

MCI Triage for iPhones

Mass Casualty Incident Triage Sieve Management



MCI Triage is an iPhone app to help EMS paramedics, ambulance officers, fire-fighters, law enforcement and other emergency services personnel manage mass casualty incidents. It builds on the Simple Triage and Rapid Treatment (S.T.A.R.T.) system developed in 1983 at the Hoag Hospital and the Newport Beach Fire Department in California.

Triage has always been a challenge during a mass casualty incident (MCI). Using the systematic triage method refined in recent years has been shown to reduce the mortality and morbidity of mass casualty incidents. When resources are limited, or they are overwhelmed by the number of casualties, the system identifies those victims that will most likely die within the first hour and allows rescuers to focus on those most likely to benefit from immediate medical care.

The system can be quickly taught to any one with first aid knowledge and experience. This allows more skilled and qualified responders to work on secondary assessment and treatment of victims. With simple button prompts and on-the-fly calculation of triage categories, "MCI Triage" makes it easy to determine which colour tag to use and to automatically record each victim's condition as well as their age, gender and location.

Even if your MCI triage training was years ago, this application will prompt you through the process and ensure consistent and reliable information is gathered and made available to incident command.



1. Start the MCI Triage iPhone application.



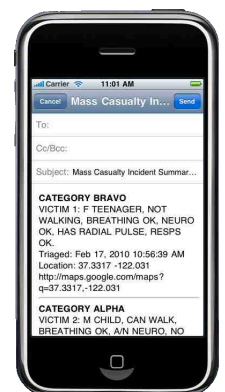
2. Gather information on each victim and "add" them to the database in your iPhone.



3. Edit details, refine categories or delete duplicate records.



4. View an "Incident Summary" at any time.



5. Send a report to incident command or your local hospital or trauma centre.



Getting Started

The “splash” screen for MCI Triage has two buttons on it; one to start a new incident and one to resume gathering information n an existing incident.

If you press the “start new” button, you will be prompted to confirm that you want to erase all existing data stored in the MCI Triage app on your iPhone. Once the data is erased it cannot be recovered.

If you choose “resume”, you will be taken straight to the “Add Victims” tab and will be able to continue to add or edit information to what was previously stored in your iPhone.

There are currently no options or preferences you can set for MCI Triage using the iPhone’s “Settings” function.



"Add Victims" tab

When you first go to the **Add Victims** tab you will see a blank tag with instructions to go to the first victim (if this is a new incident) or the next victim (if there are already victim details stored in your iPhone).

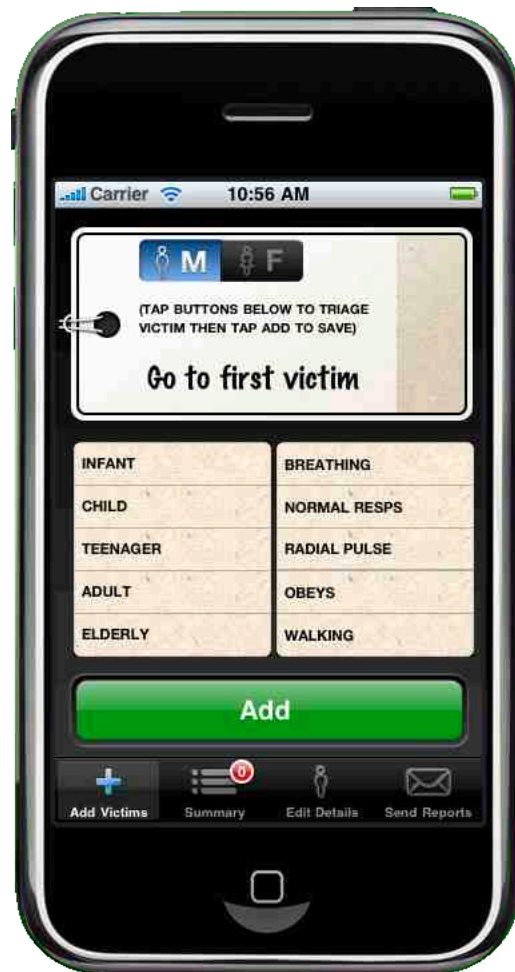
To record a victim's details, you simply press one or more buttons depending on each victim's age, gender and condition.

Each button is a simple on/off button. If you press a button "on" inadvertently, simply press it again to turn it "off".

As well as calculating the victim's triage category based on which of the right-hand side buttons you press (Breathing, Normal Respirations, Radial Pulse, Obeys Simple Commands and Walking), each victim's location is automatically added to their record using the iPhone's built-in GPS.

Once you have selected all the appropriate buttons for a victim, simply press "Add" and then move on to the next victim.

- You must specify the victim's age group before you can add a record.
- The default gender is Male.
- If you are triaging an infant, the "walking" button is disabled.
- If you set a victim's "breathing" button to red (ie. not breathing), the remainder of the buttons will automatically turn red.



Tags

There are four tags, representing Category Alpha, Bravo, Delta and Echo victims.



Category Alpha


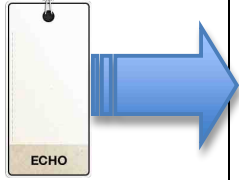







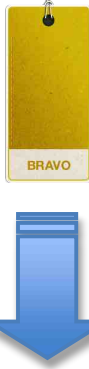
Category Bravo

Category Delta

Category Echo

Triage Basics

There are five basic questions/steps used in the MCI Triage application, based on the START flowchart. The important principle is to spend less than one minute per victim during the initial triage sieve phase. You can always go around again and refine your details when your initial assessment is complete.

1.	BREATHING?			
	If the victim is not breathing, try to clear the airway and perform any airway manoeuvres to get the victim breathing. If all attempts fail, then the victim is presumed dead, and tagged with a black Category Echo label (or in some jurisdictions a white label with a black border).	<p>YES</p> 	<p>NO</p> 	NEXT VICTIM
2.	NORMAL RESPIRATORY RATE?			
	If the victim is breathing, then calculate the breathing rate; if the victim's breathing rate is greater than 30 per minute or less than 6 per minute, use a red Category Alpha tag indicating immediate care because these are primary indicators for shock.	<p>YES</p> 	<p>NO</p> 	NEXT VICTIM
3.	RADIAL PULSE?			
	If the victim's breathing rate is greater than 6 and less than 30 per minute then check perfusion; if the victim lacks a radial pulse, then immediate attention is required and you should use a red Category Alpha tag.	<p>YES</p> 	<p>NO</p> 	NEXT VICTIM
4.	OBEYS SIMPLE COMMANDS?			
	If the radial pulse is present, evaluates the victim's mental status; ask the victim to follow simple commands; if they are unable to do so, use a red Category Alpha tag.	<p>YES</p> 	<p>NO</p> 	NEXT VICTIM
5.	WALKING?			
	If all previous tests are normal and the victim is walking, use a green Category Delta tag; if the victim cannot walk and all the other tests are normal, use a yellow Category Bravo tag.	<p>YES</p> 	<p>NO</p> 	
		NEXT VICTIM	NEXT VICTIM	

"Incident Summary" tab

At any time, you can flip to the **Summary** tab to see how many victims there are in total and how many are in each Category (Alpha, Bravo, Delta and Echo).

You can use the "Send Reports" tab to send a copy of this summary by email or SMS text message.

There is also a button on the summary screen to reset the data ... this erases all victim records and lets you start a new Incident. You will be prompted to confirm that you want to erase all existing data stored in the MCI Triage app on your iPhone. Once the data is erased it cannot be recovered.



You will be prompted to confirm you are sure you want to erase all data if you press the red "reset" button.

"Edit Details" tab

You can edit victim details at any time, delete duplicates and add names or other details as these become available, using the **Edit Details** tab.

When you tap on a victim, the Edit Details tab will open and you can change any of the information recorded for that victim, including changing their age, gender or condition or adding or editing their name.

When you tap on the victim's name (or if no name has been entered then the Victim # text on the tag (eg. "Victim 5"), the QWERTY keyboard will pop-up and you can type in any text you wish.

If you don't know (or can't determine) a victim's name, you can substitute a brief description of their clothing eg. "red t-shirt" or some other identifying information.

When you have finished editing the victim's details, press on "Save" and you will return to the "Edit Details" tab showing a list of current victims.

NOTE:

You cannot save a victim's details if the name on the tag is empty.



Edit victim details by pressing buttons. Tag colour will automatically recalculate.



Use a description of the victim's clothing if you can't determine their name.



You cannot leave the name on the tag empty.



Tap on the "male" or "female" button at the top of the tag to change a victim's gender.

"Send Reports" tab

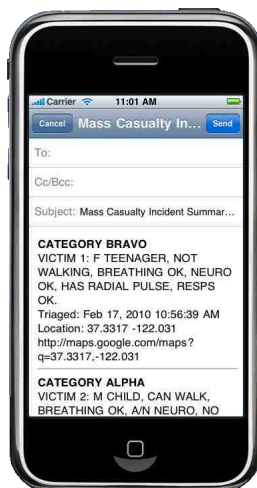
Using the **Reports** tab At any time you can email full details or an Incident Summary using the iPhone's mail application to incident control, EMS/fire/police dispatch, receiving medical facilities or anyone else who needs timely information on which to make decisions. When you choose to email all details or just an incident summary, the relevant information will be copied into a new e-mail message using the iPhone's email function.

You can add any amount of additional information to the e-mail body using the iPhone's keyboard.

You will then need to choose one or more e-mail addresses from your Address Book or type in the recipient's e-mail address. An empty e-mail address may be added automatically to the To: line; you can delete this.

You can also send the Incident Summary by SMS to one or multiple mobile or cell phone numbers.

When sending a Summary by SMS, a copy of the incident summary is copied into the iPhone's "clipboard". The application will open a new SMS text message, but you must "paste" the clipboard contents into the body of the text message. This is a constraint imposed by Apple that will hopefully be removed in future versions once Apple provides direct access to SMS functionality.



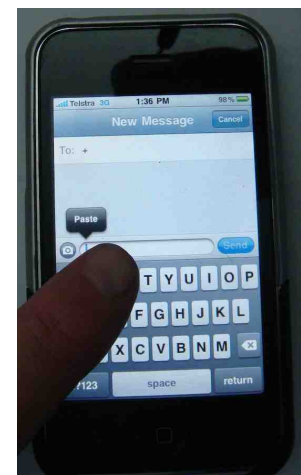
The "email detail" button will compose a new email containing all the detail on each victims **and** a copy of the Incident Summary.



The "email summary" button will compose a new email containing only the Incident Summary.



The "SMS summary" button will copy the Incident Summary into the iPhone's clipboard and start a new SMS text message.



You must "paste" a copy of the Incident Summary into the message body and then choose recipient(s) from your Address Book.

Feedback & Technical Support

We welcome your comments on MCI Triage for iPhones. If you have any problems, suggestions for improvements or ideas for additional features in future versions, please let us know by sending an email to info@islandsoftware.com.au

Disclaimer

You should consult the many resources available on MCI Triage or obtain suitable training before downloading and using this application. It has been written and is intended only for use by EMS paramedics, ambulance officers, firefighters, law enforcement and other emergency services personnel who have been suitably trained. No responsibility whatsoever is accepted for the accuracy, completeness, or relevance to the user's purpose, of this application or the information it contains or collates. The authors, designers, developers and publisher of this application, and all the aforementioned's officers, employees and agents, are not responsible for any actions taken on the basis of any information provided in or collated by this application, nor for any errors or omissions. The authors, designers, developers and publisher disclaim all and liability to any person howsoever arising, including liability for negligence, in respect of anything and of the consequences of anything done or omitted to be done by any person who relies solely or partially on the whole or any part of the application and/or reliance on its availability at any time. Nothing in this application should be taken as professional medical advice which should only be obtained from an appropriate practicing professional service provider. No warranty is given that this application is free of infection by computer viruses or other contamination, nor that access to the application or any part of it will not suffer from interruption from time to time. PURCHASING AND USING THIS APPLICATION INDICATES THAT YOU HAVE READ AND ACCEPT THE TERMS & CONDITIONS IN THIS DISCLAIMER. IF YOU DO NOT ACCEPT THE TERMS & CONDITIONS IN THIS DISCLAIMER, YOU ARE NOT AUTHORISED TO USE THIS APPLICATION.

Credits

MCI Triage was created by David Godfrey-Smith with assistance from Matthew Smith and the instructors from iPhone Boot Camp in New York (www.iphonebootcampnyc.com). Graphics by Josh Lamont Design (www.lamont.com.au). iPhone and Apple logos are Copyright © 2010 Apple Inc.