**Appendix B. Complete Survey, post- implementation, 2014**

1. Cognitive aids can be crated effectively for many specific events in the practice of anesthesia:

☐ Strongly disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

1. Well-trained anesthesiologists SHOULD be able to treat ANY EMERGENCY situation WITHOUT needing a cognitive aid:

☐ Strongly disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

1. You hear that your resident colleague is actively treating REFRACTORY hypoxemia and referring to a cognitive aid. Would you characterize this as:

☐ Using an unnecessary cheat sheet

☐ Helpful for first year residents only

☐ Reasonable for all residents, but they should not need it beyond the end of their training

☐ Given the hypoxemia did not resolve as expected after initial treatments a cognitive aid is a good tool for an anesthesiologist to consult

1. Your patient is moderately stabilized by pressors and fluid from an unexplained hypotensive event but CONTINUES TO REQUIRE SIGNIFICANTLY MORE PRESSORS THAN USUAL despite your best efforts for 10 minutes. Would you consider consulting a cognitive aid to check if you may have missed a cause of the problem?

☐ No, I would not miss any cause or treatment of hypotension

☐ Yes, given the patient has no clear cause and is not responding to all of my usual treatments

1. You respond to an OR ‘code’ for Malignant Hyperthermia. Assuming sufficient people, would it be helpful to have someone read aloud a cognitive aid for the treatment of Malignant Hyperthermia while the event leader delegates actions and organizes team?

☐ No

☐ Yes

1. If I had a patient with suspected local anesthetic toxicity, I would use a cognitive aid DURING the acute event (if readily available) to help ensure appropriate and efficient treatment of this event

☐ Strongly disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

1. Is having a physical copy of the Emergency Manual (set of bound, laminated cognitive aids for critical events) in each OR helpful to YOU? Please mark ALL THAT APPLY (you may choose more than one)

☐ No, I didn’t know we had an Emergency Manual in each OR

☐ No, I know about but never touch the Emergency Manual

☐ Yes, for reviewing during ‘downtime” before an event occurs

☐ Yes, for reference during some part of a critical event (e.g., slowly evolving, patient refractory to treatment, or rarely used medication dosage information)

☐ Yes, during an event, once there are enough people that someone could be READING it

1. Is having an Emergency Manual in each OR helpful for teaching MEDICAL STUDENTS on an anesthesia rotation? Please mark ALL THAT APPLY (you may choose more than one)

☐ No

☐ Yes, for reviewing during ‘downtime’ before an event occurs

☐ Yes, for reference during some part of a critical event (e.g., slowly evolving, patient refractory or treatment, or rarely used medication dosage information)

☐ Yes, during an event, once there are enough people that someone could be READING IT OUT LOUD for the team

☐ Yes, for reviewing or debriefing after a critical event is resolved

1. Having Emergency Manuals in our operating rooms improves patient care

☐ Strongly disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

1. Which of the following anesthesia professionals SHOULD use cognitive aids in some way? Please mark ALL THAT APPLY (you may choose more than one)

☐ Medical students

☐ CA1s

☐ CA2s

☐ CA3s

☐ Fellows

☐ Faculty

☐ Private Practice Anesthesiologists

☐ CRNAs

1. The culture in the ORs where I work supports consulting a cognitive aid when appropriate

☐ Strongly disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

1. The following training has positively influenced my Emergency Manual usage

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Strongly Disagree | Disagree | Neither agree nor disagree | Agree | Strongly Agree | N/A |
| Simulation (e.g., ACRM, EVOLVE) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| START | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Imprint | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Grand Rounds | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Publications | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Emails or Newsletters | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Self review | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Stories of effective use by colleagues | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| My own prior uses for patient care | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Intraoperative teaching by faculty | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

1. For each reason below, choose the level of barrier to effective Emergency Manual implementation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Not a barrier | Somewhat of a barrier | Moderate barrier | Significant barrier |
| Lack of sufficient training programs to practice use | ☐ | ☐ | ☐ | ☐ |
| Events in the operating room happen too quickly | ☐ | ☐ | ☐ | ☐ |
| Insufficient people available to help (e.g., nobody available as reader) | ☐ | ☐ | ☐ | ☐ |
| I don’t think to consult an emergency manual under stress | ☐ | ☐ | ☐ | ☐ |
| Professionals should know all this by memory | ☐ | ☐ | ☐ | ☐ |
| My colleagues may not approve | ☐ | ☐ | ☐ | ☐ |

1. In what ways have you USED the Emergency Manual? Please mark ALL THAT APPLY (you may choose more than one)

☐ During a simulated intraoperative event

☐ Self Review or Teaching (i.e. not for management of a specific patient)

☐ BEFORE a potential event (e.g., self or team ‘Just in Time’ review for patient/case with higher risk for a critical event, e.g., difficult airway, hemorrhage, SVT, etc)

☐ DURING a critical event (as member of team or helper responding)

☐ AFTER a critical event (e.g., during a team debrief)

☐ I have never opened the Emergency Manual

1. Please select the number of times you’ve used the Emergency Manual DURING an acute intraoperative event since its implementation in 2012

☐ None (if none, skip to Question 22)

☐ 1 time

☐ 2 times

☐ >2 times

1. Please select all of the intraoperative critical event types for which you or your team have used the Emergency Manual

☐ Cardiac arrest – PEA/Asystole

☐ Cardiac arrest – VF/Pulseless VT

☐ Unstable Bradycardia

☐ Unstable SVT

☐ Amniotic fluid embolism

☐ Anaphylaxis

☐ Bronchospasm

☐ Delayed emergence

☐ Difficult airway

☐ Hemorrhage Massive/MTG

☐ Hypotension - Refractory

☐ Hypoxemia Refractory

☐ Local Anesthetic Toxicity

☐ Malignant Hyperthermia

☐ Myocardial Ischemia

☐ Oxygen pipeline failure

☐ Pneumothorax

☐ Power failure

☐ SVT Stable Tachycardia

☐ Total Spinal Anesthesia

☐ Transfusion Reaction

☐ Venous Air Embolism

1. Please describe HOW the Emergency Manual was used DURING THE MOST RECENT EVENT. Please do not include any patient identifying information

Free text:

1. For the SAME EVENT, please describe any facilitators, barrier, or limitations to effective use of the Emergency Manual

Free text:

1. For the SAME EVENT, please note any impact (good or bad) the Emergency Manual had on the patient’s care

Free text:

1. During this SAME EVENT, the Emergency Manual helped the team deliver better care to the patient

☐ Strongly disagree

☐ Disagree

☐ Neither agree nor disagree

☐ Agree

☐ Strongly agree

1. If you would be willing to be briefly interviewed abaout your emergency manual use, please include your email.

Free text:

22. Please select how frequently you open the Emergency Manual for each type of use (on average)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Never | Daily | Weekly | Monthly | Yearly |
| Phone number lookup | ☐ | ☐ | ☐ | ☐ | ☐ |
| Self review | ☐ | ☐ | ☐ | ☐ | ☐ |
| Intraoperative teaching | ☐ | ☐ | ☐ | ☐ | ☐ |
| Review ‘Just in Time’ BEFORE a patient/case higher risk for an event | ☐ | ☐ | ☐ | ☐ | ☐ |
| Guidance DURING an intraoperative event | ☐ | ☐ | ☐ | ☐ | ☐ |
| Review AFTER a critical event | ☐ | ☐ | ☐ | ☐ | ☐ |

1. Please select your year in training

☐ Intern

☐ CA1

☐ CA2

☐ CA3

☐ Fellowship

1. Please select your gender

☐ Male

☐ Female