

A horizontal band of marbled paper with swirling blue and white patterns, positioned between a solid teal top bar and a solid blue bottom bar.

DISASTER PLANNING & PREPAREDNESS

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Project Goals

- Learn about disaster triage systems & how to apply them as an emergency physician
- Create physician resources that support the learning & application of the SALT triage system

What is SALT?

- SALT is a disaster triage system
- Comprised of Global sorting & assessment phases
- Some key differences from the START & JumpSTART triage systems
 - universally applicable
 - no vital signs required
 - Differences in triage classification system

Good Friends or Bitter Rivals

 **S.T.A.R.T.**
Simple Triage And Rapid Treatment
Algorithm

Able to walk on command and no major injuries. ☐ **MINOR**

No respirations after head tilt. ☐ **DECEASED**

Respirations after head tilt. ☐ **IMMEDIATE**
~ Skip if already breathing ~

Respirations: Over 30 per min. ☐ **IMMEDIATE**

Perfusion: Radial pulse absent. (Control bleeding) ☐ **IMMEDIATE**

Mental status: Unable to follow simple commands. ☐ **IMMEDIATE**

All others. ☐ **DELAYED**

DMS-06193_VictSTART-JumpST

SALT Triage Algorithm
Sort • Assess • Lifesaving intervention • Triage/Treatment

Step 1 Sort: Global Sorting

Walk ▶▶▶▶▶▶▶▶ Assess 3rd

Wave/Purposeful Movement ▶ Assess 2nd

Still/Obvious Life Threat ▶▶ Assess 1st

Step 2 Assess: Individual Assessment

LSI

- Control major hemorrhage
- Open airway (if child consider 2 rescue breaths)
- Chest decompression
- Auto injector antidotes

Breathing? Yes → Obeys commands or makes purposeful movements? Has peripheral pulse? Not in respiratory distress? Major hemorrhage controlled? All Yes → **MINIMAL** (Minor injuries only? Yes → **MINIMAL**, No → **DELAYED**)

No → **DEAD**

Any No → Likely to survive given current resources? Yes → **IMMEDIATE**, No → **EXPECTANT**

 USA

LSI = Lifesaving Intervention
Resource: US Dept. of Health & Human Services

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Literature Review Aim

Identify existing knowledge on the teachability of the SALT disaster triage system

How Teachable is the SALT system?

Studies report SALT as easy to learn and there have been no reported differences in teachability/usability from START^{3,4}

How Can we Teach these skills to Trainees?

Early work suggests online training modules and virtual reality could replace didactic and practical training sessions with no effects on responder efficacy ³

How effective is this training?

A responder accuracy of 70-80% has been reported after as little as a 30 minute training session on SALT^{1,5,6}.

Limitations & Future research Opportunities

- Limited research on disaster triage in acute care settings
 - Studies needed on teachability/usability in acute care trainees including medical students and residents
- Beyond learner accuracy, additional outcomes such as survivability & efficiency need to be investigated in the acute setting

The Resources

Sort

1. "If you can hear my voice, walk to the **treatment** zone!"
2. "If you can hear my voice, wave your hand!"

Assess

Lifesaving Interventions



Manage problems outside practitioner skill set,
CPR, defibrillation, intubation



Open airway, control hemorrhage, chest
decompression, administer autoinjector antidotes

Treatment/Transport

IMMEDIATE Life-threatening injury **AND** likely to survive with
available resources

DELAYED Non-life-threatening, non-minor injury is present

MINIMAL Minor injuries that can tolerate a delay in care

EXPECTANT Lifethreatening injury **BUT NOT** likely to survive
with available resources

DEAD Not breathing after lifesaving interventions
performed

Sort

1. "If you can hear my voice, walk to the **treatment** zone!"
2. "If you can hear my voice, wave your hand!"

Assess

Lifesaving Interventions



Manage problems outside practitioner skill set, CPR, defibrillation, intubation



Open airway, control hemorrhage, chest decompression, administer autoinjector antidotes

Treatment/Transport

IMMEDIATE	Life-threatening injury AND likely to survive with available resources
DELAYED	Non-life-threatening, non-minor injury is present
MINIMAL	Minor injuries that can tolerate a delay in care
EXPECTANT	Lifethreatening injury BUT NOT likely to survive with available resources
DEAD	Not breathing after lifesaving interventions performed

Global Sorting

- Describes an efficient method of completing global sorting as a triage team leader

Assessment

- Highlights lifesaving interventions that are encouraged vs discouraged in the SALT system
- Provides guidance on assessment categories, a vital but challenging task to perform in real-life disasters

SALT

WHAT IS IT & WHY YOU SHOULD USE IT

WHAT IS IT?

A **universally applicable** Disaster Triage Method with **rapid global sorting & early identification** of high priority patients

WHY USE IT?



Universally applicable
adults, peds & special
populations



Lifesaving Interventions
Chest decompression,
hemorrhage control, open airways



No Vital Signs measured



**Global Sorting & Early ID of
Serious Injury**

Practical Use cases

1. Disaster triage training sessions
2. On-shift rapid recall of SALT procedures



Call to Action!

1. Disasters may be uncommon, but training & staying up to date with current disaster preparedness practices should be common!
2. Be on the lookout for the HEMBC disaster triage & preparedness materials and incorporate them into your future practice and emergency departments
3. Consider HEMBCs recommendation of a unified SALT approach to disaster triage across the province



Thank you!

References

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