

# Crash Cart Readiness Process at Advocate Trinity Hospital

## June 2002-December 2003

	Process Step	Potential Failure Modes	Potential Effect on Patient	Criticality	Root Causes	Prevention Strategies
1	<b>Crash cart on the unit is checked daily by RN for readiness.</b>	RN may not know detailed policy and procedure.	Potentially Very Serious	High	*Policy not readily available near the crash cart when RN is checking it.	*Include a copy of the crash cart maintenance policy in the black binder located on the crash cart. *Update nursing daily crash cart check form to include the detailed process in the policy.
2a	<b>Code is called.</b>	Staff may not know when to call a code and how to call a code.	Potentially Very Serious	High	Staff not in-serviced recently.	Create module for Nursing Education Stations.
2b	<b>Code cart is taken to patient's room and opened.</b>	*Crash cart may not be available on unit.	Potentially Very Serious	High	*Number of crash carts may not be sufficient.	Evaluate number of crash carts and identify any additional needs. Put together a formal capital request.
3	<b>Code cart is taken to patient's room and opened.</b>	*Crash cart may not be available on unit.	Potentially Very Serious	High	*Location of crash carts may not be optimal.	Evaluate locations of crash carts by looking at crash cart utilization data and discussing with nurse managers and Code Blue Committee.
4a	<b>MD determines which medications and supplies are to be used.</b>	MD may not be knowledgeable on latest ACLS guidelines or may have difficulties remembering them.	Potentially Very Serious	High	ACLS algorithms not readily available.	Attach laminated ACLS algorithms to each crash cart.
4b	<b>Nurse locates medications and supplies in crash cart.</b>	*Medication may be missing from crash cart.	Potentially Very Serious	High	*Medications are not routinely double-checked when filled by a pharmacist.  *Look-Alike medications may be wrongly filled.	*Ensure that even when a pharmacist fills a crash cart medication tray, that the tray is double-checked.  *Evaluate look-alike/ sound-alike issues we may have experienced in the past &

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						pro-actively review any possible issues, separate any problematic medications & include a special alert on the crash cart.
<b>4c</b>	<b>Nurse locates medications and supplies in crash cart.</b>	*Supply may be missing from crash cart.	Potentially Very Serious	High	*Supply list is not current and is often confusing because there are instances where it's not specific (i.e. electrode/defibrillator pads & soft nasopharyngeal airway).  *Supplies are not consistently double-checked because Central Supply is too small to provide the needed flexibility during periods of high activity.	*Update supply list and include specific identifiers of each item such as the item's catalog number and its Lawson number.  *Revamp process to include pharmacist double-check of supplies (see attached flow chart).
<b>4d</b>	<b>Nurse locates medications and supplies in crash cart.</b>	*RN has difficulty finding medications or supplies on crash cart.	Potentially Very Serious	High	*List of items in the crash cart not readily available on crash cart during a code.  *RN not familiar with what medications and supplies in crash cart look like. *When the process is changed to include pharmacist double-checking supplies, pharmacists would not know what the supplies should look like.	*Develop laminated list of items and tape list to crash cart's pull-out tray.  *Create visual location diagram for supplies and for medication contents of crash cart by drawer and include this in a crash cart binder which will be located on the crash cart to aid nurses and pharmacists in correct identification of items. Additionally, place this location diagram on-line.
<b>5</b>	<b>Nurse locates medications and supplies in crash cart.</b>	*Crash cart may not be equipped with the latest ACLS recommended medications and supplies.	Potentially Very Serious	High	*ACLS guidelines not recently reviewed by Code Blue Committee.	*Review ACLS guidelines and update crash cart contents. Vasopressin 40units and O <sub>2</sub> detector have

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						been added.
<b>6</b>	<b>Nurse withdraws medications and supplies from crash cart as needed.</b>	Same as above	Potentially Very Serious	High	Same as above	Same as above
<b>7</b>	<b>Medications and supplies are used on patient.</b>	Code blue team may not be confident/ competent in utilizing equipment, supplies or medications.	Potentially Very Serious	High	*All necessary categories of nurses may not be required to be ACLS Certified. *Codes may occur so infrequently that RN may lose confidence in necessary skills.	*Evaluate in which RN classifications ACLS Certification should be a requirement. *Determine in-servicing needs related to crash cart at the Nursing Education Stations.
<b>8</b>	<b>Code is ended.</b>	MD may not know when to end code.	Potentially Very Serious	High	ACLS algorithms not readily available.	Attach laminated algorithms to each crash cart.
<b>9</b>	<b>Nurse completes medication usage sheet &amp; secures crash cart with metal lock.</b>	Nurse may not be aware of policy.	None	Low	RN may not be aware of policy because policy may not be readily available.	*Include a copy of the crash cart maintenance policy in the black binder located on the crash cart. *Put crash cart policy on-line.
<b>10</b>	<b>RN calls Central Supply</b>	Nurse may not be aware of policy.	Potentially Very Serious	Medium	RN may not be aware of policy because policy may not be readily available.	*Include a copy of the crash cart maintenance policy in the black binder located on the crash cart. *Put crash cart policy on-line.
<b>11</b>	<b>Central Supply exchanges crash carts. RN removes defibrillator from top of used crash cart &amp; puts it on new crash cart.</b>	*Central Supply technician may be too busy. *Central Supply may be closed.	Potentially Very Serious	Medium	*Central Supply is a small department with little flexibility.	*Revamp process to shift the major role of crash cart maintenance to the pharmacy department.
<b>12</b>	<b>Used crash cart is taken to Central Supply, is sanitized and restocked.</b>	*Central Supply technician may be too busy. *Central Supply may be closed.	Potentially Very Serious	Medium	*Central Supply is a small department with little flexibility.	*Revamp process to shift the major role of crash cart maintenance to the pharmacy department.
<b>13</b>	<b>Central Supply calls pharmacy.</b>	*Pharmacy may be closed.	Potentially Very Serious	Low	*Process may not be clear on what to do when the pharmacy is closed.	*Develop clear process and include the process in the crash cart maintenance policy.
<b>14</b>	<b>Pharmacy technician takes new medication trays to Central Supply, unlocks metal lock,</b>	*Pharmacy may be closed.	Potentially Very Serious	Medium	*Process may not be clear on what to do when the pharmacy is	*Develop clear process and include the process in the crash cart maintenance

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	<b>exchanges trays and locks medications and supplies with red plastic numbered locks.</b>				closed.	policy.
<b>15</b>	<b>Central Supply technician logs crash cart on log form.</b>	*Central Supply technician may not know policy.	Potentially Very Serious	Low	*New process excludes this step in Central Supply.	*Develop new crash cart log form that will effectively track accountabilities, previous locations and present locations.
<b>16</b>	<b>Crash cart is ready to use.</b>	No failure modes identified.	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## **Supplies or Medications Missing from Crash Cart**

ACLS Guidelines

Look-Alike Medications

Medication Double Check

Supplies or Medications Missing from Crash Cart

Not updated recently

ACLS recommended meds & Supplies not up-to-date

No formal look-alike med analysis conducted on crash cart meds

Look-alike meds are too close to each other

RPhs & Techs are lead to error by certain meds

Lack of awareness of look-alike meds

No policy requiring double check

Not required by standards

Meds are not routinely double checked when RPh fills med trays

RN may not be familiar with what supplies or meds look like

Location list does not include pictures

Location list is in P&P manual

List is not readily available during code

Supply List

Supplies not filled consistently in crash cart

Items used only in certain areas i.e. electrode/defibrillator pads

Supply list is not current & is often confusing

Supply Double Check

