

Appendix 2 (as supplied by the authors): Non-operative clinical exposures and trauma education survey

Dear Local Investigator,

Please answer the following questions for the currently enrolled **General Surgery residents** within your program. Please solicit input from your corresponding Trauma Medical Director and General Surgery Residency Program Director as needed. Prior to final survey data submission, you will be asked to personally attest to the veracity of the submitted responses.

Residency Rotations

- How many residents do you currently have in your program?

PGY	# of residents
1	
2	
3	
4	
5	
Research	
Other, specify:	

- Do your residents rotate on a dedicated trauma-only in-patient service? YES / NO
 - If Yes, please specify how many blocks they spend in each of their PGY years:

PGY	# blocks on dedicated Trauma service
1	
2	
3	
4	
5	

- Do your residents rotate on a service that provides Most-Responsible-Physician in-patient care for both Trauma *and* ACS/EGS patients (NOTE: consult-only General Surgery care provided to trauma patients does not qualify)? YES / NO
 - If Yes, please specify how many blocks they spend in each of their PGY years:

PGY	# blocks on combined Trauma&ACS Service
1	
2	
3	
4	
5	

- Do your residents rotate on a service that provides Most-Responsible-Physician in-patient care for ACS/EGS patients and *consult-only* care to Trauma patients? YES / NO
 - If Yes, please specify how many blocks they spend in each of their PGY years:

PGY	# blocks on ACS/EGS service
1	
2	
3	
4	
5	

- Are your residents formally scheduled to be on-call as Trauma Team Leader or sub-Trauma Team Leader? YES / NO

- If Yes, please specify how many blocks they spend in each of their PGY years:

PGY	# blocks scheduled as TTL or sub-TTL
1	
2	
3	
4	
5	

- Do your senior residents fulfill the role of Trauma Team Leader or sub-Trauma Team Leader? YES / NO
 - If Yes, please describe the frequency and details
- At your trauma center, is there **always** at least one junior resident on-call? YES / NO
 - If NO, please explain:
 - If YES, does the junior resident on-call stay in house? YES / NO
 - What is the typical PGY level of the junior resident on-call?
 - Always PGY-1
 - PGY1 or PGY2
 - Other, please explain:
- At your trauma center, is there **always** more than one junior resident on-call? YES/ NO
 - If YES, how is the work divided (i.e. one junior manages ward issues, the other junior attends to ER/trauma consults?). Please explain:
- At your trauma center, is there **always** a senior resident on-call? YES / NO
 - If NO, please explain:
 - If YES, does the senior resident on-call stay in-house? YES / NO
 - What is the typical PGY level of the senior resident?
 - PGY 3-5
 - PGY 4 or 5
 - only PGY 5
 - Other, please explain:
- When your residents are on-call at a trauma center, in what capacity do they provide care to trauma patients?

<u>PGY</u>	<u>Part of the Trauma Team that responds to ALL trauma activations (all tiers)</u>	<u>Part of Trauma Team that responds only to highest-tier activations</u>	<u>Sees trauma patient in ER only if consulted by EM physician</u>	<u>Sees trauma patient only if going to the</u> <u>OR</u>	<u>Other, please specify</u>
Junior (ie. PGY 1&2)	Yes / No	Yes / No	Yes / No	Yes / No	
Senior (ie. PGY 3-5)	Yes / No	Yes / No	Yes / No	Yes / No	

- Do your General Surgery residents receive any formal FAST training? YES / NO
- When your residents are on call at your trauma center, is the expectation that they are routinely responsible for performing the FAST during any trauma activations?
- Do your residents typically participate in **elective** or **mandatory** trauma rotations at other major trauma centers? NO / YES, specify:

<u>Rotation Type (elective or mandatory)</u>	<u>PGY</u>	<u>Country</u>	<u>Hospital Name</u>	<u>Duration of Rotation (# months/blocks)</u>

- At your trauma center, do any of the following off-service residents typically rotate on your trauma service?
 - Orthopedic surgery? YES / NO
 - Plastic Surgery? YES / NO
 - Neurosurgery? YES / NO
 - Radiology? YES / NO
 - Pathology? YES / NO
 - Internal Medicine? YES / NO
 - Family Medicine? YES / NO
 - Emergency Medicine? YES / NO

Structured Trauma Education

Please complete each square of the table below with the dropdown answers:

	<u>ATLS Student</u>	<u>ATLS Instructor</u>	<u>ATLS Refresher</u>	<u>ATOM</u>	<u>ASSET</u>	<u>DSTC</u>	<u>Other: Specify</u>
Is it mandatory for incoming residents to have completed this course <i>prior</i> to starting residency?	Y/N	--	--	Y/N	Y/N	Y/N	Y/N
Is it mandatory for residents to complete this course <i>during</i> residency?	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
During <i>which year of residency</i> are they expected to complete this course?	1 2 3 4 5 any	1 2 3 4 5 any	1 2 3 4 5 any	1 2 3 4 5 any	1 2 3 4 5 any	1 2 3 4 5 any	1 2 3 4 5 any
Who pays for this course?	-Resident in Full -Program in Full -Cost Shared, specify: percentage paid by resident:						
Where is this course provided?	-At local site -at another University -at resident discretion						

- Which of the above courses are run under the auspices of your trauma program?
- Which of the above courses are run privately/independent on your trauma program?
- Please describe the formal trauma education that your residents receive within the curriculum presented at Academic Half Days:
 - How many Academic Half-Days are dedicated to *trauma* topics within the curriculum?
 - 1 per year
 - 2 per year
 - 3 per year
 - 1 per 2 years
 - 2 per 2 years
 - 3 per 2 years

- Other, specify:
- Who typically teaches the trauma topics for Academic Half Days (click all that apply):
 - General Surgeon with formal Trauma Fellowship
 - Any General Surgeon (no formal Trauma Fellowship)
 - Other, specify:
- Please describe any other trauma education that your residents receive during their training:

Trauma Education Event	Frequency Event Held	When do residents attend?	Content of Event?
Trauma Rounds	-Weekly -Q2Weekly -Monthly -Quarterly -Other, specify:	-Every week regardless of their hospital assignment -Every week when assigned to trauma hospital -Every week only when assigned to trauma service -completely voluntary	-M&Ms (specify frequency): -Didactic (specify frequency): -Case Presentation (specify frequency):
Local Trauma Conference		-mandatory -voluntary	
Trauma Topic Discussions on the Trauma Service	-Weekly -Other, specify:	-while on service -while in the same hospital -other, specify: -completely voluntary	
Cadaveric Trauma Lab	-Annually -Other, specify:	-mandatory -completely voluntary	
Simulation Training, specify type: -Trauma-specific simulation -CRM simulation (non-trauma) -CRM simulation (trauma)	Weekly Monthly 4 times per year 3 times per year 2 times per year	-mandatory -completely voluntary	

specify participants: -residents only -residents + multidisciplinary staff	Once per year Other, specify:		
Other, specify:			

Trauma Education for Medical Students

- For medical students in **pre-clerkship** years, do they receive any formal teaching on trauma care?
 - If Yes, please describe:
 - Do General Surgery residents provide any of this teaching?
 - If Yes, please describe:
- For medical students in **clerkship** on their Surgery rotations, do they receive any formal teaching on trauma care?
 - If Yes, please describe:
 - Do General Surgery residents provide any of this teaching?
 - If Yes, please describe:
- Is there **any other** formal trauma care training that medical students at your University receive?
 - If Yes, please describe:

Characteristics of Trauma Training Exposure

- Please list the number of *trauma admissions* to your hospital for the most recently available calendar year (Jan-Dec) by ISS [obtain directly from your trauma registry]:
 - ISS 9-12:
 - ISS 13-15:
 - ISS 16-24:
 - ISS ≥ 25 :
- Please list the number of trauma team activations at your hospital for the most recently available calendar year (Jan-Dec) [obtain directly from your trauma registry]:
 - All Tiers:
 - Highest Tier:
- How many general surgeons rotate on the Trauma or Trauma/ACS Service at your trauma center?
- Please describe the characteristics of the General Surgeons who staff your Trauma or Trauma/ACS service:

<u>Surgeon</u>	<u>FRCS General Surgery</u>	<u>Formal Trauma Fellowship*</u>	<u>Formal Acute Care Surgery Fellowship**</u>	<u>Formal Critical Care Fellowship^</u>	<u>Vascular Surgery^^</u>	<u>Other, Specify</u>	<u>Participates in TTL call roster?</u>
1	Yes / No	Canada USA Other, specify:	Canada USA Other, specify:	Canada USA Other, specify:	Canada USA Other, specify:	Canada USA Other, specify:	Yes / No
2							Yes / No
3							Yes / No
4							Yes / No
5							Yes / No
6							Yes / No
7							Yes / No
8							Yes / No
9							Yes / No
10							Yes / No
etc							

*completed \geq 1year period of fellowship training in trauma care including trauma surgery

**completed \geq 1year period of fellowship training in Acute Care Surgery that included exposure to trauma patients

^completed RCPSC Critical Care (Canada), American Board of Surgery Surgical Critical Care (USA), or Other, Specify:

^^completed RCPSC Vascular Surgery (Canada), American Board of Surgery Vascular Surgery (USA), or Other, Specify:

- Are your Trauma Team Leader monthly call schedules filled 100% all the time? Yes / No
 - If No, what percent of monthly shifts are typically filled?
 - 10%
 - 20%
 - 30%
 - 40%

- 50%
 - 60%
 - 70%
 - 80%
 - 90%
 - 100%
- What proportion of the Trauma Team Leader monthly call schedule is filled by surgeons (of any type) at your institution?
 - 10%
 - 20%
 - 30%
 - 40%
 - 50%
 - 60%
 - 70%
 - 80%
 - 90%
 - 100%
- Does your institution have Fellows who are schedule on the Trauma Team Leader roster? YES / NO
 - If so, how many 12-hour shifts does your fellow do on average in a month?
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - More than 10

Trauma Fellowship

- Does your institution currently have a fellowship in **Trauma Care/Trauma Surgery/Traumatology**? Yes/No
 - Is this fellowship conducted under the auspices of your local University PGME Office? Yes / No
 - If No, is it conducted under the auspices of your Trauma Center Hospital? Yes / No
 - If No, please explain:
 - Does your fellowship include training in Trauma Surgery? Yes / No
 - How long is your trauma fellowship? 1 year / 2 years / other, specify:

- Does your institution currently have a fellowship in **Acute Care Surgery**? Yes / No
 - Does your fellowship include exposure to trauma patients? Yes / No
 - Does your fellowship include training in Trauma Surgery? Yes / No
 - How long is your ACS fellowship? 1year / 2 years / other, specify:

- Does your institution currently have a fellowship in **Trauma & Acute Care Surgery**? Yes / No
 - Does your fellowship include exposure to trauma patients? Yes / No
 - Does your fellowship include training in Trauma Surgery? Yes / No
 - How long is your Trauma&ACS fellowship? 1year / 2 years / other, specify:

- How many Trauma/ACS fellows are at your trauma center at any given time?
 - 1
 - 2
 - 2+
 - Other, Please explain:

- In your fellowship, do the *Fellows* operate on the same cases as *senior General Surgery residents*? Yes / No
- In your fellowship, does your fellow do independent call as a trauma team leader? Yes / No
- In your fellowship, does your fellow do independent call as a trauma surgeon? Yes / No
- In your fellowship, does your fellow do independent call as the general surgeon? Yes / No
- In your fellowship, does your fellow do independent weeks of acute care surgery? Yes / No
- In your fellowship, does your fellow have to be eligible for independent licensure or equivalent? Yes / No

- How many residents from your General Surgery program have pursued trauma fellowships after graduation?
 - Graduated in 2018:
 - Graduated in 2017:
 - Graduated in 2016:
 - Graduated in 2015:
 - Graduated in 2014:
 - Graduated in 2013:
 - Graduated in 2012:
 - Graduated in 2011:
 - Graduated in 2010:
 - Graduated in 2009:
 - Graduated in 2008:

Other

If you have additional information regarding the trauma exposure your residents receive as part of their General Surgery residency that was not covered by the questions above, please describe here: