



Crash Cart Readiness Guide



1. Metro knows healthcare carts.

Since the company's founding in 1929, Metro has drawn its innovation from a deep understanding of customer needs to drive innovation into new products and solutions. Today Metro is the recognized global leader of storage and transport solutions and our mission continues, to make the world more organized and efficient. Our design teams are driven to develop innovative solutions that make our customers more efficient in their every day processes. Metro's line of crash carts are one example of this determination.

By definition, a crash cart is a mobile cart stocked with emergency supplies, equipment and medications that are used in life support protocols. These carts are built to move with ease, but big enough to hold essential supplies. Here we will walk you through what you need to know about crash carts and what you can do to improve the organization of the supplies in your crash carts.



2. Why a crash cart?

Any environment where a patient may experience a medical emergency needs to have the equipment for staff to deal with it efficiently. Having all of the supplies, equipment, and medications organized in one convenient location that can be quickly moved to a needed location is the reason that facilities invest in crash carts. Crash carts are designed to support treatment the moment there is an emergency and need to be able to get to patients quickly. The inventory list needed in/on the cart itself differs based on the cart's placement within a facility, and the department it is utilized in, but the general crash cart contains the same necessary tools and supplies.

3. Who needs a crash cart?

Any department that handles patients who have the potential to have an unexpected decline in their health should have a crash cart. State regulatory agencies require these types of facilities to have a crash cart, but the number of carts a facility should have is not defined. Some careful consideration can help determine how many carts are needed in your facility.

- Accessibility to crash cart: How far/how long would it take to get a cart to the code?
- What procedures are being performed? What is the potential for deterioration?
- Patient acuity level: What is the likelihood more than one patient would need a crash cart at the same time?
- 911 response time: What needs to be done during this time period? What supplies might you need?

Some places where crash carts are required include hospitals, outpatient surgery centers, urgent care centers, and centers where conscious sedation is often performed on patients. Others include nursing homes that treat for cardiac arrest, and physician's offices that perform specific forms of stress testing. The particular specialty of the institution can significantly affect the number of carts they need. Essentially, a facility needs the number of carts necessary to meet potential patient care needs. For an office, that may be one, for a hospital that is a fleet.



4. Consequences of bad crash cart practices.

Crash carts need to be ready to take on an emergency. Is yours? If the answer is no, then you might have some work to do. If your crash cart isn't being utilized efficiently, there are a few underlying reasons as to why that is. The first is that the crash cart you invested in isn't a proper match for your facility. The second revolves around supply management. Having the right supplies on a crash cart is vital because caregivers often need them immediately for the patient to survive. In a 12-month data review of hospital data, the Pennsylvania Patient Safety Authority found 56 reports that showed emergency response calls where supplies or equipment were missing or expired. Of the 56 statements, 35 referenced issues with crash carts themselves and 21 referenced problems with unavailable supplies or other supply management issues.

5. Contributing factors to failure.

Contributing Factor	Implication	Feature	How it helps
Missing, expired, damaged, contaminated, and unavailable equipment, supplies or medications.	Not having the right medications and equipment available in these high stress situations can lead to adverse outcomes.	Customer implemented checklist.	Utilizing a checklist will make sure that all necessary medications are available in the critical moments when a crash cart is in use.
Drained batteries on equipment or equipment failure.	Not having fully charged equipment or a place to power them.	Metro cart equipped with power strip.	Our power strip consolidates equipment cords, to provide ample outlets and only 1 disconnect from wall, helping ensure equipment is charged and ready for an emergency situation.
Unsecured carts or carts that have been tampered with - Carts secured with heavy duty tape and/or padlocks, preventing immediate access.	Not having undeterred, immediate access to a crash cart impedes life saving actions in critical moments.	Metro cart designed with passive locking systems utilizing tamper-evident seal(s).	Our tamper evident seal both ensures that the contents of the cart have not been changed since they were filled, and also allow easy access to first responders.
Staff is unfamiliar with the procedures for using the crash cart when responding to a life-threatening emergency.	Being unfamiliar with what is contained within and how to use a crash cart is one large reason that crucial time is lost in a life saving emergency.	User guide and trainings.	Metro provides user guides and trainings on how to use a cart effectively, and knowing that will help make users more effective.
Response time – moments are critical during these events, the initial moments being the most critical to successfully stabilizing a patient.	Time wasted struggling with transporting the cart, or waiting to access a supply or medication is time that can be spent attending to the patient.	Metro Lifeline crash cart proprietary design features help reduce waste in delivery and access.	Metro's Lifeline crash cart designed with 5th wheel steering, helps quicken transport, simultaneous access points allow clinicians access to their contents sooner.

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Each of these issues has been proven to delay healthcare professionals, which creates an immediate patient safety risk. By ensuring the proper cart and supplies are available, facilities can better serve the community and have an easier time handling emergencies. By improving efficiency, facilities can offer better service, limit delays, and have an improvement in patient outcomes following a crisis.

6. Addressing issues can help mitigate risks.

Medical emergencies tend to create a sense of madness and confusion. These feelings may be increased and run rampant if the emergency equipment used to rescue the patient is not ready when it needs to be. This is where the crash cart comes in, it ensures that the needed supplies are prepared in these tense emergency situations. Here are some ways to make sure that your cart is ready.

Make a risk assessment: Identify the risk areas; drill down to find the issues and where they originated. Risk points can include:

- **Staff training:** Ensure that personnel have appropriate education and training in what needs to be in the cart and how to work it. Mock codes are a valuable exercise to assess training needs
- **Cart checks:** Identify who should check the crash cart and ensure that it is checked at the beginning of each shift daily and the proper equipment tests are conducted according to manufacturer instructions.
- **Location:** Knowing where carts are stored is extremely important. Having a designated area for each cart ensures that it can be found in a timely manner.
- **Contents:** Contents of a crash cart should be easy to spot and grab in an emergency situation. To do this, invest in an easy to understand labeling system. Having a system to easily find medication can improve the speed at which it is administered. It can also be helpful to include a cart graphic that shows exactly where everything in the cart is located.

Segregate and clearly label pediatric medications, having them separate makes them easier to identify and grab quickly, and help ensure children are not given the wrong form of medication. Consideration should also be given to having a completely separate cart for pediatrics, that can be organized by patient size.

7. Implementing an action plan.

Now that you know what needs to be done, how do you get started? First, strategize. Having a mapped out organization strategy will help make change easier, and is a great way to track your progress. After you have your plan finalized, and all of your stakeholders bought in, implement it, but be flexible to adapt to real life situations or other changes over time. This plan should include:

- Equipment, supply, and medication inventory management plans
- Training to ensure that staff remains proficient
- Emergency protocols and drills
- Outline of individual responsibilities





8. Crash cart contents check list:

Equipment

- Airway (oral and nasal) all sizes
- McGill forceps, large and small
- King Airway set (3) eliminates the need for laryngoscope and endotracheal tubes
- Bag valve mask (adult and pediatric)
- Nasal cannula
- Non-rebreather oxygen face masks (3 sizes)
- IV start packs
- Normal saline solution (1000 ml bags)
- IV tubing
- Angiocaths (various sizes)
- Normal saline flush syringes (3)
- Gauze
- Alcohol preps
- Monitor with defibrillator (preferred) or AED
- Syringe nasal adaptor (nasal NARCAN® atomizer)
- Personal protective equipment (Gloves, Masks, garment)

Drugs

- | | |
|---|--|
| <input type="checkbox"/> Aspirin 81 mg Tablets | <input type="checkbox"/> Solumedrol 125 mg vial |
| <input type="checkbox"/> Nitroglycerin spray or 0.4 mg tablets | <input type="checkbox"/> EpiPen® (2) |
| <input type="checkbox"/> Dextrose 50% (dextrose 25% if treating pediatrics) | <input type="checkbox"/> Benadryl 50 mg vial (2) |
| <input type="checkbox"/> Narcan 1 mg/ml (6) | <input type="checkbox"/> Lopressor 10 mg (2) |
| <input type="checkbox"/> Epinephrine 1:10,000 Abboject™ (3) | <input type="checkbox"/> Adenosine 6 mg (4) |
| <input type="checkbox"/> Atropine Sulfate 1 mg Abboject™ (3) | <input type="checkbox"/> Cardizem 20 mg vial (2) |
| <input type="checkbox"/> Amiodarone 150 mg Vial (4) | <input type="checkbox"/> Pronestyl (procainamide) 1 g in 10 ml |
| <input type="checkbox"/> EpiPen Jr® (2) | <input type="checkbox"/> 100 mg/ml Vial (1) |

Source

- <https://www.acls.net/acls-crash-cart.htm>



9. List of contents.

What is in a crash cart? Here is a basic breakdown of what a crash cart should have:

- Basic airway equipment including bag valve masks, oral and nasal airways, oxygen masks and nasal cannulas, and Magill forceps.
- Intravenous access equipment (or intraosseous) including angiocaths, IV tubing, and IV fluid. If the facility elects to utilize intraosseous access for emergency medications, then a drill and needles must be included.
- Medications utilized in the treatment of cardiac arrest, including epinephrine and amiodarone.
- Medications utilized to treat cardiac dysrhythmias including adenosine, Cardizem, a beta blocker (usually Lopressor®), and Atropine.
- Monitor equipment with a defibrillator or an AED.
- Medications to treat allergic reactions such as EpiPens®, Solu-medrol®, and Benadryl®.
- Aspirin.
- Nitroglycerin spray or tablets.

Additionally, carts being utilized for specialized areas may add or subtract from the basic list. Depending upon the specialty of the facility, the following may be added:

- Endotracheal intubation equipment if anesthesia personnel are present in the facility.
- King Airways – in facilities without anesthesia personnel or as a bailout airway for the patient with a difficult airway.
- Narcan – to reverse the effects of narcotics in facilities where narcotics or sedation is used.
- Additional antiarrhythmics – particularly in physician offices who do cardiac stress testing.

In conclusion...

Picking the right crash cart and organizing it properly can be tough. Don't try and tackle this challenge alone. Reach out to peers at other facilities or through your GPO to build your crash cart plan and then contact the experts at Metro to find out which cart is the best fit for your plan. The team at Metro also offers consultations in efficiency and supply management to ensure that your cart will be operating at maximum efficiency. To request further information, click the link below and fill out the form. A Metro representative will be happy to help.

[Request Information](#)

Sources

- https://www.jointcommission.org/assets/1/23/Quick_Safety_Issue_32_20171.PDF
- <https://www.acls.net/acls-crash-cart.htm>

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