

American College of Surgeons (ACS) Committee on Trauma (COT) Update

Background- what are the COT, TQIP, and VRC?

The Committee on Trauma is part of the American College of Surgeons. Eight members of this committee are orthopedic trauma surgeons. This update is meant to provide information about recent changes to the trauma center verification process specifically related to orthopedic surgery, and the entire process and structure of the COT which is large and may seem confusing. In addition, we want orthopedic surgeons to know who to contact with questions and/or suggestions about the process. This update hopefully will provide information and access to resources. We hope to post information online to both the Orthopaedic Trauma Association (OTA) and the COT website. The chair of the orthopedic COT committee gives a report to the OTA Board of Directors twice a year at the OTA and AAOS annual meetings, and the OTA has been kind enough to give our group time to give a brief update at the business meeting portion of the OTA Annual Meeting and Specialty Day. Hopefully all of these will help familiarize orthopedic trauma surgeons with the COT.

The *ACS Committee on Trauma* (COT) is the committee charged with improving the care of trauma patients via activities that include education, advocacy, establishing standards of care and the assessment of treatment outcomes. (<https://www.facs.org/quality-programs/trauma>) The ACS COT publishes the *Resources for the Optimal Care of the Injured Patient (Orange Book)*, which was updated in 2014, and outlines the resources that trauma centers must have to be verified by the ACS as a trauma center. Chapter 9 contains the resources/requirements relating to the delivery of care for orthopedic trauma patients. There are numerous “criteria” or resources that must be available for orthopedic trauma surgeons at their institution including, but not limited to: access to operating rooms on an urgent basis, physical therapy, radiology, discharge planners etc. Prior to every verification or re-verification visit every institution must provide information about the adequacy of the resources that are available for the care of orthopedic trauma patients.

(<https://www.facs.org/~media/files/quality%20programs/trauma/vrc%20resources/resources%20for%20optimal%20care%202014%20v11.ashx>)

The *Verification Review Committee* (VRC) is a sub-committee of the COT that performs the verification and re-verification of ACS verified trauma center programs every 3 years. (<https://www.facs.org/quality-programs/trauma/vrc>) In addition to ensuring that all the resources delineated in the Optimal Resources for the Care of the Injured Patient are in place, the Committee has recently determined to begin collecting 3 orthopedic trauma surgery care metrics (July 2016).

The *Trauma Quality Improvement Project* (TQIP) is an ACS program that collects data from trauma centers across the country to create risk-adjusted benchmarks to provide

feedback about a center's performance (<https://www.facs.org/quality-programs/trauma/tqip>). TQIP also develops and publishes Best Practices Guidelines and recently released the ACS TQIP Best Practices in the Management of Orthopedic Trauma guidelines that include suggestions for the management of 9 aspects of orthopedic trauma care and performance improvement (PI) indicators that could be used to monitor the delivery of care at individual institutions.

(<https://www.facs.org/~media/files/quality%20programs/trauma/tqip/tqip%20bpgs%20in%20the%20management%20of%20orthopaedic%20traumafinal.ashx>) These guidelines were developed by an expert workgroup and are based on existing evidence, guidelines, and expert opinion. The guidelines are co-branded by the ACS and the OTA and are posted on the OTA website. (<http://ota.org/medical-professionals/public-and-health-policy/>, <http://ota.org/research/evidence-based-medicine-resource-list/>)

Current Orthopedic Members of the COT

There are currently 8 orthopedic trauma surgeons who are members of the COT:

Gregory J. Della Rocca 2017 (dellarocag@health.missouri.edu)

Langdon A. Hartsock 2017 (hartsock@musc.edu)

Philip R. Wolinsky 2018 (philipwolinsky@hotmail.com)

Bruce H. Ziran 2019 (bruceziran1@gmail.com)

James R. Ficke 2020 (Jficke1@jhmi.edu)

Mark McAndrew 2020 (mpmcandrew@me.com)

Anna N. Miller 2022 (anmiller@gmail.com)

Clifford Jones 2022 (clifford.jones@thecoreinstitute.com)

Two members will "term out" after 2017. The OTA has recently sent out an email to membership asking for members who would be interested in serving on the COT. The COT membership committee receives nominations from numerous sources (ACS fellows and trauma organizations) including the OTA. Nominees must be fellows of the ACS and are required to

attend the fall and spring COT meetings and participate in COT business, as needed, throughout the year.

Trauma Quality Improvement Project (TQIP) Orthopedic Trauma Best Practices Guidelines

TQIP develops and publishes Best Practices Guidelines. There are currently 4 guidelines: Geriatric Trauma Management, Massive Transfusion in Trauma, Management of Traumatic Brain injury, and Management of Orthopedic Trauma. (<https://www.facs.org/quality-programs/trauma/tqip/best-practice>) The Orthopedic guidelines were released in November 2015 and contain guidelines for:

- The triage and transfer of orthopedic injuries,
- Open fractures,
- Damage control surgery,
- The mangled extremity,
- Compartment syndrome,
- Management of pelvic fractures and associated hemorrhage,
- Geriatric hip fractures,
- Management of pediatric supracondylar humerus fractures, and
- The rehabilitation of the multisystem trauma patient.

It is the first set of guidelines to include an appendix with suggested PI indicators that could be used to monitor/drive performance at individual institutions.

The guidelines were developed by an 18 member group of experts and used the best evidence available or expert opinion when there was insufficient evidence. The group was co-chaired by Dr. Matthew Davis and by Dr. Gregory Della Rocca, and are dedicated to Dr. Davis who passed away just prior to the release of the guidelines. They can be used as a reference if you are looking for guidelines on how to manage certain types of injuries and/or patients at your institution.

These guidelines are meant to be a “living” document and can/will be changed based on new literature, changing expert opinions, and hopefully on orthopedic surgery trauma care metrics that determine what is actually being done in the “real world”.

Orthopedic Trauma Surgery Metrics

*The VRC would like to expand the use of orthopedic data, and will be considering how best to do so as **WE** integrate throughout Trauma and ACS Quality Programs. The metrics **UNDER CONSIDERATION** are included in the TQIP Orthopedic Trauma Surgery Guidelines, and were vetted by the OTA COT members. To our knowledge, this is the first time that any orthopedic trauma care metrics have been collected by a national organization.*

The three metrics for consideration are:

- Time from patient arrival in the emergency department (ED) at your institution to administration of the first dose of intravenous antibiotics for patients with open fractures
 - Goal: ≤ 60 minutes
- The percent of patients with femoral **shaft** (only) fractures who undergo operative stabilization (intramedullary nail, external fixation, open reduction and internal fixation) within 24 hours of presentation to your ED. Traction is not included.
 - Goal: $\geq 90\%$
- Time from ED arrival at your institution to operative debridement of open tibial shaft fractures
 - Goal: ≤ 24 hours
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There are currently no “right” or “wrong” cutoffs assigned to these metrics and they are not being used in a punitive fashion. Since no organization has ever tried to track orthopedic trauma metrics, a goal of this process is to evaluate the feasibility of collecting these metrics as well as the feasibility of the metrics themselves. We hope in the future to further define these metrics for inclusion in the TQIP database and then to establish national norms and outliers.

Criteria Deficiencies (CD) of Interest to Orthopedic Trauma Surgeons

When a trauma center is verified or re-verified, the reviewers determine if numerous essential Type I and Type II criteria are present or not. All type I criteria must be in place to be verified; if 3 or fewer type II criteria are deficient then a 1-year verification is given. As long as

the cited CDs are fixed during that year, the verification period will be extended to a full three years. If more than three type II or any type I CDs are found, that center is not verified and needs a focused review within 6-12 months to achieve verification. There are a few orthopedic surgery related CDs that everyone should know about.

Orthopedic Trauma Leader (OTL) at Level 1 Centers:

The language in the optimal resources guide is as follows: “In a Level I trauma center the orthopedic care must be overseen by an individual who has completed a fellowship in orthopedic traumatology approved by the Orthopedic Trauma Association (OTA), this is a Type I CD.

The challenge for this CD is that OTA approved fellowships have only been around for a few years. Therefore, we devised a process to evaluate OTLs who finished their training prior to that time. The process is (we hope) simple and relatively painless. Level I centers will receive a list of questions about their OTL asking questions that hopefully all of us can remember:

- Did you do a fellowship
- Where was your fellowship
- How many attendings did you have
- Did you take call
- Did you go to clinic

The questions are based on the criteria that the OTA fellowship committee uses to approve fellowships. Not everyone has done a fellowship so there are some additional questions about people’s contributions to orthopedic trauma via education, research/publications and trauma leadership positions. The list of questions has been changed several times based on feedback, so please let us know what works and what does not.

To be clear, you do not need to have completed a fellowship to be approved as an OTL. Some of us have completed ACGME approved fellowships (rumored to be a requirement which is not the case), some of us did non-ACGME fellowships, and some of us have not done a fellowship at all. All these paths “work”!

This will only have to be done once. Once you go through the process, the COT has a data bank and you should never be asked about this again. There have been numerous rumors and worries regarding this. We would ask that if anyone has a concern please contact one of us. If it sounds ridiculous it probably is, this is not meant to be an onerous process at all.

Multidisciplinary Trauma Peer Review Committee at Level I, II, III Trauma Centers

The emergency medicine, neurosurgery, orthopaedic, anesthesiologist, radiology, and ICU liaison on the Multidisciplinary Trauma Peer Review Committee must attend a minimum of 50 % of the committee meetings (CD 7–11, 8-13, 9-16, 10-37, 11-13, 11-39, 11-62, 16-15). Multidisciplinary Trauma Peer Review Committee attendance – A single designee (or one pre-determined alternate) will be acceptable to attend Peer Review in place of the liaisons. The liaison or the SINGLE designee must attend at least 50% of the peer review meetings.

There has been a change in the interpretation of the rule of who can attend the multidisciplinary PI meetings. At this time the OTL/ liaison can designate one other person who can attend the meeting instead of them. Either the OTL or their designee must be at 50% or more of the meeting. In addition if there is any non-board certified or eligible orthopedic surgeons who take trauma call they must attend 50% or greater of these meetings as well.

Trauma call panel CME requirement

The following is a quote from Chapter IX in the optimal resources guide:

“The orthopedic surgical liaison to the trauma program at Level I and II centers must accrue an average of 16 hours annually or 48 hours in 3 years of verifiable external trauma-related continuing medical education (CME). In addition, it is important for the **other members** of the orthopedic trauma team to be knowledgeable about, and current in, the care of injured patients. This requirement may be documented by the acquisition of 16 hours of trauma CME per year, on average, or through an internal educational process (IEP) conducted by the trauma program and the orthopedic liaison based on the principles of practice-based learning and the PIPS program. Examples of internal CME include the following: in-service, case-based learning; educational conferences; grand rounds; internal trauma symposia; and in-house publications disseminating information gained from a local conference or an individual’s recent participation (through trained analysis) reviewing a trauma center. The IEP should include presentations and discussions on a quarterly basis as a minimum. Ideally, this education would be case-based learning that identifies issues through the PIPS process with appropriate dissemination to the trauma team. These presentations should be documented in the performance improvement process. The total hours acquired through an IEP should be functionally equivalent to 16 hours of CME annually”.

Every orthopedic surgeon who takes call at a level I or Level II trauma center must fulfill the trauma CME requirement. There are a wide variety of ways to get the CMEs, but everyone who takes call should be committed to, and knowledgeable about the current care of trauma patients. This is a Type II CD.

ABOS certification/ alternate pathway/ ACS membership

Everyone who takes orthopedic trauma call has to be either ABOS certified, ABOS board eligible or evaluated via the alternate pathway. The language in the optimal resources guide is as follows: “Board certification or eligibility for certification by an appropriate orthopedic board according to the current requirements, or the alternate pathway is essential for orthopedic surgeons who take trauma call in Level I, II, and III trauma centers.” This is a type II deficiency.

In the past membership in the ACS was used as a proxy for board certification for those who cannot be ABOS certified. That is no longer the case. Effective January 1, 2017, all non-US or Canadian trained surgeons who have not yet been inducted as a Fellow of the American College of Surgeons (FACS) will need to undergo review by way of the APC (Alternate Pathway Criteria) during their center’s site visit. Surgeons with FACS prior to January 1, 2017 will not be required to be reviewed by APC. <https://www.facs.org/quality-programs/trauma/vrc/resources>

Therefore, if a call team member cannot be ABOS certified because they did not train in North America they will need to go through the APC which includes, but is not limited to, proof of “equivalency” of training, and an on-site case review by an orthopedic member of the VRC. The current rules are that the on-site case review will only need to be done once- the first time that a person goes through this process- which we view as inadequate since orthopedic surgeons who are ABOS certified must participate in the MOC process and those who go through the alternate pathway do not.

There are numerous specifics that we believe have to be worked on to fine tune the process such as: how many trauma meetings must be attended and what outcomes data should be monitored. Please realize that non-boarded orthopedic trauma surgeons must be ATLS certified (different than boarded surgeons) and must attend 50% of the trauma PI meetings in addition to their OTL (also different than the board verified surgeons) The nine step process is as follows.

1. Evidence that the non-U.S. or non-Canadian trained surgeon successfully completed a residency training program in orthopedic surgery, with the time period being consistent with the years of training in the United States. This completion must be certified by a letter from the program director.
2. Documentation of current status as a provider or instructor in the Advanced Trauma Life Support (ATLS) program.
3. A list of 48 hours of trauma-related CMEs during the past 3 years. This can be met by participation in the center’s internal education process (IEP).

4. Documentation that the surgeon is present for at least 50% of the trauma performance improvement meetings.
5. Documentation of membership or attendance at local and regional or national trauma meetings during the past 3 years.
6. A list of patients treated during the past year with accompanying Injury Severity Score and outcome data.
7. Performance improvement assessment by the Trauma Medical Director (TMD) to ensure that patient outcomes compare favorably to other members of the trauma call panel.
8. Licensed to practice medicine and approved for full and unrestricted surgical privileges by the hospital's credentialing committee.
9. The assessment of the review of the quality of trauma care that is provided by the non-board certified surgeon during the site review process must be determined to be adequate. The surgeon's care will be evaluated by an onsite trauma surgeon reviewer, with oversight by the VRC.

Summary

Please feel free to contact any of the members of the COT if you have any questions or issues regarding the COT. The process and organizations can seem confusing so please use us as a resource-we are here for you.