



Emergency General Surgery Survey

*Thank you for agreeing to participate in this survey on emergency general surgery structures and processes. Your responses should represent what is **currently implemented** at the **hospital indicated below**. Survey data will be analyzed in aggregate form without identifying you or your hospital.*

«Hospital_Name»

«Hospital_City», «Hospital_State»

Emergency General Surgery Survey

Hospital-wide Structures and Processes

Questions 1-13 pertain to **overall structures and processes** of care at your hospital.

1. Does your hospital provide **round-the-clock** (24/7/365) availability of **critical care specialists** (i.e., physicians with fellowship training and board certification in pulmonary critical care, anesthesia critical care, or surgical critical care)?

- ₁ Yes
- ₂ No. **If No, go to #3**

2. How does your hospital assure round-the-clock access to **critical care specialists**? (*Select one response only*)

- ₁ In-house critical care specialist at all times (24/7/365)
- ₂ Critical care specialist on-call when a critical care specialist is NOT available in-house
- ₃ Tele-ICU service when a critical care specialist is NOT available in-house
- ₄ Transfer agreement(s) to facilitate access to critical care when not available at my hospital
- ₅ Other (please specify) _____

3. What is your hospital’s availability of **ERCP** for biliary emergencies? (*Select one response only*)

- ₁ An endoscopist who can perform ERCP available/on-call at all times (24/7/365)
- ₂ An endoscopist who can perform ERCP available during weekdays only
- ₃ No availability of ERCP at my hospital
- ₄ Other (please specify) _____

4. Does your hospital have **overnight operating room availability**?

- ₁ Yes
- ₂ No. **If No, go to #6 on Page 2**

5. Please describe your hospital’s **overnight operating room staff** presence. (*Select a response for each row*)

| | In-house | Can be called in | Not Available | Unsure |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Scrub technician(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ |
| b. OR nursing staff | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ |
| c. PACU/recovery room nursing staff | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ |
| d. Anesthesiologists (MD, DO, MBBS) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ |
| e. CRNA(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ |
| f. Surgical pathologist(s) for frozen section | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ |

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6. Does your hospital provide **round-the-clock** (24/7/365) **in-house** presence of the following **ancillary staff**? (Select a response for each row)

| | Yes | No | Unsure |
|--------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. X-ray technician(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| b. Ultrasound technician(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| c. CT technician(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| d. Respiratory therapist(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| e. Clinical laboratory technician(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| f. Blood bank technician(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |

7. How frequently would the following occur for **radiographic studies ordered "STAT"** from your hospital's radiology department? (Select a response for each row)

| | Always | Often | Sometimes | Rarely | Never |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. A <u>CT scan</u> is completed within 4 hours of placing the order | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| b. An <u>ultrasound</u> is completed within 4 hours of placing the order | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| c. A <u>board certified/board eligible radiologist</u> reads the study within two hours of completion | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| d. A study completed overnight is read by a <u>tele-radiologist</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| e. <u>Critical study findings</u> are personally communicated (e.g., by telephone, face-to-face) by the radiologist to the ordering physician | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| f. The <u>interventional radiology team</u> is available in-house within 1 hour of requesting the intervention (e.g., angioembolization) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |

8. Does your hospital have the following established for patients who may clinically deteriorate? (Select a response for each row)

| | Yes | No | Unsure |
|---|---------------------------------------|---------------------------------------|---------------------------------------|
| a. A <u>graded response strategy</u> (e.g., a modified early warning score, rapid response team) to identify patients at risk of clinical deterioration | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| b. <u>Guidelines directing escalation of care</u> when patients clinically deteriorate | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| c. <u>Round-the-clock, in-house</u> availability of a board certified/board eligible <u>physician</u> to evaluate deteriorating patients | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |

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9. Does your hospital have protocols in place to ensure the following? *(Select a response for each row)*

| | Yes | No | Unsure |
|---|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Urgent availability of <u>blood products</u> (e.g., massive transfusion protocol) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| b. Response of qualified individuals (i.e., anesthesia, emergency medicine, surgery, and/or critical care) to establish <u>airway access</u> for a patient in respiratory distress (e.g., code airway team) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| c. Risk factor based <u>DVT/PE prevention</u> (e.g., thrombosis risk assessment tool) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |

10. Does your hospital have the following established for urgent or emergent operations? *(Select a response for each row)*

| | Yes | No | Unsure |
|--|---------------------------------------|---------------------------------------|---------------------------------------|
| a. A <u>tiered system</u> to ensure that urgent/emergent operations are started in a timely manner | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| b. Guidelines for <u>deferral of elective operations</u> to give adequate priority to urgent/emergent operations | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| c. A protocol for urgent/emergent <u>reversal of common anticoagulant drugs</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| d. A process to ensure that patients found to have cancer receive oncologic follow-up according to <u>National Comprehensive Cancer Network</u> guidelines | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| e. A process to ensure that patients in septic shock receive care according to the <u>Surviving Sepsis Campaign</u> guidelines | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |

11. Does your hospital ever **lack** round-the-clock (24/7/365) emergency general surgery coverage?

- ₁ Yes
- ₂ No. **If No, go to #14 on Page 4**

12. Approximately how often does your hospital **lack** emergency general surgery coverage? *(Please provide your best estimate in the space below)*

_____ %

13. How frequent are the following reasons for **lacking** coverage? *(Select a response for each row)*

| | Always | Often | Sometimes | Rarely | Never |
|-------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Lack of general surgery coverage | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| b. Lack of anesthesia coverage | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| c. Lack of OR staff | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| d. Emergency room is on diversion | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| e. Other (please specify) _____ | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |

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Emergency General Surgery Workforce

The following questions pertain to the surgeons who cover **new** emergency department or inpatient consults for **patients** with suspected general surgery emergencies (e.g., appendicitis, perforated viscus, necrotizing fasciitis), sometimes referred to as “unassigned patients.” Do not include surgeons who provide emergency coverage for their own, or their partners’, existing patients in your responses.

14. How many surgeons participate in emergency general surgery coverage at your hospital?

_____ surgeons

15. Of the surgeons who participate in emergency general surgery coverage at your hospital, how many fall into the following categories?

a. Female surgeons _____

b. Surgeons over 65 years of age _____

c. Surgeons who finished training within the last 3 years _____

16. What is the **primary employment model** of the surgeons who cover emergency general surgery at your hospital? (Select all that apply and indicate the number of surgeons for each model)

₁ Hospital Employed (N = _____)

₂ Academic/University Practice (N = _____)

₃ Private Practice (N = _____)

₄ City/County/Federal Government Employed (N = _____)

₅ Locum Tenens (N = _____)

₆ Other (please specify) _____ (N = _____)

17. Does the clinical practice of these surgeons encompass **other types of surgical care** (e.g., trauma, elective general surgery) in addition to emergency general surgery (not necessarily simultaneously)?

₁ Yes

₂ No. If No, go to #19 on Page 5

18. What **other types of surgical care** do they provide? (Select all that apply and indicate the number of surgeons for each type of surgical care)

₁ Trauma (N = _____)

₂ Burns (N = _____)

₃ Surgical Critical Care (N = _____)

₄ Elective General Surgery (N = _____)

₅ Other (please specify) _____ (N = _____)

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19. Do these surgeons have **non-clinical roles** (e.g., research, administration) in addition to their clinical roles (not necessarily simultaneously)?

- ₁ Yes
- ₂ No. **If No, go to #22**

20. What non-clinical roles do they have? (*Select all that apply and indicate the number of surgeons for each non-clinical role*)

- ₁ Surgical Education (e.g., program director; curriculum development) (N = _____)
- ₂ Research (e.g., basic science research; clinical trials; outcomes research) (N = _____)
- ₃ Community Outreach/Public Health (e.g., EMS lectures; international work) (N = _____)
- ₄ Administration (e.g., chief medical officer; head of practice plan; chairperson) (N = _____)
- ₅ Other (please specify) _____ (N = _____)

21. Do any of these surgeons specifically conduct **emergency general surgery research**?

- ₁ Yes
- ₂ No

22. Do any of these surgeons have **additional subspecialty training** beyond general surgery?

- ₁ Yes
- ₂ No. **If No, go to #24 on Page 6**

23. What additional subspecialty training do they have? (*Select all that apply and indicate the number of surgeons with each subspecialty training*)

- ₁ Acute Care Surgery (N = _____)
- ₂ Burn Surgery (N = _____)
- ₃ Surgical Critical Care (N = _____)
- ₄ Trauma Surgery (N = _____)
- ₅ Breast Surgery (N = _____)
- ₆ Colorectal Surgery (N = _____)
- ₇ Endocrine Surgery (N = _____)
- ₈ Hepatobiliary Surgery (N = _____)
- ₉ Minimally Invasive Surgery (N = _____)
- ₁₀ Thoracic Surgery (N = _____)
- ₁₁ Surgical Oncology (N = _____)
- ₁₂ Vascular Surgery (N = _____)
- ₁₃ Other (please specify) _____ (N = _____)

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24. What is the **board certification** status of the surgeons who cover emergency general surgery at your hospital? *(Select all that apply and indicate the number of surgeons with each certificate)*

- ₁ American Board of Surgery Certified/Eligible in Surgery (N = _____)
- ₂ American Osteopathic Board of Surgery Certified/Eligible in Surgery (N = _____)
- ₃ American Board of Surgery Certified/Eligible in Surgical Critical Care (N = _____)
- ₄ Other (please specify) _____ (N = _____)

25. Do any of the surgeons who cover emergency general surgery have **additional degrees** beyond their medical degree (e.g., MD, DO, MBBS)?

- ₁ Yes
- ₂ No. **If No, go to #27**

26. What additional degrees do they have? *(Select all that apply and indicate the number of surgeons with each degree)*

- ₁ Masters of Public Health, MPH (N = _____)
- ₂ Masters of Business Administration, MBA (N = _____)
- ₃ Masters of Healthcare Administration, MHA (N = _____)
- ₄ Masters of Education, MEd (N = _____)
- ₅ Masters of Science, MS (N = _____)
- ₆ Doctorate, PhD (N = _____)
- ₇ Other (please specify) _____ (N = _____)

Emergency General Surgery Coverage

The following questions pertain to how surgeons cover emergency general surgery at your hospital.

27. Does the surgeon covering emergency general surgery receive compensation for **uninsured patient encounters** resulting from emergency general surgery coverage?

- ₁ Yes
- ₂ No

28. Which of the following statements **BEST** describes how your hospital designates surgeons for **daytime** emergency general surgery coverage? *(Select one response only)*

The surgeon covering emergency general surgery during the daytime is...

- ₁ "On-service" (i.e., covering emergency general surgery for 2 or more consecutive days)
- ₂ Assigned to a daytime shift (e.g., 8, 12, 14 hrs long). **Go to #30 on Page 7**
- ₃ Assigned to 24 hours of coverage. **Go to #30 on Page 7**
- ₄ Other (please specify) _____ **Go to #30 on Page 7**

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29. What is the **duration** of the assigned daytime “**on-service**” period? (Select one response only)

- ₁ 5 day week (e.g., Mon-Fri)
- ₂ 7 day week (e.g., Mon-Sun; Sun-Sat)
- ₃ 1 month (e.g., 28 days, calendar month)
- ₄ Other (please specify) _____

30. Is the surgeon assigned to **daytime** emergency general surgery coverage **freed of office or other clinical responsibilities** not related to emergency general surgery during the day?

- ₁ Yes
- ₂ No

31. How frequently would the surgeon assigned to **daytime** emergency general surgery coverage receive **clinical assistance** from the following? (Select a response for each row)

| | Always | Often | Sometimes | Rarely | Never |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Mid-level practitioner(s) (e.g., NP, PA) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| b. Surgical resident(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| c. Medical student(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |

32. How frequently would the surgeon assigned to **overnight** emergency general surgery coverage do the following? (Select a response for each row)

| | Always | Often | Sometimes | Rarely | Never |
|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Earn a stipend (beyond billing for services rendered) for covering emergency general surgery | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| b. Cover emergency general surgery at <u>2 or more</u> hospitals | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| c. Provide <u>in-house</u> emergency general surgery coverage | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| d. Cover trauma at the same time as emergency general surgery | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| e. Cover one or more <u>intensive care units</u> at the same time as emergency general surgery | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| f. Be freed of patient care responsibilities the <u>following day</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| g. Transfer care of a patient who does NOT undergo operation overnight to a <u>sub-specialty surgeon</u> (e.g., bleeding gastric tumor to surgical oncologist) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| h. Transfer care of a patient who does NOT undergo operation overnight to a medical hospitalist | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |

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33. How frequently would the surgeon who performed an emergency general surgery **operation** while covering **overnight** do the following? (Select a response for each row)

| | Always | Often | Sometimes | Rarely | Never |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Transfer <u>day to day management</u> to a medical hospitalist or PCP | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| b. <u>Round</u> on the patient until discharge | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| c. See the patient in <u>follow-up clinic</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| d. Admit the patient to him/herself for a <u>post-discharge complication</u> requiring admission | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| e. Transfer <u>post-discharge care</u> of the patient to a sub-specialty surgeon (e.g., Hartmann's procedure to colorectal surgeon) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |

34. How frequently would the surgeon assigned to **overnight** emergency general surgery coverage receive **clinical assistance** from the following? (Select a response for each row)

| | Always | Often | Sometimes | Rarely | Never |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| a. Mid-level practitioner(s) (e.g., NP, PA) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| b. Surgical resident(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| c. Medical student(s) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |

Emergency General Surgery Infrastructure

The following questions pertain to your hospital's infrastructure for emergency general surgery patients.

35. Does your hospital designate **daytime operating room time** (block time) for previously unscheduled emergency general surgery cases (add-ons)?

- ₁ Yes
- ₂ No. If No, go to #37

36. *Approximately* how many days a week does your hospital have **designated block time** for emergency general surgery cases (add-on cases)? (Select one response only)

- | | | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| <1 day | 1 day | 2 days | 3 days | 4 days | 5 days | >5 days |
| <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ | <input type="checkbox"/> ₆ | <input type="checkbox"/> ₇ |

37. Does your hospital employ a **Program Manager** to oversee quality and delivery of care to emergency general surgery patients?

- ₁ Yes
- ₂ No. If No, go to #39 on Page 9

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38. Is the Program Manager simultaneously responsible for any of the following? (*Select all that apply*)

- ₁ Quality and delivery of care to trauma patients
- ₂ Quality and delivery of care to elective general surgery patients
- ₃ Other (please specify) _____

39. Which of the following *BEST* describes how the **clinical service** or **census** of emergency general surgery patients is organized? (*Select one response only*)

Emergency general surgery patients are cared for on...

- ₁ Their own service/census
- ₂ A combined service/census with elective general surgery patients
- ₃ A combined service/census with trauma patients
- ₄ A combined service/census with elective general surgery and trauma patients
- ₅ Other (please specify) _____

40. Where do emergency general surgery patients who are **not critically ill** typically receive care? (*Select one response only*)

- ₁ An assigned ward/floor
- ₂ A ward/floor with other surgical patients
- ₃ A ward/floor with medical patients
- ₄ Other (please specify) _____

41. Where do **critically ill** emergency general surgery patients typically receive care? (*Select one response only*)

- ₁ A Surgical ICU
- ₂ A Trauma ICU
- ₃ A combined Trauma/Surgical ICU
- ₄ A combined Medical/Surgical ICU
- ₅ A Medical ICU
- ₆ Other (please specify) _____

42. Who manages critical care issues (e.g., ventilator management, glycemic control, septic shock) for emergency general surgery patients in this ICU? (*Select all that apply*)

- ₁ The operating surgeon or a surgical colleague (i.e., "open" ICU)
- ₂ A surgical critical care intensivist
- ₃ An anesthesia critical care intensivist
- ₄ A pulmonary critical care intensivist
- ₅ Other (please specify) _____

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43. Does your hospital have a **formal transfer agreement(s) with another hospital(s)** to send or receive emergency general surgery patients in need of higher level of care? *(Select Yes or No for send and receive)*

| | Yes | No |
|--|---------------------------------------|---------------------------------------|
| a. Formal agreement(s) to SEND patients | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| b. Formal agreement(s) to RECEIVE patients | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |

44. Regardless of formal transfer agreements, *approximately* what percentage of your hospital's total emergency general surgery patient volume is **transferred** to/from another hospital **each month**? *(Please provide your best estimate in the spaces below for both transferred IN and transferred OUT)*

a. Transferred IN _____%

b. Transferred OUT _____%

Emergency General Surgery Processes

The following questions pertain to processes of care for emergency general surgery patients at your hospital.

45. Does your hospital have **face-to-face hand-offs** for emergency general surgery patients in the morning and/or evening (e.g., signout rounds, cardflip rounds, am/pm report)? *(Select Yes or No for Morning and Evening)*

| | Yes | No |
|------------|---------------------------------------|---------------------------------------|
| a. Morning | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| b. Evening | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |

If you answered NO for both Morning and Evening, go to #49 on Page 11

46. What **patients** are typically **discussed** at these hand-off meetings? *(Select all that apply in each row)*

| | Discussed at Morning Signout | Discussed at Evening Signout | Not Discussed at Morning or Evening Signout |
|--|---------------------------------------|---------------------------------------|--|
| a. All patients on the emergency general surgery service/census | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| b. New emergency general surgery patients only | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| c. Emergency general surgery patients in the ICU | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| d. Emergency general surgery patients at risk for clinical deterioration | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| e. Other patients (e.g., trauma, elective general surgery) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |

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47. Which **physicians** typically attend these hand-off meetings? (Select all that apply in each row)

| | Attends Morning Signout | Attends Evening Signout | Does NOT Attend Morning or Evening Signout |
|--|---------------------------------------|---------------------------------------|--|
| a. Incoming surgeon who will be covering emergency general surgery | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| b. Outgoing surgeon who was covering emergency general surgery | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| c. Other surgeons not covering emergency general surgery that day | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| d. Other physician(s) (e.g., physiatry, geriatrics, psychiatry) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| e. Incoming residents | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| f. Outgoing residents | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |

48. Which **other staff** typically attend these hand-off meetings? (Select all that apply in each row)

| | Attends Morning Signout | Attends Evening Signout | Does NOT Attend Morning or Evening Signout |
|--|---------------------------------------|---------------------------------------|--|
| a. Mid-level practitioners (e.g., NP, PA) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| b. ICU nursing staff | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| c. Ward/floor nursing staff | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| d. Social services staff (e.g., social worker, case-manager) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| e. Therapy staff (e.g., physical or occupational therapists) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| f. Program Manager | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| g. Medical students | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |
| h. Other (please specify) _____ | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ |

49. In situations where your hospital does not conduct face-to-face handoffs, which of the following **BEST** describes how handoffs typically occur for emergency general surgery patients? (Select one response only)

Surgeons hand-off care of emergency general surgery patients by...

- ₁ Telephoning the covering surgeon
- ₂ Leaving a printed patient list for the covering surgeon
- ₃ Sending an email to the covering surgeon
- ₄ Not applicable (i.e., all handoffs occur face to face)
- ₅ Other (please specify) _____

Emergency General Surgery Survey

50. Does your hospital conduct a *dedicated* emergency general surgery **morbidity & mortality** review?

- ₁ Yes. If Yes, go to #52
- ₂ No

51. If your hospital does not conduct a dedicated emergency general surgery M&M, which of the following *BEST* describes where emergency general surgery patient morbidity and mortality is discussed? (*Select one response only*)

The morbidity and mortality of emergency general surgery patients is discussed...

- ₁ At the departmental morbidity and mortality conference
- ₂ At the hospital-wide morbidity and mortality conference
- ₃ As needed when issues arise (e.g., sentinel event review, root cause analysis)
- ₄ Other (please specify) _____

52. How frequently is this morbidity & mortality meeting conducted? (*Select one response only*)

- ₁ Weekly
- ₂ Monthly
- ₃ Quarterly
- ₄ Other (please specify) _____

53. Which **physicians** typically attend this morbidity & mortality meeting? (*Select all that apply*)

- ₁ Surgeons who participate in emergency general surgery coverage at your hospital
- ₂ Surgeon(s) from other subspecialties (e.g., colorectal, vascular, transplant)
- ₃ Anesthesiologist(s) (who typically staff the OR)
- ₄ Radiologist(s)
- ₅ Intensivist(s) (from surgery, anesthesia, or pulmonary critical care)
- ₆ Other physician(s) (e.g., physiatry, geriatrics, psychiatry)

54. Which **other staff** typically attend this morbidity & mortality meeting? (*Select all that apply*)

- ₁ Mid-level practitioners
- ₂ Program Manager
- ₃ ICU nursing staff
- ₄ Ward nursing staff
- ₅ Social services staff (e.g., social worker, case-manager)
- ₆ Therapy staff (e.g., physical or occupational therapists)
- ₇ Other (please specify) _____

Emergency General Surgery Survey

55. Has your hospital established the following emergency general surgery processes? *(Select a response for each row)*

| | Yes | No |
|--|---------------------------------------|---------------------------------------|
| a. A <u>prospective registry</u> of emergency general surgery patients | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| b. An <u>activation system</u> (similar to trauma activations, e.g., Trauma STAT page; Level 1 Trauma) for unstable emergency general surgery patients who present to the ER | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| c. A protocol for identifying patients requiring <u>ICU admission</u> (e.g., due to hemodynamic lability or co-morbidities) after emergency general surgery operations | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| d. An <u>outpatient follow-up clinic</u> specifically for emergency general surgery patients | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |

56. Does your hospital **monitor** the following measures? *(Select a response for each row)*

| | Yes | No |
|--|---------------------------------------|---------------------------------------|
| a. Time to <u>initial evaluation</u> by the surgeon covering emergency general surgery after ER consultation | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| b. Time to <u>source control</u> after diagnosis of an intra-abdominal or soft-tissue infection (e.g., resection of organ causing peritoneal contamination; fascial debridement) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| c. Time to <u>start of operation</u> after booking an emergent general surgery case | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |

57. Does your hospital audit the following **unplanned events**? *(Select a response for each row)*

| | Yes | No |
|---|---------------------------------------|---------------------------------------|
| a. <u>Return to the operating room</u> during the <u>index hospitalization</u> after initial emergency general surgery operation | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| b. <u>Transfer</u> of emergency general surgery patients <u>back to an intensive care unit</u> within 48 hours of discharge to the ward | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| c. Hospital <u>re-admission within 30 days</u> of discharge after an emergency general surgery operation | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| d. <u>Return to the operating room within 30 days</u> after an emergency general surgery operation (even if previously discharged) | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| e. Hospital <u>re-admission within 30 days</u> of discharge after a general surgery emergency that was <u>managed non-operatively</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |
| f. <u>Need for operation within 30 days</u> of discharge after a general surgery emergency that was <u>managed non-operatively</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ |

Emergency General Surgery Survey

58. For each clinical scenario below, who would *typically* manage the patient at your hospital? Assume the patient initially presented to the emergency room. (Select a response for each row)

| | Surgeon covering emergency general surgery | Surgeon who operated on the patient | Sub-specialty surgeon colorectal, gyn, ortho, urology, PRS thoracic, onc, bariatric, etc. | Non-surgeon hospitalist internist, GI, ID, etc. | Patient typically transferred from ER to higher level of care after stabilization |
|--|--|---------------------------------------|---|---|---|
| a. 45yo morbidly obese diabetic male with <u>Fournier's gangrene</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| b. 60yo female 1 week s/p open abdominal hysterectomy with <u>fascial dehiscence</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| c. 50yo male s/p screening colonoscopy with <u>peritonitis</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| d. 32yo male 1 week s/p routine appendectomy with <u>RLQ abscess</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| e. 37yo female 2 years s/p Roux-en-Y gastric bypass with <u>internal hernia</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| f. 90yo female nursing home resident with <u>sigmoid volvulus</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| g. 23yo female IV drug user with <u>necrotizing soft tissue infection</u> of her right forearm proximal to the wrist | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| h. 71yo male with <u>esophageal perforation</u> due to Boerhaave's syndrome | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |
| i. 40yo female 2 weeks s/p routine cholecystectomy with <u>bile leak</u> | <input type="checkbox"/> ₁ | <input type="checkbox"/> ₂ | <input type="checkbox"/> ₃ | <input type="checkbox"/> ₄ | <input type="checkbox"/> ₅ |

59. Which statement *BEST* describes your hospital? (Select one response only)

My hospital's overall approach to emergency general surgery is...

- ₁ A dedicated clinical team whose scope encompasses emergency general surgery (+/-trauma, +/- elective general surgery, +/- burns)
- ₂ A traditional approach with an ad hoc "general surgeon on call" schedule. **Go to Page 16**
- ₃ Other (please specify) _____ **Go to Page 16**

Emergency General Surgery Survey

60. What do you call this dedicated emergency general surgery team (e.g., acute care surgery, emergency general surgery, surgical hospitalist)?

Name of team _____

61. How is oversight of this dedicated clinical team structured? (*Select one response only*)

- ₁ Within a division of our department of surgery
- ₂ Within a section of our division of general surgery
- ₃ Within a section of our division of trauma and critical care
- ₄ Other (please specify) _____

62. In what year was this dedicated emergency general surgery team *fully* implemented?

Year _____ **If 2015, Please fill in the month it was started here:** _____

63. Does this team employ **mid-level practitioners** (e.g., NP, PA)?

- ₁ Yes
- ₂ No. **If No, go to #65**

64. What are the degree pathways of these mid-level practitioners? (*Select all that apply and indicate the number of practitioners on the team with each degree*)

- ₁ Nurse Practitioner, NP/APRN/DNP (N = _____)
- ₂ Physician Assistant, PA (N = _____)
- ₃ Other _____ (N = _____)

65. Do **surgical trainees** *typically* rotate on this team?

- ₁ Yes
- ₂ No. **If No, go to Page 16**

66. What are the **post-graduate training levels** of these surgical trainees? (*Select all that apply and indicate the number of trainees on the team for each post-graduate level*)

- ₁ PGY-1, intern (N = _____)
- ₂ PGY-2, junior resident (N = _____)
- ₃ PGY-3, mid-level resident (N = _____)
- ₄ PGY-4, senior resident (N = _____)
- ₅ PGY-5, chief resident (N = _____)
- ₆ PGY-6 or higher, fellow (N = _____)

Thank you for completing the survey. Please return it in the postage-paid envelope.

We are grateful for your time and thoughtful responses.

67. Do you wish to receive a summary of the survey results?

₁ Yes **If Yes, Please fill in your email here:** _____

₂ No

68. If you have any other comments regarding our survey content or about emergency surgery coverage in general, please use the space below to share them with us.

Contact us at egs-survey@umassmed.edu
