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Appendix A: White Paper – Development of a System of State-designated Trauma Centers in Louisiana

Appendix B: Presentation – Stroke Workgroup Update to LERN Board of Directors August 2012

Appendix C: Presentation – STEMI Workgroup Update to LERN Board of Directors August 2012
Letter from the Executive Director

The Louisiana Emergency Response Network (LERN) is an agency of state government, created by the Louisiana Legislature in 2004 and charged with the responsibility of developing and maintaining a statewide system of care coordination for patients suddenly stricken by serious traumatic injury or time-sensitive illness. Funding for the establishment of LERN operations began in July 2006.

Since that time, the LERN Board has established nine regional commissions populated with stakeholder volunteers that live and work within the region they represent. LERN is very proud of the tremendous support and direction it receives from the dedicated leaders that volunteer to serve on the LERN Board and Regional Commissions. A complete listing of LERN Board members and the members of our nine Regional Commissions are provided in this annual report.

Step one of LERN’s development plan focused on implementing a core of operations that could better identify trauma patients and support more efficient delivery of trauma patients to available definitive care resources. This step included implementation of EMS provider network agreements, hospital provider network agreements, pre-hospital protocols, and a communication center. We are now able to report positive outcomes from this collaborative statewide effort. In the Performance section of this annual report you will find data and a real case testimonial that clearly shows the positive benefits of utilizing the LERN Communication Center (LCC) to route trauma patients to facilities capable of addressing their specific injuries.

Step two of LERN’s development plan is focused on creating a complete network of designated trauma centers – the anchor component of any statewide trauma system. Louisiana currently has only two state-designated trauma centers. We are therefore one of the few states that does not have a statewide network of designated trauma centers. LERN utilized a framework of best practices and lessons learned from other states to create a white paper that defines and promotes the development of an ideal statewide system of state-designated trauma systems. That white paper, Development of a System of State-designated Trauma Centers in Louisiana, is provided as Appendix A to this annual report. LERN’s medical director, Dr. Robert Coscia, is leading our statewide effort to build awareness of and commitment to creating a network of state-designated trauma centers adequate to meet Louisiana’s needs.
LERN’s strategic priorities also include the development of statewide systems of care for Stroke and ST Segment Elevation Myocardial Infarction (STEMI). LERN created Stroke and STEMI workgroups to conduct research and design these statewide systems of care. The workgroups include expert stakeholders from across the state. I would like to extend a special thanks to Dr. Murtuza Ali for leading the STEMI workgroup and to Dr. Kenneth Gaines for leading the Stroke workgroup. Both groups have made great progress. Updates presented to the LERN Board of Directors in August of 2012 on the progress of both the Stroke and STEMI workgroups are provided as Appendices B and C, respectively. Stroke and STEMI system of care designs will be presented to the LERN Board for approval in 2013.

I consider it a great honor to serve Louisiana as the LERN Executive Director, and I look forward to the work ahead in 2013.

Respectfully submitted,

[Signature]

Executive Director
Louisiana Emergency Response Network
Governing Board and Regional Commissions

LERN is governed by a 28-member Board that represents a diverse set of stakeholders. LERN’s enabling legislation specifies a stakeholder organization to nominate qualified candidates (at least four) for each LERN Board seat. Nominees are submitted to the Governor for consideration and appointment to serve a three-year term.

BOARD EXECUTIVE COMMITTEE MEMBERS

**Norman E. McSwain, Jr., MD**
Chairman of the Board
Professor of Surgery
Tulane University Health Sciences
Department of Surgery
Nominating Entity: Tulane University Health Sciences Center

**John P. Hunt, MD**
Vice-Chairman of the Board
Professor of Surgery
Louisiana State University Health Sciences Center – New Orleans
Nominating Entity: Louisiana State University Health Sciences Center – New Orleans

**Peter Sullivan**
Treasurer of the Board
Serviceline Administrator for NeuroScience and Orthopedics
Our Lady of the Lake Regional Medical Center
Nominating Entity: Louisiana Hospital Association – Rehab Constituency Group

**Coletta Barrett, RN, FACHE**
Immediate Past Chairman of the Board
Vice President of Mission
Our Lady of the Lake Regional Medical Center
Nominating Entity: Louisiana Alliance of Information and Referral Systems

**William Freeman, MD**
Executive Committee Member
Director of Emergency Services
Louisiana State University – Earl K. Long Medical Center
Nominating Entity: Louisiana American College of Emergency Physicians

**Jimmy Guidry, MD**
Executive Committee Member
State Health Officer
Department of Health and Hospitals
Nominating Entity: Department of Health and Hospitals
BOARD MEMBERS

Honorable Regina Ashford Barrow
Representative
Louisiana House of Representatives
Nominating Entity: Louisiana House of Representatives

Patrick C. Breaux, MD
Section Head, Consultative Cardiology
Ochsner Heart and Vascular Institute
Nominating Entity: Louisiana Chapter of the American College of Cardiology

Honorable Sherri Smith Buffington
Senator
Louisiana State Senate
Nominating Entity: Louisiana State Senate

Billy Conerly
Director of Emergency Department and Clinical Services
Lane Regional Medical Center
Nominating Entity: Louisiana Hospital Association – Service District Hospital

John Dailey, JD, MPA, FACHE
Vice Chancellor for Administration
Louisians State University Health Sciences Center – Shreveport
Nominating Entity: Louisiana State University Health Sciences Center – Shreveport

Kevin Davis
Director of Governor's Office of Homeland Security and Emergency Preparedness
State of Louisiana
Nominating Entity: Governor's Office of Homeland Security and Emergency Preparedness

Joel Eldridge, DO
Coroner
Franklin Parish
Nominating Entity: Louisiana State Coroners Association

Kenneth J. Gaines, MD
Chairman, Department of Neurology
Ochsner Health Systems, Neurology Department
Nominating Entity: American Stroke Association

Craig C. Greene, MD
Orthopaedic Surgeon and Sports Medicine Specialist
Baton Rouge Orthopaedic Clinic
Nominating Entity: Louisiana State Medical Society

Michael Hulefeld
Chief Executive Officer
Ochsner Medical Center
Nominating Entity: Metropolitan Hospital Council

Danita Leblanc
Program Manager
Department of Health and Hospitals
Nominating Entity: Department of Health and Hospitals

Fred Martinez
Chief Executive Officer
St. Charles Parish Hospital
Nominating Entity: Rural Hospital Coalition

Honorable Karen Gaudet St. Germain
Representative
Louisiana House of Representatives
Nominating Entity: Louisiana House of Representatives
GOVERNING BOARD AND REGIONAL COMMISSIONS

Kevin M. Sittig, MD
Senior Associate Dean and Chief Medical Officer
Louisiana State University – Shreveport
Department of Emergency Medicine
Nominating Entity: Committee on Trauma, American College of Surgeons

Carl J. Varnado, Jr.
Deputy Director
National Emergency Number Association
Nominating Entity: National Emergency Number Association

Honorable Mack “Bodi” White, Jr.
Senator
Louisiana State Senate
Nominating Entity: Louisiana State Senate

Kristin Whitty, PhD, APRN
Assistant Professor
Southeastern Louisiana University
Nominating Entity: Louisiana State Board of Nursing

Tracy B. Wold
EMS Director
Jackson Parish Ambulance Service District
Nominating Entity: Louisiana Rural Ambulance Alliance

Christopher W. Wroten, OD
Co-Owner
Bond-Wroten Eye Clinic
Nominating Entity: Optometry Association of Louisiana

Michele Zembo, MD, MBA
Assistant Dean for Clinical Education
Director of Medical Staff and GME Medical Center of Louisiana
Nominating Entity: Louisiana State Medical Society

Other Nominating Entities:
Louisiana Association of EMS Physicians – Medical Director of an EMS Agency
Louisiana Medical Association

REGIONAL COMMISSIONS

Region 1 includes four parishes in the southeast part of the state: Jefferson, Orleans, Plaquemines, and St. Bernard.

Officers
Mike Guillot, NREMT-P
Chairman
Director of Emergency Services
East Jefferson General Hospital
Organization: Local Ambulance

Joseph F. Uddo, Jr., MD
Vice-Chairman
General Surgeon
East Jefferson General Hospital
Organization: Service District Hospital

Stephan J. Gordon, ENP
Secretary
Executive Director
Orleans Parish Communication District
Organization: National Emergency Number Association

Members
Murtuza Ali, MD
Assistant Professor of Medicine
LSU School of Medicine
Organization: Cardiology Ad Hoc

Cindy Davidson, JD
Administrative DRC-OPH Region 1
Metropolitan Hospital Council
Organization: Health and Human Services Designated Regional Coordinator

Karen Daviss, NREMT-P
Emergency Coordinator II/ EMS Compliance
Jefferson Parish Emergency Management
Organization: GOHSEP
GOVERNING BOARD AND REGIONAL COMMISSIONS

**Peter Deblieux, MD**  
Director of Emergency Medicine Services  
MCLNO-LSUHSC  
*Organization: Trauma Center Representative*

**Jeffery Elder, MD**  
Medical Director/ New Orleans EMS  
Clinical Instructor of Medicine/ LSU Section of Emergency Medicine  
*Organization: Louisiana State Medical Society*

**Frank Graff III, NREMT-P, LEM**  
Vice President  
Care Ambulance Service, Inc  
*Organization: Emergency Medical Response*

**Alan Marr, MD, FACS**  
Associate Professor of Clinical Surgery  
LSUHSC Department of Surgery  
*Organization: American College of Surgeons*

**Sheryl Martin-Schild, MD**  
Vascular Neurologist  
Tulane University Health Science Center  
*Organization: American Stroke Association*

**Gina Meyer, LEM, EMT**  
EMS Superintendent  
Plaquemines Parish Government  
*Organization: Rural Ambulance Representative*

**Roland S. Waguespack, III, MD, MBA, FAAEM, FACEP**  
Emergency Physician  
East Jefferson General Hospital  
*Organization: American College of Emergency Physicians*

**Paolo Zambito, RN**  
CEO  
Ochsner Medical Center-Kenner  
*Organization: Hospital > 100 Beds*

**Region 2** includes seven parishes in the south central part of the state: Ascension, East Baton Rouge, East Feliciana, Iberville, Point Coupee, West Baton Rouge, and West Feliciana.

**Officers**

**Stewart Cayton, MD**  
Chairman  
Trauma Surgeon  
Our Lady of the Lake RMC  
*Organization: American College of Surgeons*

**James Rhorer, MD**  
Vice-Chairman  
ED Medical Director  
Our Lady of the Lake RMC  
*Organization: Louisiana State Medical Society*

**Anthony Summers**  
Secretary  
Assistant Director  
*Organization: GOHSEP*

**Members**

**Sadye Batts**  
Stroke Program Coordinator  
Baton Rouge General  
*Organization: Hospital > 100 Beds*

**Jeremy Dedeaux**  
Charge RN  
Lane RMC  
*Organization: Service District Hospital*

**Chris Fitzgerald**  
EMS Director  
West Feliciana Parish Hospital EMS  
*Organization: Rural Ambulance Representative*

**Kathleen Ford**  
Chief Nursing Officer  
West Feliciana Parish Hospital  
*Organization: Hospital < 60 Beds*

**Mark Gaudet**  
Registered Nurse: ED/SICU  
East Baton Rouge Parish Department of EMS  
*Organization: Emergency Medical Response*

**Chad Guillot**  
EMS Director  
East Baton Rouge Parish Department of EMS  
*Organization: Local Ambulance Services*
Johnny Jones, MD  
Medical Director  
Baton Rouge General ED and  
East Baton Rouge EMS  
Organization: American College of Emergency Physicians

Marilyn Reynaud, MD  
Medical Director/Capitol Region Two  
Office of Public Health  
DHH/OPH  
Organization: DHH-OPH  
Regional Medical Director

Allyn Whaley-Martin  
Director, Safety/Region 2  
Hospitals Designated Regional Coordinator  
Our Lady of the Lake RMC  
Organization: Health and Human Services Designated Regional Coordinator (HHSRC)

Ralph Ladnier  
Commander of 911 Communications  
West Feliciana Parish Sheriff Office  
Organization: National Emergency Number Association (911)

Region 3 includes 7 parishes in the southeast part of the state: Assumption, Lafourche, St. Charles, St. James, St. John the Baptist, St. Mary, and Terrebonne.

Officers

Earl Eues, Jr., REM  
Chairman  
Director of Homeland Security and Emergency Preparedness  
Terrebonne Consolidated Government  
Organization: GOHSEP

Donna Tesi, MD  
Vice-Chairman  
General Surgeon  
Franklin Foundation Hospital  
Organization: Louisiana State Medical Society (LSMS)

Kim Beetz  
Secretary  
Administrative Director  
DRC-OPH Region 3  
Organization: Health & Human Services Designated Regional Coordinator (HHSRC)

Members

Brenda Arceneaux, RN  
VP of Nursing Services  
Thibodaux Regional Hospital  
Organization: Service District Hospital

William Bisland, MD  
General Surgeon  
Thibodaux Surgical Specialists  
Organization: American College of Surgeons

Dominique Bonvillan  
TPCD Assistant Director  
Organization: National Emergency Number Association (911)

Brady Daigle, NREMT-P  
Operations Manager  
Lafourche Ambulance District 1  
Organization: Local Ambulance Service

Chad Davis, NREMT-P  
Operations Supervisor  
Acadian Ambulance Services  
Organization: Emergency Medical Response

Thomas Falterman, MD  
Emergency Department Medical Director  
Leonard J. Chabert Medical Center  
Organization: American College of Emergency Physicians (ACEP)

Connie Gistand, MD  
OPH Regional Medical Director  
Region 3, DHH  
Organization: DHH-OPH  
Regional Medical Director

Teresita McNabb, RN  
VP of Nursing Services  
Terrebonne General Medical Center  
Organization: Hospital > 100 Beds
GOVERNING BOARD AND REGIONAL COMMISSIONS

Ken Rousseau, MS-HCM, NREMT-P
Director, Emergency Medical Services
St. Charles Parish Hospital
Organization: Rural Ambulance Alliance

Jennifer Wise, RN, BSN, MHA
Chief Nursing Officer
Franklin Foundation Hospital
Organization: Hospitals <60 Bed

Region 4 includes seven parishes in the southwest part of the state: Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Martin, and Vermillion.

Officers

Scott Hamilton, MD
Chairman
Director of Pediatric Emergency Services
Lafayette General Medical Center
Organization: American Academy of Pediatrics (AAP)

Mark F. Olivier, MD, FACEP, FAAFP
Vice Chairman
Schumacher Group
Risk Management Medical Advisor
Organization: ACEP

Cathie Boudreaux
Secretary
Director of Nursing
St. Martin Hospital
Organization: Hospital < 60 Beds

Members

John Armand
ED Director
Opelousas General Health Systems
Organization: LA Council ENA

Paul Azar, Jr., MD
Ophthalmologist
Organization: LSMS

Joey Barrios, MD
Medical Director
Burn Unit
Our Lady of Lourdes RMC
Organization: Burn Center

Shane Bellard, NREMT-P
Senior Operations Supervisor
Med Express Ambulance Service
Organization: LANREMT

Brent Boudreaux
Operations Supervisor
Acadian Ambulance Service
Organization: Local Ambulance Service

Terry Broussard
Assistant Vice President for Patient Care Services
Our Lady of Lourdes RMC
Organization: Hospital > 100 Bed

Kevin Courville, MD
Cardiologist
Organization: American College of Cardiology

Leo deAlvare, MD
Neurologist
Organization: American Stroke Association

James Garcelon, MD
General Surgeon
Organization: ACS

Leslie Kram Greco, DO, FACEP
ED Medical Director
Iberia Medical Center
Organization: Service District Hospitals

Anjanette Hebert
Director of Security, Safety and Emergency Preparedness
Lafayette General Medical Center
Organization: Health & Human Services Designated Regional Coordinator (HHSDRC)

Colonel Prescott Marshall
Director/Iberia Parish
OHSEP/911
Iberia Parish

Jude Moreau
Executive Director
St. Landry Parish Communications District (E-911)
Organization: 911 (LA NENA)

Eve Quebedeaux
Director/St. Landry EMS
St. Landry EMS
Organization: Louisiana Ambulance Alliance
GOVERNING BOARD AND REGIONAL COMMISSIONS

Tina Stefanski, MD  
DHH/OPH Region IV Regional Administrator/Medical Director  
State of LA, Department of Health and Hospitals  
Organization: DHH-OPH Regional Medical Director

Region 5 includes five parishes in the southwest part of the state: Allen, Beauregard, Calcasieu, Cameron, and Jefferson Davis.

Officers

Tressy Bergeron  
Chairman  
Director/Emergency Department  
CHRISTUS-St. Patrick Hospital  
Organization: Hospital > 100 Bed

Frederick Dent  
Vice-Chairman  
Detective/Emergency Medical Response  
Calcasieu Parish Sheriff Department  
Organization: Emergency Medical Response

Joy Griggs  
Secretary  
OPH/Hospital Coordinator  
Office of Public Health  
DHH/OPH – Region 5  
Organization: Regional Hospital Coordinator

Annette Belcher  
Medical Telemetry/Resource Manager  
West Calcasieu Cameron Hospital  
Organization: Service District Hospital

Ruth Carnes  
Human Resources Director  
Jennings American Leigon Hospital  
Organization: Hospital <60 Beds

Robert Daughdril  
Director/Calcasieu Parish OHSEP/911/EMS Specialist  
Calcasieu Parish Department  
Organization: Emergency Medical Response

Richard McGuire  
Assistant Director  
Calcasieu Parish Public Safety Communications District  
Organization: National Emergency Number Association (911)

Joseph O’Donnell, MD  
Surgeon  
Sulphur Surgical Clinic  
Organization: American College of Surgeons

Lane Owers  
Community Relations Supervisor  
Acadian Companies, Inc  
Organization: Local Ambulance Services

Bertrand Foch, MD  
Regional Administrator/Medical Director  
Department of Health and Hospitals  
Region V Office of Public Health  
Organization: DHH-OPH Regional Medical Director

Liz Harmon  
Administrative Hospital DRC  
Regions 4 and 5  
Hospital Preparedness Program  
Organization: Health and Human Services Designated Regional Coordinator (HHSDRC)

Robert Anderson, MD  
Director of Emergency Services  
Lake Charles Memorial Hospital  
Organization: American College of Emergency Physicians

Annette Belcher  
Medical Telemetry/Resource Manager  
West Calcasieu Cameron Hospital  
Organization: Service District Hospital

Ruth Carnes  
Human Resources Director  
Jennings American Leigon Hospital  
Organization: Hospital <60 Beds

Robert Daughdril  
Director/Calcasieu Parish OHSEP/911/EMS Specialist  
Calcasieu Parish Department  
Organization: Emergency Medical Response

Richard McGuire  
Assistant Director  
Calcasieu Parish Public Safety Communications District  
Organization: National Emergency Number Association (911)

Joseph O’Donnell, MD  
Surgeon  
Sulphur Surgical Clinic  
Organization: American College of Surgeons

Lane Owers  
Community Relations Supervisor  
Acadian Companies, Inc  
Organization: Local Ambulance Services

Bertrand Foch, MD  
Regional Administrator/Medical Director  
Department of Health and Hospitals  
Region V Office of Public Health  
Organization: DHH-OPH Regional Medical Director

Liz Harmon  
Administrative Hospital DRC  
Regions 4 and 5  
Hospital Preparedness Program  
Organization: Health and Human Services Designated Regional Coordinator (HHSDRC)

Other Nominating Entities:

Louisiana Emergency Response Network Annual Report Fiscal Year 2011-2012  

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Region 6 includes eight parishes in the central part of the state: Avoyelles, Catahoula, Concordia, Grant, LaSalle, Rapides, Vernon, and Winn.

**Officers**

Mark Majors  
Chairman  
Owner/Operator  
Med Express  
*Organization: Emergency Medical Response*

Jeremy Timmer, MD  
Vice-Chairman  
Physician  
Rapides Regional Medical Center  
*Organization: Louisiana State Medical Society*

Mary Tarver  
Secretary  
HHS Hospital Coordinator  
St. Francis Cabrini  
*Organization: Health and Human Services Designated Regional Coordinator (HHSDRC)*

**Members**

Elizabeth Battalora, DHSc, RN  
Army Nurse  
*Organization: Military Hospital*

Alan Chandler  
EMS Supervisor  
Hardtner Medical Center  
*Organization: Hospital < 60 Beds*

Harry Foster  
Director  
Winn Parish  
*Organization: GOHSEP*  
David Holcombe, MD  
Medical Director  
*Organization: DHH-OPH Regional Medical Director*

Donna Lemoine  
Coordinator  
Rapides Regional Medical Center  
*Organization: Hospital > 100 Beds*

Philip Lindsay, MD  
Physician  
Rapides Regional Medical Center  
*Organization: American College of Surgeons*

Larry Parker, MD  
Physician  
St. Francis Cabrini  
*Organization: American College of Emergency Physicians*

Jeff Pogue  
Operations Manager  
Acadian Ambulance  
*Organization: Local Ambulance Services*

Brenda Smith  
Director of General Services  
LaSalle General Hospital  
*Organization: Service District Hospital*

Vickie Stagg, RN  
Emergency Nurse  
Rapides Regional Medical Center  
*Organization: Registered Nurse Practicing in Emergency or Critical Care*

Sonya Wiley  
Director  
Rapides Parish  
*Organization: National Emergency Number Association (911)*

Octavia Williams  
Office Manager  
Med Express  
*Organization: Rural Ambulance Representative*
Region 7 includes 9 parishes in the northwest part of the state: Beinville, Bossier, Caddo, Claiborne, DeSoto, Natchitoches, Red River, Sabine, and Webster.

Officers

Karen Mixon
Chairman
Organization: Hospital < 60 Beds

Keith Carter, EMT-P
Vice-Chairman
Chief Medical Officer
Pafford EMS
Organization: Emergency Medical Response

Martha Carter
Secretary
911 Administrator
Region 7 911
Organization: DHH-OPH
Regional Medical Director

Members

Knox Andress, RN
Region 7 Hospital DRC
LSU-Shreveport
Organization: Health and Human Services Designated Regional Coordinator (HHSDRC)

Larry Atteridge, EMT-P
Director of EMS
Natchitoches EMS
Organization: Local Ambulance Services

Susan Cash, RN
ED Director
Willis Knighton
Organization: Hospital > 100 Beds

John Fulco
Director of Operations
Caddo-Bossier Office of Homeland Security
Organization: GOHSEP

Derrel Graham, MD
ED Medical Director
LSU-Shreveport
Organization: American College of Emergency Physicians

David Jones
CEO
North Caddo Medical Center
Organization: Service District Hospital

Gary Jones
Owner
Advanced EMS
Organization: Rural Ambulance Representative

Max Morandi, MD
Surgeon
LSU-Shreveport
Organization: Trauma Center Representative

Martha Whyte, MD
Region 7 OPH Medical Director
DHH-OPH
Organization: National Emergency Number Association (911)

Spence Willis, MD
ED Medical Director
Willis Knighton
Organization: Louisiana State Medical Society

Asser Youseff, MD
Trauma Services Chair
LSU-Shreveport
Organization: American College of Surgeons

Region 8 includes 12 parishes in the northeast part of the state: Caldwell, East Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Richland, Tensas, Union, and West Carroll.

Officers

Daniel Haynes, NREMT-P
Chairman
Public Relations Manager
AMR
Organization: Local Ambulance Services

Richie Allen, NREMT-P
Vice-Chairman
Paramedic
West Carroll EMS
Organization: Rural Ambulance Representative

April S. Winborne, RN, CHPN
Secretary
Director of Nurses
Franklin Medical Center
Organization: Service District Hospital
GOVERNING BOARD AND REGIONAL COMMISSIONS

Members

Mike Brame
Hospital DRC – Region 8
St. Francis Medical Center
*Organization: Health and Human Services Designated Regional Coordinator (HHSDRC)*

Tim Esswein, RN
Critical Care Director
St. Francis Medical Center
*Organization: Hospital > 100 Beds*

LaDonna Ford, MD
Medical Director
E. A. Conway Hospital
*Organization: Louisiana State Medical Society*

Debra Hopkins
Director
East Carroll Parish
*Organization: National Emergency Number Association (911)*

Patrick King, RN
Emergency Department Director
Glenwood Regional Medical Center
*Organization: Registered Nurse Practicing in Emergency or Critical Care*

Stephanie Long, MD
Surgeon
St. Francis Medical Center
*Organization: American College of Surgeons*

Janice Posey
Educator
Northeast Louisiana Ambulance
*Organization: Emergency Medical Response*

Daniel Twitchell, MD
ED Physician
E. A. Conway Hospital
*Organization: American College of Emergency Physicians*

David McSwain, RN
Director of Nursing
West Carroll Memorial Hospital
*Organization: Hospital < 60 Beds*

Region 9 includes five parishes in the southeast part of the state: Livingston, St. Helena, St. Tammany, Tangipahoa, and Washington.

Officers

Luis Alvarado, MD
Chairman
Chief of Staff
Riverside Medical Center
*Organization: Louisiana State Medical Society (LSMS)*

Chad Muntan, MD
Vice-Chairman
ED Medical Director
Lakeview Regional Medical Center
Van Meter & Associates
*Organization: American College of Emergency Physicians (ACEP)*

Keith Peek
Secretary
Administrative Designated Regional Coordinator
*Organization: Health and Human Services Designated Regional Coordinator (HHSDRC)*

Woody Glover
Director
St. Tammany Parish Communication District
*Organization: National Emergency Number Association (911)*

Members

James Christopher, MD
General Surgeon
Lakeview Regional Medical Center
Van Meter & Associates
*Organization: American College of Surgeons*

Lloyd Gueringer, MD
Emergency Department Medical Director
Slidell Memorial Hospital
*Organization: Hospital > 100 Beds*
Gina Lagarde, MD
OPH Region IX Public Health
Medical Director
DHH
Organization: DHH-OPH

Ben Lott, RN
Chief Nursing Officer/Assistant Administrator
Riverside Medical Center
Organization: Hospital < 60 Beds

David Marcus, NREMT-P
Education Coordinator; Region 9 EMS DRC
Northshore EMS
Organization: Rural Ambulance Alliance

Jay Smith, MD
Director of Emergency Services
North Oaks Hospital
Organization: Service District Hospital

Rebecca Smith
EMT Instructor
LTC/Sullivan
Organization: Emergency Medical Response

John P. Taylor, NREMT-P
Assistant Chief
St. Tammany Fire District 4
Organization: Local Ambulance Service

Tommy Thiebaud
Director of Homeland Security and Emergency Preparedness
Washington Parish Government
Organization: GOHSEP

Brinette Thompson, RN
Emergency Room Supervisor
LSU-HSC Lallie Kemp Medical Center
Organization: Registered Nurse Practicing in Emergency or Critical Care
Strategic Priorities 2012-2015

LERN’s governing board has established a list of strategic priorities to guide organizational planning and decision-making. The Board reviews the strategic priorities and updates the list as necessary to accurately reflect the priority tasks of the organization. LERN’s current (2012 to 2015) strategic priorities include the following:

1) **Strengthen the sustainability of LERN’s mission, including state office operations and the development of an ideal statewide network of designated trauma centers**
   - Lessen or eliminate LERN’s reliance on state general fund dollars
   - Maximize LERN funding from recurring, dedicated source(s)

**UPDATE**

LERN has conducted comparative research to understand the breadth of funding alternatives utilized by selected other state trauma systems completed. Commonly, state trauma systems are funded with supplemental motor vehicle license fees and supplemental motor vehicle violation fees (DUI, speeding, reckless driving, seatbelt violations, etc.).

LERN has also completed research to better understand existing state dedications in Louisiana that could serve as practical alternative sources of recurring funding for LERN operations. LERN is currently discussing and exploring potential funding options with the Department of Health and Hospitals (DHH).
2) Investigate and explore potential opportunities for greater cooperation and integration between the Bureau of EMS (BEMS) and LERN

- Identify and assess all major issues and challenges
- Define all potential benefits to a BEMS and LERN integration

**UPDATE**

LERN engaged the Trauma System Evaluation and Planning Committee (TSEPC) of the American College of Surgeons in the summer of 2009 to conduct a consultative visit. The consultation report issued by the TSEPC (available on the Strategic Priorities page of the LERN website) recommended that LERN develop a more collaborative relationship with BEMS focused on strengthening trauma care in Louisiana.

In many states with a statewide trauma system, a close and collaborative relationship exists between state-level EMS leadership and the statewide trauma system. LERN is currently working with DHH leaders and BEMS in an effort to better integrate the LERN and BEMS functions.
3) **Build a consensus among key stakeholders for the development of an ideal statewide network of designated trauma centers in Louisiana.**

- Develop priority prospects for new Level II or Level III trauma center designations in regions 3, 4, 5, 8, and 9. Secure at least two new commitments from hospitals to pursue ACS Level II or Level III trauma center verification.
- Initiate implementation of a Region 6 pilot – regional trauma system development anchored by a Level II trauma center.

**UPDATE**

Louisiana currently has only two state-designated trauma centers. We are therefore one of the few states that does not have a statewide network of designated trauma centers. LERN utilized a framework of best practices and lessons learned from other states to create a white paper that defines and promotes the development of an ideal statewide system of state-designated trauma systems. That white paper, *Development of a System of State-designated Trauma Centers in Louisiana*, is provided as an appendix to this annual report. The white paper can also be accessed through the home page of the LERN website.

LERN’s medical director, Dr. Robert Coscia, is leading an ongoing campaign to meet with hospital leaders in regions 3, 4, 5, 8, and 9 to build awareness of and commitment to creating a network of state-designated trauma centers adequate to meet Louisiana’s needs. Several hospitals in the target regions have expressed interest in trauma center development and LERN expects that one or two hospitals will formally begin in 2013 the multi-year effort required to gain trauma center designation.

Louisiana will also likely gain a new designated trauma center in 2013 – Our Lady of the Lake Regional Medical Center in Baton Rouge.
4) **Develop a statewide system of ST Segment Elevation Myocardial Infarction (STEMI) care to improve outcomes for Louisiana citizens regardless of where they live in the state. System to include components recommended by LERN’s STEMI Design the System workgroup:**

- Percutaneous Coronary Intervention (PCI) Hospitals
- Non-PCI Hospitals
- EMS

LERN conducted a STEMI survey that was disseminated to stakeholders statewide. A summary of the survey data and the recommendations of the statewide STEMI workgroup have been presented to the LERN Board (this report and can be found on the LERN website).

The STEMI workgroup will formulate and present to the LERN Board in 2013 the following STEMI care system protocols/criteria:

- STEMI Triage Protocol
- LERN STEMI Receiving Center requirements
- Door to Balloon (D2B) Process Flow Chart
- Thrombolysis Guideline for STEMI Referral Center

After LERN Board approval is achieved, physician champions in each region of the state will bring the protocols/criteria to the local EMS and local medical societies for adoption at the local level.
5) Develop a statewide system of stroke care to improve outcomes for Louisiana citizens regardless of where they live in the state. System to include final recommendations from the Stroke Design the System Workgroup relative to:
   • Public recognition of stroke symptoms and community education
   • Emergency/timely evaluation of all strokes
   • EMS transfer protocols to facilitate timely treatment of all strokes and administration of tissue plasminogen activator (tPA) where appropriate

LERN conducted a stroke survey that was disseminated to stakeholders statewide. LERN’s stroke workgroup is developing stroke treatment and destination guidelines for presentation the LERN Board in 2013.

6) Establish statewide registries, consistent with national standards, for trauma, stroke, and STEMI. General purpose of these registries include:
   • Facilitation of statewide and regional injury prevention efforts
   • Facilitation of LERN performance improvement (Trauma System, Stroke System, and STEMI System – state level and regional

Trauma Registry
Startup of the statewide trauma registry is underway. Only designated trauma centers are required to contribute data to the statewide trauma registry. Four hospitals are now contributing data to the trauma registry. Currently, there are 8,623 records in registry, including 6,923 for calendar year 2011 and 1,700 for calendar year 2012. Two of the four facilities reporting are current with 1st and 2nd quarter 2012 data. LERN is working with the two other facilities to assist with trauma registry data imports.

EMS Registry
LERN is currently receiving data from East Baton Rouge EMS and has a total of 51,357 records in the EMS registry. In addition to East Baton Rouge EMS, Caddo Parish Fire District 1 is also contributing data to the State EMS Registry. LERN is working collaboratively with the Ambulance Alliance and EMS agencies participating in a federal grant project that includes EMS data import.
Performance

LERN COMMUNICATION CENTER

The LERN Communication Center (LCC) served 14,846 patients in calendar year 2012, which was and 18% increase in volume from calendar year 2011. The increase is attributed to the successful implementation of the One Call process and the addition of Region 3 to the LERN system in June of 2011. On average, each patient served by the LCC requires the completion of four telephone calls resulting in a total of 59,384 LCC telephone calls.

In addition, the LCC fielded 197 calls for assistance/administration of the ESF-8* Portal, a collaborative effort between LERN and DHH ESF-8.

*ESF-8 – Public Health and Medical Services provides the mechanism for coordinated Federal assistance to supplement State, Tribal, and local resources in response to the following:
  - Public health and medical care needs
  - Veterinary and/or animal health issues in coordination with the U.S. Department of Agriculture (USDA)
  - Potential or actual incidents of national significance
  - A developing potential health and medical situation

LERN: A Testimonial

Shots ring out, and a house is set on fire. St. Mary Parish first responders approach the site only to find themselves in the line of gunfire. One police officer is killed and two more deputies are seriously injured. The wounded deputies are brought to Franklin Foundation Hospital where they are stabilized, injuries evaluated, and prepared for transport to larger facilities with needed specialists. LERN was critical to getting those patients to the specialized care they needed. The LERN Communication Center identified which facilities had the resources to serve the deputies best. Within what seemed like minutes, two helicopters were on the Franklin Foundation Hospital helicopter pad. LERN proved itself that day.

LERN also helped us prepare for that day. Because of LERN, Franklin Foundation staff (nurses, respiratory therapists, lab technicians) had participated in courses for managing trauma situations. Franklin Foundation Hospital had a lot to be proud of that terrible day. The entire hospital staff came to the aide of those officers. Together with LERN, we delivered the care needed …and those deputies are doing well.

Donna Tesi, M.D., M.P.H., F.A.C.S
Attending Surgeon at Franklin Foundation Hospital and Vice Chair of Region 3 LERN Commission

LCC in Numbers

14,846 patients
18% increase from last year
4 telephone calls per patient on average
59,384 total LCC telephone calls
197 calls fielded for ESF-8 Portal
Disaster Preparedness

The LERN Communication Center participated in a number of disaster preparedness drills, including:

Military Paratrooper Exercise Conducted at Fort Polk
Everyday the LERN network comes together to ensure that persons experiencing trauma get to the right place in the right time. On October 9, LERN worked together with military and medical personnel at Fort Polk, located in Region 6, the local community, surrounding regions, and the Department of Health and Hospitals to conduct a paratrooper night jump exercise. This massive event that included the potential for many significantly injured soldiers required planning, coordination, and diligence to ensure that the processes meshed and flowed into seamless identification, treatment, and movement of those injured.

The military leadership at Fort Polk and Bayne Jones Military Hospital commented that the collaborative efforts, planning, and response were “impressive.” They went on to say, “We look forward to future opportunities to work with the Louisiana Emergency Response Network and all of the partners. This is a unique benefit provided to the citizens of Louisiana that, based on our experience, is not available in other states.”

Brandi James, from MedExpress Ambulance Service, was the lead EMS on scene for the event. Brandi wrote that, “LERN was extremely professional and easy to work with. We did multiple radio and cell checks prior to the start of the event and the lines of communication were clear and well planned. Special thank you to Courtney Hancock and Chris Hector with LERN for their help.”

Improvised Explosive Device (IED) Drill Conducted in Region 3

Interoperability Functional Exercise with Homeland Security and Emergency Preparedness Conducted in Region 4

Lafayette Regional Airport Simulated Disaster Drill Conducted in Region 4
LERN worked with the hospital designated regional coordinators (DRC), EMS DRC’s and GOHSEP to coordinate patient movement in a simulated disaster. The LCC tested radio and phone communication with the DRC networks, the Emergency Operations Center and the scene incident commander. LERN routed 61 live patients through the LCC and multiple virtual patients. This drill involved multiple burn victims and allowed the state to test the Southern Regional Burn Plan. This is a regional burn disaster plan for 19 burn centers located in 11 states comprising the Southern Region of the American Burn Association. There were 25 virtual burn patients. We used the actual burn census in the state of Louisiana at the time of the event. Louisiana burn beds accommodated 10 adult patients and 5 pediatric patients. LERN worked with Birmingham Regional Emergency Medical Services System (BREMMS) who is the southern point of contact to place the remaining 10 patients out of state. This also allowed testing of the ESF-8 notification system.
Mass Casualty Drill Conducted in Region 5
LERN coordinated patient movement for the mass casualty event in the same manner as the Region 4 drill.

MECHANISM OF INJURY

LERN tracks mechanism of injury for all patients served through the LCC. Figure 1 shows the mechanism of injury by age groups. Clearly, the two most common mechanisms of injury are falls and motor vehicle accidents. Falls are by far the most common mechanism of injury for the 65+ age group. The most common mechanism of injury for other adults and for children is motor vehicle accidents.

![Figure 1: 2012 LERN Data - Patient Mechanism of Injury by Age Group](image)

Total = 14,846
TRANSFER REPORT

Together Figures 2 and 3 depict the effectiveness of LERN protocols. Figure 2 shows that 25% of patients who were NOT initially directed by the LCC under the LERN protocols required a secondary transfer. This means that they were not brought to the definitive care hospital on initial transport. This results is lost time for trauma patients when the gold standard is to reach definitive care within the “golden hour”. Conversely, Figure 3 shows that only 4% of patients directed under LERN protocols required a transfer after their initial transport, a difference of 21%.

Figure 2: Patient Required Transfer After Initial Transport by EMS Discretion or Against LERN Protocol Direction
Total = 1,397

- Required Transfer - 354
- Did Not Require Transfer - 1,043

Figure 3: Patient Required Transfer After Initial Transport by LERN Protocol or Patient Required LERN Protocol
Total = 12,425

- Required Transfer - 500
- Did Not Require Transfer - 11,925
TRAUMA EDUCATION

Trauma Nursing Core Course
LERN partners with the Emergency Nurses Association (ENA) and multiple providers across the state to bring the Trauma Nursing Core Course (TNCC) to emergency nurses in Louisiana.

Philosophy
The magnitude of trauma as a national and international problem is documented by data that identifies injury as being the primary cause of death in persons under age 45. The optimal care of the trauma patient is best accomplished within a framework in which all members of the trauma team use a systematic, standardized approach to the care of the injured patient. Emergency nurses are essential members of the trauma team. Educating nurses to provide competent trauma care can significantly reduce morbidity and mortality of trauma patients.

Purpose
Trauma nursing as a discipline refers to the process and content of all the different roles nurses have in the care of the trauma patient. Knowledge is the core of any discipline. The purpose of TNCC is to present core-level knowledge, refine skills, and build a firm foundation in trauma nursing.

About
ENA developed and implemented the TNCC for national and international dissemination as a means of identifying a standardized body of trauma nursing knowledge. The TNCC (Provider) is a 16 or 20-hour course designed to provide the learner with cognitive knowledge and psychomotor skills. Nurses with limited emergency nursing clinical experience, who work in a hospital with limited access to trauma patients, or who need greater time at the psychomotor skill stations are encouraged to attend courses scheduled for the 20-hour format. The TNCC (Instructor) course is an 8-hour course designed to prepare nurses to become TNCC (Provider) Instructors. The nurse must have successfully completed the provider course prior to attending the Instructor course. The Instructor course emphasizes appropriate teaching strategies as well as correct evaluation methods.

LERN taught 32 TNCCs in calendar year 2012 with a total of 290 students obtaining certification in the Trauma Nursing Core Curriculum.

Rural Trauma Team Development Course
Developed by the Rural Trauma Committee of the American College of Surgeons Committee on Trauma, the Rural Trauma Team Development Course (RTTDC) is an American College of Surgeons (ACS) trauma program based on the concept that in most situations, rural facilities can form a trauma team consisting of at least three core members. The course is offered in a single day or modular format.
**Target Audience**
The intended audience includes individuals who are involved in the care of the injured patient, including physicians, nurse practitioners, physician assistants, nurses, prehospital personnel, technicians, and administrative support.

**Course Objectives**
- Organize a rural trauma team with defined roles and responsibilities for the members
- Prepare a rural facility for the appropriate care of the injured patient
- Identify local resources and limitations
- Assess and resuscitate a trauma patient
- Initiate the transfer process early
- Establish a performance improvement process
- Encourage effective communication
- Define the relationship between the rural trauma facility and the regional trauma system

**LERN facilitated four RTTDCs in Regions 2, 3, 7, and 9 in calendar year 2012. A total of 73 individuals participated.**

**Mass Casualty Incident**
AASI Air Ambulance Specialists in Region 4 invited LERN to assist and participate in their first “Mass Casualty Incident (MCI) Boot Camp” held November 13 and 15 in Lafayette. LERN provided educational support, tools and presenters on both days. The full-scale event held at the National EMS Academy (NEMSA) focused on incident command structure. Medics performed scene management and triage skills in testing scenarios set up with live patients from an area high school.

**The two-day Boot Camp provided current, hands on instruction and participation to 169 medics and paramedics within the Region.**
Financial Summary

Figure 4: Financial Summary

During FY 2011-12, LERN expended approximately $2.4 million in state general funds to support LERN’s statewide operations.
Appendix A

White Paper – Development of a System of State-designated Trauma Centers in Louisiana
Development of a System of State-designated Trauma Centers in Louisiana

Purpose

The US Centers for Disease Control and Prevention ranks Louisiana as the 8th highest state for injury deaths (2007 – 2009). The optimal care setting to address significant traumatic injury in the US today is a state-designated trauma center. National standards for trauma centers are maintained by the American College of Surgeons, Committee on Trauma.

Louisiana, with only two state-designated trauma centers, is one of the few states that does not have a statewide system for trauma centers. The Louisiana Emergency Response Network (LERN) is utilizing a framework of best practices and lessons learned from other states to promote and facilitate the development of an ideal statewide system of state-designated trauma centers.

The framework is provided and explained in this paper.

Introduction

The Louisiana Emergency Response Network (LERN) is an agency of state government, created by the Louisiana Legislature in 2004 and charged with the responsibility of developing and maintaining a statewide system of care coordination for patients suddenly stricken by serious traumatic injury or time-sensitive illness.

Funding for the establishment of LERN operations began in July 2006. Since that time, the LERN Board has established nine regional commissions populated with stakeholder volunteers.
that live and work within the region they represent. Recognizing Louisiana’s lack of designated trauma centers, step one of LERN’s development plan focused on implementing a core of operations that could better identify trauma patients and support more efficient delivery of trauma patients to available definitive care resources. Step one included implementation of EMS provider network agreements, hospital provider network agreements, pre-hospital protocols, and a communications center.

Step two of LERN’s development plan is focused on creating a complete network of designated trauma centers – the anchor component of any statewide trauma system. A complete network of designated trauma centers is a necessary prerequisite to building other key components of a trauma system, including a statewide trauma registry, a trauma system performance improvement (PI) function, trauma education and prevention programs, and integration with the state’s all disasters response infrastructure. Establishing a complete network of designated trauma centers also facilitates the development of collaborative regional trauma networks that include vital trauma care support from the smaller community hospitals.

Louisiana law (LA RS 40:2841-2846) states that the trauma center label shall be reserved exclusively for hospitals with state-issued trauma center designation. The Health Standards Section of the Louisiana Department of Health and Hospitals (DHH) is charged with the responsibility of designating trauma centers. To receive DHH designation as a Level I, Level II, or Level III trauma center, Louisiana hospitals must successfully complete the trauma center verification process of the American College of Surgeons, Committee on Trauma.

Trauma centers require a sizeable commitment of resources, including human capital, facilities, technology, training, and research. Level I designation is the highest level of trauma center, requiring the greatest commitment of hospital resources.

Given Louisiana’s dearth of trauma centers, and given the importance of trauma centers to statewide trauma systems, and recognizing the substantial commitment of resources required to develop and maintain trauma centers, LERN will utilize the following framework to promote and facilitate the building of an ideal Louisiana network of trauma centers.

I. Access to Definitive Care

Drs. R. Adams Cowley and Donald Trunkey are considered the fathers of modern trauma care. The phrase “golden hour”, referring to that critical first hour following injury, was coined as the goal of an organized trauma system to provide broad coverage based on the “golden hour concept”. Today trauma system planners across the country regard the “golden hour” as the gold standard for patient access to definitive care.

The American College of Surgeons, Committee on Trauma recommends that all organized trauma systems focus on the goal of providing broad coverage based upon the “golden hour” concept and further recommends the goal of delivering injured patients living in urban communities to a trauma center within a maximum of thirty minutes from the time of EMS notification.

Louisiana should develop a system of designated Level I, Level II, and Level III trauma
centers that ensure access to definitive care within the “golden hour”. For trauma patients, time is critical – the availability of designated trauma centers appropriately located throughout the state eliminates the need to desperately “shop around” for needed resources and service.

Figure 1 provides a general picture of the “golden hour” coverage areas available through Louisiana’s two existing trauma centers.

II. Patient Volume

Health care quality research has produced an extensive amount of literature that documents superior patient outcomes for hospitals and physicians with higher patient volumes. This literature suggests that substantial reductions in mortality rate can be achieved through regionalized treatment models for certain high-risk conditions.

Figure 1 – “Golden Hour” Overlay
A recent study of trauma patients in Pennsylvania examined the impact of patient volumes and level of trauma center designation on patient outcomes. Pennsylvania has a mature statewide trauma system that delivers “golden hour” coverage to virtually all of its citizens. The study examined data on 88,000 seriously injured patients from 24 Pennsylvania trauma centers. The study found that low volume of trauma admissions was a significant risk factor for mortality in patients with head, chest, brain, and/or lung injury.

Unfortunately, low volume trauma centers are a reality in a number of states and urban locales – a consequence of local market hospital and/or health care system competitive pressures.

The Resources for Optimal Care of the Trauma Patient 2006, published by the Committee on Trauma, acknowledges the patient volume/quality outcome dynamic by establishing minimum volumes for Level I trauma centers. Specifically, Level I trauma centers must admit at least 1,200 trauma patients annually or meet the alternate criteria.

The Committee on Trauma’s Optimal Care guidebook also “…emphasizes the need for various levels of trauma centers to cooperate in the care of injured patients to avoid wasting precious medical resources. For, in the era of health care reform, we not only must strive for optimal care, but we also must try to provide this optimal care in a cost-effective manner.”

Louisiana hospitals seeking Level I trauma center status must meet the Committee on Trauma’s patient volume requirements for Level I trauma centers. LERN additionally recommends the development of relevant patient volume guidelines for designation of Level II and Level III trauma centers in Louisiana.

Preliminarily, LERN recommends a minimum volume of 400 trauma patient admissions for Level II trauma centers and a minimum volume of 150 trauma patient admissions for Level III trauma centers. Final patient volume guidelines should be adopted by the LERN Board based upon analysis of Louisiana regional trauma case volume data and input from LERN’s regional commissioners and other relevant stakeholders.

III. Population Density and Injury Rates

High population areas in Louisiana that currently lie outside of “golden hour” access to trauma centers include the greater metro areas of Baton Rouge*, Lafayette, Lake Charles, Monroe, and Shreveport**. LERN promotes priority development of designated trauma centers in those four greater metro areas.

Development of these additional designated trauma centers regionally will aid in providing “golden hour” coverage to the surrounding rural population for injuries that exceed the capabilities of rural hospitals.

Figure 2 is a Louisiana population density map. Figure 3 and Table 1 provide rates for nonfatal injury-related hospital discharges for all regions of the state.

*A Level I trauma center is planned to be located at Our Lady of the Lake Regional Medical Center in Baton Rouge.

**LSU Health Shreveport is currently in the process of reestablishing its Level I Trauma Center designation.
Figure 2 – Parish Population Density with “Golden Hour” Overlay
Figure 3 – Rate of Nonfatal Injury-Related Hospital Discharges by OPH Regions, Louisiana 2004

Table 1 – Rate of Nonfatal Injury-Related Hospital Discharges by OPH Regions, Louisiana 2004

<table>
<thead>
<tr>
<th>DHH Region</th>
<th>Number</th>
<th>Rate/100,000*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 1: New Orleans area</td>
<td>7,845</td>
<td>776.4</td>
</tr>
<tr>
<td>Region 2: Baton Rouge area</td>
<td>3,233</td>
<td>527.6</td>
</tr>
<tr>
<td>Region 3: Houma/Thibodaux area</td>
<td>1,782</td>
<td>455.9</td>
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<td>Region 4: Lafayette area</td>
<td>3,699</td>
<td>661.0</td>
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<td>Region 5: Lake Charles area</td>
<td>1,450</td>
<td>508.1</td>
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<td>Region 6: Alexandria area</td>
<td>2,380</td>
<td>795.1</td>
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<tr>
<td>Region 7: Shreveport area</td>
<td>3,829</td>
<td>726.8</td>
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<tr>
<td>Region 8: Monroe area</td>
<td>2,329</td>
<td>662.2</td>
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<tr>
<td>Region 9: Northshore area</td>
<td>3,582</td>
<td>748.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30,129</strong></td>
<td><strong>667.2</strong></td>
</tr>
</tbody>
</table>

Source: IRP from LA OPH Center for Health Statistics, Hospital Inpatient Discharge Data 2004
* Rate per 100,000 population calculated using 2004 US Census Population Estimates 2009

From 2009 Louisiana Health Report Card
IV. Human Capital/Surgeons

Trauma centers require the presence of surgeons – especially general surgeons, neurosurgeons, and orthopedic surgeons. The trauma surgeons on call must be willing to commit to 15 minute coverage (from patient arrival in Emergency Department) for Level I and Level II trauma centers and 30 minute coverage for Level III trauma centers.

The ready availability of neurosurgeons and orthopedic surgeons is required for Level I and Level II trauma centers. Level III trauma centers do not require neurosurgery support but do require orthopedic support. A scarcity of these surgeons is a well-recognized challenge to the development of ideal trauma systems.

Availability and willingness of surgeons to support a trauma center is a critical factor that impacts the ongoing viability of existing trauma centers and the establishment of new trauma centers in Louisiana. The scarcity of these three surgical groups also argues strongly against unwarranted expansion of trauma center availability in any specific locale.

V. Health Care Financing

When exploring the opportunity to develop a designated trauma center, hospitals must assess the potential financial impact of creating and maintaining such a resource. The cost of maintaining trauma center readiness 24/7/365 and the direct expenses required to properly treat major trauma patients are substantial.

Each interested hospital will need to evaluate trauma patient volumes and length of stay (LOS), case mix (Injury Severity Scores – ISS), and payor mix to gain an understanding of the likely financial impact to their organization.

In some states, special funding mechanisms have been created to provide supplemental financial incentive to help hospitals establish and maintain designated trauma centers. Examples of these special funding mechanisms from other states include add on penalties for motor vehicle violations (speeding, DUIs, etc.), dedicated fees added to motor vehicle registrations, dedication of state tobacco taxes, special use of federal disproportionate share payments, and “play-or-pay” hospital provider fees.

Louisiana currently does not have any special funding mechanisms dedicated to provide supplemental financial support for designated trauma centers. LERN does monitor the constantly evolving practices of other states and maintains ongoing conversations about supplemental funding for trauma care with Louisiana’s trauma care stakeholders.

The federal Medicare program has established a specific reimbursement mechanism for activation of trauma teams. Any trauma center verified by the American College of Surgeons and/or designated by a state authority can bill trauma activation charges when certain conditions exist, including pre-hospital notification given to trauma center, patient arrival by EMS, patient transferred to the trauma center from another hospital, and the presence of a formal, organized activation response. Trauma centers in Louisiana have access to this reimbursement mechanism through the Medicare program and should investigate all opportunities to utilize trauma activation charges with other payors that serve their local market area.
Conclusion

Louisiana’s two trauma centers (in Alexandria and New Orleans) are not adequate to provide “golden hour” access to all Louisiana citizens. Significant geographic holes in Louisiana’s network of designated trauma centers exist, including the greater metro areas of Baton Rouge, Lafayette, Lake Charles, Monroe, and Shreveport.

LERN is therefore leading a priority effort to establish new trauma centers that fill these geographic holes in our trauma center network. Figure 4 depicts that future.

LERN’s work in this effort will be guided by the principles laid out in this paper:

- Access to Definitive Care
- Patient Volume
- Population Density and Injury Rates
- Human Capital/Surgeons
- Health Care Financing

The goal is to meet the real trauma care needs of all Louisiana regional areas without creating unnecessary duplication of services or dilution of provider experience and expertise.

Figure 4 – Proposed Trauma Center Map with “Golden Hour” Overlay
Resources

Resources for Optimal Care of the Injured Patient, 2006
American College of Surgeons, Committee on Trauma

Trauma System Consultation, State of Louisiana, 2009
American College of Surgeons, Committee on Trauma

Louisiana Health Report Card, 2009
Louisiana Department of Health and Hospitals

Injury Prevention & Control: Trauma Care
www.cdc.gov/traumacare/
Centers for Disease Control and Prevention

Louisiana Revised Statute 40:2841-2846 Chapter 34. Louisiana Emergency Response Network (LERN)
Louisiana State Legislature, 2010

Executive Summary, White Paper on Needs Assessment for New Trauma Center Development in the Commonwealth of Pennsylvania
Pennsylvania Trauma Systems Foundation

Trauma System Development
www.dshs.state.tx.us/emstraum systems/utrauma.shtml
Texas Department of State Health Systems

Trauma Section
www.healthy.arkansas.gov/programsServices/injuryPreventionControl/ TraumaticSystems/Pages/default.aspx
Arkansas Department of Health

Mississippi Trauma Care System
www.trauma.ms.gov/
Mississippi State Department of Health

Emergency Systems – Trauma
www.ok.gov/health/Protective_Health/Trauma_Division/index.html
Oklahoma State Department of Health

Office of Trauma
www.doh.state.fl.us/demo/trauma/index.html
Florida Department of Health
Appendix B

Presentation – Stroke Workgroup Update to LERN Board of Directors August 2012
August 17, 2012
Report to LERN Board
State Stroke Workgroup
The board shall work with the department to develop stroke and STEMI systems that are designed to promote rapid identification of, and access to, appropriate stroke and STEMI resources statewide.

Legislation (Act 934)
**Timeline**

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Date Range</th>
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<tbody>
<tr>
<td>Presentation to LERN Board</td>
<td>Apr 2013</td>
</tr>
<tr>
<td>Preparation of draft stroke plan by stroke work group</td>
<td>Oct 2012 - Feb 2013</td>
</tr>
<tr>
<td>Analyze Stroke Survey Results</td>
<td>Oct 2012</td>
</tr>
<tr>
<td>LERN Board Retreat/Feedback on Plan</td>
<td>Aug 2012</td>
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<tr>
<td>Meeting of stroke work group: Develop stroke protocol</td>
<td>Jul 2012</td>
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<tr>
<td>Brainstorm stroke protocol</td>
<td>Jun 2012</td>
</tr>
<tr>
<td>Board presentation: Hospital designation</td>
<td>Jul 2012</td>
</tr>
<tr>
<td>Meetings with regional commissions</td>
<td>Jul 2011 - Jun 2012</td>
</tr>
<tr>
<td>Initial presentation of work group/approval of draft plan</td>
<td>Jul 2011</td>
</tr>
</tbody>
</table>
Guiding Principles

- Time is the critical variable in acute stroke care.

- Treatment with intravenous tPA is the only FDA approved treatment for acute stroke.

- Transfer patient to the nearest hospital equipped to provide tPA treatment.

- Secondary transfer to facilities equipped to provide tertiary care.

- EMS should identify the geographically closest facility capable of providing tPA treatment.

- Administration of tPA to appropriate patients.

- Care and interventional treatments should not prevent transfer.
Primary Stroke Centers

Region 1:
- LSU/HH
- Tulane
- West Jefferson
- Ochsner Medical Center

Region 2:
- Our Lady of the Lake Batou Rouge

Region 3:
- Lafayette General

Region 4:
- Our Lady of Lourdes and Lafayette General

Region 5:

Region 6:
- Rapides Regional
- Christus St. Francis Cabrini - Alexandria
- Primary Stroke Centers

Region 7:

Region 8:

Region 9:

Primary Stroke Centers
Drive Times to Primary Stroke Centers and Telestroke Spoke Hospitals
Louisiana Hospitals – tPA Given

2004-2008 Age Adjusted Stroke Rate

Sources: Louisiana Hospital Inpatient Discharge Data, 2010

CDC WONDER Compressed Mortality 2004-2008

Age Adjusted to 2000 US Standard Population

Hospitals - tPA Given
Hospitals - tPA Not Given

Unreliable Data

6.1.9 - 70.4
6.0 - 61.8
50.4 - 55.9
44.1 - 50.3
24.0 - 44.0
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<tr>
<th>LERN Level I</th>
<th>Comprehensive Stroke Center – JC</th>
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<tr>
<td>LERN Level II</td>
<td>Primary Stroke Center – JC</td>
</tr>
<tr>
<td>LERN Level III</td>
<td>Stroke enabled hospital</td>
</tr>
<tr>
<td>LERN Level IV</td>
<td>Non-participating in acute stroke care</td>
</tr>
</tbody>
</table>

Proposed Hospital Categories
Recommend minimum standards for EMS Stroke

Establish the minimum number of primary stroke centers

Use the Regional Commission platform for regional stroke networks

Stroke Registry

Stroke Stakeholder Survey

Establish the minimum number of primary stroke centers

Recommend minimum standards for EMS Stroke

Education Protocols

EMS

Public

EMERGENCY RESPONSE NETWORK

LOUISIANA
Appendix C

Presentation – STEMI Workgroup Update to LERN
Board of Directors August 2012
STEMI UPDATE

LERN Board Meeting

August 2012
Murtuza Ali, M.D.

STEMI Update

- Initial presentation to LERN Board in February 2010
- Focused on most time-critical chest pain patients: STEMI from completely closed artery
- Goals of care: timely re-opening of closed artery
  - Clot-busting medications (easier, faster, less effective)
  - Primary PCI (more efficacious and safer but less available)

STEMI Update

February 2010

Initial presentation to LERN Board

- Focused on most time-critical chest pain patients: STEMI from completely closed artery
- Goals of care: timely re-opening of closed artery
  - Clot-busting medications (easier, faster, less effective)
  - Primary PCI (more efficacious and safer but less available)

>60 minutes
Ideal inter-hospital transfer time
STEMI Progress

- Quality Assurance and Ongoing Data Review
- Barriers and Areas for Development
- Field Triage

STEMI Receiving Centers
STEMI Progress
STEMI Progress
Board created STEMI Workgroup • Membership solicited from all regions, EMS providers, LHA, LAA, DH, and DH.

We did not (Appendix A) and identify what we knew and what we needed for state-wide system development. STEMI Workgroup met September 2011 to assess need for state-wide system development.
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• Workgroup Findings:

  2011

PCI centers are clustered around metropolitan areas, creating uneven distribution of resources, and highlighting need for appropriate triage.

Given incidence of disease and aging population, need for system will only grow.

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Workgroup Findings:

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WORKGROUP FINDINGS:

- Some regions are further ahead in the process of organizing, others lag behind.
- No central data registry exists to assess the efficacy of triage strategies or outcomes of transferred patients.


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Inclusion: Any Tier 1 hospital
Exclusion: Hospitals without adult acute care available

Results collated, redundancies eliminated, conflicts resolved

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Survey
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Survey

Response Rates:

- PCI Hospital: 86%
- Non-PCI Hospital: 62%
- EMS: 65%
Most PCI hospitals have pre-hospital activation protocols in place – usually done by the ED physician. Additionally, activation protocols for pre-hospital cath lab interpretation of EKG can receive EKGs from the field using Medtronic/Physiocontrol’s LifeNet system. Recommendation: All PCI hospitals should develop pre-hospital protocols for pre-hospital cath lab activation, either using pre-hospital EKG transmission or based on EMS interpretation, either using pre-hospital EKG transmission or based on EMS.
Limited data are available regarding interhospital transfer times or process for STEMI patients (variability in process depending on facilities/physicians involved).

Recommendation:

- Creation of standardized transfer protocols between PCI and non-PCI centers, with tracking of inter-hospital transfer times.

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Limited data are available regarding interhospital transfer times or process for STEMI patients (variability in process depending on facilities/physicians involved).
• Less than half of the PCI hospitals reported any mechanism of follow-up with initial facilities and/or EMS.

Concerns about HIPAA and logistical challenges of sharing individual patient information complicates the data tracking system through the definitive care (primary PCI or thrombolitics) system from point-of-entry into medical system.

Recommendation:

Creation of, or participation in, a standardized data tracking system, to allow analysis of patient flow from point of entry into medical system through definitive care (primary PCI or thrombolitics) system, should incorporate reporting back to referring entities.

Recommendation:

Improvement.

EMR/Non-PCI hospitals to guide further system refinement. The data tracking system should incorporate reporting back to referring entities.

Challenges of sharing individual patient information with HIPAA and logistical mechanisms of follow-up with initial facilities and/or less than half of the PCI hospitals reported any...
A majority of non-PCI hospitals have a choice in selecting reperfusion strategy; there is no apparent consistency in how a treatment strategy is selected.

Recommendation:
For those non-PCI centers with an available PCI Center within 60 minutes travel time, formal transfer protocols should be implemented. These protocols should include universal acceptance of patients at the PCI Center (never on diverter, pre-hospital cath lab activation, patient education about need for timely care at most capable facility, etc). For non-PCI centers without nearby PCI centers, protocols for thrombolytics should be developed. For those non-PCI centers with an available PCI Center within 30 minutes and urgent transfer to PCI nearby PCI centers, protocols for thrombolitics should be implemented.
Trauma Center if they meet criteria.

Wherein patients are brought directly to

established relationships between patient
cath lab availability at receiving hospital, and

typically incorporates patient preference,
decision about which hospital to transport to

center within 60 minutes travel time,

For non-PCI centers with more than one PCI

Recommendation:

Patient education about need for timely

consider care at most capable facility. Consider

Recommendation: –

and cardiologist.

For non-PCI centers with more than one PCI
• More than a third of responding non-PCI centers have no formal agreement with EMS for emergent transfer of STEMI patients to PCI Center.

  — **Recommendation:**
  Non-PCI Centers choosing a PCI strategy should develop formal agreements with local EMS providers for emergent (911-level prioritization) transfer of patients to PCI Center.
Only 5 respondents receive feedback regarding door-to-balloon times for patients who were transferred on to PCI centers. The reasons for this were postulated but cannot be definitively commented on. Additionally, approximately half of non-PCI centers are not aware that pre-hospital cath lab activation occurs at PCI centers.

- **Recommendation:**

  Creation of, or participation in, standardized data tracking system, to allow analysis of patient flow from point-of-entry into medical system through definitive care (primary PCI or thrombolytics). The data tracking system should incorporate reporting back to referring EMS/non-PCI hospital to guide further system improvement.
An overwhelming majority of EMS services already perform pre-hospital EKGs and transmit to receiving facilities; however, a smaller percentage report pre-hospital cath lab activation based on transmitted EKGs. Speculated reasons for this include lack of certainty about EMS’ skill in EKG interpretation and a need to minimize resource over-utilization (false alarm call-outs of cath labs). Speculated reasons for this include lack of certainty about EMS’ skill in EKG interpretation and a need to minimize resource over-utilization (false alarm call-outs of cath labs). However, smaller percentage report pre-hospital cath lab activation based on transmitted EKGs. Pre-hospital EKGs and transmit to receiving facilities;

Enhanced education of paramedics in EKG interpretation (preferably by local physicians) to develop relationships and trust between pre-hospital and hospital-based providers. In the event that a hospital chooses to receive pre-hospital EKGs, activation of the cath lab should occur (either by ED physicians or cardiology). While the patient is still en route, to allow for parallel processing of patient transport and cath lab team mobilization.

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facilitate data sharing and educational efforts.

There are technical barriers to quality EKG interpretation and transmission, including insufficient education about how to perform an EKG, insufficient cell phone coverage to transmit EKG transmission, and perceived mistrust of local EKG education for paramedics. Creation of "point person" to serve as liaison between EMS and hospitals to address cell signal shortcomings and tracking of successful EKG transmission rates.

Recommendation: Exploration of technologies to address cell signal shortcomings and tracking of successful EKG transmission rates.

Recommendation: Enhanced educational opportunities for paramedics to become facile in EKG performance and interpretation.

Recommendation: Engagement of EMS and hospital physician leadership in local EKG education for paramedics. Creation of "point person" to serve as liaison between EMS and hospitals to facilitate data sharing and educational efforts.

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If EMS operates in a region with PCI and non-PCI Centers available within 60 minutes travel time, formal/standardized destination protocols for bypass of non-PCI centers will need to be drafted. Consideration of transport time, traffic, and mode of transport has to be factored into these protocols.

- Recommendation:
  Empower individual regions to create protocols specific to their Region for triage and bypass.
  Whereas allowing an individual Region to develop its own system improves the likelihood of successfully implementing this process centrally, efforts to standardize this process centrally run the risk of failing to account for local factors.

- See Appendix B
Only 9 respondents receive feedback regarding door-to-balloon times for patients who were transferred on to PCI centers. The reasons for this were postulated but cannot be definitively determined.

Recommendation:

Creation of a post-participation in standardized data tracking system, to allow analysis of patient flow from point-of-entry into medical care through definitive care (primary PCI or thrombolitics). The data tracking system should incorporate reporting back to referring EMS/non-PCI hospital to guide further system improvement.
Conclusions:

• Elements of success already exist.

• Significant drop off in information-sharing once patient leaves non-PCI center.

• Limited data-sharing with pre-hospital providers.

• Any system-wide change will need ongoing review and correction – the first step will not be the last.

• Solutions need to be local and organic, rather than imposed.

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If Board accepts recommendations of workgroup:

- Dissemination of recommendations to individual Commissions, working with local Commissions
- Registry for data-sharing (national models already exist; either join or use our own)
- Local triage models providers and medical societies, to create
- Accreditation via national organizations such as AHA

Next Steps:

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