TriStar Skyline Medical Center
Nashville, Tennessee
Level I Designation Trauma Center Visit
July 23, 2024

Introduction

TriStar Skyline Medical Center was granted provisional state Level 1 verification on May 23, 2023. The accreditation visit of July 23, 2024 was conducted as required by the Board of Licensing Health Care Facilities using the Trauma Center rules 0720-22 (revised July 2022). Prior to preparation of this report, we interviewed key personnel (hospital administrators, the Trauma Medical Directors, the Trauma Program Director, and other involved personnel), performed a review of process improvement activities, analyzed trauma registry data, outreach programs and research output and other supporting documents. This visit was for the review of trauma care provided solely for adult patients 18 years of age or older.

Accomplishments

Numerous accomplishments are noted during this visit including:

1. Demonstration of a well-organized trauma program that met previous recommendations from the previous provisional visit.
2. There was clearly demonstrated system-level commitment. This has resulted in additional resources for clinical care (8 new FTE APPs) and an additional process improvement position.
3. Strong hospital leadership by Dr. Darrell Hunt with a solid team of clinicians employing evidence-based practice management guidelines, a solid system for process improvement, clinically relevant research and a robust regional outreach program.
4. Superlative management of the trauma program by Trauma Program Director Andrea Palmer, RN, BSN who is clearly passionate about the care of the injured patient and is highly motivated to improve outcomes.
5. A far-reaching outreach and education program lead by Beverly Rawlins, RN and Kathleen Edwards, RN, BSN providing national initiatives such as Stop the Bleed and Rural Trauma Team Development as well as home grown projects to address local needs.
6. Broad and intense education to trauma team members, especially RNs in the ICU and PACU. An internal resource for learning available to the staff at their convenience is present to accomplish this. Additionally, Skyline will commence their Surgical Critical Care fellowship August 1, 2024.
7. PI Coordinators each manage specific Practice Management Guidelines and PI Initiatives to continue to monitor processes and ensure improvements are occurring.

Trauma Injury and Payor Data

This center has accumulated the following trauma data.

Year	Total Admits	ISS 0-15	ISS 16-25	ISS 26-40	ISS 41+	Ave ISS
6-1-23 thru 5-31-24	3846	2927	534	237	35	11

Financial summary of patients includes.

Year	Self-Pay	Comm. Insur.	Medicare	Medicaid	TennCare	Work. Comp.
6-1-23 thru 5-31-24	19.4% & 20.1%	24.5% & 24.9%	37.0% & 39.9%	0.7% & 0.4%	15.5% & 12.1%	3.1% & 2.7%

Hospital Organization

Position	Name	%Time Commitment
Trauma Medical Director	Darrell Hunt, MD, PhD	100%
Trauma Program Director	Andrea Palmer, RN, BSN	100%
Surgical Critical Care Director	Hart Tyson, MD	100%
Trauma PI Coordinators	Whitney Nelson, RN Emma Apusen, MBA, BSN Hope Saxman, RN Nicole Carlin, RN Mason Taylor, RN Valli Lessenberry, RN	100% 100% 100% 100% 100% 100%
Trauma Outreach and Education	Beverly Rawlins, RN Emily Lopez, BSN, RN	100% 100%
Trauma Registrars	Rebecca Laventure	100%
Trauma Research Manager	Jordan Rahm	100%
Hospital Admin. Responsible for Trauma	Natalie Whitmer, COO	
Trauma Surgeons	Hart Tyson, MD Tiffany Bee, MD Richard Chen, MD Kevin Luftman, MD Haile Mezghebe, MD Eric Bentley, MD	

	Alwyn Harriott, MD Mary Boggs, DO	

Trauma Service/Activation Criteria/Response Times

There are currently 9 surgeons responsible for trauma call. Dr. Hunt is the Trauma Medical Director both for TriStar Skyline, as well as for the HCA Nashville Trauma system which is reported at a 10% commitment. Dr. Hart Tyson is the Associate Trauma Medical Director and serves as the surgical director of the Trauma/Surgical Intensive Care Unit and both were present for the duration of the visit.

All general surgeons on the call panel are ATLS certified and Dr(s). Hunt and Tyson are also ATLS Instructors. Dr. Hunt leads the multidisciplinary trauma peer review meetings, as well as the trauma operations meetings. Attendance by both the trauma surgeons and the surgical liaisons are above minimum requirements. Peer review spans primary to quaternary review on an as-needed basis and PI coordinators round with the trauma teams in both the ICU and on the wards.

Trauma volume at TriStar Skyline continues to grow and has nearly doubled over the last 12 months. To address this growing patient need, Skyline administration has hired 8 additional APPS. Written, graded activation criteria are present and divided into Level I and II activations. Trauma surgeons remain in-house on call and PI documentation shows trauma surgeons are present in an appropriate timeframe on all Level 1 activations. Interviews with providers in the Emergency Department demonstrate that the trauma surgeons are active in leading resuscitations for critically injured patients.

The organization chart for the institution was reviewed. Interviews with the administration, as well as other documentation, demonstrate support for the Trauma Program. A budget was identified during this visit.

Surgical Specialty Availability

Surgical specialty call schedules were reviewed, and 24/7 coverage of all required specialties was reviewed. Ophthalmology, Plastic Surgery and Otolaryngology had days where coverage was not available. The Skyline administration had addressed this and immediately prior to the site visit secured contractual agreement for required 24/7 coverage by those specialties.

Where other rule required services were not available, transfer agreements were in place with other facilities. Review of Trauma Performance documents did not demonstrate any problems with coverage or availability. Attendance by required specialists at multidisciplinary meetings has met the threshold of 50%. Transfer agreements for services not provided at Skyline Medical Center are in place per

state rules. Evidence was provided that 99% of patients presenting to Skyline receive their definitive care at Skyline.

Non-Surgical Specialty Availability

Non-surgical specialty call schedules were reviewed. There was immediate 24/7 coverage for specialties. Review of Trauma Performance documents did not reveal any problems with Non-Surgical Specialty coverage or availability.

Facility Resources and Capabilities

Emergency Department: Personnel/Qualifications/Equipment

The Emergency Department is staffed by physicians Board Certified or Eligible (and ATLS certified) in Emergency Medicine. Adequate nursing staff is available 24/7. Nurses have TNCC accreditation. Tour of the Emergency Department verifies that all essential equipment is available. A Decontamination room was evaluated and adequate. There are three helipads for air transport with a fourth pad planned. A coordination center exists in the ED for assistance in managing EMS traffic.

Intensive Care Unit for Trauma Patients: Personnel/Qualifications/Equipment

Dr. Hart Tyson is the Medical Director of the Critical Care Unit. All trauma surgeons are board certified in Surgical Critical Care. They are present in-house and provide coverage for issues in the Intensive Care Unit. Critical Care APPs assist with routine patient management. Nurse ratios are appropriate and there is immediate access to laboratory services and imaging. Extensive required training is evident for ICU nurses. All essential equipment is available on the unit. ICU staff have access to ventilators, dialysis and massive transfusion protocols when needed.

Post-anesthetic Recovery Room

No deficiencies are documented. Recovery room capabilities are available 24/7 and PACU nurses are able to provide critical care when needed. Required training is in place for PACU nurses and mirrors the ICU.

Acute Hemodialysis

Continuous renal replacement therapy is available and is run by the ICU nurses. Intermittent hemodialysis is available as well, as directed by the nephrologists.

Organized Burn Care

TriStar Skyline has burn care capability, including a burn ICU independent of the trauma service.

Radiologic Capabilities

The site reviewers toured the Radiologic Department. All required capabilities were noted present. Radiology technicians respond to trauma activations and there is CT scan capability 24/7. There are currently three CT scanners available at all times, with equal priority given to Level 1 Trauma activations and patients with suspected stroke. During the day, a fourth scanner is available if needed. Radiologic reads are prompt and either provided daytime by an in-house radiologist or nighttime virtual interpretation.

Organ Donation Protocols

Organ donor protocols exist and are appropriate. Referral rates are tracked and are appropriate.

Operating Suite Special Requirements/Availability

An available operating room for trauma and emergencies exists at all times. At night, an OR team remains in-house for surgical emergencies. Two additional call teams are available if needed. Daytime cases are accommodated as needed and prioritization occurs in conjunction with the operating surgeon.

Clinical Laboratory Services

All essential Clinical Laboratory Services are available.

Whole blood is available and is typically given as the first two units in major trauma resuscitations, with a transition to component therapy afterward as needed. The massive transfusion protocols have a focus on 1:1 resuscitation. Cryoprecipitate is included as part of the MTP (empirically in the third cooler). All MTPs are reviewed by the blood bank and the trauma program. Thromboelastography is available and is used for goal-directed resuscitation when appropriate.

Trauma Medical Director

Dr. Darrell Hunt is the Trauma Medical Director at TriStar Skyline and has served in this role since 2021. Dr. Hunt has also been appointed the Trauma Medical Director for all HCA facilities in the Nashville region. This role gives him strategic perspective on the systems' care and resources. Dr. Hunt is active in the State of Tennessee trauma system. Dr. Hart Tyson serves as Associate TMD.

Attending General Surgeons on the Trauma Service

There are nine general surgeons taking trauma call. They are board certified and are current in ATLS. TriStar trauma will seek and additional two trauma surgeons

to the call panel, due to exponential growth. All surgeons have met response times for trauma activations and are appropriately active in peer review and trauma operations.

Trauma Program Director (TPD)

Andrea Palmer, BSN, RN, is the Trauma Program Director (1.0 FTE). She is actively engaged in the Trauma Program and coordinates well with the surgeons and nursing staff. She demonstrates proficiency in her role as the TPD and shows dedication to the position.

Trauma Registry

The hospital has 7 Trauma Registrars and meets the requirement of 1 registrar for every 750 registry entries. The registrars are up to date on training and typically close charts well within the 60-day window (typically 30-32 days).

Programs for Quality Assurance: Medical Care Education/Trauma Process Improvement/Operational Process Improvement (System Issues)

1. Multidisciplinary Peer Review is conducted bi-monthly, with special focus on TQIP areas of concern. Peer review is primarily driven by audit filters.
2. Multi-disciplinary Trauma Operations Committee meets monthly and is comprised of trauma/general surgery, orthopedic surgery, emergency medicine, internal medicine, anesthesia, neurosurgery, hospital administration and other pertinent parties. Quality of care issues, as well as systems issues, are discussed at this meeting. Most issues reviewed at this committee are resolved through discussion at the committee meeting and documented.

Chart Reviews of Medical Care

During comprehensive chart review there were no quality of care issues identified. Extensive use of institutional Practice Management Guidelines was noted. Adherence to guideline recommendations is a focus of Skyline PI. Transfers out followed appropriately documented medical necessity; admissions by non-surgical services were appropriate and are reviewed for PI with the same audit filters.

Trauma Bypass Log

This hospital has had 0.5% diversion rate. All episodes of diversion are carefully reviewed and documented. They are communicated throughout the hospital and to referring EMS agencies. The most frequent cause is bed availability.

Outreach/Training/Public Education/Research

TriStar Skyline demonstrates a strong commitment to outreach and education. TNCC and TCAR are supported by the hospital administration and expected of nurses caring for trauma patients. The trauma program provides ongoing education throughout the hospital via the Trauma TEN talks and virtual resources. TriStar has recruited a Surgical Critical Care fellow starting in August 2024 and has Emergency Department residents rotating on the service.

Outreach to the community, referring hospitals and to EMS agencies exists abundantly. Multiple outreach efforts were detailed in the opening presentation and data on the positive impact of such programs has begun through pre-and post-attendance surveys as recommended by the provisional survey.

All surgeons are ATLS certified, and the programmatic leadership are also ATLS instructors.

Skyline provided DMEP courses to trauma centers outside middle Tennessee.

Skyline surgeons and staff independently and through HCA system data have generated sufficient published research and have a solid research framework for future studies. Skyline trauma staff have presented at trauma and quality meetings regionally and nationally Ancillary services have begun research and publishing.

A dedicated research coordinator manages the many ongoing internal and external projects.

Trauma System Development

TriStar Skyline Medical Center has been actively participating in the Tennessee Committee on Trauma and regularly attend the state's Trauma Care Advisory Council.

Conclusions

TriStar Skyline Medical Center has demonstrated sufficient compliance with state regulations to warrant Level I Trauma Center designation. The hospital meets the metrics for outreach, education, and research. The hospital administration delivers administrative and financial support of the trauma program and has a focus on the care of injured patients. The Trauma Program Team are skilled and invested in the program and Dr. Hunt and Trauma Program Director Palmer remain assets to Skyline and the region.

Deficiencies

None

Opportunities for Improvement

1. The program has made significant investments in Process Improvement as evidenced by the number of PI Coordinators and the development of a codified approach to PI. A large number of audit filters flag cases for review, but opportunity exists to refine many of the filters so that deeper dives into cases to look at specific care practices and for systems/care issues. Those findings can then be addressed and then studied for efficacy and effectiveness after new policies/PMG revisions, etc. are implemented. This should be the focus forward now that new PI resources have been provided by the administration.

2. The program has addressed (just prior to the visit) the gaps in coverage for Ophthalmology, Plastic Surgery and Otolaryngology. Demonstration of that loop closure is needed, and call schedules for the next 6 months should be submitted to the Trauma System Director. Adherence to the call requirements should be a focus of the PI process and demonstration of contractual coverage obligations reviewed in the Trauma Operations Committee monthly. Future gaps in coverage will necessitate explanation to the Health Facilities Commission Board.

3. There were concerns of Interventional Radiology providing back-up coverage with the demands of Trauma and Stroke services. This should be monitored at the Operation Committee level and if any future issues arise, it should be addressed with the IR team and documentation of resolution recorded.

Exit Interview

Following the site visit, the team held a meeting to evaluate the findings and make conclusions. An exit interview was then held and the conclusions and recommendations as stated in this report were presented to the hospital administration, medical and nursing staff present. Based on these findings, the site team believes it is appropriate for TriStar Skyline to be granted full Level 1 Trauma Center status. This was communicated to the hospital personnel.