

## **Code Team Information for Internal Medicine Residents and Interns**

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*From the VA CPR Committee*

### **Brief overview**

Medicine residents are in charge of running the ACLS aspects of a cardiac arrest calls. As the team leader, the RESIDENT should be aware of the other team members and what they should be doing. Some practitioners fulfill their roles rather effortlessly, while some need nudging and guidance. One thing is clear: in a cardiac arrest, there is always something for each designated team member to do, so if there are actual team members NOT doing something, you will probably have to provide some polite direction.

**The following are members of the code team who carry pagers.  
The role of each provider is discussed.**

**Floor Nurses, LVNs, etc:** Perform chest compressions prior to code team arrival; call for help. When additional help becomes available, get the crash cart into the room and perform bag mask ventilation at a 30 compression: 2 shallow breath ratio. Do your best to keep these nurses in the room; they typically possess knowledge about the patient that others may lack.

**Medical Interns. Two interns carry pagers:** Code pagers are carried by (1) one of the on-call interns and (2) one of the ICU interns. Interns need to get the backboard attached to the back of the code cart and perform CPR. They should give each other breaks without interruptions in chest compressions and should NOT BE DOING ANYTHING ELSE BESIDES PERFORMING CPR. Non-code team interns who may also be present are "extras." The **medical resident** leader should decide what to do with the extra interns. They are likely most effective doing one of the following:

- locating and keeping hand on pulse
- assist leader by looking at cognitive aids and other materials
- joining the CPR effort

**ICU Nurses:** Confirm proper attachment of LP-20 (defib./pacer) to patient.

Charge, shock and pace as directed.

Assess patency of IV and establish port for drug infusion.

Hang one-liter of crystalloid solution for drugs and fluid resuscitation.

Recruit floor RN to spike bags, flush lines, etc.

Push drugs when needed and requested.

Double-check labeling and dose of drug.

Announce any drug and dose given.

**Pharmacist.** Draw up drugs appropriate for the situation at hand.

Label all syringes clearly.

Do not wait to be asked to prepare epinephrine or vasopressin for injection if CPR is in progress.

**Medical Resident on Call (carrying code pager).**

Observe team and provide guidance

Make brief survey of teams in operation; redirect personnel as needed.

Ask for help when other personnel for diagnostic or procedural help are needed.

**Anesthesia, RT.** Airway team. Perform mask ventilation, airway insertion, intubation as needed. Remember, the team leader needs to request the patient to be intubated. Unless the situation is really clear-cut, most anesthesiologists will not walk into a room and just intubate a patient. Be prepared to discuss airway management with the anesthesiologist and arrive at a decision on how to manage the airway. Anesthesiologists can also provide valuable input on line placement, drug selection, preparation, and dosing.

**ICU fellow and attending**

These people are instructed to run the code if it is not being run properly by the Medical Resident. Ideally, the medical resident will be doing a fabulous job running the ACLS algorithms and the fellow can work on understanding why the arrest occurred and what type of underlying conditions need to be addressed if the patient regains a spontaneous circulation. The Fellow or attending should also be communicating needs with the ICU and planning the next stages of resuscitation (cooling, cath lab, surgery, endoscopy,, etc), and coordinating procedures with other services. The attending should be able to fill in any unmet need per the fellow or medicine resident's request. The ICU fellows and or attending should conduct debriefings where appropriate. With the fellows being more and more skilled with TTE, performance of intermittent echo exams is an evolving role of the fellow. One can envision that an echocardiographic exam of the heart can augment resuscitation by more rapidly differentiating causes of PEA arrest, and may also help define clearer end points for cessation of efforts.

**General comments on leadership and event management.**

*Teamwork*

Good role recognition, communication and focus are crucial to success in any resuscitation. The code team meets briefly each day at 0755 and 2205 outside the ICU conference room for members to meet, establish roles and identify the leader. A poster on the wall outside the conference room contains some of this information as well as a general content of the daily meeting. If you are carrying a pager, it is important that you attend this meeting. All points should be covered in five minutes.

### *Leadership*

No one should attempt to be running the code and performing a procedure at the same time. Fellows can help with procedures as long as the resident is doing a good job running the code.

### *Allocation of attention*

Often, the residents running the code become preoccupied with obtaining lab studies, ECGs, etc. on patients that are coding—often at the expense of proper adherence and performance of ACLS algorithms. Running the code is enough work for one person, and if a patient's condition has degenerated to the point of experiencing a cardiac arrest, you need to make sure you are first adhering to the proper algorithm. We have added a fellow and attending to the arrest team to help with diagnostics and procedures. Other residents can help with diagnosis as well.

### *Cognitive aids*

Your active brain power and memory under stress is markedly diminished, yet you are required to run precise algorithms efficiently and correctly. We have prepared a set of user-friendly code cards to provide the correct information to you for these exact situations. Your first step is to decide whether you are dealing with a shockable (VT/VF) vs. non-shockable (PEA / Asystole/ Bradycardia) scenario and refer to the protocol for the problem on hand. You should actually hand the card to someone else and ask him or her to make sure you are following the algorithm correctly—that way your eyes are still on the patient/ team/ monitor.

### *Random reminders*

- Some confuse VT/ VF with PEA. Yes, they are often pulseless conditions that have corresponding electrical activity, but you need to recognize immediately that these are shockable rhythms and not PEA.
- Fine VF can look like asystole. Check another lead with very minimal interruption in CPR
- Effective capture during pacing may still leave the patient pulseless. In these cases, make sure you are running the PEA algorithm.

### *Crowd control*

Most of the people in the room are not actual team members. Try to figure out (early on) just who is on the team and who is not. Make sure the primary physician and nurse have been contacted. If you don't like crowded codes, don't go to any when you are not carrying the pager *unless it is YOUR patient that is coding!!*

Our model for CPR administration has two layers; one is Basic Life Support (BLS) administered by floor nurses or any other first responder, and the second is a more advanced life support system (ACLS) that is constructed by the code team when it arrives. The first layer is BLS—immediately starting good CPR, getting the crash cart plugged in, pads on, call for help, and bag-mask ventilation. This is something we can train the floor nurses to do, and do well.

The second layer is ACLS. The arriving code team takes over CPR and ventilation from the first providers, attaches the defib/ pacer unit, and establishes IV access. The backboard, defib pads, crash cart, etc. may already be in place, but the arriving team need to double check on all of this. The team members and roles are described above.

**Additional information:**

- Crash carts and defibrillator units are available for inspection, play, and orientation. The “demo cart” is in the IICU conference room annex.
- Posters describing relevant characteristics and operation of the Lifepack-20 (the pacer/ defib unit) are in every team room. You need to read and understand the content of these posters.
- The simulation center has in the past provided code team training each month, and an unannounced mock code each month. There was a break in these activities in the past year due to staffing problems, but as of 10/2011 the training should be back in place. Please take these training opportunities as seriously as possible and make it a point to attend. Residents and interns carrying the code pagers are the only ones required to attend the mock codes.
- Code team pagers also carry eTeam signals and alerts (for reasons related to pager availability and servicing). The Medicine Night Float is the only eTeam responder. If the eTeam has been called for a patient on your list, a member of your team will also be called. For reasons of avoiding unnecessary crowds, please do NOT respond to eTeam calls unless the patient is on your service.
- Your ACLS course materials include cards for the different arrest scenarios. We will shortly begin production of a more concise and coherent presentation of the ACLS scenarios and will distribute these to residents. You are required to USE some form of ACLS card at EVERY cardiac arrest emergency at the VA.

Please ask your chief residents for further training if you do not feel comfortable with any aspect of your assigned duties.\_\_\_\_\_