

Trauma MedEd

The Value Of Practice Guidelines / Protocols

This issue is dedicated to practice guidelines and trauma protocols. These days, all trauma centers have a number of protocols and/or practice guidelines. Most have implemented a massive transfusion protocol. Many have pain management or alcohol withdrawal or a number of others. But why do we need them? Can we show some benefit to using them?

I've looked at the literature, and unfortunately there's not a lot to go on. So here are my thoughts on the value of protocols and guidelines:

In my view, there are a number of reasons why protocols need to be developed for commonly encountered issues.

- They allow us to build in **adherence to any published practice guidelines** or literature.
- They help **conserve resources** by standardizing care orders and resource use.
- They **reduce confusion**. Nurses do not have to guess what cares are necessary based on the specific admitting surgeon.
- They **reduce errors** for the same reason. All patients receive a similar regimen, so potential errors are more easily recognized.
- They **promote team building**, particularly when the protocol components involve several different

INSIDE THIS ISSUE

| | |
|---|---|
| 1 | The Value Of Practice Guidelines |
| 2 | Guidelines vs Protocols |
| 2 | Developing Your Own Protocols |
| 3 | Chest Tube Management |
| 4 | Solid Organ Injury |
| 5 | TBI On Warfarin |
| 6 | SAH / Cerebral Contusion / Skull Fracture |

TRAUMA CALENDAR OF EVENTS

AMERICAN ASSOCIATION FOR THE SURGERY OF TRAUMA

LOCATION: HILTON WAIKOLOA, HAWAII

DATE: SEPTEMBER 28 – OCTOBER 3, 2015

TRAUMA CENTER ASSOCIATION OF AMERICA

TRAUMA MEDICAL DIRECTOR COURSE

LOCATION: HARD ROCK HOTEL, SAN DIEGO, CALIFORNIA

DATE: OCTOBER 6-7, 2016

services within the hospital.

- **They teach a consistent, workable approach to our trainees.** When they graduate, they are familiar with a single, evidence based approach that will work for them in their practice.

More than a decade ago, we implemented a solid organ injury protocol here at Regions Hospital. I had noted that there were large variations in simple things like time at bedrest, frequency of blood draws, how long the patient was kept without food and whether angiography should be considered. Once we implemented the protocol, patients were treated much more consistently and we found that costs were reduced by over \$1000 per patient. Since we treated over 200 of these patients per year at the time, the hospital saved quite a bit of money! And our blunt trauma radiographic imaging protocol has significantly reduced patient exposure to radiation.

Bottom line: Although the proof is not necessarily apparent in the literature, protocol development is important for trauma programs for the reasons outlined above. But don't develop them for their own sake. Identify common problems that can benefit from consistency. It will turn out to be a very positive exercise and reap the benefits listed above. And don't forget to review and update them from time to time. The data changes over time, so make sure you are up to date!

Guidelines vs Protocols

People tend to use these terms interchangeably. But are they the same, really? The answer is **no!**

A practice guideline is a document that synthesizes existing knowledge about a topic of interest, and provides a number of statements meant to guide care in specific circumstances. In the trauma world, the clinical practice guidelines provided by the Eastern Association for the Surgery of Trauma (EAST) are probably the best known.

Many trauma programs claim that they have implemented “practice guidelines”, and cite those published by EAST. However, if you look carefully at what EAST publishes, they are essentially a list of questions about specific clinical situations followed by some type of answer.

So what’s the problem? First, only a few of the questions that you might have are answered. And the confidence level in the answer varies, depending on the available supporting literature. This is not very helpful in day to day patient care.

A protocol is a specific set of rules and/or procedures to be followed in a particular situation. The protocol rules cover more than just the items available in a practice guideline. Do the EAST guidelines tell you anything about minute to minute patient care, imaging, lab testing, or anything else? Not usually. This is because there is absolutely no literature written that has investigated those details. *And never will be.* So it is up to the clinicians to decide what is best based on local practices, negotiation with involved hospital services, etc.

I have visited some centers that are reluctant to publish “protocols” because they feel they may be held to these legally. Here are a few thoughts on this:

- If a clinician adheres to published literature included in a protocol wherever possible, they are not at any higher legal risk than baseline.
- Protocols are adopted to promote best practices. If some of your clinicians choose to do things their own way for no particular reason, they are negating the positive effects listed on page 1, and are choosing to place themselves at medicolegal risk. In my mind,

this is a beneficial feedback loop that should encourage compliance.

- Once implemented, **the trauma program is charged with monitoring compliance**, and using the performance improvement (PI) program to enforce it.
- **Protocols should never be considered to be “etched in stone.”** It is impossible to predict every clinical situation. The clinician is always expected to use their best judgment, and recognize that the protocol may not be appropriate in certain (hopefully rare) circumstances. However, the expectation is that they will document why they have chosen to vary from the protocol in the written record. If not, they should expect to get a PI query from their trauma medical director or program manager.

How can you tell if your protocol is really that, and not just a glorified practice guideline? There are two things to look for. **Protocols describe actions.** If you see weak action words like “consider” or “the literature supports”, it’s a guideline no matter what the piece of paper says at the top of the page. **If it has lines and boxes and decision points, it’s probably a protocol.**

Developing Your Own Protocols

I’ve had the privilege of visiting hundreds of trauma centers across the US, and I am pleased that the trauma performance programs at so many have identified the need for new or updated protocols.

However, I do have one pet peeve! So many centers have the belief that they must create a guideline from scratch. They spend months reviewing the literature, getting buy-in from stakeholders, educating, implementing, etc.

What a waste of time! Chances are that 50 other trauma centers have done all the legwork already. Don’t be shy to “borrow” their protocol. But recognize that one size does not fit all. You must customize outside protocols to ensure that they completely meet your needs. And don’t forget to monitor (and enforce) compliance, and periodically review and revise it to keep it current.

The Protocols

The following pages contain images of several of the protocols developed and implemented at Regions Hospital. Feel free to borrow, steal, modify to your heart's content.

If you are interested in obtaining a Microsoft Publisher version of a guideline so you can tweak any of them, please email me at:

TheTraumaPro@gmail.com

Need A Speaker For Your Meeting?

Grand Rounds?

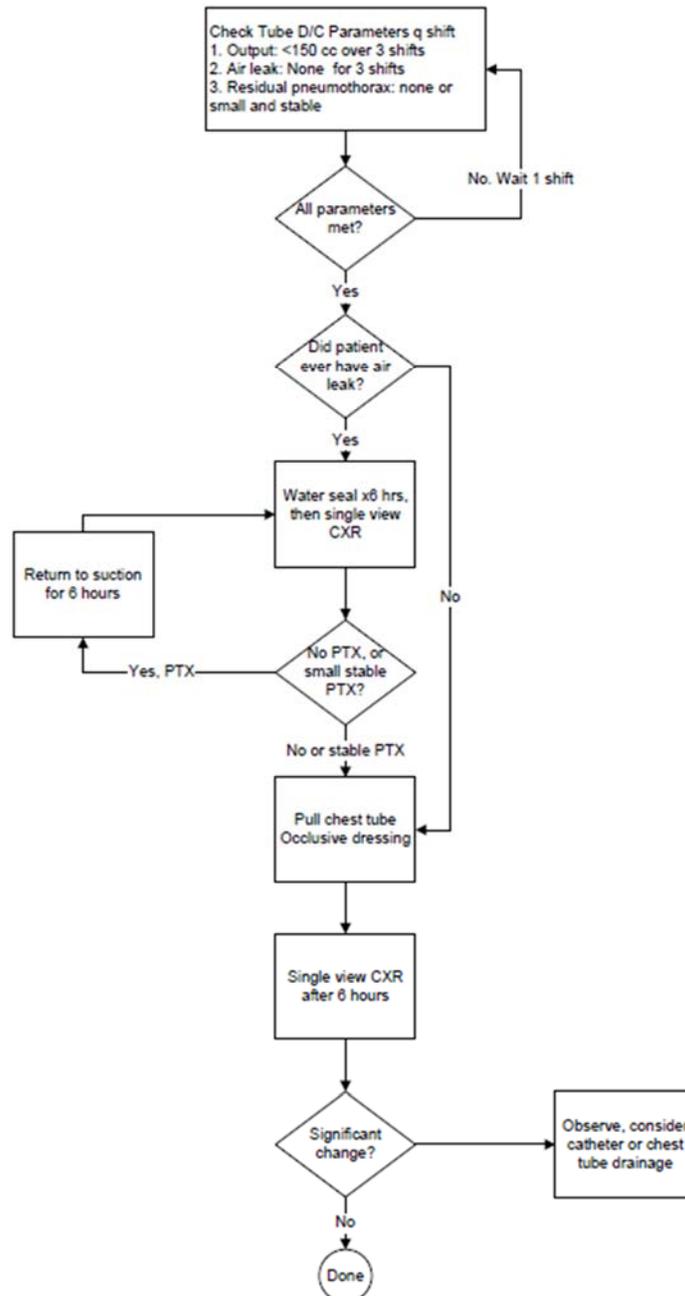
Trauma Symposium?

Invite The Trauma Pro!

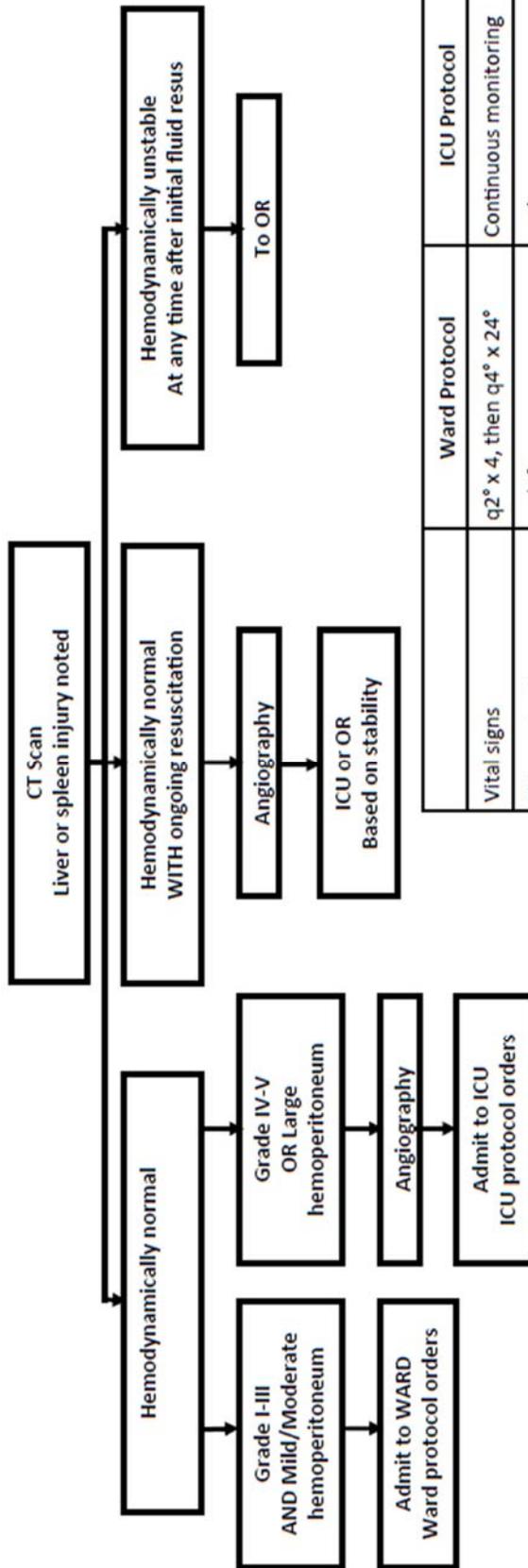
For details and availability, contact me at:

TheTraumaPro@gmail.com

Chest Tube Management - Adult



Blunt Liver And Spleen Injury Protocol - Adult

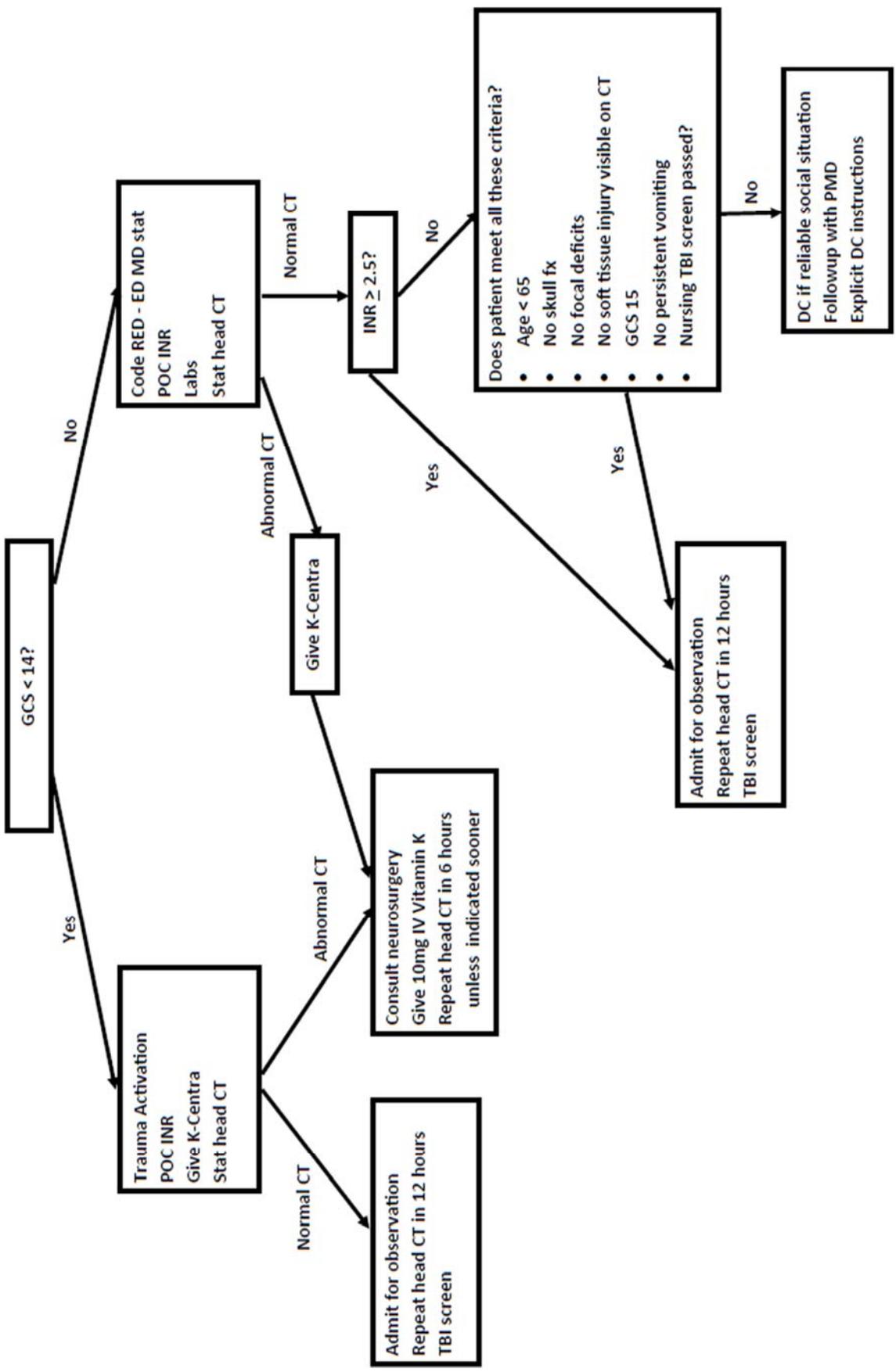


- Notes:
- No NPO
 - No activity restriction
 - No serial Hgb
 - No repeat CT scan

- Discharge Instructions
- Activity:
- Nonvigorous, normal activity weeks 0-6
 - Vigorous activity weeks 7-12
 - High impact activity / sports after 12 weeks
- Expect mild increase in abdominal pain 7-10 days after injury. Should return to baseline after 1-2 days.
- Call if:
- New, unremitting pain
 - Frequent light-headedness
 - Persistent pain after 2 weeks

| | Ward Protocol | ICU Protocol |
|--------------------|--|--|
| Vital signs | q2° x 4, then q4° x 24° | Continuous monitoring |
| Urine output | q shift | q 4° |
| IV access | 16 Ga or better | 16Ga or better |
| IV fluid | Maintenance rate | Maintenance rate |
| Diet | Regular | Regular |
| Lab | Hgb on admission, and following day | Hgb on admission, 8 hrs after admission, then daily only at physician discretion |
| Abdominal exam | q4° x 3, and prior to discharge | q4° |
| Activity | Up ad lib | Up ad lib |
| Thresholds | Call MD for SBP<90, HR>120, significant change in abdominal exam | Call MD for SBP<90, HR>120, significant change in abdominal exam |
| Discharge criteria | To home: Hemodynamically normal x36°, no change in abdominal exam x36° | To ward: Normotensive with no tachycardia x24°, average fluid requirements |

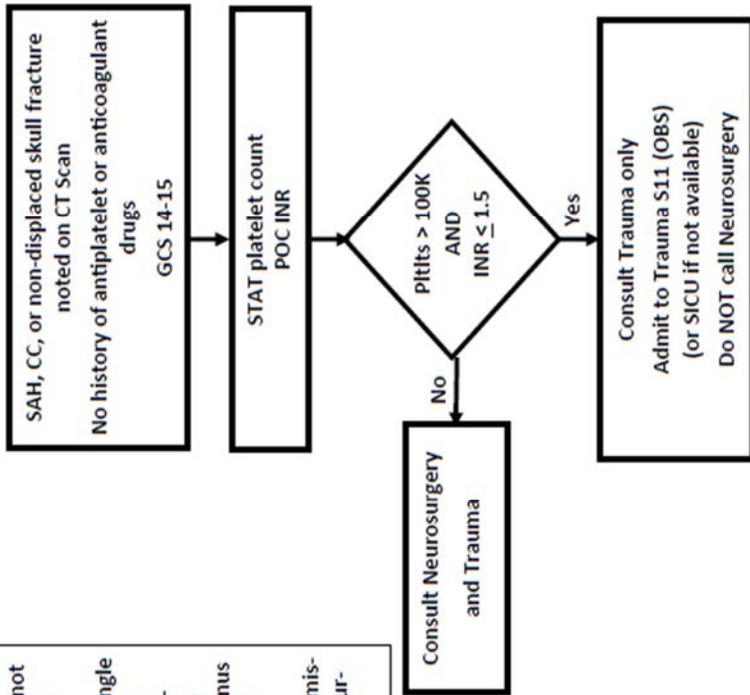
TBI on Warfarin Protocol



SAH / Cerebral Contusion / Skull Fracture Protocol

Protocol

- Definitions:**
- SAH must be non-central and not involve the Sylvian fissure (no suspicion of aneurysm)
 - Cerebral contusion must be single and < 1cm in largest diameter
 - Skull fracture must be nondisplaced and cannot involve the posterior wall of the frontal sinus
 - Pneumocephalus is allowed if only a few small bubbles
 - Otherwise, call Trauma for admission. They will consult neurosurgery.



| | | |
|--------------------|--|--|
| Vital signs | Telemetry | Orders |
| Neuro/pupil checks | q2° x 12°, then routine | q2° x 12°, then routine |
| Diet | Regular | Regular |
| Lab | None | None |
| Activity | Up ad lib | Up ad lib |
| Repeat imaging | None | None |
| TBI screen | S11 or PT/OT | S11 or PT/OT |
| Thresholds | Call MD for SBP>150, P<60, or any decrease in GCS or change in mental status | Call MD for SBP>150, P<60, or any decrease in GCS or change in mental status |
| Discharge criteria | Stable/improving mental status x 16°, screens passed, pain controlled | Stable/improving mental status x 16°, screens passed, pain controlled |
| Followup | TBI clinic if indicated PMD, or neurology/neurosurgery if no PMD (2-4 weeks) | TBI clinic if indicated PMD, or neurology/neurosurgery if no PMD (2-4 weeks) |