

Code Blue Procedures



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Objectives

- ◆ To acquaint the pharmacist with the activities of a code blue emergency
- ◆ To identify the procedures followed during a code blue emergency by the pharmacist
- ◆ To elucidate the appropriate conduct to follow during a code blue emergency by the pharmacist

Why Pharmacist Participation

- ◆ Use of medications is an inherent part of most code blue emergencies
- ◆ Preparation of intravenous medications comes under the purview of pharmacists
- ◆ It is a dynamic and interactive process of pharmaceutical care

Crash Cart Locations

- ◆ Determine location of crash cart on any unit(s) covering
- ◆ Replacement medication trays are kept in the central pharmacy manufacturing area
 - Replaced to ICU Pyxis machines
 - Replaced to CPD post-code when cart is cleaned and medications and instruments replaced

HUH/HWH Crash Cart Components

Drawer 1:
Medications

Drawer 3:
Syringes
Needles

Drawer 5:
IV Fluids
Angiocaths

Drawer 6:
Gloves
Face masks



RIM Crash Cart Components

Drawer 3:
IV Fluids

Drawer 5:
Gloves
Syringes
Needles



Drawer 4:
Medications

Drawer 6
Gloves
Stethoscope

Attending a Code Blue

- ◆ Notification
 - Overhead PA system
 - Code blue pager
- ◆ Reach site of code
 - Take stairs when possible
 - Enter room/area and identify yourself to staff already in attendance

Pharmacist Procedures

- ◆ If the medication tray is still in the cart, remove it at an opportune time when the other drawers are not in use
- ◆ If medication tray is already being attended by a physician or nurse, offer to work with them or to handle the medications

Remove the Medication Tray



HUH/HWH Crash Cart

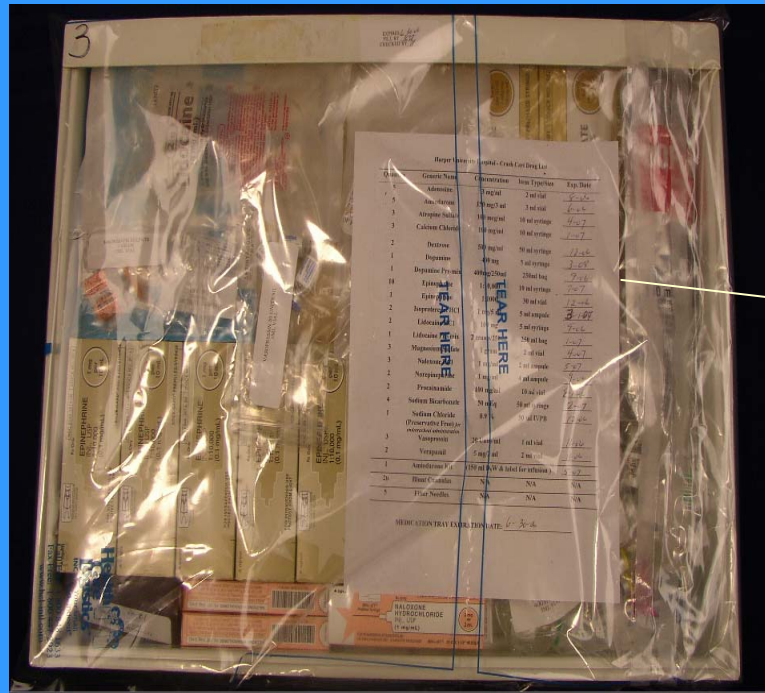
RIM Crash Cart



Place Tray on Solid Surface



Medication Tray



Remove the plastic from the tray

Pharmacist Procedures

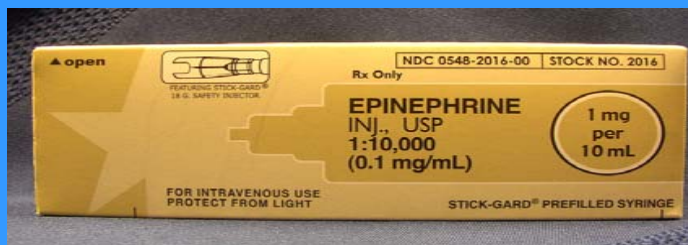
- ◆ Identify the physician calling the code
- ◆ Identify the nurse recording the events
- ◆ Stand by the medication tray in sight of the physician running the code
- ◆ If possible, be in view of the ECG monitor

Pharmacist Procedures

- ◆ Identify yourself to the recording nurse
- ◆ If events allow, identify yourself to the physician calling the code
- ◆ Locate the nurse or physician administering the medications

Syringe Preparation

- ◆ At the start of the code open and assemble an epinephrine and an atropine syringe



- ◆ Replace each assembled syringe in its box to make quick identification easier
- ◆ Draw up 2-3 syringes with 20ml NS for flushing between doses of medications

To Assemble a Syringe

Open the syringe box
from the side indicated



To Assemble a Syringe

So that the two parts
fall out into your hand,
then



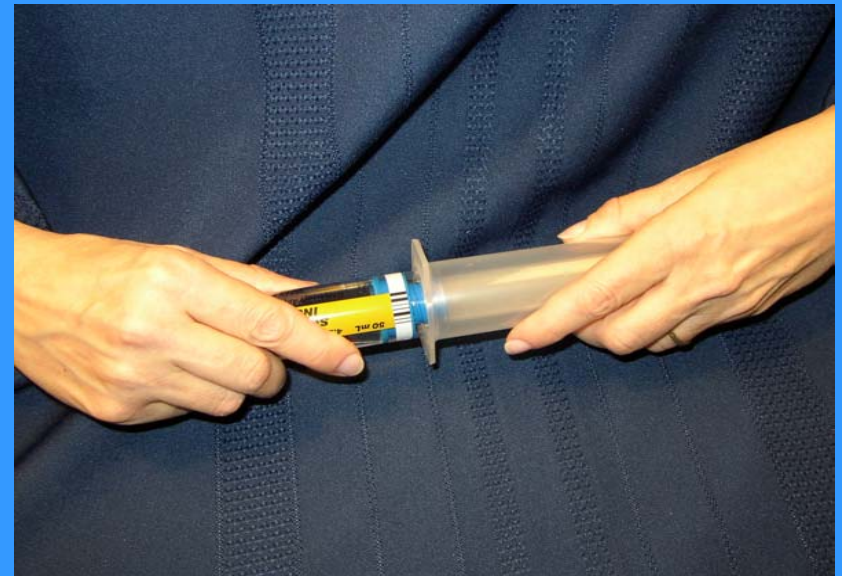
To Assemble a Syringe

Flip off the plastic end-caps and



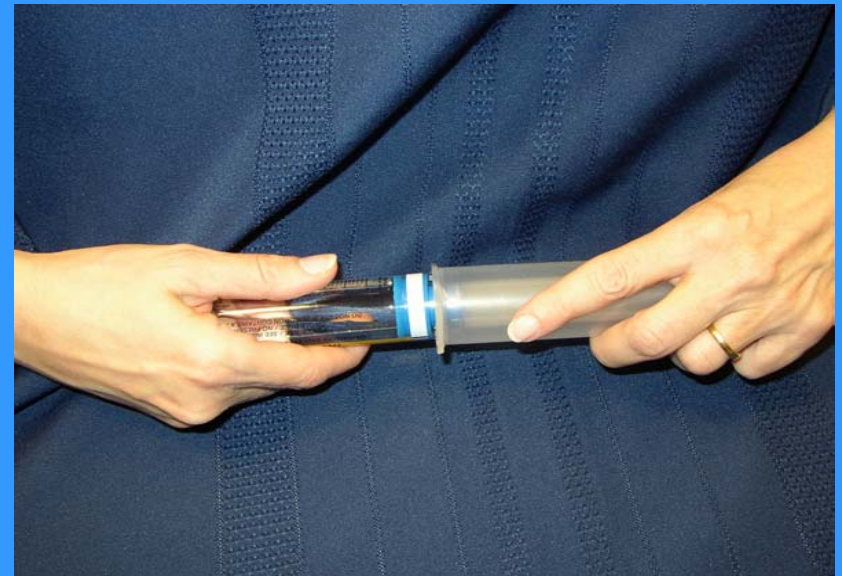
To Assemble a Syringe

Attach the medication half to the plunger half with a push



To Assemble a Syringe

And a twist until
resistance is met



Pharmacist Procedures

- ◆ Obtain IV solutions, syringes, and needles from the cart as necessary for requested medications
- ◆ Determine if IV medications will be administered by needle or blunt tip system; may need to exchange needles on syringes
- ◆ Stay focused on physician calling the code

Dispensing Medications

- ◆ Select correct medication requested by the physician calling the code
- ◆ Assemble the syringe (if not done in earlier step) or draw up medication requested; change to blunt tip system if required
- ◆ Step to bedside and loudly read name of medication and dose from syringe or vial as you hand it to the administering MD or RN

Dispensing Medications

- ◆ Reading name of dose of medication from syringe or vial
 - Ensures that the correct medication is being dispensed
 - Is a double check that the correct medication is handed to the administering physician or nurse

Dispensing Medications

- ◆ Return to stand by the medication tray
- ◆ Check with recording nurse that the correct time and medication were recorded
 - Try and use overhead clock in room to write administration times so everyone can follow the medication timing
- ◆ Draw up another syringe/vial/ampule of medication just used

Dispensing Medications

◆ Helpful hints

- Back of the medication list found in the medication tray contains dosing basics
- Keep track of empty boxes/vials/ampules as physician calling the code often asks how much of various medications were already used
 - Line up empty containers next to the medication tray as used
 - Keep track of timing between doses of epinephrine
 - The recording nurse can corroborate counts and timing

Dispensing Medications

- ◆ More helpful hints
 - Wearing gloves is not mandatory
 - Be aware that other code blue attendees may encounter blood then hand you a syringe to dispose of in the needle box,
 - Therefore, know where to find gloves and try to keep some nearby in case they are needed

Preparing Medications

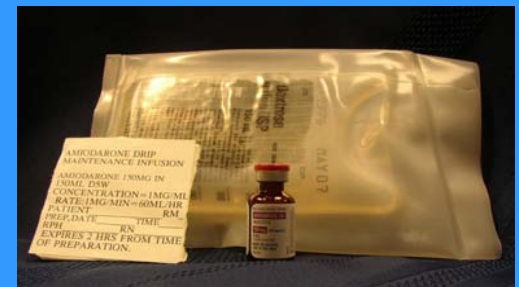
◆ Helpful hints

- If possible, check patient's chart for allergies, age, height, and weight
- Correct patient demographics make for more accurate calculation of doses or infusion rates if needed

Preparing Medications

Amiodarone

- ◆ Initial dose: 300 mg IVP qs to 20 ml with NS or D₅W; may repeat with 150 mg qs to 20 ml prn
 - Infuse each dose over 10 minutes
- ◆ Infusion dose: 150 mg in 150 ml D₅W; stable for 2 hours only
 - Infuse at 1 mg/minute = 60 ml/hour
- ◆ Kit with drug, label, and IV fluid in medication tray



Preparing Medications

Norepinephrine

- ◆ Dilute 4 mg in 250 ml D₅W or D₅NS (16 mcg/min)
- ◆ Avoid dilution with plain NS
- ◆ Infuse at 0.5-1 mcg/min and titrate up to 30 mcg/min to improve blood pressure
- ◆ Avoid giving in same line as alkaline solutions



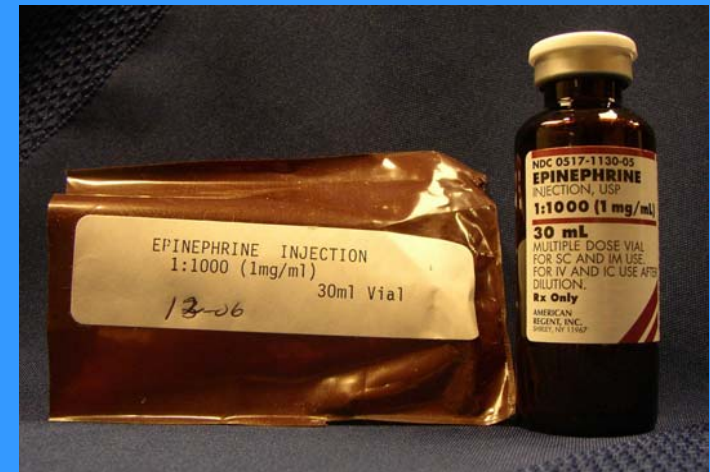
Preparing Medications Isoproterenol

- ◆ Dilute 1 mg in 250 ml D₅W, LR, or NS (4 mcg/ml)
- ◆ Infuse at 2-10 mcg/min titrated to an adequate heart rate



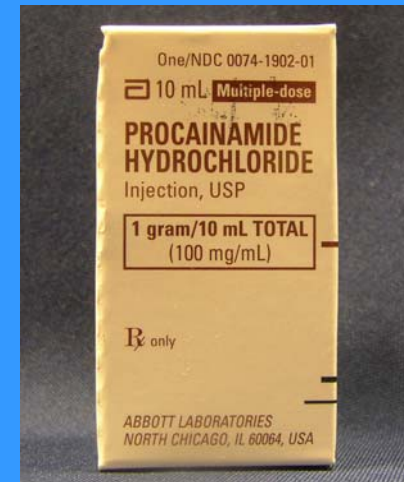
Preparing Medications Epinephrine

- ◆ For cardiac arrest, dilute 30 mg epinephrine (30 ml of 1:1000 solution) in 250 ml NS or D₅W to infuse at 100 ml/hr and titrate to response
- ◆ For bradycardia, dilute 1 mg of 1:1000 epinephrine in 500 ml NS and infuse at 1-5 ml/min (2-10 mcg/min)



Preparing Medications Procainamide

- ◆ Dilute 1 grams in 250 ml D₅W or NS (4 mg/ml)
- ◆ Maximum concentration 20 mg/ml
- ◆ Recurrent VF/VT: 20 mg/min up to 50 mg/min with maximum dose of 17 mg/kg
- ◆ Maintenance: 1-4 mg/min



Professional Conduct

- ◆ Always remain focused on the physician calling the code
- ◆ Watch and be aware of events going on around you
- ◆ Never leave a code that is underway without arranging for someone to handle medications and, if possible, letting the physician calling the code know

Professional Conduct

- ◆ Sometimes additional medications are needed; options to obtain them include:
 - Calling from room to have tubed or delivered to nursing unit, i.e., phenytoin IVPB; send RN, MD, or other pharmacist to pick up from tube
 - Having RN, MD, or other pharmacist go to front desk and call pharmacy
 - Having RN or other pharmacist obtain medication from Pyxis, i.e., flumazenil

Professional Conduct

◆ End of Code

- Always ask permission to leave even though the code has ended as further drips and their calculated rates may be needed
- Clean up your area and dispose of syringes and waste paper in the appropriate containers

Conclusion

- ◆ Always remain calm and in control
- ◆ Note that each code you attend will be a different scenario; be alert and pay attention
- ◆ Remember that participation in code blue emergencies becomes easier with each time you do it