#### Low Tech Simulation and Simulation in "Austere Environment"

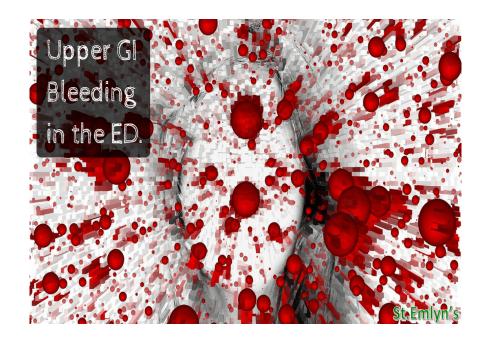
Jon Jui MD, MPH

## Innovative "Low Tech" Simulation of Challenging Clinical Presentation

Jon Jui MD, MPH

# Management of Airway during Massive GI bleed or Profuse Vomiting





#### Simulation of Vomiting Aspiration Patient

#### **McGrath**

#### **DuCanto Catheter**

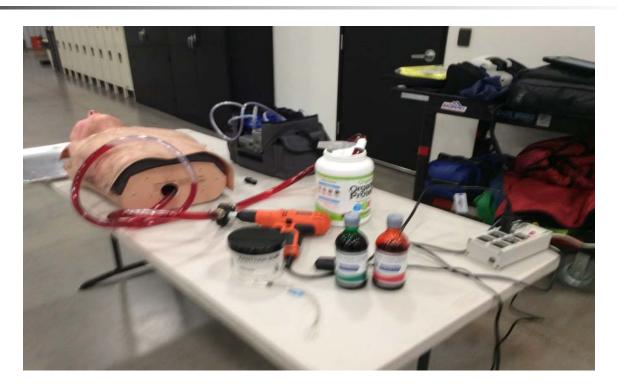






Captain Jay Cross Gresham Fire and Emergency Services

#### Mannikin with Vomiting Simulator



#### Mannikin with Vomiting Simulator







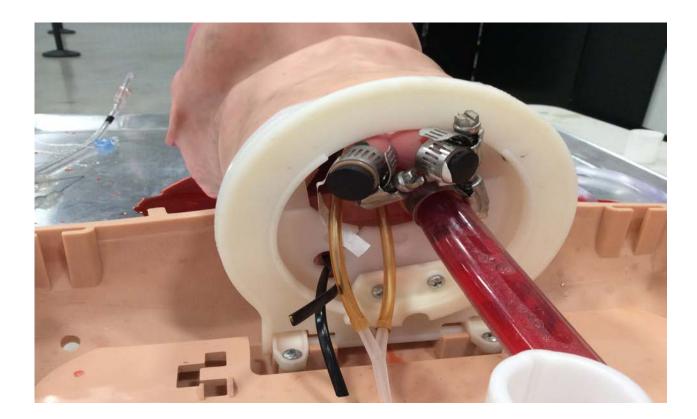
## Food Coloring



#### Xanthan Gum



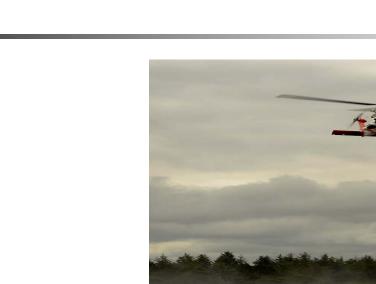
#### Inside the Vomiting Mannikin Simulator



#### Video Vomiting Mannikin



#### High Fidelity Simulation in Diaster Environment



Oregon Disaster Medical Team Operation Pathfinder



- The event is a joint multi-agency, multi-state disaster preparedness exercise based on response to a possible Cascadia Subduction Zone event.
- Officials believe the Northwest is overdue for a magnitude 7.0 or greater earthquake.

#### **Operation Pathfinder-Minuteman**



#### **Rescue and Casualty Evacuation**



#### Military Command and Control





# Echelon I

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Echelons of Care	Military Hierarchy	Personnel/Facil ity	Type of Care	Navy/Marine Corps Hierarchy	Army Hierarchy	Rough Civilian Equivalents
Ι	Unit	Self/Buddy Aid	First aid	Self/Buddy Aid	Self/Buddy Aid	Community first aid
		Combat Lifesaver	First aid, beginning of emergency treatment	Combat Lifesaver (CLS)	Combat Lifesaver	First responders (police, fire)
		Combat medic	Emergency medical treatment	Hospital Corpsman (HM)	Combat Medic (68W)	EMT-basic
		Battalion aid station	Advanced trauma and medical management	Battalion Aid Station (BAS); Ship's complement medical staff	Treatment squad, BAS, SOF medic (18D)	Paramedic

# Echelon II

Echelons of Care	Military Hierarchy	Personnel/F acility	Type of Care	Navy/Marin e Corps Hierarchy	Army Hierarchy	Rough Civilian Equivalents
Π	Division	Medical company (clearing station)	Initial resuscitation	Medical Battalion; Casualty Receiving & Treatment Ships (CRTS);Shock Trauma Platoon (STP); Ship's complement medical staff	Medical battalions/companie s, Casualty Evacuation (CASEVAC/Dustoff)	Level IV trauma center
		Field surgical support group	Initial resuscitation	Forward Resuscitative Surgery System (FRSS)	Forward Surgical Team (FST), Special Operations Resuscitation Team (SORT), Joint Medical Augmentation Unit (JMAU); future - Forward Resuscitation and Surgical Team (FRST)	Level III trauma center



Echelons of Care	Military Hierarchy	Personnel/Fa cility	Type of Care	Navy/Marine Corps Hierarchy	Army Hierarchy	Rough Civilian Equivalents
III	Corps	Combat support hospital, fleet hospitals	Resuscitative surgery and medical care	Fleet hospital; Hospital ships	Field hospital levels - Combat Support Hospital (CSH); Historical - Evacuation Hospital (EVAC) and Mobile Army Surgical Hospital (MASH)	Level II trauma center

#### Echelon I and II Care





#### DoD CCAT Teams Critical Care Transport Teams







## CCAT Transport









#### Operation Minuteman 2015 Kaiser SIM Team





#### Operation Minuteman 2015 Kaiser SIM Team



#### SIM Man in "Unusual Settings"





