032

(212) 746-3540

mab9108@nyp.org

PROJECT DESCRIPTION

NewYork-Presbyterian Healthcare System developed this initiative in 2003 to improve the quality of stroke care by developing coordinated stroke systems within and across system sites. The primary goals of the initiative were to facilitate a Stroke Center Designation for each acute care member hospital and to identify and standardize stroke care processes and outcome quality indicators, particularly related to the assessment and administration of intravenous thrombolytic therapy; construct benchmarking reports; and share data across the system using a statistically-based report card format.

Clinical guidelines, protocols, and standardized order sets were developed by NewYork-Presbyterian's System Stroke Directors Council and disseminated to providers. Consensus was achieved on process and outcome quality measures, as well as the data collection methodology. In 2006, 2,218 stroke cases were analyzed using the American Heart Association's Stroke Patient Management Tool. Data trends show consistent improvements in targeted process and outcome measures as well as improvements in the percent of patients receiving Tissue Plasminogen Activator (t-PA). Numerous educational initiatives targeting providers and patients have been conducted.

OUTCOMES

Improvements were as follows:

- Median door to t-PA administration was 94 minutes in first quarter 2006; 71 minutes in fourth quarter 2006.
- Median door to computerized tomography scan for t-PA was 30 minutes in first quarter 2006; 23 minutes in fourth quarter 2006.
- Hemorrhagic complication rate in t-PA was 14% in first quarter 2006; 4% in fourth quarter 2006.
- Seventy percent of the acute care institutions achieved Stroke Center Designation.

LESSONS LEARNED

- Senior clinical leadership's willingness to share expertise with their peers was critical to the success of this initiative.
- Reports on common performance elements shared at every stroke director's bi-monthly meeting had the effect of providing peer benchmarking data and encouraging competition for quality among the participating sites.

Multi-disciplinary Approach to Achieve Excellence in Surgical Care

NYU Hospitals Center

PARTNERS

Internal partners include the departments of surgery, anesthesiology, nursing, pharmacy, and support from the hospital's department of clinical quality and effectiveness.

PROJECT DESCRIPTION

Department-based improvement initiatives coupled with organization-wide measurement and communication formed the basis of this project to enhance the quality of surgical care. All surgical departments developed evidence-based guidelines and standard orders for prophylactic antibiotic selection, stopping antibiotic within 24 hours of surgery end (48 hours for cardiac surgery), and venous thromboembolism prophylaxis. The anesthesia department developed procedures to administer prophylactic antibiotic in the operating room prior to incision for all surgical patients, provide temperature maintenance for all surgical patients, and assess cardiac risk and provide perioperative beta blockers when indicated. The cardiothoracic surgery department undertook a multi-disciplinary rapid cycle quality improvement project to develop and initiate a protocol for perioperative glycemic control.

Quality performance measurement was centralized. Performance results were communicated through the department, service line, hospital committees, and via the hospital Intranet.

OUTCOMES

Outcomes on Meeting Performance Measure Goals

Measure	2005 3rd Q	2006 4th Q		Summary
	Performance	2006 Goal	Performance	
Antibiotic within one hour before incision	90%	95%	97%	Goal achieved
Antibiotic choice	90%	95%	95%	Goal achieved
Antibiotic stop within 24 hours	76%	90%	96%	Goal achieved
Glycemic control for cardiac surgery	35%	80%	81%	Goal achieved
Normothermia for colon surgery	38%	80%	100%	Goal achieved
Venous thromboembolism prophylaxis	62%	80%	89%	Goal achieved
Cardiac prophylaxis for patients at risk	94%	95%	100%	Goal achieved

- Improvements in glycemic control and normothermia spread beyond departments originally involved.
- Interdepartmental communication and collaboration was enhanced substantially.

CONTACT

Martha Radford, M.D.

Chief of Clinical Quality

NYU Hospitals Center

550 First Avenue

New York, NY 10016

(212) 263-8199

martha.radford@nyumc.org

Multi-disciplinary Approach to Achieve Excellence in Surgical Care

NYU Hospitals Center

(CONTINUED)

LESSONS LEARNED

- High organizational visibility and eventual public reporting helped focus attention on this project.
- Clinicians embraced clinically relevant and important quality goals.
- Organization of improvement initiatives within departments took advantage of existing administrative structures.
- Centralized quality performance measurement assured actionable measures and freed busy clinicians from measurement burdens.

Extending a Hand: Implementing a Unique Program that Supports Nurses on General Care Units with an Early Nurse Intervention Team

Rochester General Hospital

PARTNERS

The interdisciplinary team consisted of critical and general care nurses, physicians, clinical leadership, and administration.

CONTACT

Vicky Orto, R.N., M.S., C.N.A.A., B.C.

Director of Nursing
Rochester General Hospital
1425 Portland Avenue
Rochester, NY 14621
(585) 922-4073
vicky.orto@viahealth.org

PROJECT DESCRIPTION

The goal of this project was to expand the rapid response team concept by creating a reliable, standardized process to proactively assess risks before an actual adverse event occurred and to subsequently reduce the percentage of patients who required resuscitative efforts. The Early Nurse Intervention Team (ENIT) developed the program to impart the critical care nurse's judgment, communication, and technical skills to the general care nurse with a supportive, mentoring approach. It entails a unique concept of twice daily rounds on general medical units by experienced intensive care nurses. The approach was to deploy the critical care nurse in a proactive manner to be a consultant to the novice nurse.

Data collection methodology included the number of codes during a baseline period and subsequent codes during the interventional and post-interventional phase. Education of the hospital staff focused on initiation of the ENIT process and communication using the Situation Background Assessment Recommendation technique. The ENIT team meets monthly to review the data and discuss program enhancements.

OUTCOMES

- The hospital achieved a 42% decrease in the number of codes outside of critical care.
- In addition, there was a 50% decrease in overall hospital mortality.
- There was an increase in the nursing perception of quality of care from 2.88 to 3.24, using the Likert Scale (1-4).

LESSONS LEARNED

- Identify potential failures or weaknesses before implementation.
- Creative approaches to designing systems should be explored.
- Growth and development of general care nurses is essential to establish and maintain a collaborative approach to care.
- Nurses' perception of quality of care has risen concurrently with the implementation of the program.

Prevention of Knee Buckling After Total Knee Replacement Without Compromising Pain Management

Saint Francis Hospital and Health Centers

PARTNERS

The team included the chairman of anesthesiology; the operating room manager and recovery room staff; directors of pharmacy, education, and patient care services; and Joint Replacement Center staff including nurses, physical occupational therapy staff, and patient care technicians.

PROJECT DESCRIPTION

Patients at the Saint Francis Hospital and Health Centers Joint Replacement Center have had difficulty mobilizing after total knee replacement due to knee buckling. The buckling is due to a motor blockade triggered by ropivacaine, which has become the standard for pain relief after total knee replacement surgery.

The buckling increases anxiety and fear of falling, limiting the patient's mobility. To address this issue, the hospital modified its process. To lessen these effects, the femoral nerve block is still performed but the access catheter is connected to a pain pump. This offers the patient a continuous flow of ropivacaine at a lower concentration than was used before, along with the ability to bolus independently. This bolus is with a lesser amount than was necessary prior to using the pain pumps.

OUTCOMES

- In November and December of 2006, 56% of patients had knee buckling, but since using the pain pumps in 2007, the incidence of buckling has dropped to 6%.
- All had patient-controlled analgesia (PCA) pumps or required intravenous morphine or dilaudid prior to using the pain pumps. Since using the pain pumps, only 38% have PCA pumps or required IV morphine or dilaudid.

LESSONS LEARNED

- Use of the pain pumps has drastically reduced the incidence of knee buckling after total knee replacement, thus lessening fall risk.
- Improved pain management at the local level has reduced the use of IV narcotics and their associated side effects.

CONTACT

Dori Kerner

Physical Therapist Manager
Saint Francis Hospital and Health Centers
241 North Road
Poughkeepsie, NY 12601
(845) 431-8769
dkerner@sfhhc.org

Advanced Illness/Palliative Care

Seton Health

PARTNERS

The partners include the vice president of clinical services and mission services, medical director, director of cardiopulmonary services, director of critical care services, chief nurse executive, the board of directors, and assistant vice president of patient financial services.

CONTACT

Jean Endryck, F.N.P.
Director, Palliative Care
Seton Health
1300 Massachusetts Avenue
Troy, NY 12180
(518) 268-6168
jendryck@setonhealth.org

PROJECT DESCRIPTION

Seton Health's goal was to improve the quality of life of patients and their families facing life-threatening illness, through the prevention, assessment, and treatment of pain and other physical, psycho-social, and spiritual problems. The focus of the initiative was to look at admitted patients, those primarily diagnosed with congestive heart failure (CHF); the initiative later extended its focus to chronic obstructive pulmonary disease. After identifying patients needing better care throughout the course of advanced illness, a business plan was presented to senior leadership along with supporting data, and an organizational commitment was made to implement the initiative.

The hospital looked to provide better care at home and modify therapy, as well as review cost avoidance opportunities for CHF patients by decreasing the length of stay by one-half day and reducing re-admissions within the first 30 days. An interdisciplinary team was formed to support the family, provide continuity of care, optimize institutional and community resources, and collaborate with other professionals involved with the care of the patient.

OUTCOMES

- The average length of stay for CHF patients in the palliative care program was .5 day less than those receiving traditional care.
- The hospital received the 2006 Care Science Select Practice—Customer Quality Leader Award for Heart Failure.

LESSONS LEARNED

- Inpatient consultation was a great start.
- Frequent telephone follow-up calls from the team to troubleshoot minor problems were crucial to the success of the program.
- Home care visits are invaluable as the patient and family are more comfortable in their own environment.

Hospital-wide Implementation of Rapid Response Team

South Nassau Communities Hospital

PARTNERS

The partners include administration and the departments of medicine, nursing, education, performance improvement, and respiratory care.

CONTACT

Lori Raffaniello
Director of Nursing
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-3489
lraffaniello@snch.org

PROJECT DESCRIPTION

As part of the Institute for Healthcare Improvement 100,000 Lives Campaign and associated literature review, South Nassau Communities Hospital developed a rapid response team (RRT). An essential component of its success was a comprehensive communication plan to convey the purpose and goals of the RRT to physicians, administrators, and clinical and non-clinical staff. The RRT members visited all units to inform the staff and physicians of the purpose and goals of the team. Posters were placed on all units to remind staff of criteria for initiation of the RRT, including the activation beeper number. In May 2006, the RRT was launched. At the start, the clinical nurse specialist was always available to the RRT by telephone or e-mail. This support process continued for the first month and is re-implemented when new members are recruited. Consistent, strong leadership was essential during the implementation period to obtain acceptance from staff and to clarify roles and duties of RRT members.

The project's steering committee developed a set of criteria that is simple and unrestrained for determining when the RRT should be called. Intensive, ongoing education reassures nurses that "being concerned" or "having a feeling something is not right" are legitimate reasons to call the RRT. Information on every RRT call was collected on a standardized form and became a permanent part of the patient's medical record.

OUTCOMES

- Medical codes decreased from 0.8 to 0.1 per 1,000 patient care days from January to December 2006.
- Hospital mortality decreased from 4.87% to 3.79% from January to December 2006.
- Staff are 100% satisfied with the RRT process.
- The project resulted in improved staff nurse critical thinking skills, confidence, and assessment skills.

LESSONS LEARNED

- Acceptance of the concept is critical prior to implementation.
- Education is required and must be ongoing.
- Key nursing and medical staff must be identified to champion the project.
- In the unexpected absence of an RRT nurse, an increased number of codes were occurring outside of critical care. Coverage is now assured when an RRT nurse is absent.

Improvement of Uncontrolled Hypertension in a Primary Care Office

South Nassau Communities Hospital

PARTNERS

Internal partners include South Nassau Family Medicine physicians and staff, and performance improvement staff.

PROJECT DESCRIPTION

Hypertension is one of the most common conditions seen in an adult primary care practice. Concerned about the volume of patients being treated for hypertension, South Nassau Communities Hospital used the Plan-Design-Measure-Assess-Improve methodology to identify affected populations and determine if their hypertension was improving from visit to visit. After a review of the literature, a team was established, initiatives selected and prioritized, measurements and data collection methods chosen, and actions implemented.

Patients with uncontrolled hypertension were followed for one year. Best practice standards of medical management, education, nutrition, and tracking of follow-up visits were used to improve blood pressure. Leadership monitored the project, reviewed the data regularly, and gave frequent feedback to the physicians and staff.

OUTCOMES

- Post-implementation, there were 122 uncontrolled blood pressure patients in the first quarter, 96 after the second quarter, 38 after the third quarter, and 63 after the fourth quarter.
- Seventy-five percent of the patients with uncontrolled hypertension at the beginning of the study brought the condition under control.
- Blood pressure (BP) improvement increased during the year. After the first quarter, 38% of all study patient visits had controlled BP, after the second quarter 52%, after the third quarter 59%, and after the fourth quarter 75%.

LESSONS LEARNED

- Raising awareness of specific common diseases in a practice can increase the intensity of oversight and improve outcomes.
- Applying best practice standards for disease management can improve outcomes.
- Repeated patient education, nutrition counseling, regular follow-up, and missed appointment rescheduling can improve patient compliance and outcomes.

CONTACT

Christine Parks

Assistant Director, Performance Improvement
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-4969
cparks@snch.org

Improving Breastfeeding Outcomes Through a Lactation Resource Program

South Nassau Communities Hospital

PARTNERS

External partners include breastfeeding mothers and their newborns, along with community pediatricians. Internal partners include pediatric and neonatology physician leadership, hospital administration, nursing leadership, nursing staff, and performance improvement staff.

CONTACT

Eileen Mahler

Director of Nursing
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-4724
emahler@snch.org

PROJECT DESCRIPTION

Mothers and newborns are often discharged home before breastfeeding due to the brevity of postpartum hospital stays. Therefore, a program that offered timely assistance in the hospital was necessary to promote effective initiation and continued support of breastfeeding. The goals of this project were to increase the percentage of mothers who breastfeed and to increase the percentage of mothers who continue to breastfeed for five to six months.

A multi-disciplinary team was formed to assist with both patient and staff education. This team established a lactation team consisting of a lactation coordinator and lactation consultant nurse who conducts daily inpatient rounds and is available for outpatient consultations. Comprehensive lactation services are offered such as breastfeeding accessories and breast pump rentals. The hospital also established partnerships with community pediatricians.

OUTCOMES

- Breastfeeding at discharge increased from 72% in 2005 to 75% in 2006, meeting the Healthy People 2010 goal.
- Breastfeeding duration for five to six months increased from 44% in 2005 to 50% in 2006, meeting the Healthy People 2010 goal.
- Breastfeeding cessation in the hospital dropped from 3.2% in 2005 to 2.2% in 2006.

LESSONS LEARNED

- Increased communication between providers resulted in collaborative efforts to preserve breastfeeding.
- Moving the Lactation Resource Center from an off-site location back to the inpatient maternity unit led to a more cohesive supportive effort.
- While more women are breastfeeding at discharge and continuing to breastfeed for five to six months, the rate of exclusive breastfeeding remains relatively low.

Saving Lives Through Rapid Response Teams

St. Barnabas Hospital

PARTNERS

The external partner is IHI and internal partners include the quality assurance department, senior administration, intensive care unit physicians and nurses, respiratory therapists, nursing management, and the residency program.

CONTACT

Debra Kramer, R.N., M.A., C.P.H.Q.

Vice President

St. Barnabas Hospital

183rd Street and Third Avenue

Bronx, NY 10457

(718) 960-6108

debra_kramer@stbarnabas-ny.org

PROJECT DESCRIPTION

St. Barnabas Hospital implemented a rapid response team as part of the Institute for Healthcare Improvement 100,000 Lives Campaign to prevent deaths in patients outside critical care areas. The initiative serves an important function in identifying patients with acute symptoms prior to calling a code.

Implementing an RRT involves culture change as well as system and procedural changes. The first step was to form a team of motivated members. Administrative support and involvement are necessary. The team developed protocols and policies specific to the hospital's needs, and in-service education programs were given hospital-wide. Flyers and pocket cards were developed based on these protocols. A pilot on one medical unit was undertaken and changes made to protocols.

The RRT, which consists of medical chiefs, senior house and nurse manager/supervisors, is activated through an overhead page and designated beepers. Respiratory therapists, intensive care unit attending physicians, and anesthesiologists may be called for rapid consultation. An RRT form serves as a documentation tool to measure effectiveness and to establish a mechanism for feedback.

OUTCOMES

- On average, there were 16.4 codes per month over the ten months since initiation.
- The average time of a RRT event is 26.8 minutes.
- After implementation of the RRT, there was a marked decline from a mean of 6.6% codes per 1,000 discharges to a mean of 4.9% codes per 1,000 discharges in 2006.

LESSONS LEARNED

- Early intervention of the RRT has decreased the number of patients who require calling a code and thus prevented unnecessary deaths.
- The hospital has seen overwhelming positive feedback from nurses, attending physicians, residents/interns, and even unit clerks who have initiated the RRT.
- The project has increased patient safety awareness and effective communication between the RRT responders and initiators.
- The focus of patient care has shifted from individual assessment and treatment to a team-centered approach, improving patient outcomes.

Beyond the Bundle: Zero is in Sight

St. Catherine of Siena Medical Center

PARTNERS

External partners include Johnson & Johnson Wound Management, STATLOCK, the Institute for Healthcare Improvement 100,000 Lives Campaign, patients, and visitors. Internal collaborators include the department of infection prevention and control, nursing services, medical staff, senior leadership, quality improvement, environmental services, and materials management.

CONTACT

Catherine Shannon, F.N.P.

Director, Infection Control
St. Catherine of Siena Medical Center
50 Route 25A
Smithtown, NY 11787
(631) 862-3541
catherine.shannon@chsli.org

PROJECT DESCRIPTION

St. Catherine of Siena Medical Center's initiative to prevent central-line associated bloodstream infection includes action steps for each evidence-based process, including:

- a hand hygiene campaign;
- sutureless adhesive devices are secured to prevent loss of skin integrity and possibility of migration of bacteria into the insertion site;
- an antimicrobial (chlorhexidine) patch to the central line insertion site; and
- the use of the subclavian artery and maximum barrier protection.

OUTCOMES

- Intensive care unit and critical care unit CLABs decreased 72% between 2005 and 2006.
- Medical and surgical CLABs decreased 55% between 2005 and 2006.
- The acute care mortality rate decreased from 2.786 to 2.567 between 2005 and 2006.

LESSONS LEARNED

- To promote utilization of two additional bundle products at the time of central line insertion/dressing change, materials management personnel attached the sutureless catheter securing device and chlorhexidine patch to the manufactured central line dressing kit.
- It is important to empower staff, patients, and visitors to have "zero tolerance" of failure to comply with appropriate hand hygiene practice.
- Empowering staff and sharing successes leads to improved staff satisfaction related to their role in CLAB prevention.
- Appropriate hand hygiene and environmental decontamination/sanitation leads to a decrease in the "bio-burden" in the environment.

Surgical Care Improvement Project

St. Charles Hospital

PARTNERS

External partners include IPRO, HANYS, and the Institute for Healthcare Improvement.

Internal partners include physicians, administration, the nursing department, and pharmacy staff.

PROJECT DESCRIPTION

In response to the Centers for Medicare and Medicaid Services' Surgical Infection Prevention program, St. Charles Hospital began collecting data in the third quarter of 2004. At year's end, baseline data did not meet expectations. The Plan-Do-Study-Act cycle was used for improvement strategies. A multi-disciplinary team was formed to determine what process changes were necessary. An antibiotic order sheet, standing orders, and time-out sheets were incorporated into the process.

Monthly and quarterly data were provided at medical staff meetings and hospital board of directors meetings, and presented as part of the hospital-wide performance improvement committee. Regular meetings took place to review compliance with the changes and to provide staff feedback. A core measures coordinator was hired to conduct concurrent review, and various departments meet every other week to discuss potential improvement strategies. Review and analysis of the data have shown progressive improvement, demonstrating an ongoing need for the project. Continued feedback and data are provided to the team.

OUTCOMES

The following SIP antibiotic administration indicators show compliance with all three antibiotic administration best practices continued to improve:

	<u>SIP 1</u>	<u>SIP 2</u>	<u>SIP 3</u>
2004	76.5%	97.1%	18.1%
2005	75.2%	95.2%	66.8%
2006	89.2%	98.2%	92%

LESSONS LEARNED

- Group effort is invaluable to the process, and buy-in from all concerned is essential.
- Active participation and support of administration, the teams, and committees created a sense of purpose and all were convinced that the changes would improve the care of surgical patients.
- Data are essential to gauge hospital performance and plan a course of action.

CONTACT

Dante Latorre

Vice President, Quality and Care Management
Department

St. Charles Hospital
200 Belle Terre Road
Port Jefferson, NY 11777
(631) 474-6400
dante.latorre@chsli.org

Implementing Best Practices—Reducing Door-to-Wire Time

St. Joseph's Hospital Health Center

PARTNERS

Staff from the emergency department, cardiovascular laboratory, critical care, administration, security, transport, respiratory therapy, and performance improvement worked cooperatively with emergency medical services providers.

CONTACT

Karen Ames

RRT Director of Performance Improvement
St. Joseph's Hospital Health Center
301 Prospect Avenue
Syracuse, NY 13203
(315) 448-5646
karen.ames@sjhsyr.org

PROJECT DESCRIPTION

The American College of Cardiologists and the American Heart Association published guidelines stating that hospitals treating segment elevation myocardial infarction (STEMI) patients and performing emergency angioplasty should achieve a “door-to-wire” time of 90 minutes or less. In response to these guidelines and assessment of its door-to-wire time, St. Joseph's Hospital Health Center embarked on an initiative with a goal of transporting patients experiencing a STEMI to the cardiovascular laboratory as quickly as possible for an emergency intervention.

A multi-disciplinary team of key stakeholders was convened to identify and test strategies. Feedback of data was instrumental in engaging the support of key stakeholders and in identifying which changes were successful in a timelier manner than retrospective review. The result was the development of an acute myocardial infarction call team, which can be activated by the emergency room physician.

OUTCOMES

- Mean door-to-wire time decreased from 204 minutes in September 2004 to 54 minutes by January 2007.
- The percent of patients with a door-to-wire time less than 120 minutes increased from 33% in October 2004 to 100% in January 2007.
- The percent of patients with a door-to-wire time less than 90 minutes increased from 22% in October 2004 to 100% in January 2007.
- The inpatient mortality rate for AMI patients decreased from 11% in September 2004 to zero in January 2007.

LESSONS LEARNED

- Providing best practice, evidence-based care to AMI patients has improved the quality of care, the process, and outcome of core measure results.
- Establishing a multi-disciplinary team and involving front-line staff encourages participation in the initiative and improves performance.
- Early identification of AMI patients needing emergency intervention is imperative to reducing door-to-wire times.
- Community involvement with emergency medical services providers is critical to the success of early identification.

Excellence in Patient Care: Creating a Sustainable Culture of Safety

St. Luke's Cornwall Hospital

PARTNERS

Collaborators include the board of trustees, administration, medical, nursing, information technology, quality management, case management, materials management, and marketing staff, infection control nurse, respiratory therapists, pharmacists, and health information management specialists.

CONTACT

Wendy Marks, R.N., B.S.N.

Clinical Nurse Educator
St. Luke's Cornwall Hospital
70 Dubois Street
Newburgh, NY 12550
(845) 568-2449
wmarks@slchospital.org

PROJECT DESCRIPTION

Under the leadership of the board of trustees and the executive team, St. Luke's Cornwall Hospital (SLCH) developed processes, partnerships, and educational rubrics to achieve excellence in patient care by focusing on creating and sustaining a culture of safety. Nationally recognized evidence-based care guidelines, best practice bundles, and measures of success were used to create concurrent performance improvement tools, a patient safety brochure, instructional Intranet pages, and educational presentations for direct care providers. Interdisciplinary partnerships were formed to achieve quality and patient safety goals. Interdisciplinary teams evaluated measures of success against national benchmarks for prevention of ventilator-associated pneumonia (VAP), central line-associated bloodstream infection, surgical infections using the Surgical Care Improvement Project (SCIP), medication reconciliation, and heart failure management. The Joint Commission's Patient Tracer methodology was used to validate compliance with National Patient Safety Goals.

OUTCOMES

- The SLCH intensive care unit VAP rate has been significantly below the National Nosocomial Infections Surveillance (NNIS) system benchmark. In December 2006, the NNIS rate was 8.7 and the SLCH rate was 2.6.
- SLCH achieved a significant decrease in the incidence of CLAB in the ICU, from 12.3 to 2.2 infections per 1,000 central line days.
- The Surgical Infection Prevention project initiated in October 2005 expanded in July 2006 to include monitoring of all SCIP measures. Compliance with SIP (three antibiotic prophylaxis measures) has exceeded Centers for Medicare and Medicaid Services benchmarks.
- After implementation of a Rapid Response System in December 2006, no codes occurred outside of the ICU in February 2007.
- The hospital reduced redundancy by using electronic medical records for medication reconciliation and achieved a benchmark of 95% for specific indicators including evidence of completion of reconciliation upon admission, transfer, and discharge for a three-month period.
- By evaluating the heart failure discharge process, educating nursing staff, and modifying the electronic medical record system, the hospital improved compliance with guidelines to 74% in fourth quarter 2006.



Excellence in Patient Care: Creating a Sustainable Culture of Safety

St. Luke's Cornwall Hospital

(CONTINUED)

LESSONS LEARNED

- Engage staff, patients, families, and community members at all levels with a multi-faceted approach to patient safety education using the Intranet, concurrent performance improvement tools, and brochures.
- Identify and address learning needs of staff before, during, and after implementation of best practice bundles.
- Revise care processes continuously to address barriers in teaching, learning, and goal achievement.

Improve Patient Satisfaction Through Targeting Zero Birth Trauma by Implementing Perinatal Safety Initiatives

St. Mary's Hospital

PARTNERS

Partners include Ascension Health and St. Mary's Hospital's chief executive officer; vice president of medical affairs; and staff from the departments of maternal child health, anesthesiology, medical records, respiratory therapy, quality management, maternal child health nursing, nursing supervision, and surgery.

CONTACT

Julia Persico

Nurse Manager, Maternity Services
St. Mary's Hospital
427 Guy Park Avenue
Amsterdam, NY 12010
(518) 842-1900
persicoj@smha.org

PROJECT DESCRIPTION

The goal of St. Mary's perinatal safety initiative is to achieve a rate of zero birth traumas per 1,000 births. The St. Mary's Hospital Maternal Child Health Department began the initiative in 2004 with the implementation of collaborative fetal monitoring education for nurses and physicians. Since that time, the initiative has grown to include a focus on team building and use of evidence-based practices. The team approach to safety is essential to providing positive outcomes for childbearing families.

This project focuses on five elements for team development and standardization of perinatal care clinical practice that have been shown to improve perinatal outcomes:

- Situation Background Assessment Recommendation (SBAR);
- electronic fetal monitoring;
- bundle of interventions for safe use of oxytocin for augmentation and induction of labor; and
- crisis training using simulation.

OUTCOMES

- The birth trauma rate now equals zero, as defined by the Agency for Healthcare Research and Quality.
- The neonatal mortality rate is now zero (the number of children dying prior to discharge during the first 28 days of life divided by the number of live-born infants).

LESSONS LEARNED

- Collaborative training for perinatal team members reduces patient harm.
- Perinatal team effectiveness is enhanced when team members participate in crisis simulation.
- Effective communication must be practiced in the context of collaborative education. Members, particularly nurses who interpret fetal tracings, must be encouraged through simulation to clearly voice concerns.
- Collaborative education is essential for development of universal awareness and the ability of team members to effectively communicate.
- Protocols, plans of care, and order sets should be evidence-based and support the approved framework for safe perinatal care.

Evaluation of the Effectiveness of a Rapid Response Team

Staten Island University Hospital

PARTNERS

External partners include North Shore-Long Island Jewish Health System and its medical executive committee. Internal collaborators include Staten Island University Hospital's board quality committee, medical staff performance improvement committee, nurse executive and leadership council, director of critical care, and the chief medical officer.

CONTACT

Suzanne El Sayegh, M.D.
Associate Chairman of Medicine
Staten Island University Hospital
475 Seaview Avenue
Staten Island, NY 10305
(718) 226-6808
suzanne_el-sayegh@siuh.edu

PROJECT DESCRIPTION

Staten Island University Hospital began this initiative by assessing the potential impact of a rapid response team on patients and staff. A team was charged with evaluating the practicality, value, and cost of an RRT. A three-month pilot study of patient deaths conducted in 2005 demonstrated that 26.4% of patients had deterioration in the circulatory, respiratory, or neurological system for at least six to eight hours before a cardiac arrest. Based on the findings, the hospital decided to enact an RRT initiative. A lead physician was identified as the “champion,” and support from quality management and nursing was enlisted. A data collection sheet was designed to be completed at the patient bedside during the RRT call. More than 2,000 staff members were trained and a high-level functioning team structure developed.

OUTCOMES

- Overall mortality on the units covered by RRTs declined 14.11%.
- Staff satisfaction, value assessment, and educational benefit were rated over 90% for all measures.
- RRT activation rates rose consistently, from 11.62 to 25.9 per 1,000 discharges throughout the one-year study.

LESSONS LEARNED

- A complex, high-volume organization can implement an RRT with little cost or disruption of existing patient management protocols.
- Timely interventions on patients with clinical deterioration can significantly reduce mortality on those units and overall hospital mortality.

Enhancing Patient Safety and Improving Outcomes with a Rapid Response Team

Stony Brook University Medical Center

PARTNERS

External partners include the Robert Wood Johnson Foundation, Association of American Medical Colleges, and the Rapid Response System Collaborative. Internal partners include executive, physician, and nursing leaders; residents; nurse practitioners; respiratory therapists; and quality management, clinical education, and other hospital staff.

CONTACT

Carol Gomes

Assistant Director, Medical
and Regulatory Affairs
Stony Brook University Medical Center
3 Technology Drive, Suite 200
Setauket, NY 11733
(631) 444-0575
carol.gomes@stonybrook.edu

PROJECT DESCRIPTION

As part of Stony Brook University Medical Center's initiative to implement the Institute for Healthcare Improvement 100,000 Lives Campaign, it embarked on an effort to plan, coordinate, and implement the deployment of a rapid response team to reduce non-intensive care unit code blue calls by 40% and decrease overall mortality rates. As a result of the facility leadership's commitment to reducing mortality rates, the organization was selected to participate in a Rapid Response System Collaborative supported by the Robert Wood Johnson Foundation and the Association of American Medical Colleges. This opportunity allowed key leaders and stakeholders to be innovative and apply breakthrough thinking by sharing and implementing best practices while using cutting-edge applications.

A FOCUS-PDCA methodology with small rapid cycle pilots was used across the hospital's clinical units. Some skepticism and cultural challenges were evident, including the perception that an RRT could usurp the authority of physician services. However, the positive outcomes and collaboration eliminated any problems. Achieving sustainability and success, the team will next address patient and family involvement.

OUTCOMES

- The number of codes on non-ICU units per 1,000 patient days decreased from 5.24 in December 2005 to 1.55 in October 2006.
- The percent of codes outside of the ICU decreased from 69% in December 2005 to 39% in September 2006 as the number of RRT calls increased from four in December 2005 to 28 in February 2007.
- The percent of acute care inpatient deaths decreased from 1.1% in December 2005 to 0.5% in November 2006.

LESSONS LEARNED

- Data revealed that RRTs make a positive impact on patient safety.
- A culture change was necessary to allow staff and physician teams to embrace the concept of using RRTs as an enhanced supplement to the patient care team assigned to the patient.
- The RRT is viewed as a recognized resource to promote patient safety and work in collaboration with the physician team.
- RRT satisfaction data reveal that staff initiating RRT calls strongly agree that the RRT responded promptly, met the staff/patient needs, and staff said they would use the RRT again in the future.

Modifying and Applying Best Practices Recommended by the Society of Critical Care Medicine and Embraced by the Institute for Healthcare Improvement for the Treatment of Severe Sepsis

Stony Brook University Medical Center

PARTNERS

External partners include IHI's Critical Care Collaborative and the Society of Critical Care Medicine's Surviving Sepsis Campaign.

Internal partners include hospital administration, medical directors, physicians, nurses, pharmacists, respiratory therapists, quality management, and data analysts.

CONTACT

Christine McMullan

Assistant Director, Continuous Quality Improvement

Stony Brook University Medical Center

Stony Brook, NY 11794

(631) 444-4709

cmcullan@notes.cc.sunysb.edu

PROJECT DESCRIPTION

Stony Brook University Hospital actively engaged in the Surviving Sepsis Campaign via the Institute for Healthcare Improvement's IMPACT Critical Care Learning Collaborative in January 2006. The hospital adopted the Campaign's goal of a 25% reduction in mortality.

The first step in reducing sepsis mortality is to increase early recognition of sepsis. Sepsis screening tools were developed for each intensive care unit and built into the triage system in the emergency department. Staff nurses screen patients for severe sepsis in the critical care units upon admission, on a daily basis before rounds, and as needed. Subsequently, the screening tool was built into the emergency department's triage process. Patients suspected of having severe sepsis are assigned to a level two room for rapid assessment and treatment.

Due to the complexity and expansiveness of both bundles, the hospital broke the bundle elements into smaller, obtainable objectives.

The first objective identified was 100% compliance with the first four elements of the resuscitation bundle (serum lactate measured, blood culture obtained, antibiotic administered, and fluids administered). Although the efforts were concentrated on the first four elements, education on the sepsis resuscitation and sepsis management bundle was applied. The hospital will continue to work on sustainability and implement additional steps.

OUTCOMES

- As of March 2007, the sepsis mortality rate identified for the period of July 2006 to February 2007 was 22.45%. This represents an approximate 35% reduction in sepsis mortality compared to the 34.43% rate identified in the baseline period (January to June 2006).
- Stony Brook University Hospital exceeded the initial goal of a 25% reduction in severe sepsis mortality.

LESSONS LEARNED

- Due to the complexity and expansiveness of the bundles, Stony Brook University Hospital broke the bundle elements into smaller, obtainable objectives.
- Decreased variation in the delivery of care reduces errors and improves clinical outcomes.

The Three R's: Rescue, Resuscitation, and Rapid Response

Saratoga Hospital

PARTNERS

Partners for the initiative include critical care nurses, respiratory therapists, physicians, the resuscitation committee, staff nurses, administration, and quality leadership.

CONTACT

Susan M. Hodgson
Director of Quality Support Services
Saratoga Hospital
211 Church Street
Saratoga Springs, NY 12866
(518) 583-8494
shodgson@saratogacare.org

PROJECT DESCRIPTION

This initiative demonstrates how a Magnet hospital in a mid-sized community used two initiatives—the standardization of resuscitation and a rapid response team—to avert failure to rescue events and decrease overall mortality.

The hospital focused on resuscitation improvements first. Some of the standardization protocols included adult and pediatric guidelines, one model of defibrillators, and a quality scorecard. A *Code Cart Explorer* computer-based virtual tour was developed and placed on the hospital's Intranet site.

Once resuscitation goals were achieved, a decision was made to implement an evidence-based RRT. The objective was to have all registered nurses (RNs) understand the resuscitation scorecard data, the evidence behind the practice change related to the RRT, and why and when to activate the RRT. The hospital successfully implemented the Institute for Healthcare Improvement 100,000 Lives Campaign guidelines.

OUTCOMES

- In 2006, 71% of resuscitations survived for 20 minutes post-resuscitation and 35% were discharged alive. Both benchmarks were well above those set by the American Heart Association and the National Registry of Cardio-Pulmonary Resuscitation.
- After implementation of the RRT, the number of codes per 1,000 discharges decreased from a rate of 6.45 in 2005 to 3.76 in 2006.
- Overall mortality decreased from 2.94% in 2005 to 2.49% in 2006.
- When comparing the cost of patients requiring resuscitation to the cost per day of patients using the RRT, there was a cost savings of \$501 per day.

LESSONS LEARNED

- Consistent application of evidence-based best practices using protocol-based strategies for RRTs has proven to significantly improve outcomes and reduce mortality.
- Standardization of defibrillators and code carts increases end users' expertise during stressful resuscitative events.
- Reporting the results through the quality infrastructure and providing feedback of performance results to the RNs provided recognition and assisted with sustaining the protocol-based strategies.

Decreasing Length of Stay in an Intensive Care Unit: A Standardized Approach to Insulin Management

The Kingston Hospital

PARTNERS

The internal partners include the performance improvement specialist, medical director of the hospital diabetes program, vice president of professional and regulatory services, certified diabetes nurse educator and program director, registered dietician, ICU intensivist, assistant vice president of nursing and education, and director of pharmacy.

PROJECT DESCRIPTION

Literature supports the importance of evidence-based clinical pathways and disease-specific protocols on patient outcomes, length of stay, quality of care, and patient knowledge. In December 2005, The Kingston Hospital designed and implemented an intensive care unit blood glucose and intravenous insulin standing order protocol for patients on continuous feeding or “nothing by mouth.”

A multi-disciplinary team was established to evaluate the current practice, develop the standing orders, and implement the protocol following education of all ICU staff. The goals were to improve outcomes for patients on an IV insulin drip, decrease average length of stay in the ICU, and decrease mortality. The hospital chose to conduct the data analysis using a “Time Series Design” approach. The data collected were systematically quantified through nominal measures and analyzed. The hospital believes the success of the initiative is directly related to medical and nursing leadership and clinical collaboration.

OUTCOMES

- The average length of stay in the ICU decreased from 12.37 to 5.3 days when the IV insulin protocol was implemented and utilized.
- The mortality rate decreased from 43.5% to 8.3% over the 14-month period.

LESSONS LEARNED

- Ongoing education of nurses and physicians is imperative to maintain compliance with the insulin protocol.
- A multi-disciplinary approach was instrumental to assure ongoing process improvement.

CONTACT

Angela Buckley

Performance Improvement Specialist
The Kingston Hospital
396 Broadway
Kingston, NY 12401
(845) 334-2700 ext. 2504
abuckley@kingstonhospital.org

Operating Room-focused Improvement Team

ViaHealth of Wayne—Newark-Wayne Campus

PARTNERS

The work group was led by the hospital medical director, surgical services staff, nursing and support staff, physicians, and members of the safety and quality team.

CONTACT

Tonya Taylor

Director, Community Services
ViaHealth of Wayne—Newark-Wayne Campus
Driving Park Avenue
Newark, NY 14513
(315) 332-2258
tonya.taylor@viahealth.org

PROJECT DESCRIPTION

ViaHealth of Wayne was proud of its clinical outcomes; however, the satisfaction survey data identified a need for process improvements in its operating rooms (ORs) related to scheduling, patient flow, and communication. The principal focus of the process was to build a high-performance OR team by using existing data and current performance as a basis for change that would improve patient and physician satisfaction.

The initiative started with leadership training and support. Each of the members on the work group committed to a three-month leadership program that required high-level participation from the planning to implementation stages.

The methodologies included an analysis of existing conditions and performance data; examination of successful models; development of team work plans; identifying resource teams; and communication planning, execution, and monitoring. Significant re-designs were implemented including a computerized OR tracking system for everything from booking to supplies, flow mapping of processes, and a new and ongoing staff orientation and education system.

OUTCOMES

- The organization used Press Ganey patient satisfaction surveys, brief employee and physician surveys, and work environment surveys completed by nurse managers.
- Patient satisfaction scores improved from 86.3 to 91.4 within one quarter of project implementation, eclipsing all other internal departments.
- Physicians individually report positive impact of improvements on their surgical cases.
- Staff reported an improved working environment.

LESSONS LEARNED

- Rigorous data collection and use of valid data is needed to support ongoing control and improvement of OR processes.

Two-minute Intervention for Tobacco Cessation

WCA Hospital

PARTNERS

In cooperation with the Chautauqua County Tobacco Control Program and Steps to a HealthierNY, the internal team included administration, management, nursing and outpatient services, medical staff, the quality improvement program, health information systems staff, and the patient education committee.

CONTACT

Toni DeAngelo

Wellness Program Director
WCA Hospital
207 Foote Avenue
Jamestown, NY 14702
(716) 664-8677
toni.deangelo@wcahospital.org

PROJECT DESCRIPTION

WCA Hospital, together with the Chautauqua County Tobacco Control Coalition and Steps to a HealthierNY Program, looked at the need to decrease tobacco use in Chautauqua County and among patients. The “Two-minute Intervention” was developed based on the “Five A’s” strategy of Ask, Advise, Assess, Assist and Arrange, and is a gateway to identify patients who use tobacco, assess their willingness to make a quit attempt, and refer them to tobacco cessation resources. Two-minute Intervention training included hospital administrative staff, providers, and caregivers.

Hospital staff identify all patients who use tobacco on various documentation forms from the emergency room, to discharge, and on the patient education flow sheet. The question, “Are you ready to make a quit attempt?” reminds clinicians to discuss tobacco use with their patients at the bedside.

OUTCOMES

- From 2004 to 2006, 332 patients with a core measure diagnosis of congestive heart failure, pneumonia, or myocardial infarction were assessed for tobacco use.
- In 2006, 310 patients with these core measure diagnoses received tobacco cessation counseling, with an increase from 79% to 100% compliance.
- Three hundred patient education flow sheets were assessed for documentation of Two-minute Intervention, with 100% compliance in September 2006.
- WCA experienced a 50% increase in quit line calls from 2005 to 2006.
- The hospital has seen a significant increase in documentation and assessment of all tobacco users through the Two-minute Intervention process.
- The hospital is the first in the state to implement the Two-minute Intervention and is a model program for two other area hospitals.
- State Senator Kathy Young recognized WCA Hospital with a Legislative Resolution for its efforts to decrease tobacco use.

LESSONS LEARNED

- Although coordination of education and training was labor-intensive and took almost one year to complete, the Two-minute Intervention process continues to work effectively.

PARTNERS

The creation of this new model involved patients and family members, community members, administration, department directors, and medical staff.

CONTACT

Deidre A. Cirillo, R.N.
Senior Director, Quality Management
Amsterdam Memorial Hospital
4988 State Highway 30
Amsterdam, NY 12010
(518) 841-3661
cirillod@amsterdammemorial.org

CLINICAL OPERATIONS

Project Patient-centered Care

Amsterdam Memorial Hospital

PROJECT DESCRIPTION

The primary goal of the patient-centered care concept is to reduce potential medical errors that occur due to miscommunication. In this model, Amsterdam Memorial Hospital works in collaboration with patients and their families to provide care focusing on quality improvement and patient safety. Amsterdam Memorial Hospital encourages patients and family members to act as mentors for other patients and families in the facility. Patients and family members sit on senior level committees as full partners in process improvement.

Amsterdam Memorial Hospital provides a system of health care delivery that meets the most common types of patient needs. The model provides the ability to respond to individual patient choices and preferences. Patient-centered care provides collaborative relationships that foster education and empower patients and their families. The empowered patient sets the stage for ensuring excellence in a culture of safety throughout the entire organization.

OUTCOMES

- Patient-centered care has increased participation of patients and families in care delivery.
- The initiative empowers patients through education.
- Patients and families have been integrated into all internal quality improvement committees.
- Through this model, the facility has translated values into performance standards.

LESSONS LEARNED

Through the patient-centered care initiative, Amsterdam Memorial Hospital has learned the importance of:

- improving partnerships with patients and families,
- reducing miscommunication that results in medical errors,
- empowering patients and families to self-advocate, and
- creating memorable patient experiences.

Employee Recruitment and Retention as a Quality and Safety Strategy

Bassett Healthcare

PARTNERS

This initiative was championed by the chief operating officer and vice president of human resources, organizational development and learning, and departmental directors, managers, and staff.

CONTACT

Ronette Wiley

Senior Director of Quality Resources
Management
Bassett Healthcare
One Atwell Road
Cooperstown, NY 13326
(607) 547-6690
ronette.kinzelmann@bassett.org

PROJECT DESCRIPTION

Bassett Healthcare embarked on a journey to reduce employee turnover and increase employee engagement and satisfaction. The clinical improvement synergies that emerged as a result of a successful “on-boarding” management mentor program were striking. A reduction in medication errors, falls, and patient/family complaints were all realized as turnover rates dropped on two of the organization’s busiest nursing units.

Developing an on-boarding process that provides new hires with a mentor and periodic personal and professional “check-ins” sends employees the kind of message that leads to engagement, increasing professionalism, and loyalty. The organization used a team methodology to evaluate the evidence and professional literature around building a successful on-boarding program. On-boarding tests were implemented and refined following the planning and development of the process. The organizational roll-out of the program included three cornerstones: creation and implementation of an organizational Management Guide for on-boarding; completion of strategic on-boarding training for all managers; and adherence to the structured on-boarding process for hiring, welcoming, and retaining new employees.

OUTCOMES

- The turnover rate in the medical inpatient nursing unit was reduced from 24% in 2005 to 15% in 2006.
- The turnover rate in the special care unit was reduced from 26% in 2005 to 15% in 2006.
- Annual medication errors were reduced by an average of 13% on both units.
- Annual patient falls were reduced by an average of 18% on both units.
- Annual patient/family complaints decreased by 14% on both units.
- Behavioral evaluation interviewing techniques were used for all hires based on position description and key competencies/behaviors required for each role.

LESSONS LEARNED

- Revision of job descriptions to include key competencies, behaviors, and experiences has been instrumental in identifying the most suitable employment candidates.
- Feedback loops were developed as part of the program. Barriers and suggestions offered at new employee lunch sessions must be reported back to and acted upon by department managers in a timely manner.



Employee Recruitment and Retention as a Quality and Safety Strategy

Bassett Healthcare

(CONTINUED)

- The on-boarding program has a natural link to organizational succession planning, as top performers are identified and career development plans are implemented.
- There has been an increased number and caliber of staff interested in mentoring new employees, as opposed to being just “one more thing” a top performing employee has to do. Mentoring is now seen as an important investment in fulfilling the mission of the organization.

Improving Early Diagnosis of Myocardial Infarction Using Troponin I

Cayuga Medical Center at Ithaca

PARTNERS

Internal partners for this initiative include the laboratory, pathology, emergency, information systems, and product line services departments.

PROJECT DESCRIPTION

Cayuga Medical Center embarked on an initiative to improve processes contributing to early diagnosis of patients with acute myocardial infarction. The primary focus was on providing Troponin I results to emergency room physicians within 30 minutes or less from the time the order and samples were received. The analysis takes 20 minutes to run and there is a three-minute centrifugation period, which leaves only a seven-minute window for improvement.

The laboratory staff examined the time it took the accession room to receive and deliver the sample, the time that elapsed between the centrifuge stopping and the sample being placed on the analyzer, and the time between the analyzer completion and verification and release. To address these issues, staff teamed up and devised an action plan. All Troponin I samples are sent directly to the chemistry department via a pneumatic tube system designated for Troponin I samples only. This eliminated the time spent in the accession room. The technical staff use a talking timer that counts down three minutes, after which the sample can be immediately placed on the analyzer. Auto-verification of normal Troponin I values was instituted, releasing the majority of Troponin results as soon as analysis is complete.

OUTCOMES

- In August 2006, 27% of Troponin I results were reported in 30 minutes or less; by January 2007, 67% of Troponin results were reported in 30 minutes or less.
- This initiative improved the quality of care for emergency room patients with acute myocardial infarctions.
- The number of false-positive Troponin I results for the past six months was 0.08%, well below the 0.5% target.

LESSONS LEARNED

- Staff motivation and buy-in are critical.
- Involvement from other hospital departments is essential for improving patient care.
- Leadership, support, and positive reinforcement have an amazing affect on productivity.
- Small adjustments can make a huge difference.

CONTACT

Lorraine Hufford

Chemistry Supervisor
Cayuga Medical Center at Ithaca
101 Dates Drive
Ithaca, NY 14850
(607) 274-4474
lhufford@cayugamed.org

Closing the Loop on Critical Values

Columbia Memorial Hospital

PARTNERS

Partners for this initiative include medical staff and the laboratory, cardiopulmonary, and quality management departments.

CONTACT

Sara L. Friess, R.N., B.S.N.
Director, Inpatient Services
Columbia Memorial Hospital
71 Prospect Avenue
Hudson, NY 12534
(518) 828-8524
sfriess@cmh-net.org

PROJECT DESCRIPTION

Recognizing the need to ensure that the communication “loop” is completed for all critical test values, Columbia Memorial Hospital convened a team to review the process relative to receipt of critical test values. The process captured the time nursing staff received the data, but not the time the data were reported to the provider caring for the patient, nor follow-up intervention.

Columbia Memorial Hospital amended policies and procedures to include time of provider notification. A yellow Critical Result Report Sticker is placed on the physician order sheet with key information to enhance compliance and caregiver communication. Education and in-service instruction regarding the new process was provided, and the importance of early intervention for critical values was stressed. With the new process, the facility saw improvement in quality of patient care, documentation, and communication among caregivers.

OUTCOMES

- All hospital units using Critical Result Report Stickers demonstrated a 94% compliance rate.
- There has been increased effectiveness of communication among caregivers.
- The hospital has seen improvement in quality of patient care, documentation, and caregiver accountability.

LESSONS LEARNED

- A fragmented process delays the reporting of critical values in a timely manner.
- Critical Results Report Stickers streamline documentation, enabling quick location in the patient's medical record.
- Consistent documentation methods enhance communication among caregivers, improving the quality of care.

Educational Advancement for Nursing Recruitment and Retention

Community Memorial Hospital

PARTNERS

Partners include Keuka College, hospital administration, and nursing staff.

PROJECT DESCRIPTION

After conducting a comprehensive assessment of factors contributing to employee turnover and nursing staff and patient dissatisfaction, Community Memorial Hospital prioritized staff support, mentoring, and education opportunities as areas for improvement. The vacancy rate was 36%, the hospital was using ten agency nurses to support staffing levels, and new graduate nurses who were recruited were leaving due to job dissatisfaction.

With the support of the hospital chief executive officer and involvement of the nursing management team and select staff nurses, the hospital created a structured, supportive orientation program to provide a safe learning environment for new graduate nurses. The program involved separate modules for general orientation, medication management, and progressive assignments.

An enhanced “Tuition on Us” program was offered that included support before graduation, and an onsite Bachelor of Science in Nursing (BSN) program was offered in partnership with a local college.

OUTCOMES

- The vacancy rate has been 0% since 2005.
- The one-year retention rate increased from 57% to 100% and was maintained for three consecutive years.
- The percentage of BSN prepared nursing staff has doubled and complaints related to job satisfaction as listed above are almost nonexistent.
- The hospital has developed a culture of caring.

LESSONS LEARNED

- If a nurse is retained for the first year of employment, there is an 85% chance he or she will be with the hospital in five years.
- Workforce stability is key to patient satisfaction, staff satisfaction, and improved patient care.

CONTACT

Lisa Hoyle, M.S., R.N., C.N.A.A., B.C.

Vice President, Nursing Services

Community Memorial Hospital

150 Broad Street

Hamilton, NY 13346

(315) 824-6572

lhoyle@cmhhamilton.com

Nurse Greeter Program

Coney Island Hospital

PARTNERS

This initiative was supported by the emergency nursing and administrative staff, along with hospital security, the quality management department, and administration.

CONTACT

Marie Longo, R.N., S.A.F.E., B.S.N., M.A.

Associate Director, Emergency Nursing
Coney Island Hospital
2601 Ocean Parkway
Brooklyn, NY 11235
(718) 616-4349
marie.longo@nychhc.org

PROJECT DESCRIPTION

The goal of Coney Island Hospital's emergency department Nurse Greeter Program is to acknowledge and respond in a timely way to potential threats to client safety in the pre-treatment process. Research has demonstrated that clients often "walk out" after triage, but before receiving an evaluation by a physician. This has been attributed to the waiting time before entry into the treatment area. Coney Island Hospital emergency department staff conducted a proactive hazard analysis on the pre-treatment process and determined that, in 2005, five clients per month walked out after triage and before seeing a physician and several others even prior to triage. These walkouts were identified as a potential failure mode. The Nurse Greeter Program was instituted as a proactive risk reduction strategy.

The Nurse Greeter receives clients and prioritizes and expedites care before physician evaluation. This advocacy for clients and clinical assessment promotes patient safety and client satisfaction.

OUTCOMES

- The Nurse Greeter has facilitated the care of patients with acute myocardial infarction, stroke, penetrating wounds, amputation of digits, and many other life-threatening conditions.
- The number of walkouts after triage decreased by 50% in 2006.
- Since the inception of the Nurse Greeter Program in January 2006, there have been no reported adverse occurrences during the pre-treatment period.

LESSONS LEARNED

- Process improvements result from data analysis and teamwork.
- Communication is an important factor in seamless health care.
- Removal of physical barriers between medical staff and clients promotes client satisfaction and compliance with treatment.

Improved Laboratory Result Availability for Clinician Morning Rounds: Potassium and Hematocrit Values Monitored

Crouse Hospital

PARTNERS

This collaborative project involved the medical and surgical directors; medical director of the laboratories; critical care nursing director; supervisors of phlebotomy, hematology and chemistry; manager of the rapid response laboratory; and the Lab Alliance of Central New York.

CONTACT

Jennifer Watkins
Director, Quality Improvement
and Medical Affairs
Crouse Hospital
736 Irving Avenue
Syracuse, NY 13210
(315) 470-7122
jenniferwatkins@crouse.org

PROJECT DESCRIPTION

Crouse Hospital used the Plan-Do-Study-Act methodology to evaluate and improve laboratory result availability for clinician morning rounds. A multi-disciplinary team was formulated to meet and exceed the goal of laboratory result availability on morning rounds. After establishing the baseline rate, the team initiated the plan for improvement, analyzed results, and established a SMART (Specific, Measurable, Achievable, Realistic, Time phased) goal. Rate of potassium and hematocrit test result completion is monitored on the medical-surgical floors. Issues reviewed included the time of morning blood draws, phlebotomy staffing, transport of specimens, laboratory support, and instrumentation needs.

These improvement plans reinforced the hospital's mission to provide the best patient care and to promote community health. The plan also emphasized the hospital's values: CROUSE: C- Community; R-Respect; O-Open and honest communication; U-Undivided commitment to quality; S-Service to patients, physicians, and employees; E-Excellence through innovation and creativity.

OUTCOMES

- The percentage of potassium results reported by 7:30 a.m. in 2004 was 68%; it increased to 92% in 2006 (100% by 7:50 a.m.).
- The percentage of hematocrit results reported by 7:30 a.m. in 2004 was 86%; it increased to 98% in 2006 (100% by 7:50 a.m.).
- Physician satisfaction (Likert scale 1-5) for laboratory overall services was 3.40 in 2001; it increased to 4.03 in 2006.
- Physician satisfaction (Likert scale 1-5) for laboratory turnaround time was 3.23 in 2001; it increased to 3.99 in 2006.

LESSONS LEARNED

- Improving the availability of morning laboratory results leads to increased physician satisfaction.
- Collaboration of the hospital and the affiliated laboratory was essential in improving the laboratory result completion.

Emergency Department Patient Throughput: Decompression of an Overcrowded Emergency Department

Erie County Medical Center

PARTNERS

An interdisciplinary team of leadership; emergency department physicians; and nursing, radiology, laboratory, and information support staff participated in this initiative.

CONTACT

Peggy Cramer

Vice President, Trauma and Emergency
Department Services
Erie County Medical Center
462 Grider Street
Buffalo, NY 14215
(716) 898-3967
pcramer@ecmc.edu

PROJECT DESCRIPTION

Emergency department overcrowding impacts the ability of the community to access quality care delivered in the emergency setting. Experiencing an increased volume in the emergency department, Erie County Medical Center undertook a plan to reduce the number of patients leaving the department without being evaluated by a physician, and to reduce the total minutes the hospital was on delay status.

To ensure the quality of emergency care and the availability of ambulance services to the community, an interdisciplinary team reviewed the relevant data. The data revealed that congestion in the emergency department caused hospital-wide problems due to inefficient patient flow, or “throughput.” Departmental champions were appointed to develop strategies to improve communication and pilot initiatives to improve throughput.

An “Alert Status” was initiated to expedite transfers and discharges, enhance triage capability, alert housekeeping to rooms needing immediate cleaning, deploy housekeeping and transport, and to review unit activity to ensure ability to process newly admitted patients. Other process improvements included revision of staff composition, equipment augmentation, opening 30 additional inpatient beds, and “team huddles” twice daily to review bed flow issues.

OUTCOMES

- Erie County Medical Center achieved a 33% reduction in patients leaving without physician evaluation.
- There was a 44% reduction in the total number of minutes the hospital was on delay status while realizing a 4% increase in visits and a 7% increase in admissions compared to the previous year.

LESSONS LEARNED

- Although emergency department overcrowding primarily affects the emergency department staff and patients, it is a hospital-wide problem that requires an organizational commitment to resolve.
- Failure to address the contributing factors particular to a hospital would allow barriers to care both in the emergency department and in the community to go unchecked.
- Continued awareness is vital to successfully maintaining and improving patient throughput in the organization.

Implementation of a Concurrent Review Model for the National Hospital Quality Initiative

Erie County Medical Center

PARTNERS

The partners in quality improvement included the hospital leadership; physician staff for medicine, cardiology, and cardiothoracic services; nursing staff; and patients.

CONTACT

Catherine Gazda, R.N.
Quality Management Coordinator
Erie County Medical Center
462 Grider Street
Buffalo, NY 14215
(716) 898-3834
cgazda@ecmc.edu

PROJECT DESCRIPTION

Erie County Medical Center recognized the challenges of providing evidence-based care as promoted by the national Hospital Quality Initiative for patients with congestive heart failure, acute myocardial infarction, and pneumonia. The improvement strategies suggested by these projects are diagnosis-based; however, case identification is contingent on particular International Classification of Disease (ICD-9) codes. Staff are committed to improving the quality of care but struggle with ensuring all eligible patients receive the indicated care since clinical staff have limited knowledge of coding practices. The organization developed a concurrent means of educating staff about case identification and evidence-based care for the target diagnoses, and monitoring progress with implementing and documenting provision of this care.

A trained registered nurse identified potential cases and interfaced with the clinical staff to educate them about the evidence-based care for the three target diagnoses. The facility instituted a series of reminders for physician staff to communicate expectations for treatment, retooled the computer-based program for point-of-care documentation to link the assessment and intervention functions, and developed a discharge form for cardiac surgery and cardiac interventional patients that includes all the indicated elements for medications and education. A patient education booklet was drafted to promote positive outcomes.

These steps increased staff knowledge, engaged staff in process improvement, and created a continuous feedback forum for staff to identify priorities for improvement.

OUTCOMES

Acute myocardial infarction measures post-implementation:

- angiotensin converting enzyme and angiotensin receptor blockers (ACEI/ARB) prescribed at discharge increased from 82% to 88%,
- smoking cessation counseling increased from 93% to 100%, and
- beta blocker ordered at discharge increased from 97% to 99%.

Congestive heart failure measures post-implementation:

- received written discharge instructions increased from 43% to 94%,
- left ventricular failure assessment increased from 95% to 99%,
- ACEI/ARB prescribed at discharge increased from 83% to 92%, and
- smoking cessation counseling increased from 87% to 100%.

Implementation of a Concurrent Review Model for the National Hospital Quality Initiative

Erie County Medical Center

(CONTINUED)

Pneumonia measures post-implementation:

- use of pneumococcal vaccine increased from 49% to 84%,
- blood cultures for pneumonia patients increased from 76% to 95%,
- influenza vaccine for pneumonia patients increased from 57% to 74%, and
- smoking cessation counseling increased from 72% to 95%.

LESSONS LEARNED

- The interactions generated by this initiative validated the staff's commitment to quality care but confirmed their knowledge deficit about which patients should be targeted for interventions, which interventions apply to which patients, and how to document completion sufficiently.
- Staff need additional tools to ensure interventions can easily be initiated.
- Tools and communication techniques currently in use or proposed must be revised or constructed with the input of staff and with consideration to their workflow.

Building a Safe Patient- and Family-centered Environment of Care

Forest Hills Hospital

PARTNERS

External partners include the Creative Health Care Management and Service Employees International Union Local 1199. Internal partners include hospital administrators, physicians, nurses, and all other health care staff.

CONTACT

Mary C. Heffernan, M.S., R.N., B.C.

Director of Education and Training
Forest Hills Hospital
102-01 66th Road
Forest Hills, NY 11375
(718) 830-4040
mheffern@nshs.edu

PROJECT DESCRIPTION

The goal of this project was to improve patient safety and patient and employee satisfaction by combining self-governance principles with Forest Hills Hospital's model of Patient and Family Centered Care (PFCC). Unit-based Practice Councils (UPCs) were created to plan, implement, and continuously improve unit-specific operations at the point of care. A team from Creative Health Care Management provided leadership training for all management (nursing and non-nursing) and for staff on pilot units.

The PFCC model is based on the Picker Institute's dimensions of patient-centered care. The hospital initiated Plan-Do-Study-Act cycles that included adopting service excellence standards, developing education handouts in different languages, working with staff to involve the patient's friends and families, adding more geriatric chairs, supporting the conversion to a non-smoking campus, making snacks available in waiting areas, developing book carts, extending visiting hours, and purchasing large button telephones for geriatric patients. A consultation team was created to see patients and families with palliative care issues. Lastly, the team addresses department service standards, patient treatment schedules, and improved daily rounds.

OUTCOMES

- Forest Hills Hospital achieved a decrease in patient falls and use of restraints.
- The hospital saw an increase in patient satisfaction scores from a Press Ganey survey in the Overall, Nursing Overall, Likelihood to Recommend, and Staff Work as a Team categories.
- Staff describe the UPCs as one of the most fulfilling initiatives they have been involved in.

LESSONS LEARNED

- Rolling out two new practices at the same time (PFCC and UPCs) may have been too much at once.
- Beginning the UPCs with a commitment to agreed-upon standards of behavior may have a direct impact on the cohesiveness of the council members.
- Collecting patient satisfaction data for comparison before and after start of UPCs is important in those areas where standardized satisfaction surveys are not given (i.e., operating room).

Implementation of Ticket to Ride Hand-off Policy

Highland Hospital of Rochester

PARTNERS

The interdisciplinary team consisted of administrators and staff from the departments of nursing, cardiology, medical imaging, dialysis, and radiation oncology, along with members from the transport team.

CONTACT

Sharon Johnson

Director of Quality Management
Highland Hospital of Rochester
1000 South Avenue
Rochester, NY 14620
(585) 341-8399
sharon_johnson@urmc.rochester.edu

PROJECT DESCRIPTION

The purpose of this initiative was to create a streamlined process to manage “hand-offs” between nursing units and diagnostic and treatment departments for routine tests and procedures. The key requirements for the “Ticket to Ride” program were maintaining operational efficiency and promoting the ability to ask and respond to questions. A multi-disciplinary team collaborated to formulate a process that would facilitate the communication of pertinent patient information between transport staff and staff at the destination departments, as well as communicate information back to the primary nursing caregiver. In addition, significant consideration was given to accessibility of pertinent clinical information by all staff encountering the patient, minimizing duplication of documentation, and incorporation of the process into routine workflow.

The implementation of a sticker that is completed by the primary nurse prior to patient departure and clipped to the front of the chart was the most instrumental element in achieving the goal. The sticker contains safety parameters in a checklist format and the ability to document individualized patient needs. This information is available to the transport and receiving staff, who document routine information on the “ticket.” Significant concerns that arose while the patient was away are reported verbally to the nurse caring for the patient. When the patient returns to the nursing unit, the sticker is attached to a progress note, replacing the need for additional staff documentation of the event. The Ticket to Ride is enthusiastically supported by staff as an efficient and effective means to communicate pertinent information to all care providers during periods when a patient is off a nursing unit.

OUTCOMES

- This project achieved compliance with The Joint Commission National Patient Safety Goal 2E.
- Patient data are readily accessible to caregivers when patients leave the nursing units.
- Staff report the new process saves time and promotes patient safety.
- One month post-implementation, 96% of tickets had pertinent information completed.

LESSONS LEARNED

- Staff involvement is critical to the success of operational changes.
- New processes are most successful when workflow issues are considered.

Reduction of Mislabeled Specimens in the Emergency Room

Lawrence Hospital Center

PARTNERS

This effort involved the directors of clinical quality and case management, vice president of patient care services, medical director, emergency department nurse manager and medical director, laboratory director and personnel, staff nurses, and the quality coordinator.

PROJECT DESCRIPTION

At weekly meetings of the Lawrence Hospital Center Clinical Risk and Patient Safety Committee, incident reports are reviewed, tracked, and trended. As part of this process, an increase in the number of mislabeled specimens in the emergency department was noted. The potential for serious patient harm was evident and a multi-disciplinary team was formed to address this problem. A Failure Mode and Effects Analysis was performed and the top potential failure modes were identified. Many process changes were made in the handling and labeling of specimens. Changes continued to be made over a two-year period, using the Plan-Do-Study-Act methodology. This committee recognized that an ongoing evaluation of processes was crucial in minimizing the numbers of mislabeled specimen cases in the emergency room.

OUTCOMES

- There were no mislabeled specimens in the emergency department in the first eight months following implementation.

LESSONS LEARNED

Lawrence Hospital Center learned that the following elements are key to success of this project:

- multi-disciplinary teamwork,
- leadership involvement and “buy-in,”
- a non-punitive approach,
- communicating results and celebrating success, and
- a project champion.

CONTACT

Cathy Magone

Director, Quality Risk and Case Management
Lawrence Hospital Center
55 Palmer Avenue
Bronxville, NY 10708
(914) 787-3007
cmagone@lawrencehealth.org

Network HCAHPS Initiative

Long Island Health Network

PARTNERS

This initiative was built upon a commitment from the Long Island Health Network Executive Council, comprised of a chief executive officer from each network hospital. Key personnel worked together from each hospital along with an authorized HCAHPS vendor.

CONTACT

Kathleen Masiulis, R.N., M.S., F.A.C.H.E.

Vice President
Long Island Health Network
1 Huntington Quad
Melville, NY 11747
(631) 420-6780
kmasiuli@lihn.org

PROJECT DESCRIPTION

Long Island Health Network's mission to pursue clinical excellence and quality is demonstrated by its proactive inclusion of Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) information in its pay-for-performance program before it was tied to Medicare marketbasket reimbursement. This initiative is unique due to its total transparency, complete network alignment, and performance-based accountability.

In a collaborative approach, Long Island Health Network's hospitals evaluated proposals to select a network HCAHPS vendor. By having one vendor and using the same modality administration (Active IVR—Interactive Voice Response), a network-wide standardized approach was used. The organization agreed to participate in the first Centers for Medicare and Medicaid Services HCAHPS pilot held in the second quarter of 2006, which involved the participation of many hospital leadership teams and dedicated project managers. Monthly meetings were held to assure direct communication and involvement of all member hospitals. The HCAHPS collaboration prevents duplication of effort and encourages best practice sharing regarding patient satisfaction.

OUTCOMES

- The network now has a standardized HCAHPS process for all member hospitals under one qualified vendor and a unified performance improvement team for distribution of best practices.
- The pay-for-performance program aligns the network's program goals with future CMS initiatives.
- Network performance on HCAHPS patient satisfaction scores has increased by 3% and is higher than the vendor's national database mean scores.

LESSONS LEARNED

- Standardize the processes, training, and materials for consistency in delivery.
- Get organizational buy-in—involve the top administration of each hospital from the start.
- Utilize multi-facility collaboration to gain insight into best practices.
- Identify a champion at each member hospital to implement each element of the initiative.

Perinatal Safety Initiative: Handling All Neonatal Deliveries Safely (HANDS)

Mount St. Mary's Hospital and Health Center

PARTNERS

External partners include the Institute for Healthcare Improvement and Ascension Health. Internal partners include patient care services, maternity nursing, labor and delivery nursing, quality management, and risk management staff; obstetricians; and pediatricians.

CONTACT

Debra Hastee, R.N.

Director, Maternity/Nursery Services
Mount St. Mary's Hospital and Health Center
5300 Military Road
Lewiston, NY 14092
(716) 298-2618
debra.hastee@msmh.org

PROJECT DESCRIPTION

Mount St. Mary's Hospital's goal in this program is to avoid preventable injury to neonates. In collaboration with the Institute for Healthcare Improvement and Ascension Health, two bundles of obstetrical interventions were prioritized. The initiatives were the use of oxytocin in medical inductions of labor and augmentation of labor and instrument deliveries using the vacuum extractor. Policies and procedures were developed and standards of care and education were utilized to ensure that all elements of the bundles were addressed. The Situation Background Assessment Recommendation method of communication was introduced to nursing staff in April 2006 and customized for obstetric and newborn nursery use.

Crisis training using simulation, including a patient simulator named Noelle, and rehearsing for emergencies provided the staff with the opportunity to rehearse for emergent situations such as shoulder dystocia and postpartum hemorrhage. Success and sustainability were achieved.

OUTCOMES

- In 2005, compliance for the oxytocin bundle was at 0% for documentation of estimated fetal weight; however, this improved to 100% by October 2006. The facility has maintained 100% compliance for all other elements of the bundle.
- The facility implemented the vacuum extraction delivery bundle elements.
- Rehearsing for emergencies has resulted in zero birth traumas since June 2006, and improved handling of critical events.

LESSONS LEARNED

- Physician buy-in is essential to the success of this perinatal safety initiative, along with communication and collaboration among physicians and staff.
- The rehearsals and simulations have brought about improved cohesiveness among caregivers.

Flu Point-of-Dispensing (POD) Vaccination Campaign

NYU Hospitals Center

PARTNERS

Partners included NYU Hospitals Center's employee health services, security department, office of public relations, pharmacy, information technology, department of infectious prevention and control, and emergency management staff; and the New York City Department of Health and Mental Hygiene.

CONTACT

Alison Brehm

Director, Employee Health Services
NYU Hospitals Center
550 First Avenue
New York, NY 10016
(212) 263-8941
alison.brehm@nyumc.org

PROJECT DESCRIPTION

The POD Vaccination Campaign was instituted to increase patient safety by lessening patients' exposure to influenza while in the hospital. There are two main forms of PODs. The first is a Pull POD, which is central and stationary—the individual must travel to a designated location to receive a flu shot. The second, the Push POD, is comprised of a team that travels to individual departments and floors.

Both POD forms consist of four stations. The first station is the Entrance/Recording Station, where individuals are recorded into a database. The second is the Triage Station, where individuals are screened to see if they should receive a flu shot. The third, the Medical Station, is optional in that a provider assesses the individual in question to determine if the flu vaccination would be contraindicated. From there, the individual is sent to the Dispensing Station to receive the flu shot. First-time flu shot recipients are asked to stay at the POD for observation to rule out serious reactions to the inoculation.

OUTCOMES

- One, two-hour Pull POD was held at the hospital. The team was joined by six data entry staff and ten registered nurses. During that clinic, 856 vaccinations were given.
- The Push POD was completed in a ten-day period, with 14 clinics registering a total of 29 hours. The total number of flu shots administered was 968 and a total number of declinations was 432.

LESSONS LEARNED

- Keys to success include outstanding customer service and support, accessible Push and Pull POD locations, stringent and consistent identification checks, user-friendly forms, educational materials, and hospital-wide notification of the POD clinic schedules.
- Lack of national media attention to the flu vaccination contributed to low turnout and substantial resistance to the flu vaccine by health care workers.
- Develop standard daily briefings for all staff who are members of the POD team.
- Create opportunities to meet with health care workers to explore the issues involved in resistance to being vaccinated.

Safe Transport of Patients on Oxygen Between Emergency Services and Diagnostic Imaging

Rochester General Hospital

PARTNERS

The team consisted of nursing, respiratory therapy, providers, patient transport, and the quality coordinator for the areas involved.

PROJECT DESCRIPTION

Rochester General Hospital recognized that oxygen therapy is a treatment modality that can lead to increased morbidity and mortality if not administered properly. As a result, a new process was implemented with zero tolerance for non-compliance.

Following the review of literature and evidence-based practices, an oxygen communication and accountability hand-off tool was developed. The interventions were cost-neutral and added value to the organization, while providing a mechanism to enhance patient safety for people receiving oxygen therapy. A team identified educational, documentation, and accountability issues related to oxygen administration during transport.

A pilot program was initiated between emergency services and diagnostic imaging staff. In this program, patients receiving oxygen are transported safely from their unit under the direction and preparation of a physician, nurse, or respiratory therapist. This ensures that these patients are never left unnoticed. E-cylinder usage chart tools are posted on all tanks and all oxygen wall connections hospital-wide, to assure that all staff are aware of the amount of oxygen in the tank at all times.

OUTCOMES

- Thirty days following implementation: 133 patients were transported on low-flow and ten patients transported on high-flow with no incidents.
- Sixty days after implementation: 61 patients were transported on low-flow and four patients were transported on high-flow with one incident for a high-flow patient.
- Ninety days after implementation: 20 patients were transported on low-flow and two patients were transported on high-flow with no incidents.

LESSONS LEARNED

- The education of transport staff empowered them to drive this process and gave them a sense of leadership and pride, which has led to compliance with the policy and increased patient satisfaction.
- Using a multi-disciplinary team with front-line staff was imperative to the success of the initiative and ongoing compliance.
- Leadership support for this project helped to ensure that the process became a valued part of the organization's culture.

CONTACT

Patricia A. Fiore, B.S.N., R.N., C.N.A., B.C.

Nurse Manager
Rochester General Hospital
1425 Portland Avenue
Rochester, NY 14621
(585) 922-3403
patricia.fiore@viahealth.org

Improve Patient Outcomes for Women's Breast Health

Saratoga Hospital

PARTNERS

Internal partners include physician champions, radiologists, care management, nursing, quality, education, medical imaging, and outpatient services for breast cancer patients.

CONTACT

Susan M. Hodgson

Director of Quality Support Services

Saratoga Hospital

211 Church Street

Saratoga, NY 12866

(518) 583-8494

shodgson@saratogacare.org

PROJECT DESCRIPTION

Saratoga Hospital initiated a Breast Care Collaborative Practice group to increase the number of women who receive annual mammograms and improve patient outcomes for women's breast health. This is an interdisciplinary effort focused on breast health screening and health maintenance, breast cancer detection, diagnostics, and new technologies.

The composition of health care professionals in this group has increased professional accountability to support patient access across the continuum. The aim is to reach beyond the acute care hospital setting and grant women access to screening mammograms and treatment options by bridging breast health care services in the community. A patient education packet was developed with input from all disciplines. These strategies improve access and quality of care, and reduce intervals from discovery to diagnosis.

OUTCOMES

This initiative has:

- improved the process for consistent patient education at every portal of entry for women seeking breast health services;
- decreased the interval between discovery and diagnosis of a breast lesion from ten to 44 days in 2004, to seven to 20 days in 2006, well within suggested benchmarks; and
- improved access to women's health services for breast care through community outreach—145% above target achievement for cancer screenings, and an overall patient volume increase of 6.9% in 2006.

LESSONS LEARNED

- Discovery-to-diagnosis intervals have been greatly decreased through a multi-disciplinary approach and creation of a breast health nurse position.
- Reducing the time interval improves quality outcomes for patient care and improves patient satisfaction.
- Establishment of the Breast Care Collaborative Practice group has been crucial in quality improvements.

The Best “Life Line” for the Best Outcomes: Increasing the Number of Dialysis Patients with Arterio-venous Fistulas

South Nassau Communities Hospital

PARTNERS

Partners include nephrologists, vascular surgeons, radiologists, performance improvement and dialysis staff, hospital leadership, the AVF access nurse, nursing, and technical staff.

CONTACT

Patricia Spencer, R.N.
Director of Dialysis Services
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-3000
pspencer@snch.org

PROJECT DESCRIPTION

South Nassau Communities Hospital and its dialysis unit are dedicated to improving the quality of care for patients with end-stage renal disease. A designated team decided to participate in the National Kidney Foundation Kidney Disease Outcomes Quality Initiative (KDOQI) to improve the quality of care in the area of vascular access. The goal for these patients, according to the KDOQI Clinical Practice Guidelines, is to have at least 50% of incident and 40% of prevalent hemodialysis patients dialyzed via an arterio-venous fistula (AVF).

Using the Plan-Design-Measure-Assess-Improve methodology, the following steps were taken:

- the outpatient dialysis unit appointed a dedicated nurse who reviews each patient and provides reports to the dialysis improvement team;
- early identification of patients who may require dialysis, and referral by community nephrologists to the team;
- all new patients are assigned a primary nurse and must complete an educational program;
- staff and physicians work with patients who have temporary or permanent catheters, to move toward cannulation within two weeks;
- patients are encouraged to attend a “Patient Buddy System” program in which patients with AVF provide testimonial and encouragement; and
- post-surgery specific guidelines were established.

OUTCOMES

- For 2006, AVF rate (prevalent patients) was 64.7%, compared to the network rate of 48.59% and the national rate of 43.18%. The rate exceeded the KDOQI guideline of 40% in prevalent patients.
- The rate of AVF placed and not yet used is 71%.
- First year re-hospitalization rate for AVF complications declined from 8% to 4% with the addition of flow studies.

LESSONS LEARNED

- Early identification of potential hemodialysis patients provides opportunities for education and decision making that promote AVF use.
- Multiple methods of patient education and support increase patient awareness and consent.



The Best “Life Line” for the Best Outcomes: Increasing the Number of Dialysis Patients with Arterio-venous Fistulas

South Nassau Communities Hospital

(CONTINUED)

- A dedicated improvement nurse provides patients and staff ongoing commitment to early movement toward AVF.
- Remove barriers that may delay or change decisions for AVF surgery.
- Proper care and early appropriate diagnostic studies maintain AVF and reduce potential for AVF clotting.

Development and Use of Patient Severity Index Indicator for Partial Hospital Programs

South Nassau Communities Hospital

PARTNERS

The South Nassau Communities Hospital PHP, its behavioral health performance improvement committee, the assistant vice president of behavioral health services, the chair of psychiatry, and the director of the mental health counseling center collaborated in this program.

CONTACT

Christine Parks

Assistant Director, Performance Improvement
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-4969
cparks@snch.org

PROJECT DESCRIPTION

Therapists in South Nassau Communities Hospital's Partial Hospital Program (PHP) expressed concerns over their ability to manage increasingly complex caseloads. Using the Plan-Design-Measure-Assess-Improve methodology, they identified the issues to be addressed, determined the appropriate measurements and data collection, selected priorities for the initiatives, and implemented actions.

The staff, along with behavioral health leadership, created a Patient Severity Index (PSI) to assist in quantifying the severity level of incoming patients' needs. The index consists of ten items that current research demonstrated were indicative of high-risk patients. The index leads to better case assignment and staffing by stratifying patients according to their severity score. Based on the patient's score, a more even distribution of high-need patients is assigned to staff.

OUTCOMES

- Overall length of stay and the number of patients who successfully completed the program significantly increased post-implementation of the PSI, indicating patients were benefiting from the program.
- Post-implementation of the PSI, staff satisfaction increased.
- There was a 60% decrease in the number of interpersonal incidents that occurred in the PHP, compared to the 12 months before implementing the PSI.

LESSONS LEARNED

- The PSI helps both management and staff better understand work demands objectively, and provides a framework for conversations.
- The PSI helps guide management where valuable clinical staff time needs to be allocated.

Improve Patient Satisfaction Through Temperature Control of Food

St. Mary's Hospital

PARTNERS

The external partner for this initiative was Aladdin Temp-Rite Heat on Demand (a food warming technology vendor) from Utica, New York. Internal partners were the hospital dietary department including the supervisors and director, the nursing unit staff and leadership, and the capital budget committee.

CONTACT

Mark Romani

Director of Dietary Services
St. Mary's Hospital
427 Guy Park Avenue
Amsterdam, NY 12010
(518) 841-7185
romanim@smha.org

PROJECT DESCRIPTION

The purpose of this project was to improve the hospital's ability to provide patients with satisfying meals at appropriate temperatures. Dietary leadership analyzed and identified the steps necessary for remote feeding of patients before the food can be consumed: food preparation, plating, transportation to the unit, and delivery to the patient. Utilizing the Plan-Do-Study-Act methodology, each of these steps was addressed with the intent of decreasing time to patient, with the temperature of the food remaining "hot." The evaluation by the dietary leadership revealed that antiquated technology was the limiting factor in retaining food temperature, not staff efficiency.

Based on the findings, the hospital invested in a system that preheats a base under the pre-heated plate. Onsite temperature tests demonstrated that this equipment kept the food an average of 28 degrees Fahrenheit hotter at the time of meal delivery, compared to the old pellet system. Positive changes in delivery temperature and patient satisfaction were evident.

OUTCOMES

- Patient satisfaction with food temperature increased 20% with implementation of the new technology.
- Overall patient satisfaction rose from the 34th percentile to the 70th percentile after implementation.
- Food delivered to patients is 28 degrees hotter with the new technology when compared to the old technology.

LESSONS LEARNED

- Staff training and compliance to correct the process was not adequate to deliver acceptable food to the patients.
- Newer technology is required to overcome the negative impact of heat loss over the necessary series of steps from preparation to patient consumption.
- A necessary combination of competent staff and correct technology is required to deliver hot meals.
- A coordinated effort from the food service staff (for preparation and delivery) and the nursing staff (set-up and assistance for the patient) is required for the delivery of a pleasing, hot meal.

Leading a Culture of Patient Safety Through a Patient Safety Certificate Course for Health Care Professionals

Strong Memorial Hospital

PARTNERS

External partners include the Medical Center Insurance Company, hospital employees throughout the Finger Lakes region, and the Regional Primary Care Network. Internal partners include the University of Rochester School of Medicine and University of Rochester Medical Center.

CONTACT

Robert Panzer, M.D.
Chief Quality Officer
Strong Memorial Hospital
601 Elmwood Avenue
Rochester, NY 14642
(585) 273-4438
robert_panzer@urmc.rochester.edu

PROJECT DESCRIPTION

Strong Memorial Hospital designed a comprehensive program to increase knowledge about patient safety and to educate health care professionals on the latest theories on the topic. The program consists of ten sessions over a five-month period. The topics included leadership's role in nurturing a culture of safety, an understanding of malpractice, crisis management and teamwork techniques from the aviation industry, creating a safer medication system, the science of medical errors, voluntary and mandatory reporting systems, achieving lean and error-free performance, safety in clinical research, and the business case for safety.

Senior clinical and administrative leaders of Strong Memorial Hospital served as program faculty and combined case studies with presentations and discussions. Upon completion of the course, attendees were knowledgeable about methods to increase patient safety and strategies to reduce patient risk. All staff were offered these programs and continuing education credits were available.

OUTCOMES

- More than 600 health care professionals graduated from the five-month, ten-session course in five years.
- Ninety-eight percent of participants say they were satisfied with the courses, and 97% of graduates recommend the course to others.
- Strong Memorial Hospital achieved higher overall scores in the "overall perception of safety" category benchmarks for the national Agency for Healthcare Research and Quality.

LESSONS LEARNED

- The safety course can be replicated at non-teaching hospitals, utilizing internal leadership/content experts and some dedicated coordination support. The majority of the audiovisual/teaching materials are publicly available.
- The course is easily modified as demonstrated by a "satellite version" of the course successfully held at a regional location with a subset of the course/faculty.
- The number/length of sessions were considered "just right" by the vast majority of participants.

Promoting Patient Participation in Health Care: The Partners Program

The Kingston Hospital

PARTNERS

The hospital's risk manager, patient safety coordinator, nursing and medical staff, and allied professionals participated with patients and families.

CONTACT

Sue Baker-Skunca
Ashley Buckley
The Kingston Hospital
396 Broadway
Kingston, NY 12401
(845) 334-2700
sbaker@kingstonhospital

PROJECT DESCRIPTION

Based upon research and need, The Kingston Hospital Performance Improvement Department led implementation of The Joint Commission's "Speak Up" program, which encourages patients to become partners in their health care and safety. The literature shows that this kind of patient involvement improves patient satisfaction and outcomes.

The "PARTNERS" patient methodology includes:

- P PARTICIPATION:** Patients are encouraged to be an active member of their medical team.
- A ASK QUESTIONS:** Patients should ask if there is anything about their diagnosis, treatment, medication, or care they do not understand.
- R RESPOND:** Patients are encouraged to be honest and forthcoming.
- T THINK:** The patient's thoughts and opinions are valued.
- N NEEDS:** The hospital staff want to be alerted and sensitive to patient needs, so patients are encouraged to communicate their needs.
- E EDUCATE YOURSELF:** Knowledge is power. The hospital provides a variety of ways for patients to receive information and education.
- R RELAX:** Studies show that relaxation can facilitate recovery. Patients are encouraged to ask the nurse about stress relieving techniques.
- S SAFETY:** The hospital values any suggestions or comments that would improve the level of safety.

OUTCOMES

- The Kingston Hospital achieved an 11% reduction in patient complaints in year one (2004 to 2005).
- There was an additional 5% reduction in patient complaints in year two (2005 to 2006).

LESSONS LEARNED

- Hospital staff need to encourage patients and family members to "Speak Up" to enhance patient safety and to ensure the effectiveness of the initiative.

Implementing Crew Resource Management in the Surgical Service

Vassar Brothers Medical Center

PARTNERS

The partners include the chief executive officer and president of the hospital and the directors of anesthesiology, surgical services, and risk management.

CONTACT

Sue Sullivan, R.N.

Corporate Director, Risk Management
Vassar Brothers Medical Center
45 Reade Place

Poughkeepsie, NY 12601
(845) 483-6015

ssullivan@health-quest.org

PROJECT DESCRIPTION

The literature and evidence shows that poor communication is among the most frequent causes of medical error. With the ultimate goal of providing safe, effective health care and achieving the hospital's patient safety strategic initiative, Vassar Brothers Medical Center committed to bringing Crew Resource Management (CRM) aviation communication systems to the facility in 2005.

By November 2005, a multi-disciplinary surgical team developed aviation-style communication scripts, assertive statement techniques, and checklists for surgical services. The assertive statements provided the mechanism to empower everyone to stop the procedure if they felt something was wrong. Having members of the surgical team develop the tools that they would be using provided them with a sense of ownership. The newly-developed tools and scripts included:

- Challenge and Response Operating Room Pre-operative Checklist,
- Pre-operative Time-out,
- Turnover of Care Briefing,
- Nurse to Nurse Report,
- Anesthesiologist to Anesthesiologist Report,
- Operating Room Transfer Report to Critical Care Units, and
- Post-anesthesia Care Report.

OUTCOMES

Through this initiative, Vassar Brothers Medical Center achieved:

- full compliance with pre-operative time-out briefings,
- full compliance with correct patient/correct site surgery,
- aversion of three wrong-site surgeries and one significant medication error,
- full compliance with implementing teamwork behaviors,
- zero operating room sentinel events,
- enhanced communication with standardized scripted hand-off reports,
- employee turnover well below the hospital mean,
- twenty-five percent reduction in the number of clinical medical discrepancies,
- twenty percent reduction in equipment-related discrepancies,
- twenty percent reduction in injury-related discrepancies, and
- fifty percent decrease in patient identification medical discrepancies.

LESSONS LEARNED

- Hard-wired tools, redundancy, and human factors training influence behaviors.
- Physician leadership and champions are required for culture change.

INFECTION CONTROL

Reduction of Nosocomial Pressure Ulcers for Inpatients, with a Specific Emphasis on the Intensive Care Units

Brookhaven Memorial Hospital Medical Center

PARTNERS

External partners include National HillRom Pressure Ulcer Survey and Stryker Corporation. Internal partners include nursing staff, managers, educators and administrators, the interdisciplinary performance improvement committee, and physicians.

CONTACT

Jane Both, R.N., M.S.N.

Director of Nursing Education and Research
Brookhaven Memorial Hospital Medical Center
101 Hospital Road
Patchogue, NY 11772
(631) 687-2817
jboth@bmhmc.org

PROJECT DESCRIPTION

Brookhaven Memorial Hospital Medical Center made an organizational commitment to decrease the incidence of nosocomial ulcers, with a particular focus in the intensive care unit. A wound care team was formed to assess the current practice, evaluate strategies for implementation, and improve clinical outcomes. The nursing department researched current literature and used evidence-based practices as a foundation for the project. Baseline data were already available and ongoing data collection continued. The hospital leadership strongly supported the initiative and required monthly data reports and updates to be presented to the Performance Improvement Committee, which consists of physicians, members of the board, and administration.

OUTCOMES

- The nosocomial rate of pressure ulcers in medical-surgical patients decreased from 18% to 5.3% from 2004 to 2006.
- The nosocomial rate of pressure ulcers in the ICUs decreased 59% from 2005 to 2006.
- Nursing staff now follow standing order protocols depending on the Braden Score Assessment Tool.
- Need for specialty support surface bed rentals in the ICU decreased 73% over one year.

LESSONS LEARNED

- Patient care can be improved with protocols for pressure ulcer management.
- Decreased nosocomial pressure ulcer rates may contribute to lower lengths of stay.
- Commitment from hospital leadership is key to positive outcomes.
- Ongoing risk assessment, prevention, and early intervention are keys to the prevention of pressure ulcers.
- It is essential to integrate all interdisciplinary departments.

Decrease in Nosocomial Surgical Site Infections Through Proper Hand Hygiene

Columbia Memorial Hospital

PARTNERS

Internal partners include family care centers, infection control, medical imaging, human resources, food service, materials management, nursing, education, medical records, long-term care, laboratory, and housekeeping departments.

PROJECT DESCRIPTION

In July 2004, Columbia Memorial Hospital created its multi-disciplinary hand hygiene committee to address the functional and educational needs of the institution regarding infection control practices relative to hand hygiene. Mandatory education for all staff was implemented including a hand hygiene module on the Intranet, to be completed annually. Educational materials available to staff include self-study modules, pamphlets, CD-ROMs, and videos.

A “Germ Mobile” tours the facility with hand hygiene demonstrations. Staff practices are surveyed regularly regarding barriers in their work environment, equipment, and supplies. Hand hygiene stations and hand sanitizers were supplemented by adding more sinks in patient care areas. Additionally, stickers are strategically placed as visual cues to remind staff to wash their hands. Staff are continuously educated via the hospital’s newsletter, and the hand hygiene policy is regularly revised and updated.

OUTCOMES

- The number of surgical site infections in 2006 decreased by 29%.
- Eighty percent of staff received in-service education on hand hygiene.

LESSONS LEARNED

- Continuing education, visual cues, and increased resources directly impact hand hygiene compliance, which directly affects nosocomial surgical site infections.

CONTACT

Mary Sweet, R.N.

Infection Control Coordinator
Columbia Memorial Hospital
71 Prospect Avenue
Hudson, NY 12534
(518) 828-8271
msweet@cmh-net.org

A Multi-disciplinary HIV Point-of-Care Testing Program in an Acute Care Hospital

Coney Island Hospital

PARTNERS

This took the efforts of a multi-disciplinary team composed of infection control, clinical HIV services, laboratory services, social work services, nursing, medicine, and information technology services.

CONTACT

Robin Haag

Director, Infection Control
Coney Island Hospital
2601 Ocean Parkway, Room 909
Brooklyn, NY 11235
(718) 616-3111
haagr@nychhc.org

PROJECT DESCRIPTION

In 2005, Coney Island Hospital undertook a point-of-care (POC) testing initiative to help patients become aware of their human immunodeficiency virus (HIV) status, regardless of individual risk factors. The process begins with a nursing assessment to determine if a patient knows his or her HIV status. Patients are encouraged to be tested, as appropriate. Twenty-five HIV counselors (case workers, social workers, health educators, and nurses) have been credentialed to obtain patient consent within five minutes. A 20-minute POC oral fluid test is performed that eliminates the need for patients to return for their test results. Patients who test positive are immediately assigned to an HIV services case manager. This new system ensures no patients with positive test results are lost to the system before a follow-up appointment can occur. Quarterly meetings with HIV counselors are held to discuss the successes and weaknesses of the HIV testing program, and to identify recommendations for process improvements.

OUTCOMES

- Conventional HIV tests took ten days to get results, but POC test results are available in only 20 minutes.
- The number of POC tests increased from 114 in January 2006 to 677 in December 2006.
- No HIV testing was performed in the emergency room in 2005. On average, 120 POC tests are now performed monthly in the emergency room.
- HIV counselors can now order confirmatory tests for patients whose preliminarily results are positive.

LESSONS LEARNED

- Administrative support is essential to ensure the availability of physical and personnel resources.
- A multi-disciplinary team is needed to facilitate and oversee the day-to-day operations for POC HIV.
- Being a laboratory test, there must be supervision by a credentialed laboratory administrator.
- Roll out to departments individually using a “start small, think big” philosophy.
- The visions of yesterday can be today’s reality.

Comprehensive Strategy for Reducing Infection Rates and Containing MRSA in the Neonatal Intensive Care Unit

Crouse Hospital

PARTNERS

Members of the team included the NICU staff and director, infection control practitioners, NICU physicians, the infectious disease physician, hospital administration, and quality improvement staff.

CONTACT

Jennifer Watkins
Director, Quality Improvement
Crouse Hospital
736 Irving Avenue
Syracuse, NY 13210
(315) 470-7122
jenniferwatkins@crouse.org

PROJECT DESCRIPTION

The goals for this initiative were to decrease nosocomial infection rates in the neonatal intensive care unit (NICU), improve compliance with infection control policies, and minimize methicillin-resistant staphylococcus aureus in the NICU. A multi-disciplinary team was established to identify specific process improvements and evidence-based actions.

Recommended interventions included emphasis on hand-washing, surveillance cultures for MRSA, screening on admission of babies 24 hours old or older brought by transfer, cohorting of MRSA-positive infants in a closed nursery, gloves and gowns worn by staff and families for all patient contact, reduced movement of infants between nurseries, cleaning regimens, controlled use of Aquaphor, and standardization of infection control protocols.

An educational script was created for the NICU and ancillary staff, to be completed across all shifts. A monthly infection control audit to monitor compliance with hand-washing is conducted. Statistical process control charts for total infections and total bloodstream infections are being used to monitor infection rates in the NICU and provide a standard for measuring ongoing improvement.

OUTCOMES

- The rate of total infections decreased from 4.91 to 3.79 infections per 1,000 patient days.
- Total bloodstream infections decreased from 3.29 to 2.69 infections per 1,000 patient days.

LESSONS LEARNED

- Use and continued monitoring of infection control practices in the NICU have shown to be effective in controlling MRSA outbreaks.
- Continued monitoring of hand-washing and other infection control techniques is necessary to ensure compliance.
- Education and involvement of the NICU staff and ancillary staff are critical.

A Systems Approach to Improving Immunization Status for the Hospitalized Adult Patient Utilizing the Electronic Medical Record

Eastern Long Island Hospital

PARTNERS

Partners include the chief executive officer, infection control coordinator, medical director, pharmacy director, and director of medical records; as well as leaders of patient services, quality services, and information technology.

CONTACT

Theresa Glass, R.N., M.S., C.C.R.N.

Director of Clinical Services
Eastern Long Island Hospital
201 Manor Place
Greenport, NY 11944
(631) 477-5359
tglass@elih.org

PROJECT DESCRIPTION

Eastern Long Island Hospital identified improving the immunization status of the eligible patient population as a priority and responded by developing a multi-disciplinary team using the Plan-Do-Study-Act cycle to evaluate the current system of screening patients for eligibility. The team sought to identify and minimize barriers to patient vaccination and education. The hospital implemented computerized nursing documentation and patient assessment sheets to assess all patients on admission for eligibility of both pneumococcal and influenza immunizations. The technological infrastructure also creates query reports that assist in capturing the data. Reports are shared with hospital leadership committees, and achievements are celebrated hospital-wide.

OUTCOMES

- All patients are routinely screened on admission for immunization status, a 68% increase compared to before this initiative was started. A computerized patient screening tool is now being used.
- Query reports have improved the data collection process.
- This project has increased staff awareness of patient immunization status.
- This project has enhanced patient education regarding immunization.

LESSONS LEARNED

- A successful quality improvement program must be interdisciplinary.
- Asking questions and active listening are essential.
- Technology is only as good as the people trained to use it.
- Leadership support is critical for success.
- Evaluation of staff knowledge for the rationale of providing vaccines was paramount in the culture shift for the success of the program.

How Lutheran Medical Center Combined Two Critical Safety Processes: CMS Surgical Infection Prevention and The Joint Commission Universal Protocol

Lutheran Medical Center

PARTNERS

The members of the interdisciplinary team include various nurse managers and staff, the chief of infection control, a surgical technologist, information technology administrator, pharmacy, and performance management.

PROJECT DESCRIPTION

Lutheran Medical Center formed a multi-disciplinary team to improve compliance with all three Joint Commission core measures related to surgical infection prevention. The team met weekly to strategize ways to increase compliance with pre-surgery antibiotics, antibiotic selection, and post-surgery antibiotic administration. The Joint Commission's additions to the universal protocol were included in the review.

A registered nurse in the operating room was designated as the "owner" of the time-out process. The committee chose to add a component to heighten awareness and help ensure that no procedure starts without the formal time-out process occurring. The team created "Peter-Peri-Op," a colorful cartoon character that serves as the mascot for the hospital's time-out process. Peter Peri-Op led the movement for zero tolerance for non-compliance. A registered nurse follows a standardized script to ensure that each component is addressed. An educational campaign was developed to introduce Peter Peri-Op to staff.

Patient advocacy was a very large part of the education process. It was critical that every staff member understand they were empowered to "stop the process" at any time if there were any discrepancies.

OUTCOMES

- Compliance rates for SIP-1, SIP-2, and SIP-3 measures by quarter for 2005 and 2006:

SIP Indicators	2005			
	1st Q	2nd Q	3rd Q	4th Q
Pre-surgery Antibiotics	61%	57%	71%	62%
Antibiotic Selection	86%	92%	96%	94%
Post-surgery Antibiotics	34%	45%	28%	42%
	2006			
	1st Q	2nd Q	3rd Q	4th Q
Pre-surgery Antibiotics	90%	94%	96%	94%
Antibiotic Selection	92%	89%	96%	94%
Post-surgery Antibiotics	52%	61%	78%	86%

CONTACT

Jose M. Hernandez, R.N., B.S.N.
 Vice President, Surgical Services
 Lutheran Medical Center
 150 55th Street
 Brooklyn, NY 11220
 (718) 630-6456
 jhernandez@lmcmc.com

How Lutheran Medical Center Combined Two Critical Safety Processes: CMS Surgical Infection Prevention and The Joint Commission Universal Protocol

Lutheran Medical Center (CONTINUED)

LESSONS LEARNED

- Lutheran Medical Center learned the importance of front-line staff involvement and ownership and the importance of senior administration support to this type of initiative.
- A multi-disciplinary approach is critical to sustainability.
- Concurrent review allows for dynamic process changes, based on trends.
- Patient education and involvement in the process increases safety.
- Combining both critical safety processes increases compliance.

Increasing Patients' Knowledge of their HIV Status Through a Provider-driven Rapid HIV Screening and Testing Model in the Emergency Department

Metropolitan Hospital Center

PARTNERS

External partners include New York City Health and Hospitals Corporation's Office of Corporate Planning, Community Health Partnerships and HIV Services, and the New York City Department of Health and Mental Hygiene. The project team included members from the ED and the departments of HIV services, medicine, nursing, pathology, health information services, and administration.

CONTACT

Marcie S. Rubin, M.P.H.

Assistant Director, Department of Medicine
Metropolitan Hospital Center
1901 First Avenue
New York, NY 10029
(646) 672-3430
marcie.rubin@nychhc.org

PROJECT DESCRIPTION

Metropolitan Hospital Center (MHC) is located in a community with an estimated human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) prevalence rate of 2.4% and a high rate of undiagnosed HIV infection. MHC designed an initiative to increase the number of individuals who are aware of their HIV status: a provider-driven testing model including routine rapid HIV screening and testing in the emergency department.

Through the coordination of a multi-disciplinary team, this model now screens all patients age 13 and older at triage for their self-reported HIV status and offers a rapid HIV test. MHC's goal is to ensure that all patients who agree to be tested are tested during their ED visit and are discharged knowing their HIV test result. A trained HIV counselor is in an advisory role to ensure that proper procedures are followed and that patients who test HIV-positive are efficiently and effectively linked to HIV primary care.

OUTCOMES

- From August through November 2006, 100% of eligible ED patients age 13 and over were screened for their HIV status.
- In August 2006, the first month of recorded screening questions, 226 patients were tested before discharge.
- In October 2006, the first month of completely provider-driven testing, 374 patients (45%) were tested before discharge.
- In November 2006, 449 patients received rapid HIV tests in the ED, which represents 67% of the ED patients who agreed to HIV testing during triage.

LESSONS LEARNED

- Top-down support is vital to the initial and long-term success of the program.
- "Buy-in" from the ED front-line staff is imperative.
- A detailed electronic medical record system that requires the documentation of all patients' screening and testing status is necessary.
- Continuous training and reinforcement is needed to ensure rapid HIV screening and testing continues.

Enhancing Timeliness and Accuracy of Chemotherapy Orders through Creation of an Electronic e-Forms Process

NYU Hospitals Center

PARTNERS

The multi-disciplinary task force includes members from oncology nursing/infusion services, cancer center medical staff, the pharmacy service, and information technology.

CONTACT

Kathleen Mullaly, M.S.N., R.N.

Director of Clinical Services, Cancer Center

NYU Hospitals Center

550 First Avenue

New York, NY 10016

(212) 731-5145

kathleen.mullaly@nyumc.org

PROJECT DESCRIPTION

Given the increasing volume of patients receiving chemotherapy, NYU Hospitals Center created a multi-disciplinary team with senior leadership support to address the timelines and accuracy of chemotherapy orders. Within three months, the team created an electronic chemotherapy order e-forms system to optimize patient safety and patient flow. Structured team meetings resulted in the identification of project objectives, customization of physician templates with commonly prescribed regimens, and an ongoing review of key pharmacy and nursing elements. Communication of results and recommendations throughout the organization has helped to support overall process improvement efforts and serve as a springboard for other initiatives.

OUTCOMES

- Four months after implementation, 44% of cancer center chemotherapy orders were placed using the chemotherapy e-form process; 16 months post-implementation, the number is near 89%.
- Increased patient safety resulted from a compulsory three-tier review system (prescriber, nurse, and pharmacist).
- The amount of time necessary for direct transmission of orders from physician to pharmacy was reduced.
- This initiative increased mean patient satisfaction scores for “chemotherapy wait times” from 79.9 during fourth quarter 2005 to 83.6 during fourth quarter 2006.
- Physician satisfaction increased because of the creation of customized regimen-specific templates.
- This project addressed multiple Joint Commission requirements related to safe medication management review.

LESSONS LEARNED

- Phasing in the program among early adopters and high-volume physicians facilitated buy-in.
- The automation process highlighted opportunities to identify best practices and increase standardization by identifying outstanding policy issues and increasing consistency across physicians.
- Color-coding helps facilitate orders.
- Automating certain dose calculations reduced the chance of miscalculations.
- Increased collaboration supports hospital service standards regarding teamwork, communication, and patient safety.

Decreasing the Incidence of Nosocomial Pressure Ulcers in a Long-term Care Facility

Our Lady of Consolation Nursing Home

PARTNERS

Internal partners include administration, physicians, nursing, physical and occupational therapy, and nutritional services staff.

PROJECT DESCRIPTION

The goal of this initiative was to decrease the incidence of nosocomial pressure ulcers for the residents and patients of Our Lady of Consolation Nursing Home. A multi-disciplinary wound care team was formed to assess and revise documentation, flow sheets, wound care formularies, and assessment tools. The team analyzed various quality indicators and measures to quantify the initiative's success. In addition, the facility generated data using its "Pressure Ulcer Statistics Data Collection Tool."

The data are presented and discussed at quarterly performance improvement meetings, where representatives from all disciplines may query the data and make suggestions for improvements. From this meeting, sub-committees are formed to address specific concerns or problems. Wound care data are also presented to the governing board's performance improvement committee for further discussion and review.

This multilevel performance improvement structure and reporting system has reduced the incidence of nosocomial pressure ulcers.

OUTCOMES

Year	Incidence Rate	Number of Cases
2003	5.54%	287 residents/patients developed pressure ulcers
2004	4.17%	220 residents/patients developed pressure ulcers
2005	3.24%	164 residents/patients developed pressure ulcers
2006	1.78%	92 residents/patients developed pressure ulcers

LESSONS LEARNED

- Continuous presence of physicians on wound care rounds and as permanent members of the wound care teams was a key to success.
- Reduction of in-hospital diseases can occur with implementation of proper protocols for pressure ulcer management.
- Commitment from hospital leadership is key to positive outcomes.
- A multi-disciplinary approach is critical to sustainability.
- Ongoing risk assessment, prevention, and early intervention are keys to the prevention of pressure ulcers.

CONTACT

David Siskind, M.D.

Medical Director

Our Lady of Consolation Nursing Home

111 Beach Drive

West Islip, NY 11795

(631) 587-1600 ext. 8249

david.siskind@chsli.org

Prevention of Nosocomial Pressure Ulcers

Seton Health

PARTNERS

Partners in this intervention included nurses, physical therapists, wound care specialists, ostomy nurses, dieticians, nursing home staff, and the board of directors.

CONTACT

Debra L. Frenn, M.S.N.

Senior Vice President/Chief Nurse Executive
Seton Health
1300 Massachusetts Avenue
Troy, NY 12180
(518) 268-5463
dfrenn@setonhealth.org

PROJECT DESCRIPTION

Seton Health selected the elimination of preventable nosocomial pressure ulcers as an important initiative to improve quality, decrease mortality, and decrease avoidable injuries to patients in the hospital and nursing home. The journey to eliminate acquired pressure ulcers began in 2004, with a comprehensive review of skin and wound protocols. A multi-disciplinary team developed and implemented a series of best practice guidelines and developed a skin bundle of interventions. All patients are screened at admission and monitored throughout their stay for symptoms of skin breakdown. A series of interventions are implemented to prevent pressure ulcers from occurring. Outcome measures show a significant decrease in pressure ulcer prevalence coinciding with the implementation of the Skin and Wound Assessment initiatives. Outcome data collected in regard to pressure ulcers were presented to nursing staff, senior leadership, and the board of directors.

OUTCOMES

- The observed rate of pressure ulcers decreased from a high of 12 in April 2006 to zero in October 2006.
- There was a progressive decline (50%) of Stage II ulcers over the same period.
- Reduction of pressure ulcers went from an average of 17.5 in 2004 to 12.75 in 2006.

LESSONS LEARNED

- A multi-disciplinary approach is valuable for positive outcomes.
- Proper surfaces are important.
- Education, a champion on each unit, and leadership support and manager buy-in are essential.
- Pressure ulcer reduction is sustainable.

Wound Healing Initiative

South Nassau Communities Hospital

PARTNERS

Curative Health Services, along with multi-specialty physicians, podiatrists, wound care nurses, technologists, and support staff partnered to implement this initiative.

CONTACT

Laura Righter

Program Director, Wound Care Center
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-8504
lrighter@snch.org

PROJECT DESCRIPTION

The Wound Care Center (WCC) at South Nassau Communities Hospital brought together an interdisciplinary team to analyze current processes and improve wound management and healing rates. By using a disease management approach, each patient is provided coordinated care management including the appropriate level of support to minimize waste, save money, and avoid unnecessary or duplicative treatment.

The facility has monthly meetings with staff and physicians where outlier reports by physicians are distributed and cases are discussed to identify changes to treatment plans. The team encourages staff to obtain infectious disease consultations on wounds that are not improving. In addition, the team is involved with patient education and improving patient compliance with the treatment plan.

OUTCOMES

- The overall healing rate in 2006 was 93%; the national benchmark was 89.1%.
- The healing rate for pressure ulcers is now 88.55%, exceeding the national benchmark of 86.65%.
- The healing rate for diabetic wounds is 92.75%, higher than the national average of 89.4%.
- The healing rate for venous wounds was 95.7%, compared to the national average of 89.82%.

LESSONS LEARNED

- Continuously review clinical pathways and adhere to the approach that one cannot take a “wait-and-see” attitude.
- Hold monthly wound care meetings that include physicians and staff; meetings need to include education/in-service on new technologies and products, along with peer review.
- Physician-specific outlier cases and physician’s individualized healing rates must be distributed and reviewed.

A Bundle Approach to Reduction of Post-operative Cardiothoracic Surgery Wound Infections at a Community Hospital

St. Elizabeth Medical Center and
Mohawk Valley Heart Institute

PARTNERS

The team included infection control staff, quality management staff, and the infection control committee, along with nurse managers, chief physician assistant, clinical pharmacist, nursing staff, clinical nurse educator, and a cardio-thoracic operating room perfusionist.

CONTACT

Linda Kokoszki, R.N., B.S.
Infection Control Coordinator
St. Elizabeth Medical Center
2209 Genesee Street
Utica, NY 13501
(315) 798-8374
lkokoszk@stemc.org

PROJECT DESCRIPTION

The goal of this initiative was to reduce the rate of infection in both sternal and donor site incisions through a multifaceted or “bundle” approach. The facility conducted a retrospective surveillance review of the previous three years’ surgeries related to coronary artery bypass graft (CABG). In addition, the hospital used the Plan-Do-Study-Act methodology to improve performance and patient safety.

A multi-disciplinary team was formed to conduct an extensive literature search to find best practices. The bundle approach aimed to reduce antibiotic-to-incision time, provide education for staff, begin use of Nanocrystalline silver barrier dressing on all incisions, active surveillance culture screening of all CABG patients for methicillin-resistant staphylococcus, control peri-operative glucose levels using the Portland Protocol, and creation of a step-down unit. Data were collected, performance was monitored, and undesirable trends were analyzed. Presentations were made to senior leadership and cardiothoracic surgeons.

OUTCOMES

- The surgical site infection rate declined from 4.7 in 2004 to 1.6 in 2005, and results were sustained in 2006 at 1.5.
- The post-intervention length of stay decreased from 11.15 to 9.9.
- The donor site infection rate dropped to zero in 2006 for the first time since the program began.
- Cost savings were estimated to be greater than \$250,000 for the first year.

LESSONS LEARNED

- The synergistic effect of multiple interventions resulted in a dramatic decrease in surgical site infections.
- An anesthesiologist assisting with antibiotic administration enabled the facility to meet its goal.
- Numerous dressing approaches using Nanocrystalline silver needed to be tried with the end decision to promote reliability by using the same approach on harvest and sternal sites. Nursing report wounds are less erythematous.
- By identifying patients colonized with MRSA, St. Elizabeth Medical Center was able to substitute Vancomycin for Cefazolin and minimize the transmission to other patients.
- Total staff buy-in was crucial for the success of this project.

Health Care Worker Accountability for Hand Hygiene

United Memorial Medical Center

PARTNERS

Partners included senior leadership, control liaisons, clinical managers, the patient safety and infection standards committees, and the infection control department.

PROJECT DESCRIPTION

To increase compliance with the Centers for Disease Control and Prevention's hand hygiene guidelines, United Memorial Medical Center elected to use humor combined with visuals and accountability. Education had been provided through mandatory infection control programs, videos of what not to do, button campaigns, and patient safety education. United Memorial Medical Center's Standards Committee invented "Safety Sid," a character used in a poster campaign addressing the patient safety goals with humor. In addition, each manager was responsible for obtaining the signatures of his or her staff, indicating awareness of hand hygiene.

OUTCOMES

From the fourth quarter of 2005 to the fourth quarter of 2006:

- overall hand hygiene compliance improved from 64% to 86%;
- hand hygiene before patient contact improved from 52% to 79%; and
- hand hygiene after patient contact improved from 73% to 91%.

LESSONS LEARNED

- The support of senior leadership is critical and effective in changing behavior.
- Adult learning is enhanced by multiple methods—visual, audio, written, etc.; however, education alone does not always change behavior.
- Accountability is critical for changing behavior.

CONTACT

Lorri Goergen, R.N., B.S.N., C.I.C.

Infection Control Coordinator
United Memorial Medical Center
127 North Street
Batavia, NY 14020
(585) 344-5436
lgoergen@ummc.org

MEDICATION MANAGEMENT

Integrating the Medication Reconciliation Process into the Physician H&P and Orders

Albany Medical Center

PROJECT DESCRIPTION

A key component of high-quality care is appropriate reconciliation of medicines required during a patient's hospital stay. Albany Medical Center determined it needed to improve its process for reconciling medications on admission after learning that appropriate reconciliation occurred only 12% of the time. It embarked on a quality improvement project that reviewed current approaches before developing a new process.

The Albany Medical Center Patient Care Steering Committee sponsored a multi-disciplinary team to develop a standardized process for medication reconciliation. The team completed a literature search, reviewed The Joint Commission standards, and identified best practices nationwide. An assessment of the hospital's process for medication reconciliation was made to obtain baseline data. The team studied the following three different written approaches to documenting a patient's medications prior to admission and formulating a medication plan and orders:

- **History and Physical (H&P) Record Model**, which lists the patient's pre-admission medications with or without a check box for the admitting practitioner to note the plan for each medication on admission;
- **Order Form Model**, which documents the pre-admission medications and incorporates the physician's desire to continue or discontinue the medications; and
- **Hybrid Form Model**, which serves as both an historical record of prior medications and as an order form for in-hospital medications.

Each model was tested using the Plan-Do-Study-Act cycle. It was agreed that compliance would likely improve if the form was incorporated as a duplicate on the back of the H&P document. Guidelines were developed once the tool was finalized, and education is continually provided.

OUTCOMES

Admission medication reconciliation compliance improved from 12% at the beginning of the process to 92%, thus significantly enhancing patient safety.

LESSONS LEARNED

- Multi-disciplinary teamwork is the key to success, including physician involvement from different specialties.
- Ongoing education is essential with implementation of new forms after initial education.
- A consistent "look" to forms assists with compliance.

PARTNERS

The pharmacy, health information management, and quality management departments worked along with nursing and physician groups.

CONTACT

Greg McGarry

Vice President, Communications
Albany Medical Center
43 New Scotland Avenue
Albany, NY 12208
(518) 262-3421
mcgarrg@mail.amc.edu

PARTNERS

The executive director of operations and the directors of pharmacy and nursing worked with the members of the patient safety and medication incident review committees.

CONTACT

Darlene Schrantz, R.N., B.S.N.

Director of Nursing
Bertrand Chaffee Hospital
224 East Main Street
Springville, NY 14141
(716) 592-2871
dschrantz@bch-jbr.org

Improving the Medication Night Cabinet

Bertrand Chaffee Hospital

PROJECT DESCRIPTION

In August 2006, Bertrand Chaffee Hospital implemented a change in the after-hours medication retrieval process to comply with The Joint Commission standard that deals with access to medications when the pharmacy was closed. Medication retrieval was required every time the pharmacy was entered after business hours. The hospital needed to devise a plan to decrease the number of medication retrievals, along with improving patient safety. The hospital's small size and financial circumstance made it unable to implement automated dispensing machines. Therefore, the number of medications kept on the night cart was increased to be readily available to the nurses. A secure medication room with proper lighting was created with a medication binder listing the medications by both brand and generic name, along with the drawer in which they were stored.

OUTCOMES

- Data from 2005 showed the number of after-hour pharmacy entries averaged 157 per month; the 2006 average was 126 per month, and five months after implementing the night cart changes the average number of entries dropped to 65 per month.

LESSONS LEARNED

- The new process reduced the time needed for patients to receive medications after-hours.
- The new process had a positive effect on patient safety, by possibly reducing medication errors from nursing supervisors having to find the correct medication on the pharmacy shelf.
- The hospital achieved compliance with recommended standards for after-hours medication retrieval.

Development of a Medication Reconciliation Process in an Institutional Health Care Setting

Maimonides Medical Center

PARTNERS

Partners for this initiative included representatives from the pharmacy, nursing and physician leadership, hospital administration, performance improvement, and management information systems staff.

CONTACT

Susan Goldberg, R.N., B.S.N., M.P.A.
Director of Organizational Performance
Maimonides Medical Center
4802 10th Avenue
Brooklyn, NY 11219
(718) 283-8337
sgoldberg@maimonidesmed.org

PROJECT DESCRIPTION

Maimonides Medical Center's leadership recognized medication errors are the most common type of medical error and that communication issues are the primary root cause of adverse events. A standardized, comprehensive process for medication reconciliation across the continuum of care was an institutional priority. A goal was established to implement a process that all patient care providers would readily adopt and incorporate into their existing workflow.

A multi-disciplinary team developed a medication reconciliation form (MRF) used by physicians, nurses, and licensed independent practitioners (LIPs). To facilitate communication and joint ownership of the process, the physician history and physical and the initial nursing assessment forms were merged. The MRF is the only place where a current medication list is documented. The physician and LIP reconcile medications, and orders are then entered into Maimonides Medical Center's computerized physician order entry (CPOE) system. An automated discharge prescription-writing pathway was introduced, integrating medication reconciliation, generation of prescriptions on New York State Department of Health official prescription paper, and a printed list of discharge medications. The discharge medication list is also available to any affiliated physician who has access.

OUTCOMES

- Overall compliance with the medication reconciliation process increased from 45% at the project rollout to 70%.
- The compliance rate with the nurse validating the medication history was 28% at project rollout and is currently 66%.
- Physician/nurse practitioner/physician assistant compliance with reconciliation of admission medications increased from 36% at project rollout to 61%.
- The initial compliance rate with the automated discharge reconciliation/prescription process increased from 77% to 83%.

LESSONS LEARNED

- The planning stage of the project must include all disciplines that will be involved and impacted by the process changes.
- End-user feedback is critical at all stages of planning and implementation.
- Piloting the project before organization-wide rollout is integral to overall success.
- Reinforcement and re-education are essential to maintaining gains.

Pain Management Program

McAuley-Seton Home Care Corporation/
Catholic Health System

PARTNERS

External partners include Catholic Health System committees, physicians, and patients. Internal partners include staff development and IT departments, hospital leadership, and clinicians.

PROJECT DESCRIPTION

With its “frequency of pain interfering with patient’s activity or movement” indicator at 46%, McAuley-Seton Home Care prioritized pain management as a performance improvement initiative. The target was to achieve national and New York State comparison group outcomes.

A multi-disciplinary team identified the following focus areas for the pain management program: data collection and analysis, policy and procedure development, multi-disciplinary collaboration, and education. The team drafted a *Summary of Guidelines for Pain Management* and developed or adapted tools to use as part of the pain management initiative. In addition to internal educational offerings, education was provided by a local hospice.

Internal reports continue to be developed in conjunction with the facility’s information technology staff to identify areas for improvement. Information is transmitted to clinicians through team meetings, memoranda, newsletters, and voicemails. Data are disseminated to the leadership team, professional advisory committee, and board of directors via monthly “dashboard” reports and quarterly Centers for Medicare and Medicaid Services Home Health Compare data.

OUTCOMES

- In November 2003, the organization’s baseline pain score was 46%, compared to 59% nationally and 63% in New York State. Upon implementation, the next three reporting period scores incrementally increased to 49%, 51%, and 53%.
- From March 2005 through December 2006, pain management scores improved from 53% to 62%. McAuley-Seton’s scores have continued to increase, as national and New York State groups remain static.

LESSONS LEARNED

- It is not quick or easy to move the scores related to patient outcomes.
- Multi-disciplinary teamwork is essential to comprehensive program development.
- Concurrent data monitoring is critical to success.
- Dashboard reports keep initiatives and progress at “top of mind.”

CONTACT

Maureen Walsh Koricke

Director of Performance Improvement
McAuley-Seton Home Care Corporation
14 Appletree Mall
Cheektowaga, NY 14227
mwalsh@chsbuffalo.org

A Multi-hospital Implementation of an Electronic Medication Administration Record to Improve Nursing Workflow and Enhance Medication Safety

New York City Health and Hospitals Corporation

PARTNERS

Implementation was accomplished with participation from HHC's physicians, nursing executives and pharmacy information systems advisory committees, The Courtyard Group, and Misys Healthcare Systems.

CONTACT

Louis J. Capponi, M.D.

Chief Medical Informatics Officer
New York City Health and Hospitals Corporation
160 Water Street
New York, NY 10038
(646) 458-3710
louis.capponi@nychhc.org

PROJECT DESCRIPTION

Between March 2005 and February 2007, New York City Health and Hospitals Corporation (HHC) implemented an electronic medication administration record (eMAR) in six acute care hospitals: Bellevue Hospital Center, Coney Island Hospital, Jacobi Medical Center, Kings County Hospital Center, North Central Bronx Hospital, and Woodhull Medical and Mental Health Center. More than 3,000 nurses were trained across 150 nursing units. The decision to implement the eMAR was based on excellent responses to a pilot study at three other HHC hospitals: Harlem Hospital Center, Lincoln Medical and Mental Health Center, and Metropolitan Hospital Center.

A pre-implementation time-motion study was completed to quantify problem areas in the paper system and to serve as a baseline for post-implementation comparison. Trained staff observed nurses picking up new medication orders during normal shifts. Specific steps were tracked, including locating the paper MAR, retrieving labels from printers, clarifying orders, creating the MAR, and documenting medications administered. A project management team met bi-weekly to monitor progress, engage needed resources, review eMAR development, solve issues identified during application configuration and testing, oversee training, and go live. The eMAR used a standardized approach, which was applied to large-scale software implementation, across the system.

OUTCOMES

- HHC achieved a 97.5% reduction in medication orders requiring clarification.
- 72% percent of nurses believe eMAR increases patient safety.
- 69% percent of nurses agree that orders come across clearly.
- 62% percent of nurses reported spending less time clarifying orders.
- 75% percent of nurses agreed that transcription errors have decreased with the eMAR.

LESSONS LEARNED

- Nursing leadership and physician engagement is key to success throughout the process.
- Implementation of eMAR uncovered sub-optimized computerized physician order entry setup and processes.
- Downtime procedures must be robust as the organization becomes more dependent on technology.
- Project management was invaluable in successful completion of this project.
- Daily status meetings during the eMAR launch allowed for rapid issue identification and resolution.
- The go-live support model with nurses working side by side worked well.

Improving Patient Safety by Implementing Bar-coded Medication Technology

Vassar Brothers Medical Center

PARTNERS

An inter-disciplinary team of physicians and nurses implemented this initiative with the strong support of executive leadership.

PROJECT DESCRIPTION

The benefits of implementing bar-coding technology were clear to Vassar Brothers Medical Center administration in terms of positive impact on patient safety and nurse satisfaction. Medication bar-coding technology is designed to reduce medication administration errors by verifying the five “rights” of medication administration: right patient, right drug, right dose, right time, and right route. Before implementation, a wireless network was installed in the hospital, along with 74 “Computers on Wheels” (COWs), 12 hand-held computers for respiratory therapy, and 30 bar code label printers. Workstations were mounted in every intensive care unit room. New bar-coded ID cards were issued to every employee. Nursing units were trained one at a time rather than “going live” hospital-wide. The Plan-Do-Study-Act philosophy of quality improvement was used, and after five months the medication bar-coding technology was implemented and in use throughout the organization.

OUTCOMES

- From November 2005 to December 2006, the nursing staff prevented 5,435 medication errors, with more than 1.4 million doses administered.
- 30% of prevented errors (1,648 of the 5,435 total) were categorized as “wrong drug,” with 23 of these having the potential to cause an adverse drug event.
- 39% percent (2,097) of the prevented errors were categorized as “wrong time,” in that they were administered outside the one-hour margin allowed.
- Just over 14% of the prevented errors involved expired or discontinued medication orders, and 8% of the errors prevented were classified as “wrong dose.”

LESSONS LEARNED

- Bar-coding has facilitated communication between departments at a level that never existed before.
- Analysis of data provided by COWs identified issues and trends.
- Hard-wiring of systems and processes is needed to prevent medical errors.

CONTACT

Denise Fink, R.N., M.P.H.

Manager, Quality
Vassar Brothers Medical Center
45 Reade Place
Poughkeepsie, NY 12601
(845) 483-6098
dfink@health-quest.org

PATIENT SAFETY

A Pediatric Safety Champion Team in Ambulatory Pediatrics

Beth Israel Medical Center—Milton and Carroll Petrie Division

PARTNERS

The team consists of two physicians, including the associate chairman of pediatrics; two registered nurses, including the nurse manager; a licensed practical nurse; a nursing care technician; a front-end staff member; and the office manager.

CONTACT

Daniel Neuspiel, M.D., M.P.H.

Physician

Beth Israel Medical Center—

Milton and Carroll Petrie Division

10 Union Square East

New York, NY 10003

(212) 844-8309

dneuspie@chpnet.org

PROJECT DESCRIPTION

Traditional incident reporting systems are not sensitive to most medical errors and near misses. The goal of this initiative was to determine the effectiveness of team-based reporting and a systems analysis and redesign model to improve reporting of medical errors, to detail the types of errors, and to initiate preventive strategies in a pediatric ambulatory care setting.

A voluntary, anonymous, non-punitive reporting system, paired with a team-based system analysis and monitoring of changes, was established in January 2006 in an outpatient pediatric department of an urban teaching hospital with approximately 34,000 annual visits. In addition, Beth Israel Medical Center established its multi-disciplinary Pediatric Safety Champion Team to analyze error reports and to create immediate recommendations for improvement.

OUTCOMES

- In the first 12 months of the project, 80 medical errors were reported, compared with one year before the project when only five errors were reported via the traditional incident reporting system.
- Reports originated from physicians (45%), nurses (41%), other staff (9%), and parents/patients (5%).
- Errors were classified as follows: office administration (34%), medications and other treatment (24%), laboratory and diagnostic testing (19%), and communications (18%).
- To date, 36% of error reports have resulted in complete system changes.

LESSONS LEARNED

- Voluntary, non-punitive reporting, with team-based systems' analysis and rapid redesign, has improved error reporting and resulted in system changes promoting safety.

Patient Safety Fall Team

Delaware Valley Hospital

PARTNERS

The partners include the quality improvement department, medical and surgical nursing staff and managers, the director of nursing, and housekeeping staff.

CONTACT

Christina Jones, R.N.

Quality Improvement/Environmental Program
Manager
Delaware Valley Hospital
1 Titus Place
Walton, NY 13856
(607) 865-2113
christina_jones@uhs.org

PROJECT DESCRIPTION

The focus of this initiative was to decrease the number of falls and prevent patient harm by implementing an effective falls prevention program, including physical improvements. The Delaware Valley Hospital Patient Safety Fall Team reviewed the system surrounding the risk of a patient fall from the admission assessment throughout the patient's stay. The multi-disciplinary team conducted a Failure Mode and Effects Analysis, reviewed all forms and policies related to patient falls, and conducted medical record reviews.

Multiple objectives were established: development of a multi-day *Fall Risk Assessment/Reassessment Form*; application of non-skid strips in the patient bathrooms; development of a *Patient Fall Investigation Form*; purchase of new non-skid slippers for the patients; and the development of a *Patient Fall Prevention Handout* and *Fall Prevention Program Policy*.

OUTCOMES

- Delaware Valley Hospital achieved a 56% reduction in the number of patient falls from 2004 through 2006.
- There has been one fall from a slip in the bathroom since the installation of the non-skid strips.
- In 2006, there were 11 acute falls (averaging 0.92 for the year; benchmark: 3.5 per 1,000 patient days), and five swing bed falls (averaging 0.42 for the year; benchmark: 4.5 per 1,000 patient days).

LESSONS LEARNED

- Development of a scoring system would alert staff to patients' increased safety needs.
- When all the beds on the unit were replaced with beds that had built-in bed alarms, the clinical staff required education that bed alarms needed to be turned on every time the patient returned to the bed.
- Better communication with housekeeping staff on the need for non-skid strips to decrease patient falls would have eased their frustration cleaning around the non-skid strips.

PARTNERS

Internal partners include administration, physicians, nurses, social workers, occupational therapists, and line staff. External partners include unions and consumers.

CONTACT

Martin Hamann

Vice President, Behavioral Health Services
Erie County Medical Center
462 Grider Street
Buffalo, NY 14215
(716) 898-3160
mhamann@ecmc.edu

The Psychiatry Task Force to Decrease the Use of Seclusion and Restraint and Patient-related Employee Injuries

Erie County Medical Center

PROJECT DESCRIPTION

Erie County Medical Center developed a multi-disciplinary task force to explore the variables involved in the use of seclusion and restraint and patient-related employee injuries. The team made several recommendations:

- revamp the in-service education program with an emphasis on de-escalation;
- increase staffing to provide activity programs all week;
- develop on-unit programming including community meetings, focus groups, and discharge planning groups;
- develop an on-unit schedule for physician back-up in emergencies; and
- increase registered nurse, social work, and discharge planning staff.

Erie County Medical Center began the process by redesigning treatment planning to be patient-centered. In addition, the facility arranged for site visits to other psychiatric facilities to review training, observe procedures, and assess the therapeutic environment.

OUTCOMES

- Use of seclusion/restraint decreased by 32% since initiation of the project in March 2006.
- Patient-related employee injuries decreased by 41% during the same period.
- Use of Intramuscular Prescription Required as Needed (IM PRN) medication decreased by 29% since the previous year.
- After initial resistance by staff to decreasing the use of seclusion/restraint through the use of de-escalation techniques, staff began to see the benefit in decreased employee injuries and less serious events.

LESSONS LEARNED

- When staff felt more confident in the use of verbal techniques in dealing with crisis situations, use of seclusion/restraint and IM PRN medication decreased.
- The increase in programming and unit activity decreased patient unrest and improved the therapeutic milieu.

Re-creating the Model of Care: Establishing a Team Approach

Good Samaritan Hospital Medical Center

PARTNERS

The partners for this initiative included nursing, medical, and allied staff.

CONTACT

Thomas Nolan

Director of Critical Care
and Emergency Department
Good Samaritan Hospital Medical Center
1000 Montauk Highway
West Islip, NY 11795
(631) 376-4076
thomas.nolan@chsli.org

PROJECT DESCRIPTION

Good Samaritan Hospital Medical Center recognized that staff were spending considerable time walking between patients and the nursing stations, leaving less time at the bedside and compromising the quality of care. The “SISTER” methodology was used to evaluate and implement change:

- (S) Select problem or area to improve.
 - Emergency department team model of care.
- (I) Initiate data gathering to establish baseline.
 - Patient and nurse satisfaction scores, ED length of stay, percentage of patients leaving before medical advice, and nursing-sensitive indicators.
- (S) Suggest changes or interventions to rectify problem or improve area.
 - Teams’ patients are contiguous, allowing for better visualization of patients, as well as improved staff accessibility and accountability.
- (T) Test change(s) implemented (new system, policy, procedure, etc.).
 - Champions helped educate staff on the new team model; staff satisfaction survey is performed after one month.
- (E) Evaluate change.
 - All indicators are measured against benchmarks and trended monthly or quarterly; indicators are used to assess quality of care and patient satisfaction.
- (R) Re-assess or monitor periodically to sustain change.
 - Quarterly and year-end analysis of indicators shows sustained improvement.

OUTCOMES

- Good Samaritan Hospital Medical Center achieved a 35% decrease in patient falls per 1,000 patient visits.
- There was a 46% decrease in patient falls with injuries per 1,000 patient visits.
- The hospital achieved a 15% reduction in length of stay (620 minutes to 525 minutes) in 2006.
- Patients leaving the ED before medical advice decreased from 4.4% in 2005 to 3.5% in 2006.
- National Database of Nursing Quality Indicators satisfaction scores for “time for patient care” increased from 38.71 to 46.45.

Re-creating the Model of Care: Establishing a Team Approach

Good Samaritan Hospital Medical Center

(CONTINUED)

- Using a staff satisfaction tool, 74.2% of respondents agreed or strongly agreed the work environment was improved in a number of categories.
- Overall, Press Ganey patient satisfaction rose from the 27th percentile to the 87th percentile.

LESSONS LEARNED

- A team approach with closer proximity to patients improves efficiency and effectiveness of care.
- Increased time at the bedside, better patient outcomes, and defined responsibilities have a positive effect on staff's ratings of the amount of care provided and the patients' perception of care.
- A team model decreases patient wait time and lengths of stay.

PARTNERS

The physical medicine and value analysis departments at Highland Hospital of Rochester participated in this campaign.

CONTACT

Sharon Johnson

Director of Quality Management
Highland Hospital of Rochester
1000 South Avenue
Rochester, NY 14620
(585) 341-8399
sharon_johnson@urmc.rochester.edu

Implementation of a No-lift Protocol

Highland Hospital of Rochester

PROJECT DESCRIPTION

This initiative examined the most effective way to prevent lifting injuries of direct care staff on the alternate level of care unit. Studies have shown that using lifting devices and patient handling techniques utilizing ergonomics principles decreases the risk of injury to nursing staff. Implementation of a zero-lift protocol for lifting and repositioning patients who are unable to do so independently promotes the safety of both nursing staff and patients with limited mobility.

The Highland Hospital No-lift Protocol consists of an algorithm defining criteria for use of particular lifting devices based on patient parameters and the use of correct body mechanics to reposition or turn a patient. Education and training was provided for the No-lift Protocol, use of the assistive equipment, and proper body mechanics. Physical therapy was consulted to assist with an in-service and provided written educational material for all staff.

OUTCOMES

- Highland Hospital of Rochester achieved a significant decrease in the number of lifting injuries for nursing staff providing direct patient care in the alternate level of care unit. There were 18 staff injuries with pre-implementation, and there have been two staff injuries post-implementation.
- A post-implementation staff survey shows improvement in the work environment.
- There has been a decrease in the fiscal impact of employee disability.
- The initiative fosters patient independence and functional ability.

LESSONS LEARNED

- Standardization of processes to reflect evidence-based practice results in measurable achievements.
- Leadership support is critical to sustaining change.

PARTNERS

The facility's geriatric nursing practice council, along with individual nursing units, worked with the Nurses Improving Care for Health System Elders program.

CONTACT

Jean-Marie Ake, R.N., M.A.
Nurse Manager
NYU Hospitals Center
550 First Avenue
New York, NY 10016
(212) 263-5620

Falls Prevention Program with a Goal to Identify Patients at Risk to Decrease the Number of Falls and Prevent Serious Injuries

NYU Hospitals Center

PROJECT DESCRIPTION

Nursing staff at NYU Hospitals Center had reported that according to the Hendricks, Kippenbrock, and Soja falls risk assessment predictive model, nearly all patients were at risk for falls. Falls data were reviewed to identify risks for the organization's patients. Two factors—dementia and/or delirium and impaired mobility—were identified as key predictors for patient falls in the hospital. A review of current literature was conducted to identify best practices and formulate appropriate interventions.

Four units—two medical units, one surgical unit, and one rehabilitation unit—were selected to serve as pilot units. Nurses assessed each admission for falls risk, and, if the patient was found to be at risk, a red armband was placed on the patient and red dots were placed on the doorway and at the nursing station intercom. Specific interventions were selected from guide sheets, implemented, and documented in the patient's medical record. A data collection sheet is completed for each patient for review.

OUTCOMES

- NYU Hospitals Center attained a significant decrease in falls per 1,000 patient days on pilot units.
- The average falls rate of the pilot units decreased from 5.8 in second quarter 2005 to 2.1 in third quarter 2005, while the house-wide rate did not fall as dramatically.
- The decrease in falls on the pilot unit has been sustained for five subsequent quarters post-implementation.

LESSONS LEARNED

- Each institution must look at its patient population and identify specific risk factors.
- Assessment tools and interventions must be specific to individual patient populations and easily accessible to bedside nurses for implementation.
- Adherence to completing the assessment and implementing the interventions on admission leads to decreasing fall rates.
- Efforts must be made to incorporate new staff into this practice.

Achieving an Optimal Sleep-Wake Cycle in a Dementia Patient Residing in a Chronic Care Setting

Our Lady of Mercy Life Center

PARTNERS

Nursing staff, medical practitioners, quality improvement specialists, administration, families, and the Capital Region Sleep/Wake Disorders Center contributed to this initiative.

PROJECT DESCRIPTION

Insomnia is a recognized common occurrence in people with dementia. The goal for this initiative was to achieve at least six hours of consolidated nighttime sleep in a dementia patient with known chronic insomnia. Bright light therapy consisting of daily 30-minute exposure at 10,000 lux, utilizing a full spectrum lamp placed 12 inches away from the patient's face, was administered over a four-month period. Adjunct treatment consisted of adherence to a sleep hygiene program. A companion was employed to observe the patient and maintain an activity/sleep journal from 11 p.m. - 7 a.m. After four months of bright light treatment, the patient showed an increase in nighttime consolidated sleep, a decrease in falls, and improvement in overall quality of life.

OUTCOMES

- Six to eight hours of consolidated sleep was achieved.
- Patients showed increased verbalization and improved articulation.
- There was a decrease in falls.
- The initiative reduced the risk for aspiration, delayed swallowing, and food pocketing.
- Patients gained weight.
- There was a reduction in the use of hypnotic medications/no use of antipsychotic medications.

LESSONS LEARNED

- A consistent schedule of daily bright light therapy improved nighttime sleep.
- Strict adherence to a sleep hygiene program created a pattern of behavior favorable for inducing sleep.
- Falls decreased as hours of nighttime sleep increased.
- The activity/sleep journal revealed the presence of Restless Legs Syndrome, which was treated with Requip and further improved sleep consolidation.

CONTACT

Agnes Petrucci, R.N.

Nurse Manager
Our Lady of Mercy Life Center
2 Mercy Care Lane
Guilderland, NY 12084
(518) 464-8100
apetrucci@stpetershealthcare.org

Behavioral Health Sentinel Event Prevention/ Patient Safety Project

Samaritan Hospital

PARTNERS

External partners for this initiative include the Office of Mental Health, New York Association of Psychiatric Rehabilitation Services, Substance Abuse and Mental Health Services Administration, Institute for Healthcare Improvement, and outpatient providers. Internal partners include behavioral health leadership and staff; and the quality, education and resources, and maintenance departments.

CONTACT

Scarlet Clement-Buffoline

Assistant Vice President, Behavioral Health
Samaritan Hospital
2215 Burdett Avenue
Troy, NY 12180
(518) 271-3539
clements@nehealth.com

PROJECT DESCRIPTION

Samaritan Hospital's Behavioral Health Department initiated a Sentinel Event Prevention/Patient Safety Project to focus on patient risk within its three inpatient units. This multifaceted project targeted the building environment and several inter-related aspects of patient safety. In its development and implementation, it focused on cultural change. Significant research was done related to industry standards, best practices, and benchmarking.

Execution of recommended improvements focused on staff education, partnering with other clinical and ancillary departments, continuous monitoring of implemented changes, and tracking/trending of outcomes. Routine staff and leadership rounding ensured that communication of successes and barriers occurred. Staff champions provided leadership and modeling within each clinical setting. As the project has evolved, it has taken on new challenges and identified opportunities to have patients become more involved.

OUTCOMES

- Restraint use was reduced by 87% since initiation of the project.
- The annual fall rate decreased by 55%.
- The rate of readmissions decreased by 26%.

LESSONS LEARNED

- Staff awareness and competencies, clinical assessment and intervention, and comprehensive policies and procedures related to safety are essential cornerstones of an effective safety program.
- No gains are made or sustained without cultural change.
- A focus on continuous quality improvement is necessary.

Reduction in Door-to-Balloon Time in Patients Presenting with an Acute ST-elevation Myocardial Infarction

South Nassau Communities Hospital

PARTNERS

External partners include Johns Hopkins University, New York State Department of Health, and North Shore-Long Island Jewish Health System. The multi-disciplinary team included leadership from the departments of medicine, cardiology, family practice, emergency medicine, CCL, performance improvement, information services, engineering, and patient care services.

CONTACT

Jason Freeman, M.D.

Director of Interventional Cardiac
Catheterization Lab
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-3670
jfreeman@snch.org

PROJECT DESCRIPTION

South Nassau Communities Hospital established a multi-disciplinary team to analyze and reduce door-to-balloon time. Extensive education of the medical and nursing staff was performed and collected data were continually analyzed. Opportunities for improvement were identified including: timeliness of electrocardiogram (EKG) performed, recognition of acute myocardial infarction, delays in notification and availability of physicians, and the patient transport process.

Actions were taken to improve the processes involved including development of documentation, definition of staff roles and new positions, establishing a dedicated telephone line in the emergency department, synchronization of clocks in the ED and cardiac catheterization laboratory (CCL), and creation of a broadcast page system. Data continue to be analyzed on an ongoing basis. Case review of all AMI patients is performed within 24 hours so that missed opportunities can be immediately identified and corrected.

OUTCOMES

- Door-to-balloon-time decreased by 28 minutes from first quarter 2005 to present.
- A full-time interventional cardiologist was added to the staff.
- A “broadcast” page was initiated to decrease physician and nurse arrival times once diagnosis is made.

LESSONS LEARNED

- It is important to educate ED staff for early recognition of EKG findings in AMI.
- Satellite synchronization of ED/CCL/EKG machine clocks for accuracy in reporting.
- A multi-disciplinary approach facilitates flow from ED to CCL.

Restraint Reduction in Behavioral Health

South Nassau Communities Hospital

PARTNERS

Partners include the behavioral health performance improvement committee, the BHU, the assistant vice president of behavioral health services, and the chair of psychiatry.

PROJECT DESCRIPTION

Staff at the South Nassau Communities Hospital Behavioral Health Unit (BHU) noticed an increase in the amount of restraints used with patients, so this initiative was started to help the BHU reduce the number of restraint episodes. To accomplish this goal, the staff needed to increase the high-risk patient's ability to cope with frustration and anger, thereby decreasing the need for restraint use. Patient restraint utilization was chosen as a high priority target because it can have a serious impact on safety and patient dignity. Using the Plan-Design-Measure-Assess-Improve methodology, a performance improvement team was established. Literature was reviewed to determine best practices in dealing with patients' frustration and anger. Data collection was assigned to a specific individual. Strategies were prioritized and selected by the team with the full support of the administration, including providing the necessary resources for staff education and training.

OUTCOMES

- South Nassau Communities Hospital achieved a 36% reduction in the restraint rate.
- The time in restraints decreased by 62%.

LESSONS LEARNED

- All staff are able to more easily recognize challenging, escalating, agitated, and unpredictable behavior in a patient, and intervene early and effectively to facilitate the patient's recovery.
- The facility is building toward recovery and resiliency for patients by including them as partners in treatment.

CONTACT

Christine Parks

Assistant Director, Performance Improvement
South Nassau Communities Hospital
One Healthy Way
Oceanside, NY 11572
(516) 632-4969
cparks@snch.org

Minimal Lift Program

St. Mary's Hospital

PARTNERS

External partners include Ascension Health, survey provider ErgoLogix, and the vendor Barton Medical Corporation. Internal partners include hospital administration, board of directors, human resources, nursing, maintenance, and education.

CONTACT

Kelly Flewelling

Human Resource Specialist
St. Mary's Hospital
427 Guy Park Avenue
Amsterdam, NY 12010
(518) 841-7157
flewellingj@smha.org

PROJECT DESCRIPTION

The increasing physical weight of the patient population was overtaxing the staff's ability to effectively care for patients. An ergonomic survey showed a significant number of patient handling injuries, and current equipment/procedures did not promote safe patient handling or good skin integrity. Based on these results, the Minimal Lift Program was developed by an interdisciplinary team. Capital requests were made to hospital administration for the necessary resources to establish the program for all bedside care providers.

Equipment was installed, including ceiling track lifts and a custom outdoor lift to safely lift and transfer bariatric patients from a car or ambulance. A comprehensive education program was established for all nursing staff along with policies mandating the use of equipment. Compliance is continually enforced in the hospital.

OUTCOMES

- Employee back-related injuries have been reduced from 22 in 2004, to 11 in 2005, one in 2006, and zero in 2007 thus far.
- The pressure ulcer rate has been reduced from 3.5 per 1,000 patient days in May 2006 to 0.9 per 1,000 patient days in December 2006.
- Employees voted St. Mary's Hospital one of the "Best Places to Work in the Capital Region" in the 2006 annual *Business Week* competition.
- There is an increased sense of dignity among bariatric patients with use of the new equipment.

LESSONS LEARNED

- The initial survey was instrumental in defining the overall scope of the problem.
- Success was only possible due to the combined efforts of leadership at all levels.
- Policies and procedures developed specific to equipment use need to be mandated.
- This program positively affected emergency medical services at entry to the hospital.

Improve Patient Safety through the Standardization of Emergency Response Equipment (Code Carts)

St. Mary's Hospital

PARTNERS

Mohawk Hospital Supply was an external partner. This hospital-wide collaboration included security, nursing, quality management, and risk management staff; the patient safety performance improvement counsel; and the quality executive, medical executive, capital budget, and intensive care unit committees.

CONTACT

Shean Strong
Project Manager
St. Mary's Hospital
427 Guy Park Avenue
Amsterdam, NY 12010
(518) 841-7128 ext. 10
strongs@smha.org

PROJECT DESCRIPTION

In its commitment to improving emergent care, St. Mary's Hospital implemented evidence-based practices recommended by the American Heart Association for the standardization of code carts. During an evaluation, it was noted that there was variation in the code carts maintained by each nursing department, making it difficult for staff to know what to expect when arriving at a code. This prompted the establishment of a multi-disciplinary committee to identify a centralized location for the creation, refurbishment, and maintenance of new, standardized carts. The committee identified how the carts would be designed and what equipment was to be in each one.

Before the project's completion, the hospital conducted a full assessment using a Failure Mode and Effects Analysis. Based on the results of this assessment, capital funding was provided to support this quality improvement priority and patient safety initiative. The intervention started in 2006 and since then there have been zero incidents reported due to ineffective code cart equipment.

OUTCOMES

- All code carts were identically refurbished.
- The effectiveness of the overall process was enhanced as patients' worsening conditions are anticipated, allowing for immediate interventions to take place.
- Frustration is eliminated as staff members know their roles and what is expected in each cart.
- HFMEA RPD has been reduced by 5,000 points, drastically exceeding the benchmark.

LESSONS LEARNED

- In high-risk, low-volume events, all aspects of the process require standardization.
- Centralized control of emergency equipment is essential for standardization.
- Teambuilding is accentuated by common tools, processes, and understanding of the system.
- Multi-disciplinary teams provide options not otherwise normally suggested; for example, using security for the transport of refurbished carts.
- Staff designation for each role and responsibility in the process is important.

PARTNERS

Internal partners included the executive staff, medical director, associate medical director, nursing leadership, and information systems leadership.

CONTACT

Alan Eskenazi

Director, Quality Assurance
and Performance Improvement
St. Vincent's Hospital and Medical Center—
Westchester Division
275 North Street
Harrison, NY 10528
(914) 925-5280
aeskenazi@svcmcnyc.org

Falls Prevention Initiative

St. Vincent's Hospital and Medical Center—Westchester Division

PROJECT DESCRIPTION

In the first quarter of 2005, St. Vincent's Hospital and Medical Center—Westchester Division launched a major falls prevention initiative. The hospital's data indicated that falls were the most frequently occurring patient incidents resulting in adverse events. Convening a falls prevention committee and assigning a senior management staff person as the project leader, the hospital set out to reduce the incidence of patient falls.

Using Failure Mode and Effects Analysis, in-depth data analysis, and various graphing tools, the hospital was able to identify areas for improvement. The following recommendations were implemented:

- utilization of the Morse Fall Scale;
- development of a fall precautions policy and standards of practice;
- development of a Falls Clinical Pertinence Review process;
- falls prevention education and training for staff and patients;
- keep beds in low position and install bedside bells;
- use stickers, wristbands, and proper footwear;
- educate providers on limiting use of polypharmacy, dose, sleep medications, and prescriptions required as needed;
- discuss at-risk patients on multi-disciplinary rounds; and
- continue development of a "culture of safety" via a blame-free environment.

OUTCOMES

- The hospital achieved a 48.6% decrease in the falls rate from 2004 to 2006.
- The hospital attained a 35% decrease in the falls rate from 2004 to 2005 (from 0.37 falls per 100 patient days to 0.24 per 100 patient days).
- The falls rate decreased 20% in 2006 (from 0.24 falls per 100 patient days to 0.19 per 100 patient days).
- Seasonality of falls led to better hydration of patients during the warm weather months.

LESSONS LEARNED

- All patients must be assessed upon admission for falls risk.
- The Morse Fall Scale is extremely useful in the inpatient psychiatric setting.



Falls Prevention Initiative

St. Vincent's Hospital and Medical Center—Westchester
Division
(CONTINUED)

- A pertinence review of every fall with quick feedback (within 24 hours) to direct care providers is essential.
- Falls rates can be seasonal and the data related to this should be part of any falls-related analysis.
- Carefully monitor patients receiving PRN medications.

Falls Prevention Program “Hourly Rounding”

Unity Hospital

PARTNERS

Nursing staff members lead with support from physicians, and patient and family involvement.

PROJECT DESCRIPTION

In 2006, Unity Hospital initiated an “hourly rounding” patient care model in response to a hospital strategic initiative, endorsed by senior leadership, to decrease the falls rate. The definition of a fall was established and data were tracked and trended monthly by unit. National benchmarks were found to vary by definition and population, so a target was established based on Unity Hospital’s 2005-2006 internal comparison. In accordance with the Plan-Do-Study-Act process, two units were identified for a three-month pilot of the “hourly rounding” model. Results were shared regularly with staff, and at the conclusion of the pilot the study results were presented to the performance improvement committee. In accordance with the Institute for Healthcare Improvement “Sustainability and Spread” principles, the effectiveness of the program on the pilot units is continuously monitored and will be actively implemented throughout each patient care unit.

OUTCOMES

- Unity Hospital achieved a 75% reduction in the falls rate in pilot units.
- Hospital-acquired skin issues decreased 20%.
- There was an average reduction of 500 call lights per two-week period.
- Overall patient satisfaction scores improved 17%.
- The hospital received positive feedback from all members of the health care team.

LESSONS LEARNED

- Hourly rounding addresses important patient issues, increasing patient safety and satisfaction.
- All patients are to be assessed on admission and throughout the hospital stay.
- Consider both intrinsic and extrinsic risk factors.
- Risk factors may be more intense in specialty care units.
- Engage patient, family, visitors, and staff/providers in keeping patients safe.
- Post-falls assessment is critical to prevent repeat falls.

CONTACT

Katie O’Leary, R.N., B.S.N., C.P.H.Q.

Director, Quality Improvement

Unity Hospital

1555 Long Pond Road

Rochester, NY 14626

(585) 723-1733

koleary@unityhealth.org

Reducing Employee Injuries Resulting in Lost Work Time

WCA Hospital

PARTNERS

Internal partners include the vice president of administration, director of occupational health, human resources director, safety director, and occupational health office manager.

PROJECT DESCRIPTION

Data collected from WCA Hospital's Safety Collection and Evaluation System showed an undesirable trend of increased lost work days for employees with workplace injuries. A small team met weekly to formulate a plan to implement interventions in 2006. Injured employees were provided an "Employee Injury Envelope" with instructions on how to report injuries. The WCA Occupational Health Department implemented a light duty program and worked with employees and their physicians so the employee could return to work in some capacity. The safety director implemented a "safety report card" rating showing the injury rate within each department. The management team was informed monthly about safety procedures. Bi-monthly educational handouts were provided on a variety of safety topics. The safety committee met with departments with high incident rates, and addressed safety concerns. Employees with back injuries were required to attend "Back School." Working with its insurer, the hospital also performed a slip/fall assessment and determined ways to reduce worker injuries.

OUTCOMES

- WCA experienced a 70% decrease in lost work days (554 lost work days in 2005, 167 lost work days in 2006).

LESSONS LEARNED

- Management team involvement is crucial.
- Frequent communication keeps staff abreast of results and focused on achieving desired results.

CONTACT

Marlene Garone, M.D.

Vice President, Medical Affairs
and Medical Director

WCA Hospital

207 Foote Avenue

Jamestown, NY 14702

(716) 664-8291

marlene.garone@wcahospital.org

ACRONYMS USED OFTEN IN THE PROFILES IN THIS BOOK

AHA	American Hospital Association
AMI	Acute Myocardial Infarction
CLAB	Central Line-associated Bloodstream Infection
CHF	Congestive Heart Failure
CMS	Centers for Medicare and Medicaid Services
ED	Emergency Department
GWTG	Get With The Guidelines
H&P	History and Physical
ICU	Intensive Care Unit
IHI	Institute for Healthcare Improvement
IV	Intravenous
MRSA	Methicillin-resistant <i>Staphylococcus</i>
PDMAI	Plan-Design-Measure-Assess-Improve
PDSA	Plan-Do-Study-Act
RRT	Rapid Response Team
SCIP	Surgical Care Improvement Project
SIP	Surgical Infection Prevention
VAP	Ventilator-associated Pneumonia