LOOP CLOSURE
HOW DO WE GET IT?

Meaghan Carroll, RN, MSN, CNL, TCRN, CEN

Trauma Process Improvement Nurse

Providence Santa Rosa Memorial Hospital

Level II Trauma Center

Financial— No relevant financial relationship exists.

Nonfinancial— No relevant non financial relationship exists..

OBJECTIVES

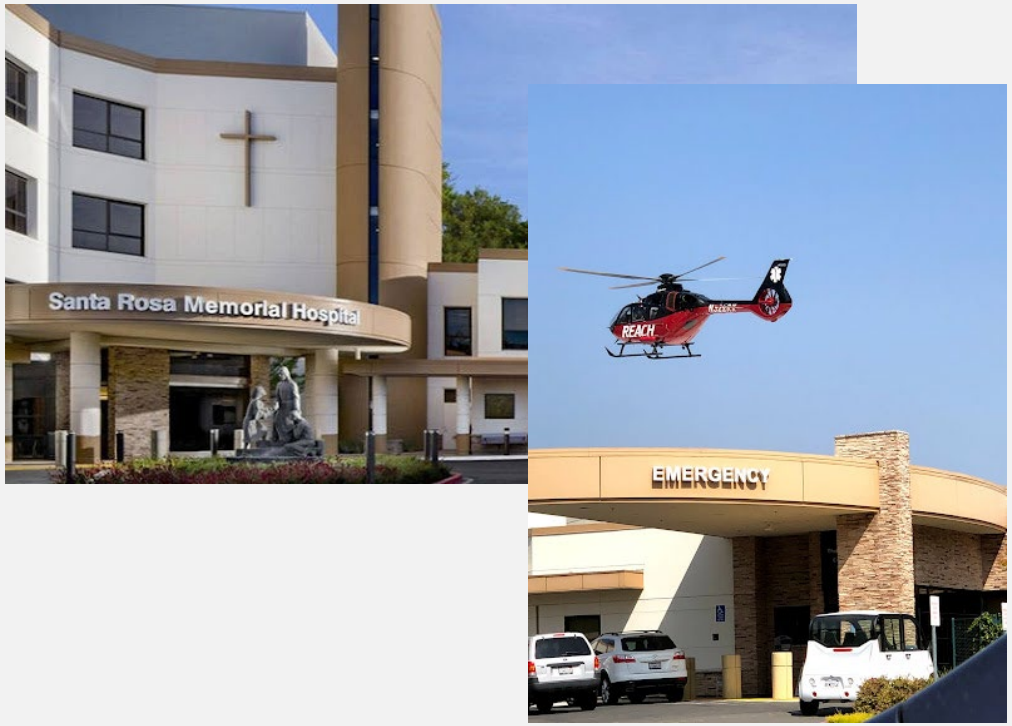
Identify strategies to enhance communication between the Trauma Team and the Hospital Multidisciplinary Teams

Understand the tools and strategies that enhance team organization and facilitate optimal loop closure

Identify strategies to implement and maintain optimal loop closure

BACKGROUND

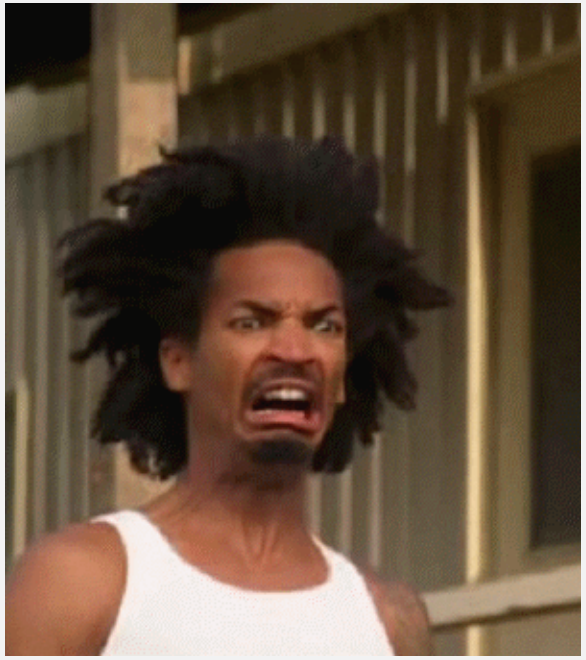
- Level II Trauma Center
  - Northern California
  - Wine Country
- Trauma Volume: 3,446
- Admits: 1,879
- MOI: #1 GLMF, #2 MVC



PI TEAM

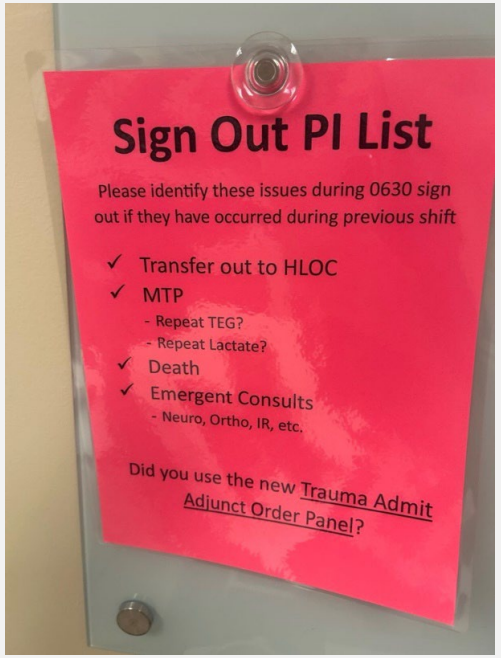
- Total FTE 3.8
- Blended positions WFH and In Office

LOOP CLOSURE



ISSUES IDENTIFIED

- Sign-Out
  - Teams Messenger
    - To be time efficient not everyone needs to be there.
- ICU Rounds
  - In Person



TRAUMA TEAM COMMUNICATION – PI LOG

DOS	Patient Name	DOB	MRN	D/C	Dispo	Tx in	TR assigned	Date Assigned	Date Completed	Summary/ Injuries	PI Issues	PIRN Assigned	P1 Review Date	P2 Review Date	P3 Review Date	PI Status
8/1/2024	Mouse, Minnie	4/18/1991	123456789	8/6/2024	Morgue/Funeral Home		AB	9/3/2024	9/3/2024	Abrasion of neck, initial encounter; Asphyxiation by hanging, undetermin	death	MC	8/28/2024	9/5/2024	10/1/2024	Open
8/4/2024	Permann, Sue	5/8/1953	123456789	8/9/2024	ADM	Kaiser	SS	9/5/2024	9/5/2024	Subdural hematoma (HCC); Closed traumatic fracture of	8/7 (Sign Out): ISS	MC	8/29/2024	N/A	N/A	Closed
8/9/2024	Sea, Wade N	10/12/2006	123456789	8/13/2024	Conf Adm		AB	9/9/2024	9/9/2024	Traumatic right-sided intracerebral hemorrhage with loss	8/13 (Sign Out): ISS	MC	8/31/2024	N/A	N/A	Closed
8/11/2024	Break, Anita	3/3/1959	123456789	8/15/2024	Conf Adm	Sutter	AB	9/11/24	9/11/2024	Fall, Closed fracture of transverse process of cervical vertebra, initial encounter (HCC); End stage liver disease (HCC); Hospice	8/12 (Sign Out): pending death/DC on hospice (was on hospice PTA and then was cancelled?)	MC	9/24/2024	9/26/2024	N/A	Closed

Key
IFT out HLOC
Pediatric
Pedi HLOC
NSA
Death
~~Deleted from Reg~~
Non-submitted

PI DICTIONARY

CODE/AUDIT FILTER Definition	Benchmark Goal % (if applicable) Green = ACS Red = TQIP (Fall2023 benchmark averages) Purple = SRMH Report out forum and cadence	Required Level of review Who can close the event?	Essential information (if applicable) (what must be in the review based on the filter - **ask Schmidt what he thinks is important to the filter or guideline etc.)** Hospital day number format: HD 1 MM/DD/YYYY	Standard verbiage (copy and pasted info into DI) Appropriate per policy/guideline/SOP Inappropriate/OFI/review details	OFI **OFI Action Plan** Include timeframe in OFI action plan **Event Resolution Justification** Future similar patients are less likely to experience this event because....(keep in mind when answering questions about event resolution to ensure it will not happen again or will be decreased over time. proof that we did it and proof that it worked.)
Unplanned admission to ICU See NTDS algorithm	≤3% PIPS Multidisciplinary Operations Meeting Quarterly	P2 TMD	• NTDS algorithm application (ex. How does it meet criteria) • Events leading to complication • Reason for admission to ICU • What was the level of care/hospital location prior to the unplanned ICU admission • Was potential OFI identified, if so please specify	**P1 Review:** [date] (PI RN) - Case reviewed. **DETAILS**. Case referred to P2 for review. **For Cases Referred to P2 review:** [date] (P2) - Case reviewed. **DETAILS**. Care acceptable with acceptable unplanned admission to ICU per provider clinical judgement. [date] (P2) - Case reviewed. **DETAILS**. Care unacceptable with unacceptable unplanned admission to ICU per provider clinical judgement. [date] (P2) - Case reviewed. **DETAILS**. Care unacceptable. Referred to P3 for further review.	**OFI** - case specific. **OFI Action Plan**- case specific **Action Plan (DI dropdown)** - Track and trend for further reporting. **Event Resolution Justification** - Tracking on Trauma Dashboard, PI Tab under Filter count.

COMMUNICATING EFFECTIVENESS OF THE PIPS PLAN

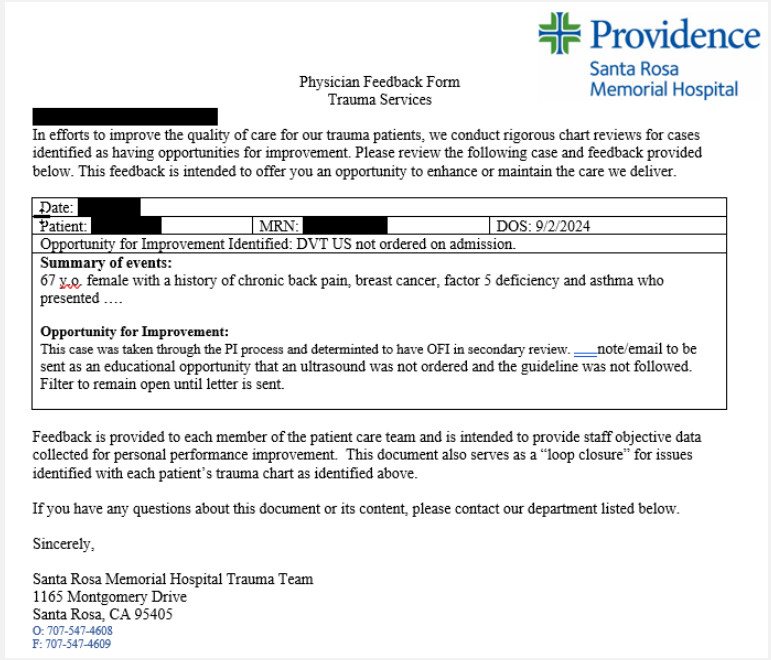
SRMH Trauma Rolling QI / Guideline Compliance Scorecard 2024

INDICATOR	Goal	ACS Standard	Guideline	TQIP Benchmark	PI RN assigned to data	PIPS Report out frequency	2023 Q1	2023 Q2	2023 Q3	2023 Q4	YTD CY2023	2024 Q1	2024 Q2	Report used
≥65 with hip fracture to OR <24hrs	80%				Holly	Feb/May/Aug/Nov	81.3% 35/43	81.3% 35/43	80% 28/35	87.4% 22/25	82.2% 120/146	91% 32/25		Tableau
MRI available within 2 hours of request	80%	Yes	3-05		Holly	Feb/May/Aug/Nov	67% 8/12	100% 1/1	100% 7/7	100% 6/6	85% 22/26	100% 7/7		Tableau
PT consult order placed within 24hrs of admission * started with March 2023 admissions	80%	5.27	9-10		Holly (slides only)	March/June/Sept/Dec	87.5%*	87.37%	86.03% 357/415	90.21% 350/388	87.78%	85.71% 324/37	78.36% 297/379	ACUTE_CARE_REHAB
OT consult order placed within 24hrs of admission	80%	5.27			Holly (slides only)	March/June/Sept/Dec	84.62%*	93.83%	86.89% 318/366	88.95% 314/353	88.57%	85.15% 281/33	77.39% 267/345	ACUTE_CARE_REHAB
PT services seeing the patient within 48hrs of order	90%	5.27	9-10		Holly (slides only)	March/June/Sept/Dec	96.25%*	98.44%	98.80% 410/415	94.85% 368/388	97.09%	97.35% 368/37	97.35% 367/377	ACUTE_CARE_REHAB
OT services seeing the patient within 48hrs of order	90%	5.27			Holly (slides only)	March/June/Sept/Dec	95.24%*	98.24%	99.45% 364/366	93.77% 331/353	96.95%	95.15% 314/33	97.94% 333/340	ACUTE_CARE_REHAB
Speech services seeing the patient within 48hrs of order	90%	5.27			Holly (slides only)	March/June/Sept/Dec	100%*	95.00%	96.61% 57/59	94.55% 52/55	96.54%	96.55% 56/58	91.11% 41/45	ACUTE_CARE_REHAB
Patients identified as having alcohol misuse with intervention documented	80%	5.31			Holly	March/June/Sept/Dec	89.28% 75/84	88.35% 91/103	83.9% 89/106	86.54% 90/104	87.02%	91.21% 83/91	93.82% 168/179	SBIRT_PTSD
Tracheostomy placement within 8 days of intubation Denominator: Only patients who had tracheostomy performed	80%	No	4-01	Yes	Laura	April/July/Oct/Jan	63% 5/8	50% 2/4	0.00% 0/2	50% 1/2	50% 8/16	33% 1/3	40% 2/5	[redacted]_REPORT or VENT_[redacted]RT, then PROCEDURE
ICU admits who met Palliative Care Triggers with a Palliative Care Consult while in the ICU within 3 days	90%	5.6	9-16,9-17	No	Meaghan	April/July/Oct/Jan	N/A	N/A	N/A	3%	N/A	6%	16%	MC_Palliative, Query: [redacted]ed_Patient_ICU
Rib fracture patients who were admitted to the floor with unplanned ICU admission/death related to rib fracture complications (denominator = all rib fx patients)	<5%		5-08		N/A	April/July/Oct/Jan	N/A	N/A	0.81% 1/123	.72% 1/138	0.77%	0.00% 0/76	0.92% 1/109	MARG_NTDB_COMP, Query: DX_AIS_RIB_FX, use Query above to find RIB FX count
Intubated patients with enteral feeds started within 48hrs of intubation	80%	TQIP TBI guidelines	4-01	No	Holly (slides only)	April/July/Oct/Jan	N/A	N/A	80.00% 12/15	64.70% 11/17	N/A	50.00% 12/24	42.11% 8/19	PROCEDURE

COMMUNICATING EFFECTIVENESS OF THE PIPS PLAN

	A	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	PI Flagged Dashboard	Benchmark Goal (PI	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total TYD	Total YTD %	TQIP Total (%)	Total 2024 Count	Total OFI	Total No OFI	Dashboard owners	Report Used	Goals
2	Total Trauma Patients		304	292	254	289	351	354							1844	N/A	N/A	3609			Gabi	Laura_PI_Dash	
3	Total Trauma Admissions		183	162	147	143	194	191							1020	N/A	N/A	1977			Gabi	Laura_PI_Dash	
4	Total NTDS Submitted (Y)		175	160	141	140	200	205									N/A					Laura_PI_Dash	
5	Approximate TQIP submitted charts (N)		84	76.8	67.68	67.2	96	98.4							490	N/A	N/A					N/A	
6	# of ISS >15		26	19	17	18	35	20							135	N/A	N/A	337			Gabi	Laura_PI_Dash	
7	% of ISS >15 reviewed in primary review		100%	100%	100%	100%	100%	18/20							N/A		N/A	100%			Gabi	Laura_PI_Dash	100%
8	# of NSA		89	96	87	89	103	96							560	N/A	N/A	742	???	???	Gabi	Laura_PI_Dash	
9	% of NSA reviewed in primary review		100%	100%	100%	100%	100%								N/A		N/A	100%			Gabi	Laura_PI_Dash	100%
10	# of NSA with OFI 7.8: ISS >9, no trauma/surgical consult, or with OFI, Nelson score ≤3		25	31	27	32	39								154	N/A	N/A	226%			Gabi	Laura_PI_Dash	
11	% of NSA with above criteria above reviewed in secondary review		100%	100%	100%	100%	100%								N/A		N/A	87%			Gabi	Laura_PI_Dash	100%
12	# of deaths		15	8	3	12	11	5							54	N/A	N/A	114			Gabi	Laura_PI_Dash	
13	% of deaths reviewed in primary review		100%	100%	100%	100%	100%	100%							N/A		N/A	100%			Gabi	Laura_PI_Dash	100%
14	# of pediatric admitted cases		1	1	2	0	0	5							9	N/A	N/A	N/A			Gabi	Laura_PI_Dash	
15	% of pediatric admitted cases reviewed in primary review		100%	100%	100%	100%	100%	100%							N/A		N/A	N/A			Gabi	Laura_PI_Dash	100%
16	# LOS >9 days		14	6	14	18	26	17							95	N/A	N/A	277			Gabi	Laura_PI_Dash	
17	% LOS >9 days reviewed in primary review		100%	100%	100%	100%	100%	100%							N/A		N/A	100%			Gabi	Laura_PI_Dash	100%
18	# of transfer outs to HLOC (adult/peds) (denominator = all patients) we	≤5%	11	7	5	6	10	11							50	3%	N/A	75			Gabi	Laura_PI_Dash	
19	% of transfer outs to HLOC reviewed in primary review		100%	100%	100%	100%	100%	100%							N/A		N/A	100%			Gabi	Laura_PI_Dash	100%

PHYSICIAN FEEDBACK (INTERNALLY)



Providence
Santa Rosa
Memorial Hospital

Physician Feedback Form
Trauma Services

[redacted]

In efforts to improve the quality of care for our trauma patients, we conduct rigorous chart reviews for cases identified as having opportunities for improvement. Please review the following case and feedback provided below. This feedback is intended to offer you an opportunity to enhance or maintain the care we deliver.

Date: [redacted]		
Patient: [redacted]	MRN: [redacted]	DOS: 9/2/2024
Opportunity for Improvement Identified: DVT US not ordered on admission.		

Summary of events:
67 y.o. female with a history of chronic back pain, breast cancer, factor 5 deficiency and asthma who presented ….

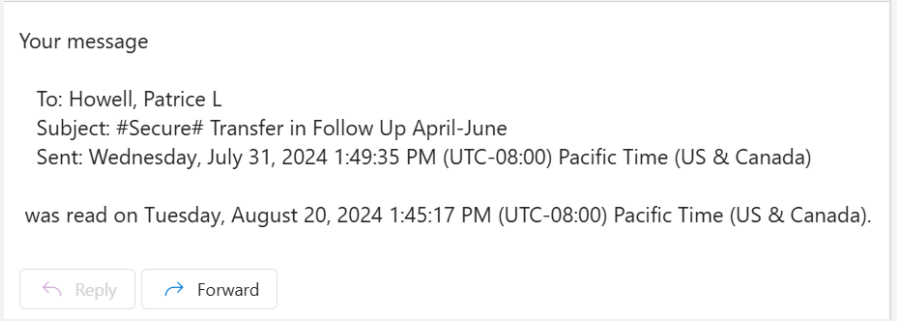
Opportunity for Improvement:
This case was taken through the PI process and determinted to have OFI in secondary review. ___note/email to be sent as an educational opportunity that an ultrasound was not ordered and the guideline was not followed. Filter to remain open until letter is sent.

Feedback is provided to each member of the patient care team and is intended to provide staff objective data collected for personal performance improvement. This document also serves as a "loop closure" for issues identified with each patient's trauma chart as identified above.

If you have any questions about this document or its content, please contact our department listed below.

Sincerely,

Santa Rosa Memorial Hospital Trauma Team
1165 Montgomery Drive
Santa Rosa, CA 95405
O: 707-547-4608
F: 707-547-4609



Your message

To: Howell, Patrice L
Subject: #Secure# Transfer in Follow Up April-June
Sent: Wednesday, July 31, 2024 1:49:35 PM (UTC-08:00) Pacific Time (US & Canada)

was read on Tuesday, August 20, 2024 1:45:17 PM (UTC-08:00) Pacific Time (US & Canada).

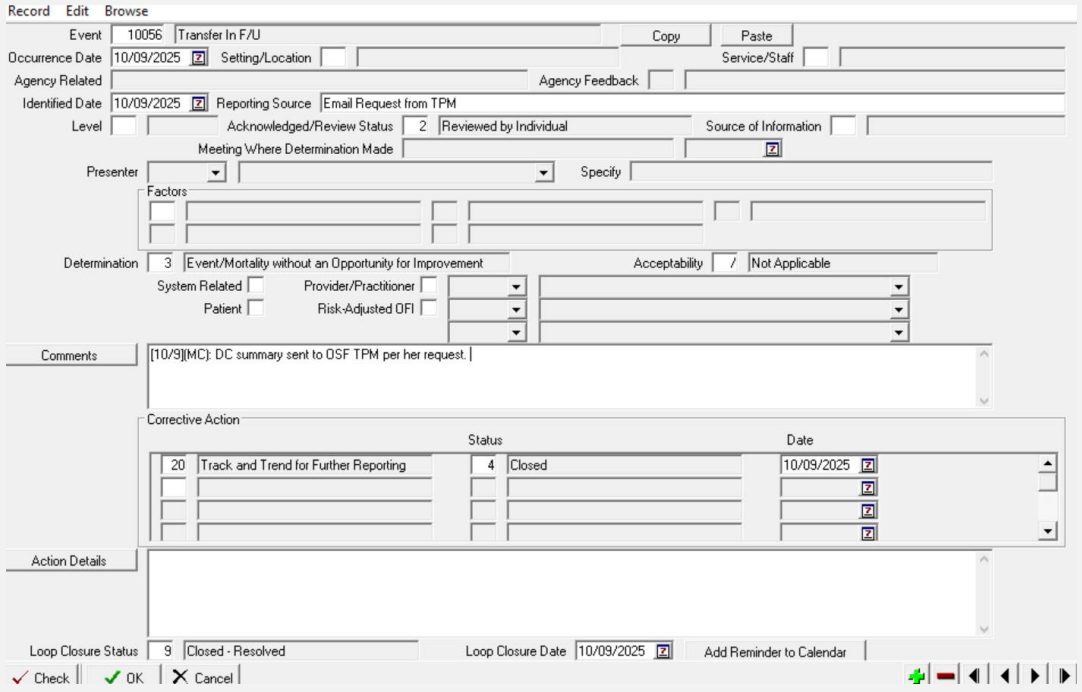
Reply Forward

TRANSFER OUT FOLLOW UP COMMUNICATION

Transfer to HLOC Follow Up	
Transfer out with OFI	
Patient Name: [redacted] **Age:** [redacted] **MRN:** [redacted] **Admit Date** [redacted] **Brief Summary/MOI at SRMH:** 78 M BIBA s/p face first fall from bicycle. +head strike. + LOC. -antiplatelet/anticoagulant. +helmet. Initial SBP 70s; 1L NS given. GCS 14. Code Trauma downgraded to trauma alert. Pt found to have extensive complex facial fractures requiring Plastics consultation and potential operative mgmt. Also comminuted acute R humeral neck fx. TS K. White consulted recommending tx to UC Davis for extensive maxface fractures and Plastics treatment. **HLOC facility:** UC Davis **PI RN:** KM **Status:** Open	**Physicians on record:** [redacted] **OFI:** Plastics coverage not available on this date. Out of protocol with ACS Standard 4.21 Surgical Specialists Availability. **HLOC treatment:** Pt admitted by Trauma. ENT, Ortho, Optho consulted. No acute surgical intervention performed. Pt DC'ed to SNF HD 9.
Transfer out without OFI	
None	

TRANSFER IN FOLLOW UP

- TPM sends an email at the end of the month, and it's the responsibility of the OSF to request more details
- PIRN can also use a referring facility issue filter and follow up with the OSF
- If a OSF contacts us for a DC summary, we put that information into DI (Transfer in F/U filter) for loop closure. We also save the email to the patients e file showing that we sent the follow up.



MORTALITY REPORT OUT

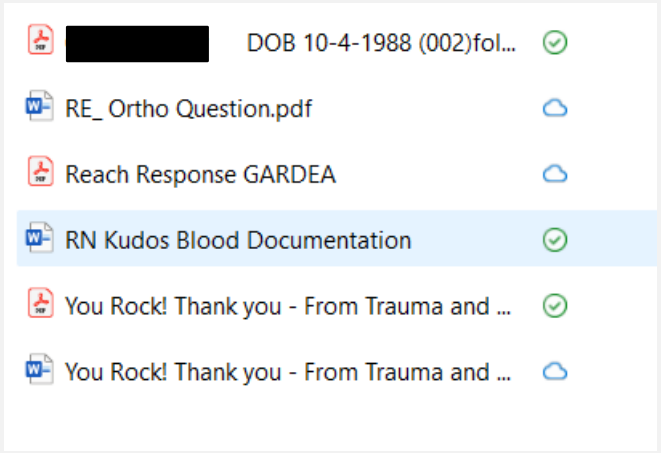
CONSENT CLOSURE					
Patient	**Admit Date**	**MR#**	**Physicians on Record**	**Determination/ Loop Closure**	**Status**
Mortality Without OFI					
[redacted]	4/25/24	[redacted]	Doll, James; Russell, David; Wong, Albert; Lowry, Robert; Burges, Molly	Mortality without OFI	Closed
	7/20/24		Ferrari, Omar; Schmidt, Brian; Germain, Rasha; Echipare, Lorigail; Sharma, Sharad; Tantarelli, Jenifer	Mortality without OFI	Closed
	7/21/24		Ferrari, Omar; Consiglieri, Giac; Russell, David; Katan, Ognjen	Mortality without OFI	Closed
	7/15/24		Thomas, Matthew; Forman, Dana; Nasri, Hachem	Mortality without OFI	Closed
	7/10/24		Schmidt, Brian; Consiglieri, Giac; Lowry, Nathan	Mortality without OFI	Closed
	7/28/24		Roberts (ED), Hublikar (Hospitalist)	Mortality without OFI	Closed
Beer, Walter	7/1/24		MD R White (Trauma), MD Agil (Emergency), MD Santos (Hospitalist)	Mortality without OFI	Closed

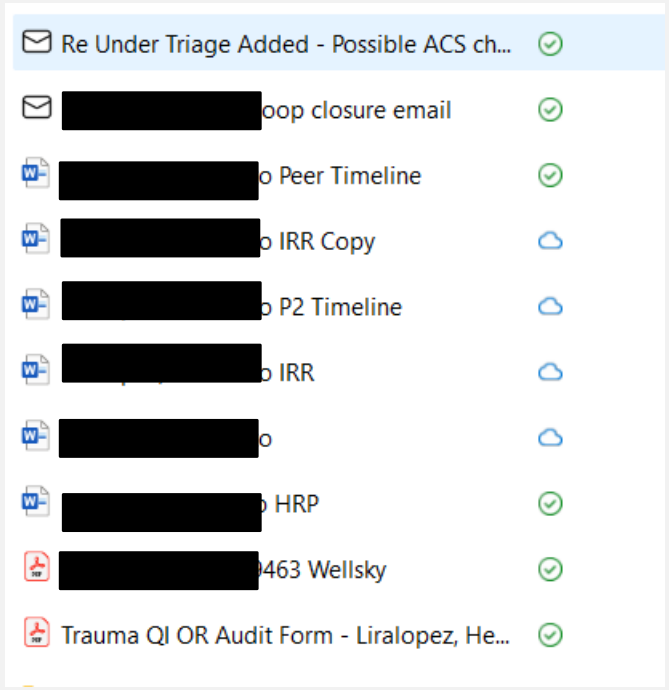
QUATERNARY REVIEW

UC DAVIS
UNIVERSITY OF CALIFORNIA

UCSF Benioff Children's Hospital
Oakland

E-FILE





- We add everything to the E-File, even if you think its insignificant we add it.

REGISTRY

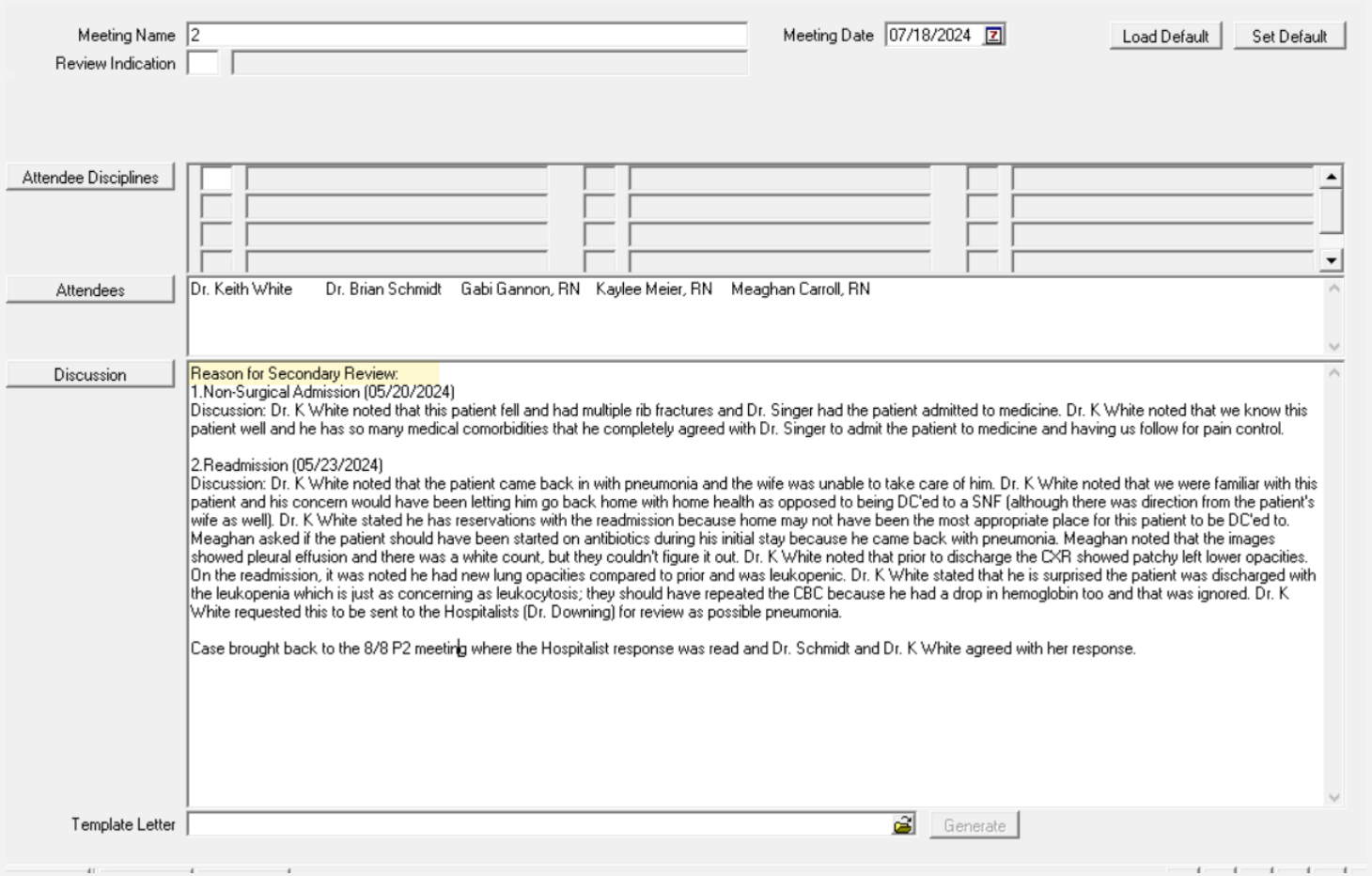
P1 Review.
[6/25] (MC) - Case reviewed.
Readmission 5/23, Original Admission 5/20-5/22
Patient was readmitted for PNA. <24hrs after initial DC. Given a duoneb in the ED and started on Azithromycin. Admitted by the hospitalist (Aksu) for PNA. Case management saw the patient and the family requested that he continue his care with Sutter Home Health. DC home on HD 4.

**of note the patient was then readmitted to Sutter Santa Rosa 6/1, and the wife stated that she could no longer take care of him. Social admit and was DC to SNF for short-term rehabilitation.. Case referred to P2 for review.

Should this patient have been started on antibiotics during his initial visit due to his High risk for pneumonia given recent rib fractures and immunocompromised status
[7/18] (P2) - Care appropriate with acceptable NSA per provider clinical judgement. Dr. K White would like Dr. Downing to review.
7/18 (emial): Email send to Dr. Downing, Hospitalist Liaison for review of patient possible PNA and ABX.
8/1 (email): email sent to Dr. Downing to review case, response "There was no evidence of pneumonia on the first admission (no cough, SOB, fever, etc). There were some nonspecific patchy opacities on the CXR but this in isolation would not warrant antibiotics. Given the presentation i would favor atelectasis. The patient returned with SOB and cough on the readmission and was treated for pneumonia, however, his sx were still mild. He was treated for pneumonia based on these new sx and the fact that he was high risk for infection in the setting of immunosuppression..."
[8/5](P2): case placed back on 8/8 P2 agenda to report out Hospitalist review.
[8/8]P2): Dr. Schmidt and Dr. K White okay with response from Hospitalist. Filter Closed.

- **NSA**
  - P1 closures
    - Case closed in P1. NSA with ISS<9, surgical consult, and nelson score >4. No need for TMD review.
  - For Cases Referred to P2 review:
    - Consent closure: All NSA cases were thoroughly reviewed and discussed through primary review and secondary review and deemed care appropriate. Case closed.
- **Transfers to HLOC**
  - P2
    - All higher level of care transfer cases were thoroughly reviewed through the PIPS process. Placed on Secondary Agenda for transparency.
  - Peer
    - All consent closure cases were thoroughly reviewed and discussed through primary and secondary review and deemed care appropriate. Cases referred to Peer Review as Consent Closure.
- **Death/DC to Hospice**
  - P2
    - Case reviewed. Case determined mortality without OFI per TMD. Referred to peer review as consent closure.
  - Peer
    - All consent closure cases were thoroughly reviewed and discussed through primary and secondary review and deemed care appropriate. Filter closed.

REGISTRY


Meeting Name
2
Meeting Date
07/18/2024
Load Default
Set Default
Review Indication
Attendee Disciplines
Attendees
Dr. Keith White Dr. Brian Schmidt Gabi Gannon, RN Kaylee Meier, RN Meaghan Carroll, RN
Discussion
Reason for Secondary Review:
1.Non-Surgical Admission (05/20/2024)
Discussion: Dr. K White noted that this patient fell and had multiple rib fractures and Dr. Singer had the patient admitted to medicine. Dr. K White noted that we know this patient well and he has so many medical comorbidities that he completely agreed with Dr. Singer to admit the patient to medicine and having us follow for pain control.
2.Readmission (05/23/2024)
Discussion: Dr. K White noted that the patient came back in with pneumonia and the wife was unable to take care of him. Dr. K White noted that we were familiar with this patient and his concern would have been letting him go back home with home health as opposed to being DC'ed to a SNF (although there was direction from the patient's wife as well). Dr. K White stated he has reservations with the readmission because home may not have been the most appropriate place for this patient to be DC'ed to. Meaghan asked if the patient should have been started on antibiotics during his initial stay because he came back with pneumonia. Meaghan noted that the images showed pleural effusion and there was a white count, but they couldn't figure it out. Dr. K White noted that prior to discharge the CXR showed patchy left lower opacities. On the readmission, it was noted he had new lung opacities compared to prior and was leukopenic. Dr. K White stated that he is surprised the patient was discharged with the leukopenia which is just as concerning as leukocytosis; they should have repeated the CBC because he had a drop in hemoglobin too and that was ignored. Dr. K White requested this to be sent to the Hospitalists (Dr. Downing) for review as possible pneumonia.
Case brought back to the 8/8 P2 meeting where the Hospitalist response was read and Dr. Schmidt and Dr. K White agreed with her response.
Template Letter
Generate

PEER MINUTE'S STANDARD LANGUAGE

- **Event with OFI**
  - **Determination:** The TMD and members of the committee deemed this case as event with identified opportunity for improvement. OFI =… The committee agreed that care was acceptable with reservation.
  - **Action:** Education in the form of case review was provided to committee members within the Peer meeting. The filter is closed. The issue will continue to be tracked and trended via the Trauma Dashboard for opportunities to protect and benefit future trauma patients to mitigate or prevent similar or future events.
  - **Determination:** The TMD and members of the committee agreed that care was not acceptable.
  - **Action:** The issue is currently being addressed for the protection and benefit of future trauma patients to mitigate or prevent similar or future events through policy update and review and improved provider communication. The filter/case will be open pending the action items.

- **Event with no OFI**
  - **Determination:** The TMD and the members of the committee agreed that care was appropriate given all factors involved. There were no opportunities for improvement identified. Care was acceptable.
  - **Action:** Education in the form of case review was provided to committee members within the Peer meeting. The filter is closed. The issue will continue to be tracked and trended via the Trauma Dashboard for opportunities to protect and benefit future trauma patients to mitigate or prevent similar or future events.

TIMELINE


PRE-
HOSPITAL
EMERGENCY
DEPARTMENT
INPATIENT
UNITS
DISCHARGE
HOSPITAL PI


THIS IS THE DARKEST, MOST
TERRIBLE TIMELINE.

Name: [redacted] **Age:** 20 **DOB:** [redacted] **DOS:** 02/21/2024 **MR:** [redacted]
PI RN Reviewing Case: Kaylee Meier, RN
P2 Surgeon Reviewer: Dr. Schmidt
Physicians of record: Colina, K. White, Nguyen, Germain, Axelrad, Wegner
Therapies Consulted: Physical Therapy, Occupational Therapy (2/23/2024)

Filter(s) Identified for Peer Review

Reason for review:

1. Interesting Case Review - (02/26/2024)

Details

Injuries Identified:

1. Mildly displaced R posterior medial first and second rib fractures
2. Small R PTX
3. Acute mildly displaced fractures of the left superior pubic ramus, left sacroiliac, and adjacent left iliac bone
4. Nondisplaced fracture of L ischial tuberosity,
5. Left lower lobe groundglass and consolidative opacities (cannot exclude pulmonary contusions),
6. Stage 3 DAI with petechial hemorrhage in basal ganglia and anterior corpus callosum
7. Scattered SAH
8. Left lateral orbital wall and zygomatic arch fractures
9. Left tripod fracture with left pterygoid process fracture

PMH: None

Procedures:

1. External Ventricular Drain Placement
2. Open Tracheostomy
3. PEG placement

Prehospital/SRMH ED Information:	SRMH Transfer to HLOC Information:
Mode of Arrival: Ground Ambulance **Total Scene Time:** 10 min **Transport Time:** 12 min **Trauma Activation Level:** Full **ED Arrival Time:** 02/21/2024 09:25 **ED DC Time to Unit:** 1 hour, 55 minutes **ED LOS:** 1:55 **Admitting Unit:** Intensive Care Unit	~~**Transfer out to HLOC:**~~ ~~**Arrival to Decision to Transfer:**~~ ~~**Decision to ED Discharge:**~~ ~~**ED LOS:**~~ ~~**ED DC Time to Unit:**~~
SRMH OR Information:	**Referring Hospital Transfer to SRMH Info:**
~~**Time to OR:**~~ ~~**Cut time:**~~	~~**IFT IN from:** N/A~~ ~~**IFT LOS:**~~ ~~**Arrival to Decision to Transfer:**~~ ~~**Decision to ED Discharge:**~~ ~~**ED to ED time:**~~

Discharge date: 03/11/2024	**LOS:** 19 days
Discharge to: Kentfield LTACH	**Expired:** N/A

Initial ED Vitals:

BP: 173/96	**HR:** 151	**RR:** 27	**O2 Sat:** 100% on BVM	**Temp:** unk	**Pain:** unk	**GCS:** 3

Trauma Scores:

Shock Index (HR/SBP): 0.87	**ISS:** 45	**TRISS:** 0.14

Narrative

20 F s/p high rate of speed MVC into tree. [redacted] estraint status. Prolonged extrication d/t L leg trapp lood and sputum in upper airway, suctioned by E . EMS unable to place OPA d/t trismus; BVM ven PTA. Tachycardic in the ED (150s). Noted to hav and posturing. Intubated for airway protection. nd rib fractures, small R PTX, acute mildly displa t left iliac bone, nondisplaced fracture of L ischi nnot exclude pulmonary contusions), DAI with p ttered SAH, left lateral orbital wall and zygomatic ure. Hypertonic NS 3%, Mannitol, TXA 1g, and Keppra 1g given. NSG (Consiglieri; backup with immediate response, Germain in OR), Ortho (Axelrad), and Intensivist (Nguyen) consult. Per TS, "nonurgent" Plastics consult pending clinical [redacted] TS (K. White).

[redacted] tachycardic 150s, tachypneic 40s, nteral feeds initiated HD 2. HD 3 4). DDAVP given d/t increased for seizure activity; aborted trial. [redacted]

HD 3 she was found to have spontaneous eye opening, intact cough/gag reflex, posturing to UE bilateral no movement to LE.

HD 4 subq Heparin TID starte [redacted] (26) overnight; resolved after 23% ultiple times; Cardene and Propofol i

HD 5 ICPs in 20s; Propofol in rneal & gag reflexes noted.

HD 6 tongue edema noted. Benadryl and Methylprednisolone given. ICP peaked to 26; TVP Versed and Dilaudid given.

HD 7 Palliative consult [redacted] he 30s overnight (HTS bolus gi

HD 8, ICP 9-11 remained in Pentobarbital coma.

HD 20, discharged to Kenfield LTACH.

Primary Review Timeline - 02/22/2024

2/21 (HD [redacted]
0916: Cod[redacted]
0925: Pt a[redacted]
BP 173/96[redacted]
0926: 20 [redacted]
0930: Pt i[redacted]
0935: Hyp[redacted]
0942:XR [redacted]
0943: NS[redacted]rad).
0944: Keg[redacted]
0945:XR [redacted]
0947: TX[redacted]
0948: CT [redacted]ll right
pneumoth[redacted]jacent left iliac bone
as well as [redacted]fluid in the pelvis is
likely rela[redacted]
to the frac[redacted]ht middle and right
lower lobs[redacted]cannot be excluded.
CT Head: [redacted]rpus callosum.
Scattered [redacted]cts in the paranasal
sinuses. V[redacted]
CT C Spi[redacted]seen.
CT Max/f[redacted]foreign bodies in the
left cheek and in the right conjunctival sac.

Determination – Case referred to Secondary Review for Complication – Macroglossia/Pressure Wounds on Tongue

Secondary Review - 03/21/2024

Attendees: Holly Love, Dr. Schmidt, Dr. K White, Kaylee Meier, Laura Pajari, Gabi Gannon, Erin Olson, Meaghan Carroll, Brooke Brand, Michael Feranchak

Meeting Minutes:
Complication - Macroglossia/Pressure Wounds on Tongue

Per Dr [redacted] stomy sooner d Dr. R. White ut more so the res airway, it would eer if time permit as transfe

Determination- Case referred to Peer Review as "Interesting Case."

Other Review – 3/25/2024

Attendees:
Meaghan Carroll RN, Dr. Stefan Zechowy (ENT)

Meeting Minutes:
Phone call with PI RN Meaghan Carroll and Dr. Stefan Zechowy (ENT) who performed the open trach on pt.

Phone call with Dr. Zechowy at 1821 on 3/25/2024

He stated that s [redacted] ue had grown so large and protruding out the tongue. She essentially had macrogloss k was placed which helped start to heal. H aryngologist use this steroid for any type of

When asked ab ssue was the macroglossia likely from the e. It's not uncommon for nursing or MD Oral Care to look under the tongue for any tubated. Before she left her tongue was loo cosal injury even down into the muscle heal well. In the end, the brain stem injury is likely the cause of the macroglossia as all other factors were removed. I.e ET Tube, and Pressure off the tongue.

Peer Review Meeting - 04/02/2024

Filter Flagged	How Filter was Identified	Corrective Action	Determination/ Acceptability	Loop Closure Status	Closed on	Meeting Closed at
Delayed Tracheostomy > 8d	Daily Sign Out	Track and Trend for Further Reporting, Referral to Physician/Provider, Referral to Peer Review Committee, Education Offering	Event/Mortality with an Opportunity for Improvement - Acceptable with Reservations	Closed - Resolved	9/11/2024	P1
Comments: 3/6 (P1) - Open tracheostomy HD 15. Family was determining goals of care initially; trach placement then complicated by macroglo[redacted] 3/21 (P2): F[redacted]dt stated the patient s[redacted] 3/25 (Other)[redacted]n trach on pt. See meet[redacted] side of the tongue. The[redacted]re ulcer on the dorsal si[redacted] the trach was done, a[redacted]ink an earlier trach[redacted]essure ulcers on the tongu[redacted]OFI would be to educat[redacted] 4/2 (P3): See meeting minutes for full discussion. Dr. Schmidt did state that the OFI in this case discussed at P2 was that						

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Filter Flagged	How Filter was Identified	Corrective Action	Determination/ Acceptability	Loop Closure Status	Closed on	Meeting Closed at
the patient should have had an earlier trach done.The TMD and members of the committee deemed this case as event with identified oppo[redacted] The committee agreed that care was appropriate with reservation. Education in the form of cas[redacted] 6/27 (Other): C[redacted] 9/11 (Other): E[redacted]r any issues.						
ICP > 20mm for >10 min	Daily Chart Review	Track and Trend for Further Reporting	Event/Mortality without an Opportunity for Improvement - Acceptable	Closed - Resolved	02/25/2024	P1
Comments: 2/25 (HD 5): - 1429: ICU NP[redacted]ntracerebral edema. Patient received[redacted]needed to help with ICP issues." - 1446: ICP mea[redacted] - 1531: ICP mea[redacted] - 1546: ICP mea[redacted] - 1601: ICP mea[redacted] - 1616: ICP mea[redacted] - 1631: ICP mea[redacted] - 1539: ICU RN[redacted]e times. Cardene and Prop increased. - 1646: Propofol 50 mcg/kg/min, Nicardipine 5 mg/hr, Midazolam 2mg/hr, Hydromorphone 1mg/hr						
[redacted]	Daily Sign	Referral to Physician/Provider, Referral to Peer	Event/Mortality with an	[redacted]		

KEY TAKE AWAYS

- Be hypervigilant about dates and times of when conversations happened.
- Utilize a dictionary with standard language
- Standardize your minutes language
- Save everything
- Not everything needs a full corrective action plan

THANK YOU

- Meaghan.Carroll@providence.org