

PediCrisis Critical Events Checklists

Implementation and Training Guide



- Training
 - EMIC (Emergency Manual Implementation Collaborative)
 - A and A (*Anesthesia & Analgesia*)

TRAINING

1) EMIC

2) A&A Article

Training: Emergency Manual Implementation Collaborative

- <http://www.emergencymanuals.org>
- <https://www.implementingemergencychecklists.org/>

Training Step #1

How to find the correct checklist:

First, familiarize the clinician with the table of contents, so the right checklist can be reached quickly.

TIP: The SPA PediCrisis checklists each have the title of the most commonly used name for each event and are then organized alphabetically

Training Step #2

Explain how to find information on the checklist:

Second, teach clinicians about how the individual checklists are designed, in terms of layout, structure, and formatting, as well as design elements that help with finding the correct information.

Hypotension

Sustained low blood pressure with patient at risk for end-organ hypoperfusion, typically > 20% below baseline

- Ensure oxygenation/ ventilation
- Turn anesthetic agents down or off
- Check cuff size and transducer position
- Consider placing arterial line if not already present
- Give appropriate treatment (see table below)

Age	< 5 th % Systolic BP (mmHg)*
Preemie	47 - 57
0 - 3 mo	62 - 69
3 mo - 1 yr	65 - 68
1 - 3 yr	68 - 74
4 - 12 yr	70 - 85
> 12 yr	85 - 92

* Numbers are only a guide and vary for individual patients and situations

	↓ Preload	↓ Contractility	↓ Afterload
Causes	<ul style="list-style-type: none"> • Hypovolemia • Vasodilation • Impaired venous return • Tamponade • Pulmonary embolism 	<ul style="list-style-type: none"> • Negative inotropic drugs (anesthetic agents) • Arrhythmias • Hypoxemia • Heart failure (ischemia) 	<ul style="list-style-type: none"> • Drug-induced vasodilation • Sepsis • Anaphylaxis • Endocrine crisis
Treatment	<ul style="list-style-type: none"> • Expand circulating blood volume (administer fluids rapidly) • Trendelenberg position • Place or replace IV; consider intraosseous line 	<ul style="list-style-type: none"> • Start inotrope infusion (DOPamine, epinephrine, milrinone), as needed • Review ECG for rhythm disturbances or ischemia • Send ABG, Hgb, electrolytes 	<ul style="list-style-type: none"> • Start vasopressor infusion: phenylephrine, norepinephrine • Go to 'Anaphylaxis' card, if appropriate. • Administer steroids for endocrine crisis

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Hypotension

TIP: In the SPA PediCrisis checklists, items are presented in a linear order, starting with the first item to be done. Tables are used to show when situational actions should be taken (e.g., on the hypotension card, certain actions should be taken based on if the situation is decreasing preload, decreasing contractility, or decreasing afterload). A separate box to the side gives extra information such as blood pressures for each age group

Training Step #3

Explain how to use the checklist in a team:

It is important to decide, and train for who and how the team will be using the checklist at your institution. In some institutions, only the anesthesia team is involved, in others, nursing and/or surgery clinicians will help when the checklist is used.

TIP: Decide at your institution how the checklist will be read. Options include:

- Read and verify by the same person
- Conduct in a challenge.–response format, in which one person reads each item and another person responds with the answers/completes the specified actions.

Training Step #4

Review the individual items themselves:

Understanding both the goals of each individual checklist and the actions that are desired for each step is important.

TIP: Make sure that the terminology is understood – if it is common in your hospital to call a drug by its brand name, but only the generic name is listed on the checklist, it is important to review this, or even list both names on the checklist when possible

Training Step #5

Expose users to scenarios . . . options, which can all be effective, are:

LOW fidelity - Clinicians sitting around a table, reading the scenario, then having the participants verbalize the steps outloud, with the preceptor asking 'what if . . .'

MEDIUM fidelity – Using an actual clinical environment such as the OR or PACU, with a 'doll' or non-functional mannequin as the patient

HIGH fidelity – Fully functional mannequin with vital signs, breath sounds, ability to ventilate, etc.

TIP: Critical event cognitive aids could be added into existing training sessions, such as fire safety or malignant hyperthermia drills, or new sessions could be created

Training Step #6

Frequent review with simulation and as part of intraoperative teaching:

Send a set of relevant scenarios out to the faculty that are drawn from institutional and national databases – these can be reviewed by interested faculty as part of the intraoperative teaching they are already doing.

TIP: Mention and review the use of the checklists at departmental morbidity and mortality conferences when a relevant case is discussed.

TIP: Debrief perioperative crises using the checklists as a guide

HOW TO ADD AN ELECTRONIC VERSION AT YOUR INSTITUTION

DESKTOP/EMR

1) Google Drive

2) EPIC

PediCrisis App

- <https://itunes.apple.com/us/app/pediatric-critical-events/id709721914?mt=8>



Google Drive (1/3)

What is it?: A way to make the checklists easily accessible from your institution's clinical desktop.

How to setup:

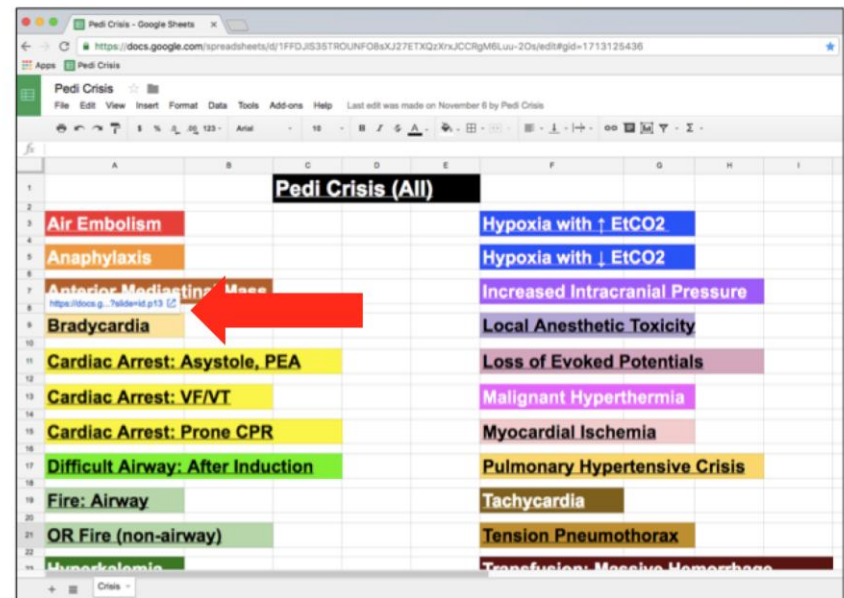
- Open the following link using your preferred browser

<https://drive.google.com/open?id=1FFDJIS35TOUNFO8sXJ27ETXQzXrxJCCRgM6Luu-2Os>

- Bookmark the page or set it as a homepage (for further instructions on how to do this, see “Google Drive 3/3”)

How to look up the checklists:

- Open the above “Pedi Crisis” link or bookmark on your desktop.
- Hover (don't click) the event that you would like to look up. The link address will appear (red arrow).
- Click on the link to open the event page.



Google Drive (2/3)

Useful Hints

- “Pedi Crisis” on desktop is cloud-based (google drive) thus updated automatically.
- “Google Chrome” may be the most compatible browser.
- The link does work on mobile devices both iOS and Android.
- To download the “Pedi Crisis” slides in power point format, open the following link:
<https://drive.google.com/drive/folders/0B8XMTGduT0kaMjFpMUpZN2ZoNlk?usp=sharing>

double click “CriticalEventsChecklists.pptx” to open the file and then click on the icon on the top right of the page to download the file.

Google Drive (3/3)

Instructions on how to create a bookmark and set up a homepage:

Google chrome

- <https://support.google.com/chrome/answer/95739?co=GENIE.Platform%3DDesktop&hl=en>
- <https://support.google.com/chrome/answer/95314?hl=en>

Safari

- https://support.apple.com/kb/PH21465?locale=en_US
- https://support.apple.com/kb/PH21487?viewlocale=en_US&locale=en_US

Internet Explorer

- <https://www.winhelp.us/internet-explorer-11-favorites.html>
- <https://support.microsoft.com/en-us/help/17426/windows-internet-explorer-11-change-home-page>

Firefox

- <https://support.mozilla.org/en-US/kb/create-bookmarks-save-your-favorite-webpages>
- <https://support.mozilla.org/en-US/kb/how-to-set-the-home-page>

EPIC (1/4)

How to put the PediCrisis Website on the EPIC Menu – Needs to be done by your local EPIC developer team

1. Build out the Activity that will launch the website- with the correct control progID and Control parameters to launch

Activity: FV AN ADULT EMERGENCY MANUAL

General Information

Activity descriptor: FV AN ADULT EMERGENCY MANUAL Trademark:
Caption: Act. tabs group:
Display caption: Min width:
Tooltip: Min height:
Display tooltip: Activity icon:
Description:
Kind of activity: Normal Form style:
Style: Supports read-only:
F1 help module: Supports roaming:

ProgID Setup

Control progID: EDNavigator82.EDBrowser
Control init parameters: http://web.stanford.edu/dept/anesthesia/em/semv3.1*
Control license:
Redirector progID:

EPIC (2/4)

2. After the Activity is built, you need to build 2 Items - one for each of the activities

```
Menu Name: FV AN ADULT EMERGENCY MANUAL
-----
Menu Information
Caption: Adult Emergency Manual
Display Caption: Adult Emergency Manual
Toolbar Tooltip:
Display Toolbar Tooltip:
Image: CLINICAL_REFERENCES
Toggle group:
Style:
Context:
Act. Tabs Header Visibility:
-----
Item Information
Shortcut key:
Activity descriptor: FV AN ADULT EMERGENCY MANUAL
Run parameters:
```

EPIC (3/4)

3. Place the activities into the items just built.
4. Build a new SUB- Menu and place the 2 new items into the Sub Menu.

Menu Name: FV AN EMERGENCY MANUALS

Menu Information

Items

Prevent Removal Ad

1. FV AN ADULT EMERGENCY MANUAL
2. FV AN PEDIATRIC EMERGENCY MANUAL

EPIC (4/4)

5 Determine which Toolbar you want this to show on- in this build it is the EDUSERTOOLBAR. Add the Menu to Extend (EDUSERTOOLBAR) to the Menu on the User Roles.

New/Open Role | Delete Current Role | Accept Current Role | Cancel Current Role

Roles

MODEL OR PROJEC...

Other Settings

Descriptor: MODEL OR PROJECT TEAM

Timeout Minutes: 60

Action: SECURE

Home Workspace: OR_HOME

Activities:

- 1 MODEL_OR_SB
- 2 ES_SNAPBOARD_MAIN
- 3 WM_DASHBOARD_HOME
- 4 OR_SCHED
- 5 AR_RECORD_VIEWER
- 6

Menu Information

Menu To Extend	Menu Descriptor	Override?
23 OR_MT_REP_LOGEXPAND_TLBR	ANE_AN_IT_ANESTHESIA_FACESHEET	No
24 OR_MT_REP_LOGEXPAND_TLBR	ANE_AN_IT_BILLING_AND_COMPLIANCE_REPORT	No
25 EDUSERTOOLBAR	AN_IT_FOLLOWUP_ROUNDING_RW_ONLY_LAUNCH	No
26 AN_MT_INTRAOP_TOOLKIT	ANE_MT_INTRAOP_TOOLKIT	Yes
27 HELP	AC_MNU_SUPPORT_MENU	No
28 OR_MT_GREASEBOARD_TLBR	OR_MT_GREASEBOARD_CUST_TLBR	Yes
29 OR_MT_CASETOLBAR	OR_MT_CASETOLBAR_PROJECTTEAM	Yes
30 ES_MT_SCHED	ES_SM_TEMPLATES	No
31 EDUSERTOOLBAR	OR_IT_SNAPBOARD	No
32 EDUSERTOOLBAR	FV AN EMERGENCY MANUALS	No
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6. Add the new SubMenu to the menu descriptor and say No to Override.
TIP: Do this EPIC build for both nursing and anesthesia so that nursing has the ability to put the Checklist up on the flightboard during a crisis.