Maine Medical Center
MaineHealth

# Introduction to the Trauma Service

**Blue Surgery**

Joe Rappold – Trauma Medical Director

# Trauma Attendings

- Joseph Rappold, MD, FACS (p: 741-6256)
- Virginia Eddy, MD, FACS (p: 741-8415)
- David Ciraulo, DO, MPH, FACS (p: 741-6192)
- Jaswin Sawhney, MD, FACS (p: 741-6259)
- Damien Carter, MD (p: 741-6475)
- Bruce Chung, MD (p: 741-1515)
- Elizabeth Turner, MD (p: 741-1589)
- Laura Withers, MD (p: 741-1415)
- Forest Sheppard, MD (p: 741-1727)

# Global Service Responsibilities

- Respond to traumas and trauma consults at the request of REMIS or the ED
- Round on the trauma service
- See non-ICU consults for PEGs
- Go to the OR for patients on the service
- Complete documentation and keep up to date including: trauma H&P, tertiary surveys, problem list and discharge summaries
- Discharge summaries should be sent to the trauma attending of the week
- Pages should be answered promptly
- The service pager should not go to the OR

# Chief Resident Responsibilities

- Primary responsibility for patients on whom the residents round
- Maintain an overview of all patients on the trauma and burn/wound care services, including patients in the ICU
- Responds to all Level 1s even if he/she must leave OR
- Assign residents and APPs (as able) to OR cases
- Educate APPs, junior residents, medical students
- Designate a person (resident/APP) at all times to respond to trauma consults
  - Consults should be seen within 30 minutes of request
- Any concern for significant injury requiring more help to evaluate should be upgraded to a full trauma response immediately
- Notify attending of any critical issues (e.g. pt transferring to ICU)
- Every other week trauma lecture Thursday 7AM (email attending early to get help with lecture)

# Schedule

- 6:30 AM: Trauma Morning Report
  - Discussion of all new admissions over previous 24 hrs
- 8:30 AM: Walk rounds
  - Per attending preference
- Every other Thursday
  - 7AM Trauma Lecture
- First and second Wednesday each month
  - Trauma Peer Review Meeting (TPR)/Trauma Operations Meeting (TOPIC)

- **ED chief resident directs the trauma resuscitation in the trauma bay from 7A to 7P, night float surgery chief runs 7P-7A**

# Trauma Bay Team

- **Trauma attending**
- **ED attending**
- **Senior resident (ED or trauma)**
  - Running the resuscitation
- **ED resident**
  - Responsible for airway
- **Trauma Resident**
  - Responsible for primary and secondary surveys
- **Second trauma resident**
  - Responsible for procedures
- **Primary nurse**
  - Documents during initial evaluation, transports patient to scanner and back
- **Secondary nurse**
  - Responsible for bedside procedures

# Mandatory Trauma Response Times

| Trauma Team Response Criteria | | | |
|---|---|---|---|
| | Trauma Attending | Trauma APP Team | Trauma Resident Team |
| Level 1<br>FULL Team Response | Present on arrival with appropriate notification; within 15 minutes of arrival if pre-arrival notification ≤ 15 minutes.<br><br>Documentation by the Trauma Attending at the time of the visit is expected. | Prior to patient arrival with pre-arrival notification >5 minutes. | Prior to patient arrival with pre-arrival notification >5 minutes.<br><br>Expected to scrub out of OR cases to respond. |
| Level 2<br>LIMITED Team Response | Present within 2 hours of patient arrival.<br><br>Documentation by the Trauma Attending at the time of the visit is expected. | Prior to patient arrival with pre-arrival notification >5 minutes. | Prior to patient arrival with pre-arrival notification >5 minutes. |
| Level 3<br>*To be seen by the Trauma Team and in all likelihood admitted | Needs to be seen and note entered into Epic within 12 hours of arrival and admission. | To be seen upon arrival by the Trauma Team. | To be seen upon arrival by the Trauma Team. |
| Trauma Consult<br><br>*Patient evaluated by ED and trauma team response requested after patient arrived/examined) | Trauma Surgeon initiated telephone contact via the service pager with the team within 60 minutes. Bedside evaluation within 12 hours. | Bedside response within 30 minutes.<br><br>Trauma Consults that require a <30 minute response should be activated at Level 2 | Bedside response within 30 minutes.<br><br>Trauma Consults that require a <30 minute response should be activated at Level 2 |
| Direct ED to ED transfer | Direct Communication between Trauma Attending and ER Physician at the time of acceptance.<br><br>No physical response by the trauma team.<br><br>After initial ED evaluation if patient requires admission patient should be upgraded through REMIS as a Trauma Consult (see above). | No initial response. | No initial response |

- This response criterion applies to patients of all ages. Adult Trauma Team members with the exception of the trauma attending respond to pediatric trauma activation to support the Pediatric Trauma Team.
- Activations at any level need to go to the full team
- Upgrades should be handled through REMIS by calling 662-2950. When requesting a consult please indicate the level of activation (Level 1, Level 2, or Consult) requested based on the above response criteria.
- All activated trauma patients (traumas and burns) must be seem in the ED. Level 1,2 and 3 patients are expected to be seen in the critical care. The PI program will monitor deviations from this standard. Consults and ED to ED transfers will be roomed in accordance with ED protocols.

# Trauma Bay Principles

- **Follow ATLS protocol!**
  - **Primary Survey – ABCDE**
    - » Remember to repeat the primary survey starting from "A" if any part of the primary survey required intervention
  - **Secondary Survey**
    - » Head to toe exam, including back/perineum/axillae (do NOT delay back exam until transfer to CT table), rectal if necessary
    - » Blood at meatus and/or suspicion of major pelvic fractures mandates prostate exam

# Trauma Bay Principles

- ***Adjuncts to secondary survey***
  - **CXR**
  - **Pelvic XR**
    - » Definitely do if suspicion for pelvic fractures
    - » If pelvis clinically unstable, place binder **BEFORE** xray
    - » Once binder placed, get an XRay afterwards to ensure binder is in correct location and of appropriate tightness
    - » Pubic symphysis should get closed, but **NOT** be overlapping
  - **FAST**
    - » Basic – perihepatic, perisplenic, pericardium (subxiphoid or parasternal), pelvis
    - » Extended – bilateral anterior thorax to look for pneumothorax

# Trauma Bay Principles

- **Crowd and noise control is essential!**
- Roles should be determined ahead of time whenever possible, and people who are not fulfilling essential functions need to stay out of the way of those who are.
- Try to stay out of the way of the nurse getting IVs and vital signs – you need those too!
- Intubated patients should automatically get an OGtube.
- Blood at the meatus may indicate urethral damage. ATLS guidelines state that ONE attempt at passing a Foley can be made by either an attending or senior resident.

# Special Populations

- **Pediatric trauma**: *0- 15 years old* (Admit to pediatric trauma team)
- **Adult Trauma**: *16 and above* (Admit to adult trauma team)

- **Elderly patients ≥ 75** years old all need a geriatric medicine consultation on admission

- **Mandatory ICU admissions**
  - Q1H neuro checks
- **Recommended ICU admissions**
  - Grades 4-5 splenic injuries
  - Elderly patients with 3+ contiguous rib fractures (see rib fracture clinical practice guidelines)

# Trauma Documentation

- ***Please remember:***
- Complete documentation is the responsibility of **ALL** trauma team members!
- Admission documentation:
  - Past medical and surgical history, home meds, allergies, social history, family history, etc., MUST be reviewed and documented for every patient upon admission.
    - » If not completed in the "History" activity, your templated notes will say "No history on file", which is not acceptable for documentation purposes.

# Trauma Documentation ~ H&P

**Step 1**: Select note type "Trauma H&P"

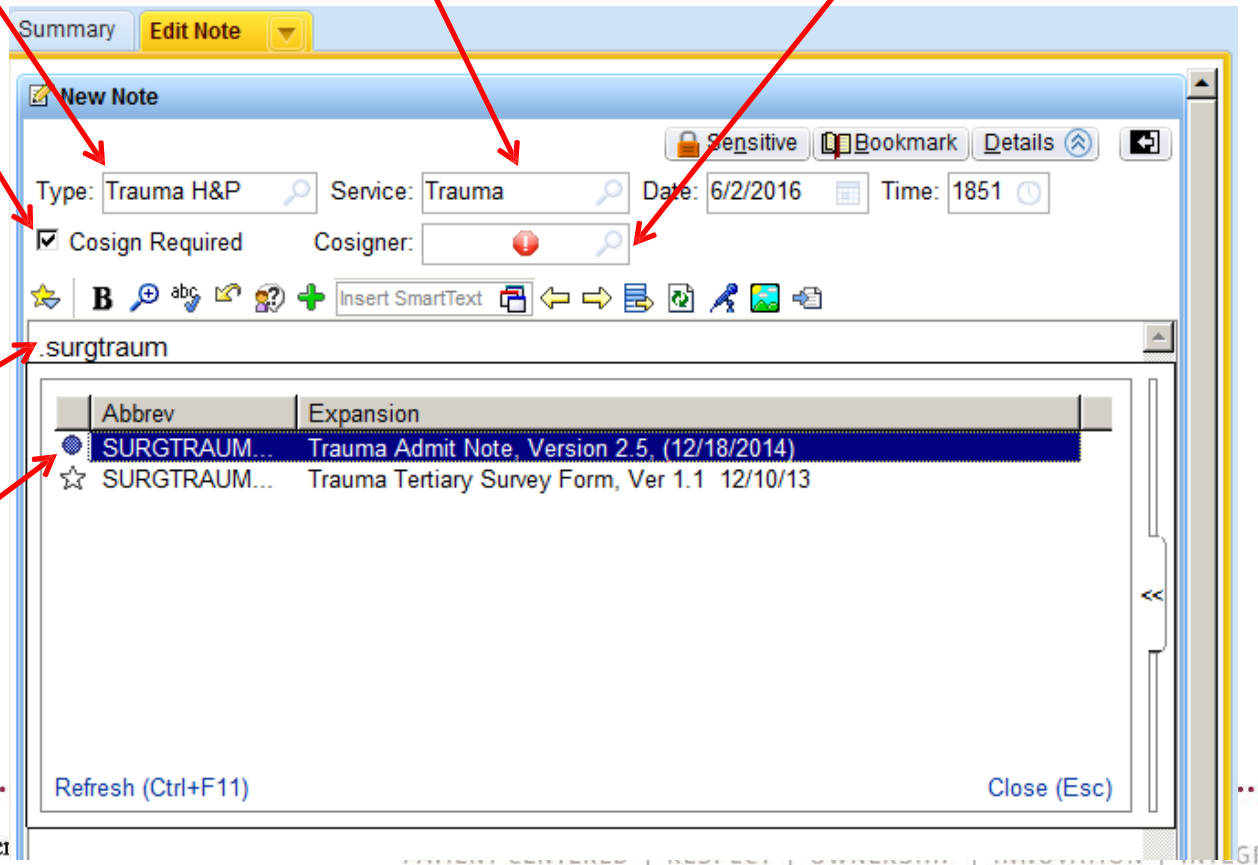
**Step 2**: Select correct service "Trauma"

**Step 4**: Select trauma attending as cosigner

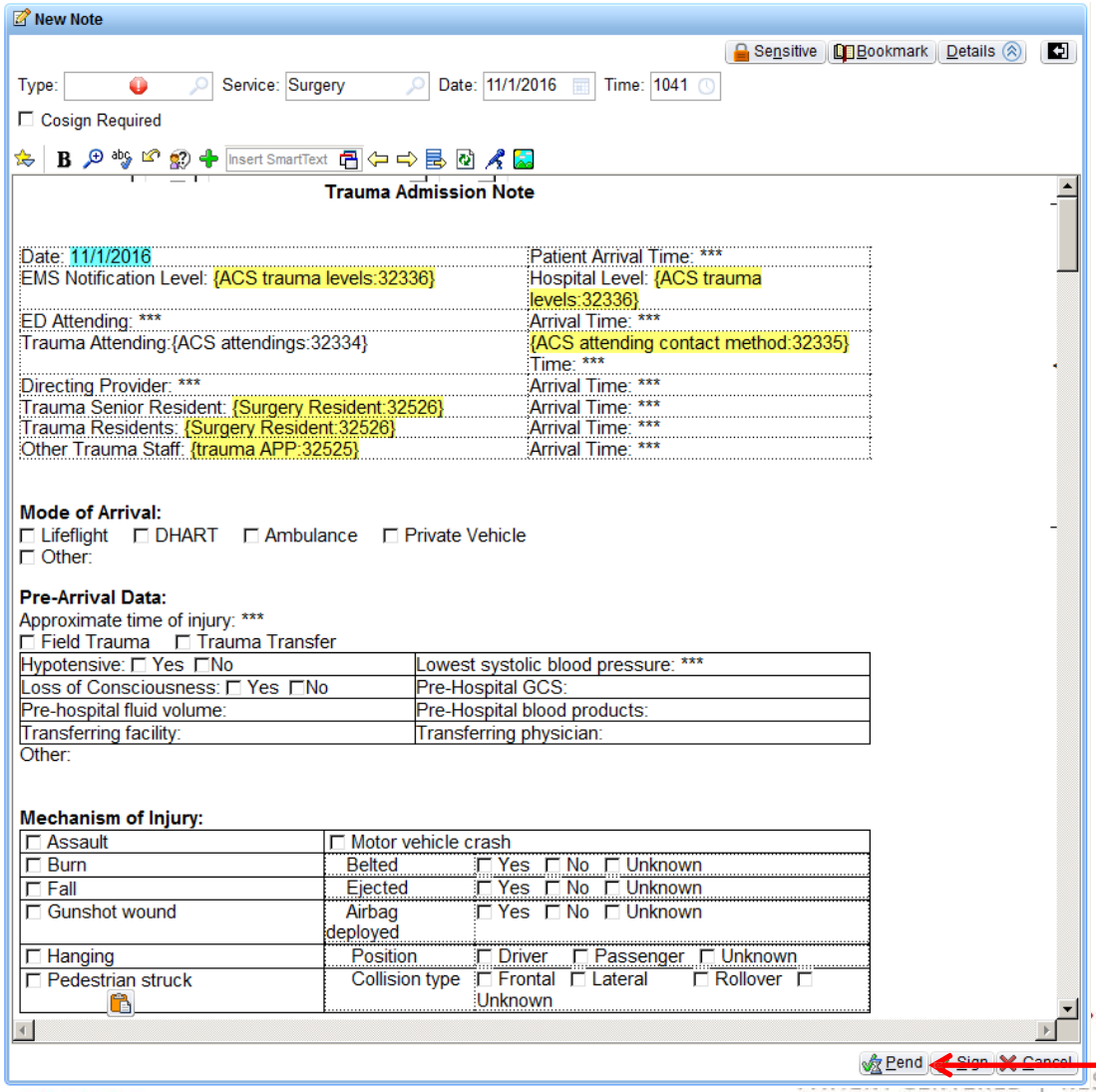
**Step 3**: Check "Cosign Required"

**Step 5**: search templates by dotphrase (.traumaadmitnote)

**Step 6**: Select appropriate template



# Trauma Documentation – H&P




- The Trauma H&P and Tertiary templates are set up to fulfill all documentation requirements from the American College of Surgeons – Committee on Trauma (ACS-COT)
  - EVERYTHING on the forms must be filled out, or a specific reason given as to why it cannot be filled out.

Unfinished notes can be shared for multiple providers to work on it later by "Pend".

# Consults

- All requested consults MUST be accompanied by a consult order placed into EPIC.
- Consult teams' official names in EPIC: orthopedic surgery, neurosurgery, plastic surgery, ophthalmology, ENT, oral surgery, (NOT maxillofacial and is found under "Facility List" tab if not in your Preference List tab), physiatry, psychiatry, geriatric medicine
- Required for performance improvement tracking

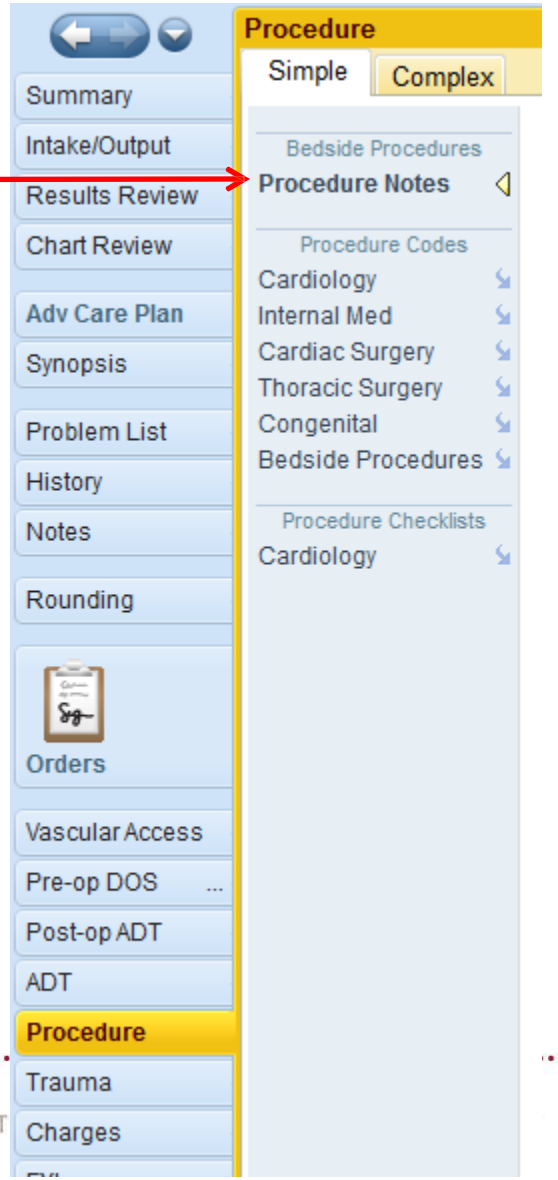
# Trauma Documentation - Procedures

- **EPIC has a number of very well-built critical care procedure templates, please use!**
- **Available templates**: central line, intubation, chest tube insertion, arterial line, burn treatment, IO line insertion (and others)
- **Screenshots on next slides**

# Trauma Documentation – Critical Care Procedures

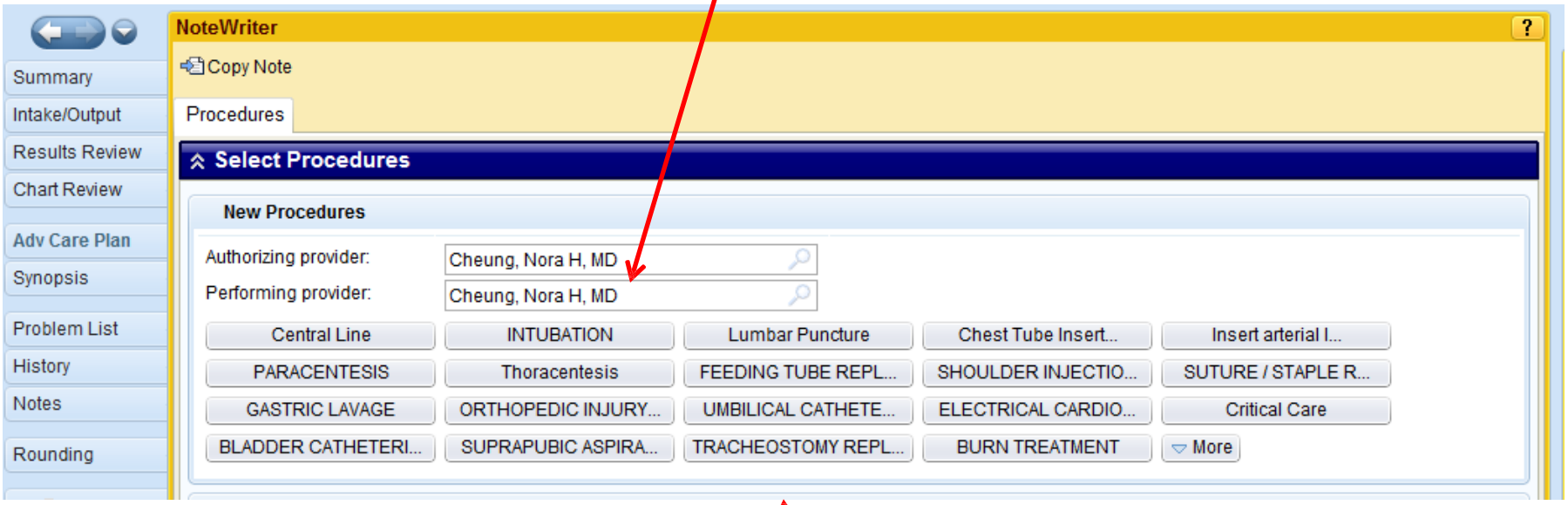
Step 1: Look under Procedure Activity
Step 2: Click Procedure Notes
Results on next slide

If you do not have the Procedure Activity in your Sidebar, look under "More Activities" at the bottom left of the screen, and use the "Menu Personalization" menu.



# Trauma Documentation – Critical Care Procedures

Change names as needed



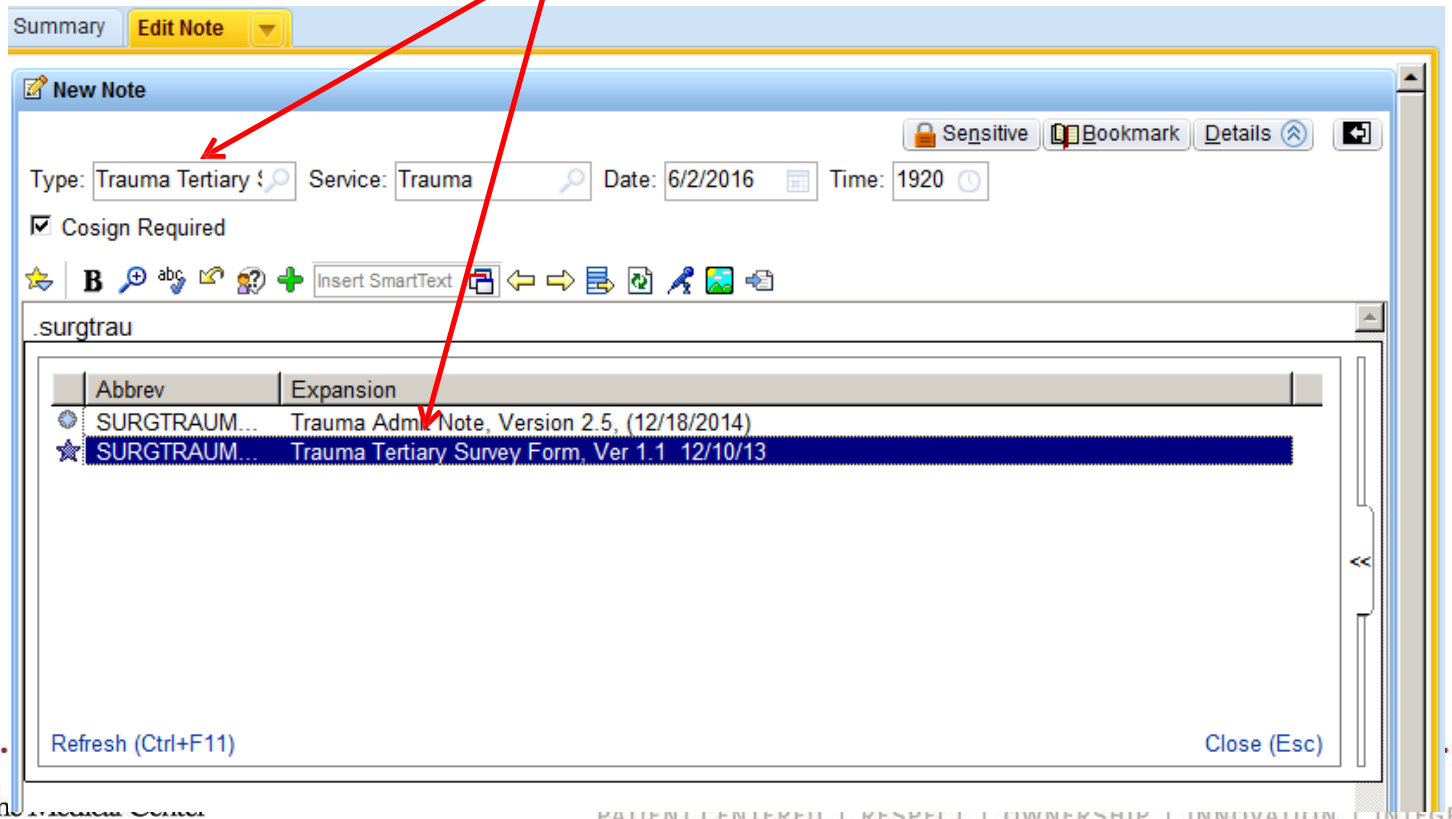

All available critical care procedure templates (click "more" for the IO insertion template).

# Trauma Documentation

- **Procedure SmartPhrases**
  - *Example:* Laceration repair
    - » .traumalac
- **Conditions SmartPhrases:**
  - Example: Splenic laceration
    - » .traumadcispleniclac

# Trauma Documentation - Tertiary

No different than steps for Trauma H&P, except the note type is "Trauma Tertiary Survery" and the dotphrase is the one highlighted below (I don't know how to change the dot phrase to .traumatertiary, below)



# Trauma Documentation CAGE Questionaire on Tertiary

| | | | |
|---|---|---|---|
| C | **Cutdown** | Yes | No |
| A | **Annoyed** | Yes | No |
| G | **Guilty** | Yes | No |
| E | **Eye Opener** | Yes | No |

**Risk of DT:** Yes No

**Comments:*****

[ ] Screening completed. EtOH Level <10 and CAGE <1, no intervention or referral indicated.

[ ] Screening completed. EtOH Level >10 or CAGE >1, brief intervention and referral to treatment completed by whom: ***

[ ] Formal Psychiatric or Substance Abuse consult ordered ***

[ ] Formal Psychiatric or Substance Abuse consult NOT indicated

» Screening quickly assesses the severity of substance use and identifies the appropriate level of treatment.

» Brief intervention focuses on increasing insight and awareness regarding substance use and motivation toward behavioral change.

» Referral to treatment provides those identified as needing more extensive treatment with access to specialty care.

# Frailty Scoring



## Definition of Frailty

"Frailty is defined as a syndrome of ***decreased physiological reserve*** and ***resistance to stressors***, which results in increased vulnerability to **poor health outcomes, worsening mobility and disability, hospitalizations, and death.**"

- There is a difference between normal aging and frailty
- It can be a reversible process
- NOT disability

Joseph B, Pandit V, Zangbar B, et al. Superiority of Frailty Over Age in Predicting Outcomes Among Geriatric Trauma Patients. JAMA Surg. 2014;149(8):766-772. doi:10.1001/jamasurg.2014.296

# Frailty Scoring on Tertiary

BRIGHAM HEALTH
BRIGHAM AND WOMEN'S HOSPITAL

HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

## FRAIL Scale

| | | Screening Questions |
|---|---|---|
| **F** | Fatigue | Are you fatigued? |
| **R** | Resistance | Can you walk up one flight of stairs? |
| **A** | Ambulation | Can you walk the length of a football field (100 yards)? |
| **I** | Illnesses | Do you have more than 5 illnesses? |
| **L** | Loss of Weight | Have you lost more than 5% of your body weight in the past 6 months? |

3 or greater **FRAIL**

1 or 2 **PREFRAIL**

0 **ROBUST**

*Morley JE, Malstrom TK, Miller DK. A Simple Frailty Questionnaire (FRAIL Predicts Outcomes in Middle Aged African Americans. The journal of nutrition, health & aging. 2012*

# Trauma Documentation – DC Summary

**Step 1**: Select note type “Discharge Summary”

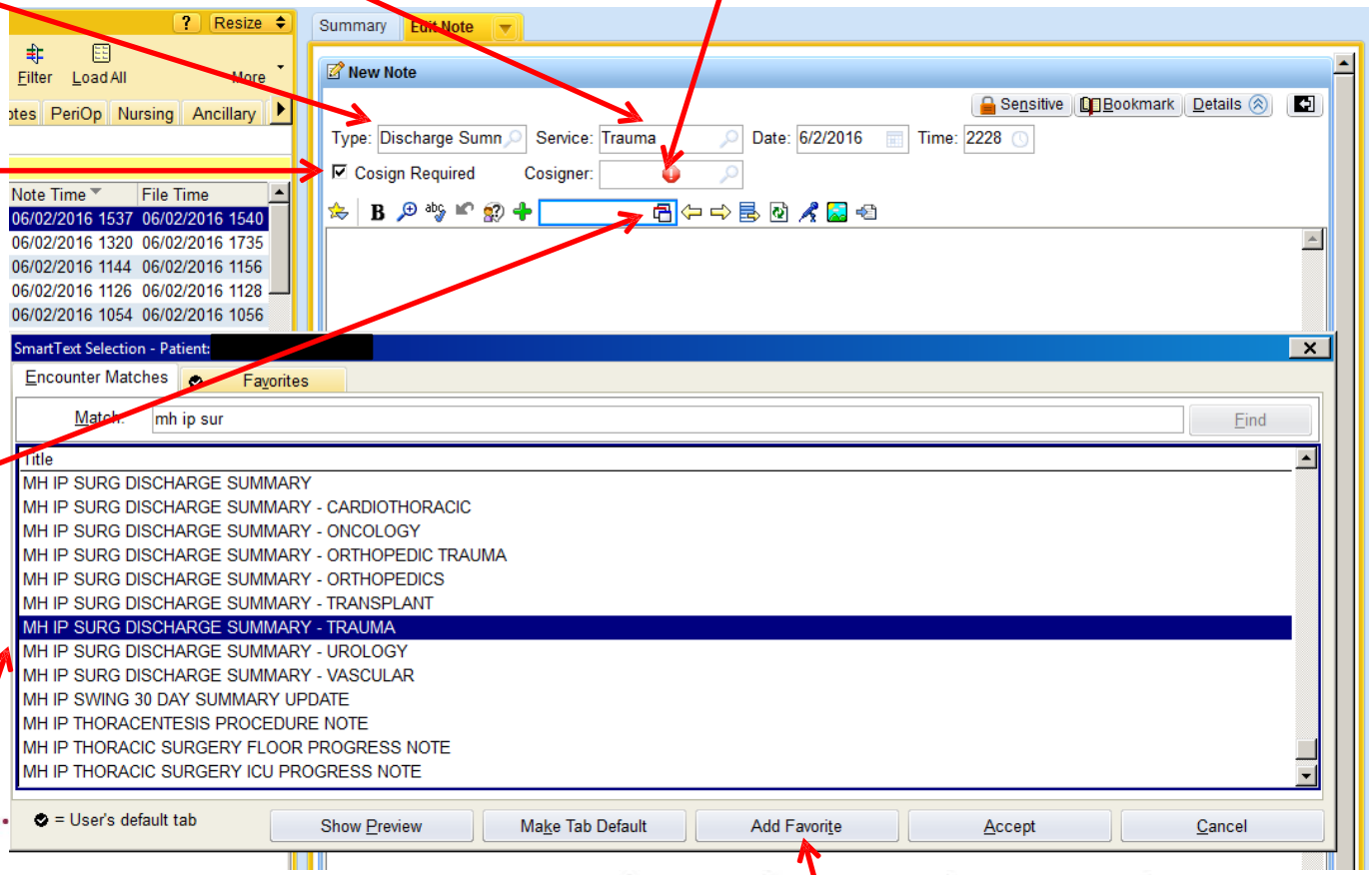
**Step 2**: Select correct service “Trauma”

**Step 4**: Select trauma attending of the week as cosigner

**Step 3**: Check “Cosign Required”

**Step 5**: search SmartText by clicking the blue and red folder icon in this white box (NOT a dotphrase)

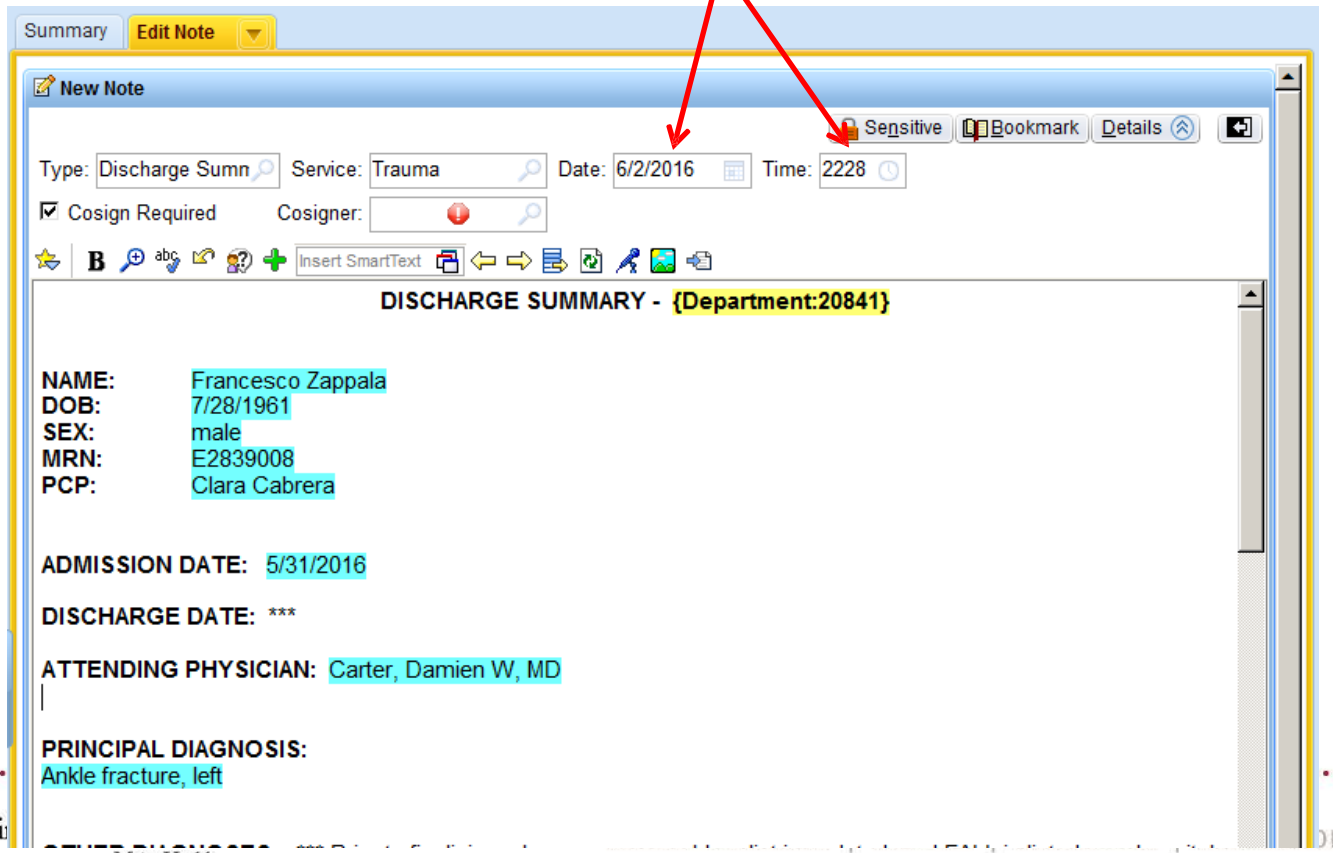
**Step 6**: Select appropriate template




**Step 7 (Optional):** Make this one of your favorites for easy searching

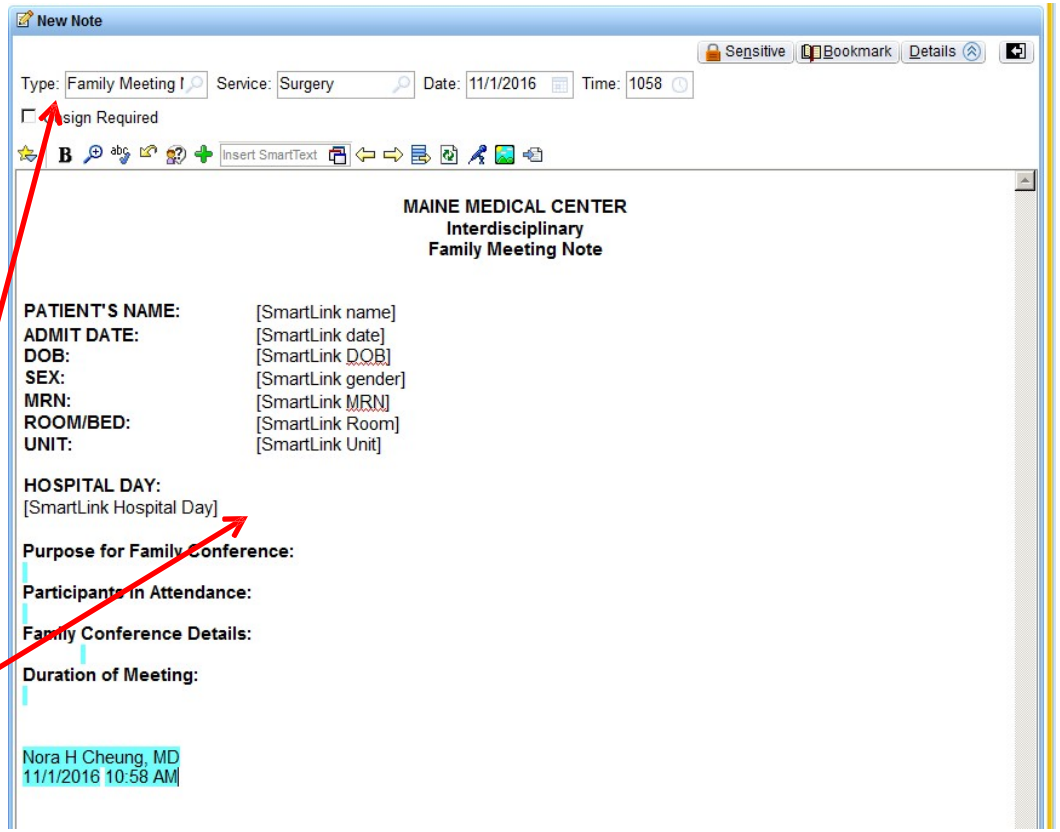
# Trauma Documentation – DC Summary

Discharge summaries are often started well before the day of discharge, shared amongst providers, and completed on the day of discharge. When finalizing the discharge summary, PLEASE change the note date and time to reflect the actual day and time of discharge, not the day and time the note was started! FYI this can actually be done for all EPIC notes.



# Trauma Documentation

- Family meetings MUST be accompanied by a note
  - Use the note type "Family Meeting Note"
  - it will pull up the template MMC already has created



# Useful Tips

- When booking elective cases (not same-day), please call the office (774-2381) and ask to speak to the administrative assistant for the surgeon to schedule rather than calling the booking office.
- Use #1 Ethibond to suture chest tubes in

- **HIPAA-compliant texting**
- Download the "Imprivata Cortext" app and install.
- Submit a HelpDesk ticket and request an account to be set up for you
- Follow emailed instructions to login for the first time
- Happy medicolegal texting!

# Past KPI's to keep in mind…

- SBIRT – ensure it is addressed on the tertiary on every patient, if deferred must go back and complete when patient is appropriate
- Code status – ensure that for patient's with a GCS of 15 that they have a code status ordered before leaving the trauma bay. If code status cannot be addressed then because of GCS <15, please address ASAP.
- Geriatric Consult – All patients over age 75 admitted to trauma service must have a geriatric consult ordered on admission.
- Alcohol Withdrawal Protocol and Phenobarbital Loading