Creating a Geriatric Focused Model of Care in Trauma with Geriatric Education

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Who We Are

- 5 Campuses
- 1 Children’s Hospital
- 140+ Physician Practices
- 17 Community Clinics
- 12 Health Centers
- 10 ExpressCARE Locations
- 80 Testing and Imaging Locations
- 13,100 Employees
- 1,340 Physicians
- 582 Advanced Practice Clinicians
- 3,700 Registered Nurses
- 60,585 Admissions
- 208,700 ED visits
- 1,161 Acute Care Beds
Quality Milestones

2009
- America’s Best Hospitals for geriatrics, and urology-U.S. News & World Report
- Pennsylvania’s Highest Heart Attack Survival Rate-Centers for Medicare and Medicaid Services (CMS)
- Accredited Chest Pain Centers-Society of Chest Pain Centers
- Best 100 Companies to Work For-FORTUNE
- Leapfrog Top Hospital-The Leapfrog Group
- Full Accreditation-Accreditation for the Accreditation of Human Research Protection Programs (AAHRPP)
- Outstanding Program Achievement Award-American College of Surgeons’ Commission on Cancer (CoC)
- Get With the Guidelines-Stroke Gold Performance Achievement Award-American Stroke Association
- 100 Most Wired and 25 Most Wireless Hospitals-Hospitals & Health Networks
- EPA Mid-Atlantic Region Environmental Achievement Award-U.S. Environmental Protection Agency
- One of the 10 Best Hospitals in America-Becker’s Hospital Review

2010
- America’s Best Hospitals for geriatrics-U.S. News & World Report
- No. 1 in PA and No. 2 in the Nation for Heart Attack Results-Centers for Medicare and Medicaid Services (CMS)
- Top 5 Academic Medical Centers in U.S.-University HealthSystem Consortium (UHC)
- NCI Community Cancer Centers Program-National Cancer Institute, U.S. National Institutes of Health
- 100 Most Wired and 25 Most Wireless Hospitals-Hospitals & Health Networks
- Top 100 Integrated Health Networks-SDI
- Leapfrog Top Hospital-The Leapfrog Group
- One of the 30 Best Hospitals in America-Becker’s Hospital Review
- 100 Best Places to Work in Healthcare-Becker’s Hospital Review
- Carolyn Boone Lewis Living the Vision-American Hospital Association (AHA)

2011
- America’s Best Hospitals for endocrinology, gastroenterology and urology-U.S. News & World Report
- No. 1 and No. 2 Hospitals in the Region-U.S. News & World Report
- Magnet Hospital redesignation for nursing excellence-American Nurses Credentialing Center
- Top Performer on Key Quality Measures-Joint Commission
- Architecture and Design Award for environmentally friendly health care-GreenCare
- Top 100 Integrated Health Networks-VeriSpan
- 100 Most Wired Hospitals-Hospitals & Health Networks
- 100 Best Places to Work in Healthcare-Becker’s Hospital Review

2012
- America’s Best Hospitals for gastroenterology, orthopedics and pulmonology-U.S. News & World Report
- Leapfrog “A” Grade for Patient Safety-The Leapfrog Group
- Accredited Chest Pain Centers-Society of Cardiovascular Patient Care
- 100 Most Wired Hospitals-Hospitals & Health Networks
- NCI Community Cancer Centers Program (NCCCP) redesignation-National Cancer Institute, U.S. National Institutes of Health
- 100 Best Places to Work in Healthcare-Becker’s Hospital Review
- Computerworld Honors Laureate-Computerworld Magazine
- VHA Leadership Award for Supply Chain Management Excellence-VHA
- HealthGrades Emergency Medicine Excellence Awards (LVH and LVH-Muhlenberg)-HealthGrades
- Certified Comprehensive Stroke Center-Joint Commission

2013-2014
- America’s Best Hospitals in 10 specialties-U.S. News & World Report-2014
- America’s Best Hospitals in 7 specialties-U.S. News & World Report-2013
- 2013 Magnet Prize-American Nursing Credentialing Center
- Leapfrog “A” Grade for Patient Safety-The Leapfrog Group
- America’s Safest Hospitals-AARP
- 100 Most Wired Hospitals-Hospitals & Health Networks
- NCI Community Cancer Centers Program (NCCCP) redesignation-National Cancer Institute, U.S. National Institutes of Health
- Becker’s Integrated Health Systems to Know-Becker’s Hospital Review
- Computerworld 2013 Best Places to Work in IT-Computerworld Magazine
Aging Population

- Older Adult: $\geq 65$
- Approximately 12% of current population
- Expected to be 20% by 2030
- “Baby Boomer” generation- 1946-1964
- Trends in Older Adult Population
  - Overall world population aging
  - Life expectancy increasing
  - $\geq 85$ fastest growing group

Expected Population Growth 1900-2050

Population 65+ by Age: 1900-2050

Source: U.S. Bureau of the Census
Pennsylvania Older Adult Population

- Pennsylvania 4th in percentage of population age 65 and over:
  - Florida 17.3%
  - West Virginia 16%
  - Maine 15.9%
  - Pennsylvania 15.4%
  - Iowa 14.9%
  - US 12.9%

- Pennsylvania 3rd in percentage of total population age 85 and over:
  - Florida 2.8%
  - North Dakota 2.7%
  - Hawaii, Iowa, Pennsylvania, South Dakota 2.5%
  - Rhode Island 2.4%
  - US 1.8%

U.S. Census Bureau, 2010
Lehigh Valley Population
Population Changes 2000-2030
Geriatric Trauma Data:
LVHN – (Excludes burns)

>=65

LVHN Trauma Registry 2014
Percentage of Trauma Patients Age 65 and Older & 85 and Older
LVHN PTOS vs. All Hospital PTOS (Non-Burn)

LVHN Trauma Registry, 2014
Percentage of Trauma Patients >=85
2013-2014

- Graph shows the percentage of trauma patients >=85 from January 2013 to December 2014.
- The graph includes a linear trend line indicating the trend over the period.
- The data is derived from the LVHN Trauma Registry 2014.
LVHN 2014 Age >=65 (Excludes Burn)

- 1,642 patients
- Female 58.3%
- Male 41.7%
- Age: 80.2
- ISS: 10
- Blunt: 99.4%
- Penetrating: 0.6%
Mechanism of Injury

- **Falls**
  - Most common method of injury in the elderly
  - 3/4 of all traumas
  - 90% simple falls, such as fall from standing
  - Far less mechanism to produce injuries
    - Weakness
    - Generalized deconditioning
    - Loss of visual acuity
    - Balance and gait instability
    - Slowed reaction times

Why is Geriatric Trauma Care Important?

- Trauma is the 5th leading cause of death in the geriatric population
- Negative outcomes post trauma… NOT always due to the injury!
  - Hospital acquired complications following trauma
  - Exacerbation of co-morbidities
- Compared with younger patients with same injuries
  - Longer hospital stays
  - Longer inpatient rehab stays
  - More complications
  - Increased mortality
  - Dependent on other for ADL’s

High Risk Population

- Physiological changes in all body systems
- Less reserve
- Complex Care
  - Susceptible to adverse outcomes from minor trauma
    - Frailty
    - Geriatric syndromes
- Elderly trauma in hospital complication rate higher
  - Cardiovascular Events, Pneumonia, Sepsis
- Complications lead to poor outcomes and high cost healthcare

Geriatric Trauma Care at LVHN

- Dr. Robert Barraco
  - Chief of Geriatric Trauma
- Established first Geriatric Trauma Program
  - 2004
- Monthly Geriatric Trauma Conference
- Geriatric Education
- Injury Prevention
- Community Outreach
Geriatric Consultation

- Proactive consultation model
- Comprehensive geriatric assessment
  - Prevention and management of geriatric syndromes
  - Function preservation
  - Discharge planning
- Improved outcomes
- Decreased hospital-acquired complications

Recognizing the Problem

- Complex care
- Lack of geriatric education for trauma nurses
- Nursing care not specific to geriatric trauma patients
- Geriatrician Recommendations not acted on
  - Lack of understanding of importance
  - No standard communication
  - Delay in care
- Recognized need for including Geriatric Resource Program in trauma care
  - Geriatric specific education
  - Look at nursing interventions to reduce complications
Overall, are we prepared?

- Geriatric Education limited
- <1% of RN’s are certified in gerontology nursing
- Evidence indicates
  
  - patient outcomes improve when older adults receive care from nurses with geriatric training
- Geriatricians

A Plan for Improved Geriatric Care Recognized

- Only 8.8% of Trauma Centers in the U.S. incorporate Geriatric Resource Programs
  - Mostly Level I Trauma Centers
- 17 of 26 Trauma Centers in PA are Geriatric Resource Program Sites (65%)
- Extent of incorporation of Geriatric Resource Programs unknown

NICHE at Lehigh Valley Health Network (LVHN)

- April 2010, LVHN designated as official NICHE hospital
- LVHN Network Wide:
  - 100 Geriatric Resource Nurses (GRN)
  - 24 Geriatric Patient Care Assistants (GPCA)
- Geriatric Certification
Nurses Improving Care for Healthsystem Elders (NICHE)

- Nurse Driven program designed to help hospitals improve the care of older adults

- **VISION**
  - All patients 65-and-over to be given sensitive and exemplary care

- **MISSION**
  - Provide principles and tools to stimulate a change in the culture of healthcare facilities to achieve patient-centered care for older adults

Nurses Improving Care for Healthsystem Elders (NICHE)

- Core components
  - Guiding principles
  - Leadership
  - Organizational structures
  - Physical environment
  - Patient and family centered approaches
  - Aging sensitive practices
  - Geriatric staff competence
  - Interdisciplinary resources and processes

Geriatric Resource Nurse Model (GRN)

- Evidence-based geriatrics within clinical practice
- Prepares nurses as clinical resource leaders on geriatric issues
- Considered the foundation for improving geriatric care
- Patient Care Associate (GPCA)


Benefits of NICHE designation:

- Improved clinical outcomes
- Positive fiscal results
- Enhanced nursing competencies
- Community recognition
- Greater patient, family, and staff satisfaction
Incorporating Geriatric Education in Trauma

- NICHE Rollout to Trauma Units in November 2013

- 19 Geriatric Resource Nurses in Trauma
  - 11 Transitional Trauma Unit
  - 8 Trauma-Neuro Intensive Care Unit

- 2 Geriatric Patient Care Associates

- Trauma Neuro Intensive Care Unit 1st ICU to participate in NICHE education at LVHN
Geriatric Resource Nurse (GRN)

- Comprehensive geriatric assessments
- Consult with peers on geriatric issues
- Role Model
- Education
- Develop ways to improve the care of geriatric patients
- Geriatric Patient Care Associates
- Process Improvement Projects
What can NICHE do for Trauma?

- How does this work for trauma?
- How do we incorporate NICHE concepts in trauma care?
- NICHE Trauma Meetings
- Physician Champions
  - Dr. Joseph Stirparo & Dr. Jayme Lieberman
- Geriatric Trauma Process Improvement
- Geriatric Trauma specific education
- Develop Geriatric Resources
TTU Geriatric Focused Collaborative Rounds

- Coordination of Care
- Geriatric Resource Nurse
- Trauma Team
- Geriatrician
- Case Management
- Registered Dietician
- Physical Therapy/Occupational Therapy
Geriatric Considerations in Collaborative Rounds

- Early mobilization
- Orthostasis
- Medication Changes
- Pain Control
- Nutrition
- Delirium prevention and recognition
- Family
- Disposition
Process Improvement Projects

- Geriatric Focused Collaborative Rounds
- Initiation of Geriatric Recommendations
  - Orthostatic Blood Pressures
- Geriatric Pain Control
  - Cognitive Impairment
  - ATC dosing
- Reducing Inappropriate Medication Use
  - Pain/Agitation/Sleep Recommendations
- Delirium recognition and treatment
- Nutrition
Continuing Staff Engagement

- Project Champions

- Continuing Education specific to geriatric trauma

- Geriatric Trauma Hours- 2 hours year/2015
  - Geriatric Trauma Conference
  - Fleming Lecture Series
  - NICHE Webinars
Geriatric Trauma LOS 2011-2014

LVHN Trauma Registry 2014
Geriatric Trauma Length of Stay 2013-2014

Jan 2013-August 2014

LVHN Trauma Registry 2014
Analyzing the Data

- Increasing number of functionally dependent patients
  - 2011- 25.3%
  - 2012- 28.7%
  - 2013- 38.6%
  - 2014- 43.7%
- Increased percentage of patients >84
- Average Injury Severity Score
  - 2013- 9
  - 2014- 10
- Comorbidity Average
  - 2013- 4.20
  - 2014- 4.34
Plans for the Future

- NICHE Education for all TTU Nurses
- Continue incorporation of NICHE concepts in trauma care
  - Prevent complications post trauma
  - Decrease Geriatric Syndromes
- Develop Geriatric Trauma Protocols/Guidelines
- Research
- More Trauma Centers must consider integrating Geriatric Resource Programs
  - Optimize care of the Geriatric Trauma Population
    - Geriatric Education
    - Specialized care
- Monitor Outcomes
References

Questions?

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