

**The New England Alliance for Public
Health Workforce Development and the
Massachusetts Association of
Public Health Nurses proudly present**

**“Mass Casualty and Triage: What Public Health
Nurses Need to Know”**

July 30, 2009 Webinar

Presented by: Jon Burstein, MD, FACEP

MA State EMS Medical Director

**With thanks to L. Romig, C. Schultz, K. Koenig, and many
others**

Learning Objectives

Upon Completion of this session you will be able to:

- 1. Describe the principles and goals of triage**
- 2. Describe how triage may vary in different situations**



<http://www.uihealthcare.com/depts/med/emergencymedicine/etc/design.jpg>

Triage Roadmap

- ✿ **What is triage?**
- ✿ **Triage categories**
- ✿ **Triage methods**
- ✿ **One method does NOT fit all**

What is Triage?

- ✱ **“Triage” means “to sort”**
- ✱ **Matches medical needs to available resources**
- ✱ **Sorting based on limited data acquisition**

Military Triage

- ✿ **Dominique Larrey**
- ✿ **WWI**
- ✿ **Medical evacuation**
 - ✿ **Korea**
 - ✿ **Vietnam**

Military vs. Civilian Triage

Priority is to get as many soldiers back into action as possible.

Priority is to maximize survival of the greatest number of victims.

After L Romig

Military vs. Civilian Triage

✱ **Military model**

Those with the least serious wounds may be the first treatment priority

✱ **Civilian model**

Those with the most serious but realistically salvageable injuries are treated first

After L Romig

Daily Emergencies

Do the best for each individual.

Disaster Settings

*Do the greatest good for
the greatest number.
Maximize survival.*

Expectant Patients

In any triage method, victims with clearly lethal injuries or those who are unlikely to survive even with extensive resource application are treated as the lowest priority.

Triage Categories



Red:

Life-threatening but treatable injuries requiring rapid medical attention



Yellow:

Potentially serious injuries, but are stable enough to wait a short while for medical treatment

Triage Categories



Green:

Minor injuries that can wait for longer periods of time for treatment



Black:

Dead or still with life signs but injuries are incompatible with survival in austere conditions

Triage is a dynamic process and is usually done more than once.



REASSESS PATIENT CONDITION FREQUENTLY!



Primary Triage

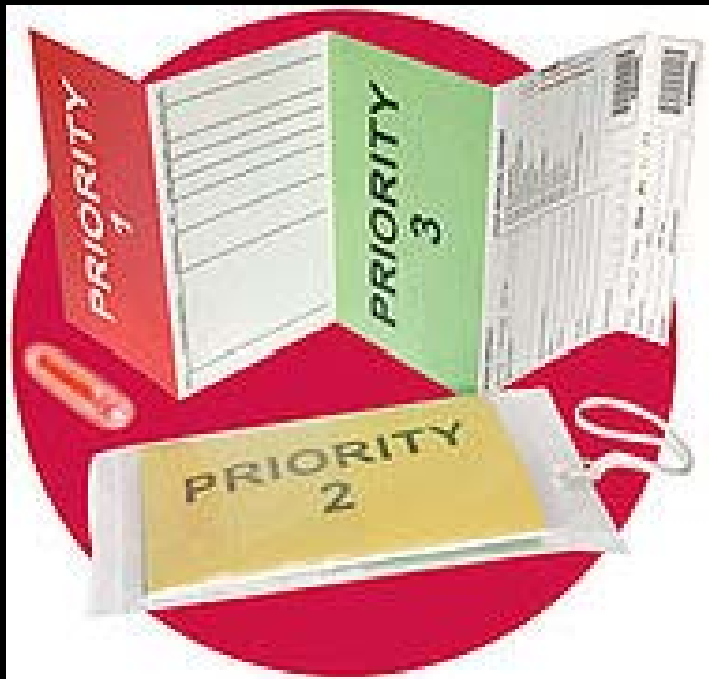


Secondary Triage



Tertiary Triage





Triage Methods

- ✱ **Based on physiology**
- ✱ **Quick**
- ✱ **Easy**
- ✱ **Mark or move the patient**

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


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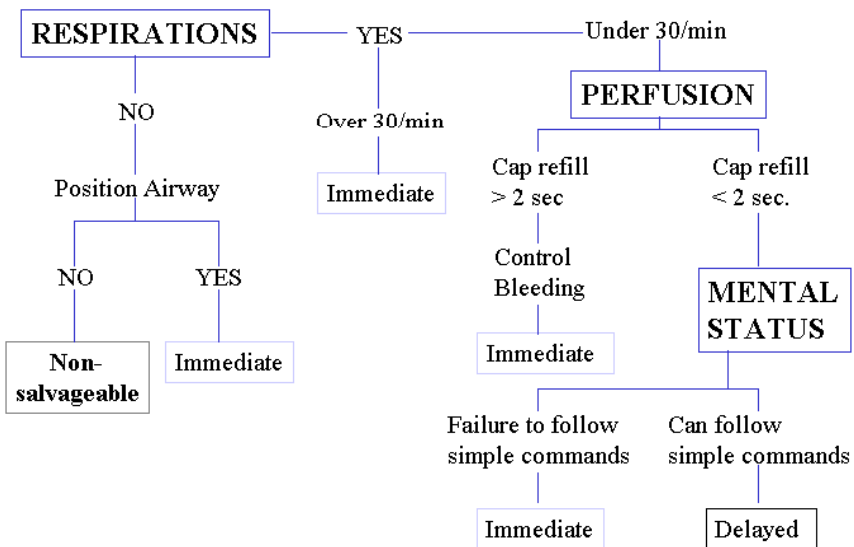
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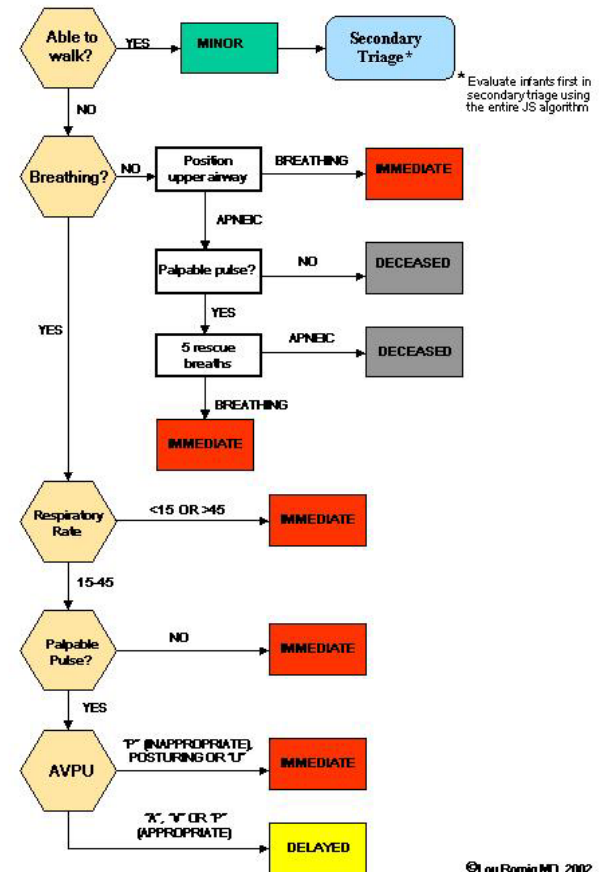
MCI Triage: Key Points

-  **Resources and patient numbers and acuity are limiting factors.**
-  **Must be dynamic, responsive to changes in both resources and patient needs.**
-  **There is currently no civilian MCI triage system that has been validated by outcome data.**

START Triage



JumpSTART Pediatric MCI Triage®



START

- ✿ **Simple Triage And Rapid Treatment**
- ✿ **Developed jointly by Newport Beach (CA) Fire and Marine Dept. and Hoag Hospital**

START

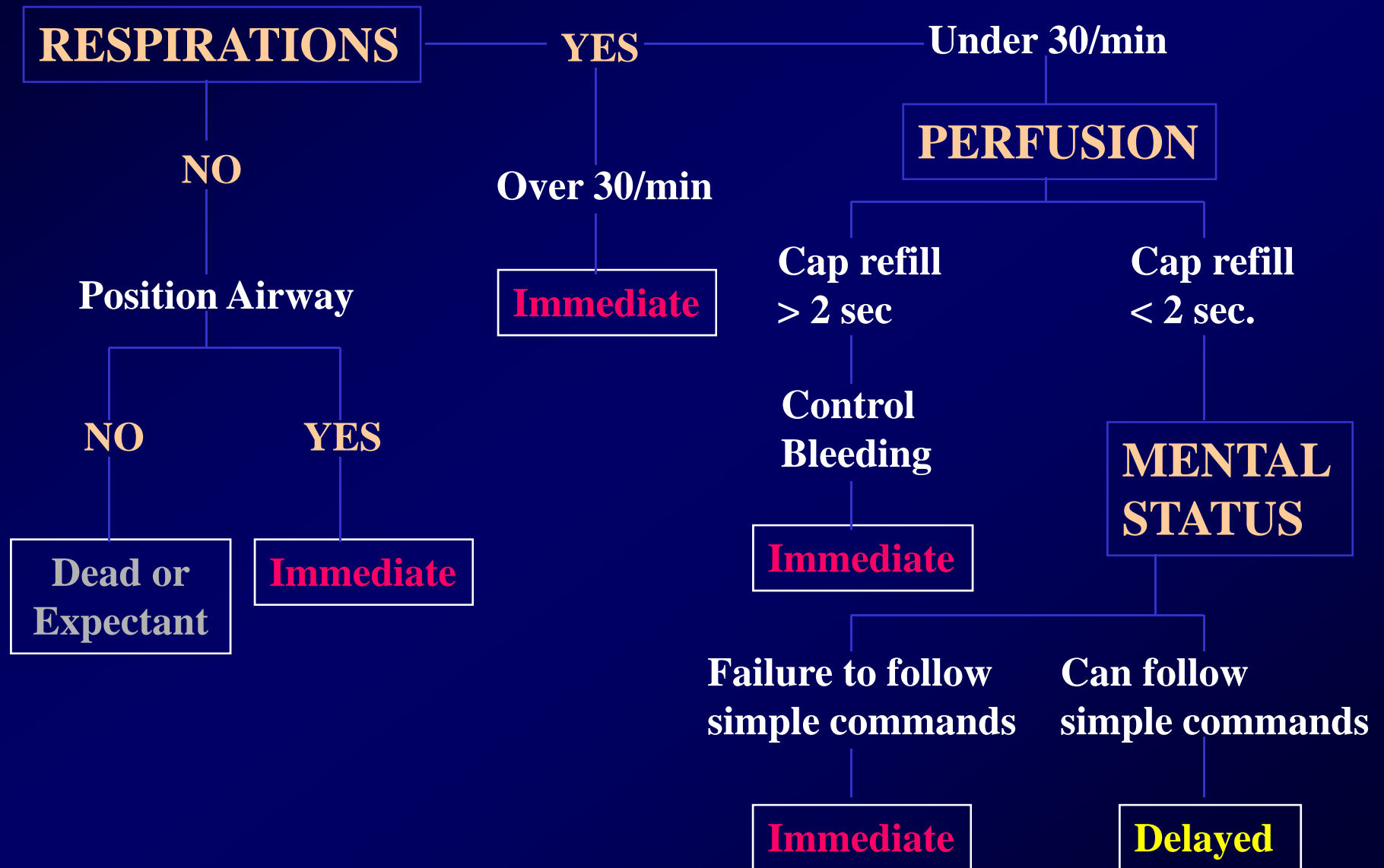
- ✿ Utilizes the same four triage categories
- ✿ Used for Primary Triage
- ✿ www.start-triage.com

Starting START

Triage officer announces that all patients that can walk should get up and walk to a designated area for eventual secondary triage.

All ambulatory patients are initially tagged as **Green.**

START Triage



Mnemonic

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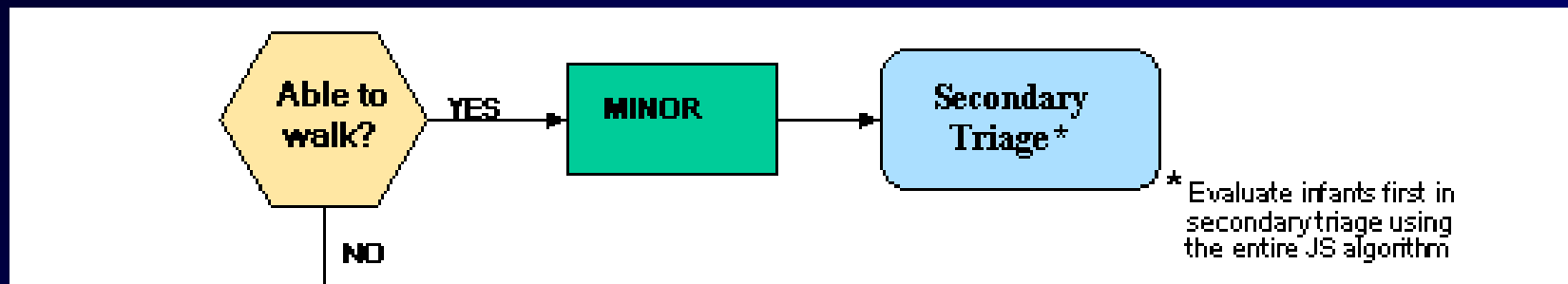
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Patients who are able to walk are assumed to have stable, well-compensated physiology, regardless of the nature of their injuries or illness.



Secondary Triage

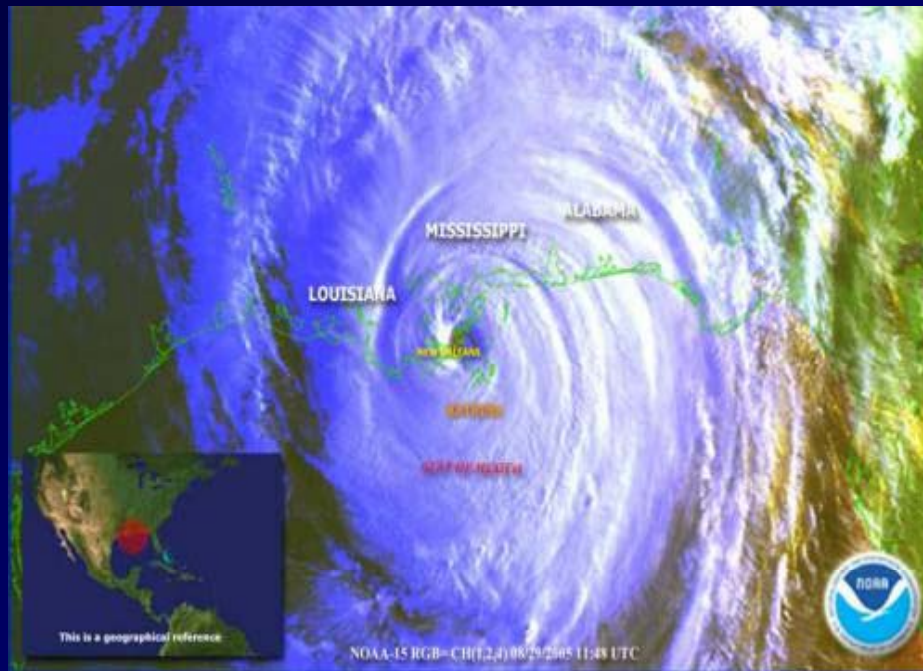


- ✱ **All green patients must be individually assessed in secondary triage.**
 - ✱ **Assess physiology**
 - ✱ **Assess injuries**
 - ✱ **Assess probability of deterioration**
 - ✱ **Assess needs vs. resource availability**





Hurricane



Hurricane Katrina left the Louisiana and Mississippi coastlines in ruin.



Ice storm...

Blast Injury





March 2004, Madrid



Vesicants



Mass Decon Unit





- **92 Mass Decontamination Units issued to Fire Departments in Massachusetts**
- **One Decon company in Each Fire District and One Decon Company protecting each hospital emergency department**

MARK 1 Auto-Injector







Associated Press

On April 14, 1947, New Yorkers line up for their smallpox vaccinations.

Anthrax 2001-2002

✿ 11 pulmonic cases; 12 cutaneous cases



Personal Protective Equipment



Triage Summary

- ✿ **Keep yourself safe**
- ✿ **Greatest good for the greatest number**
- ✿ **What is the scarce resource?**
- ✿ **How fast do you need to decide?**
- ✿ **Re-assess, re-assess**
- ✿ **Stick with the principles, not a method...but understand the methods**

The Two-Line Summary

- ✿ Triage METHODS may vary
- ✿ Keep the principles in mind
 - ✿ Greatest good
 - ✿ Re-assess

Questions

**If you have questions for Dr. Jon Burstein
please email them to:**

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THANK YOU