Disaster Relief:
Haiti vs. Katrina

Is there a role for a hand surgeon in a disaster zone?

Haiti: January 22, 2010

Airlines

Name of passenger
ROZMARYN/MARTIN

26

Feb SEAT 1745

26

From MIA
MIAMI

To PAP
PORT AU PRINCE

DATE

FLIGHT V2

Class 401

Date

Time

DEPARTURE TIME

BOARDING Y 16Feb

SEAT 174

7F NO

G9 1600 7F

Gate Time

N


Check-In
Check-In
Check-In

Living Quarters

ER ‘waiting room’

ER and triage

Living Quarters- Command Center

The main adult hospital

Pediatric ward

Pediatric ward

Adult ward

Adult ward

Adult ward

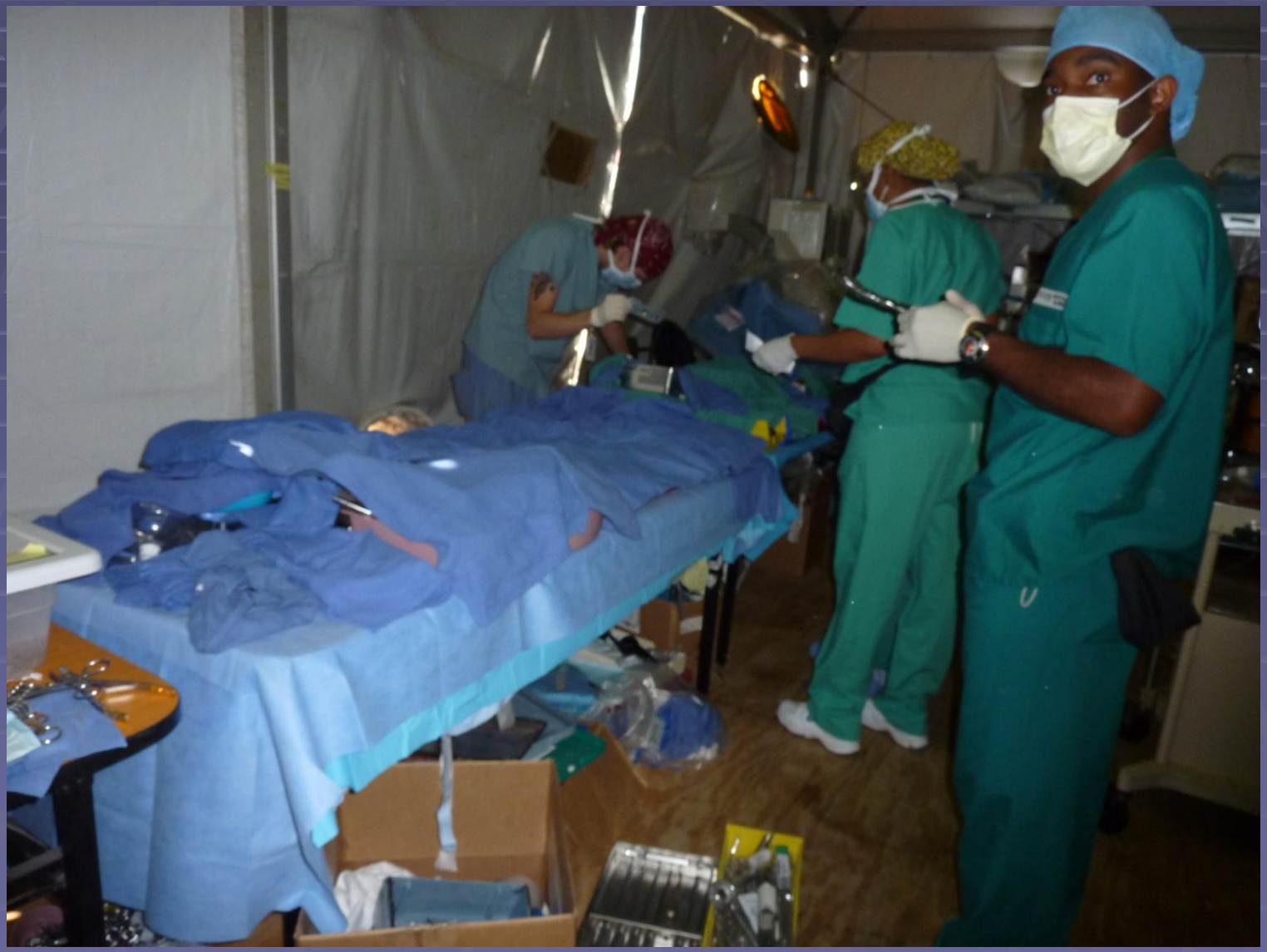
Storage tent

Food delivery 2x daily

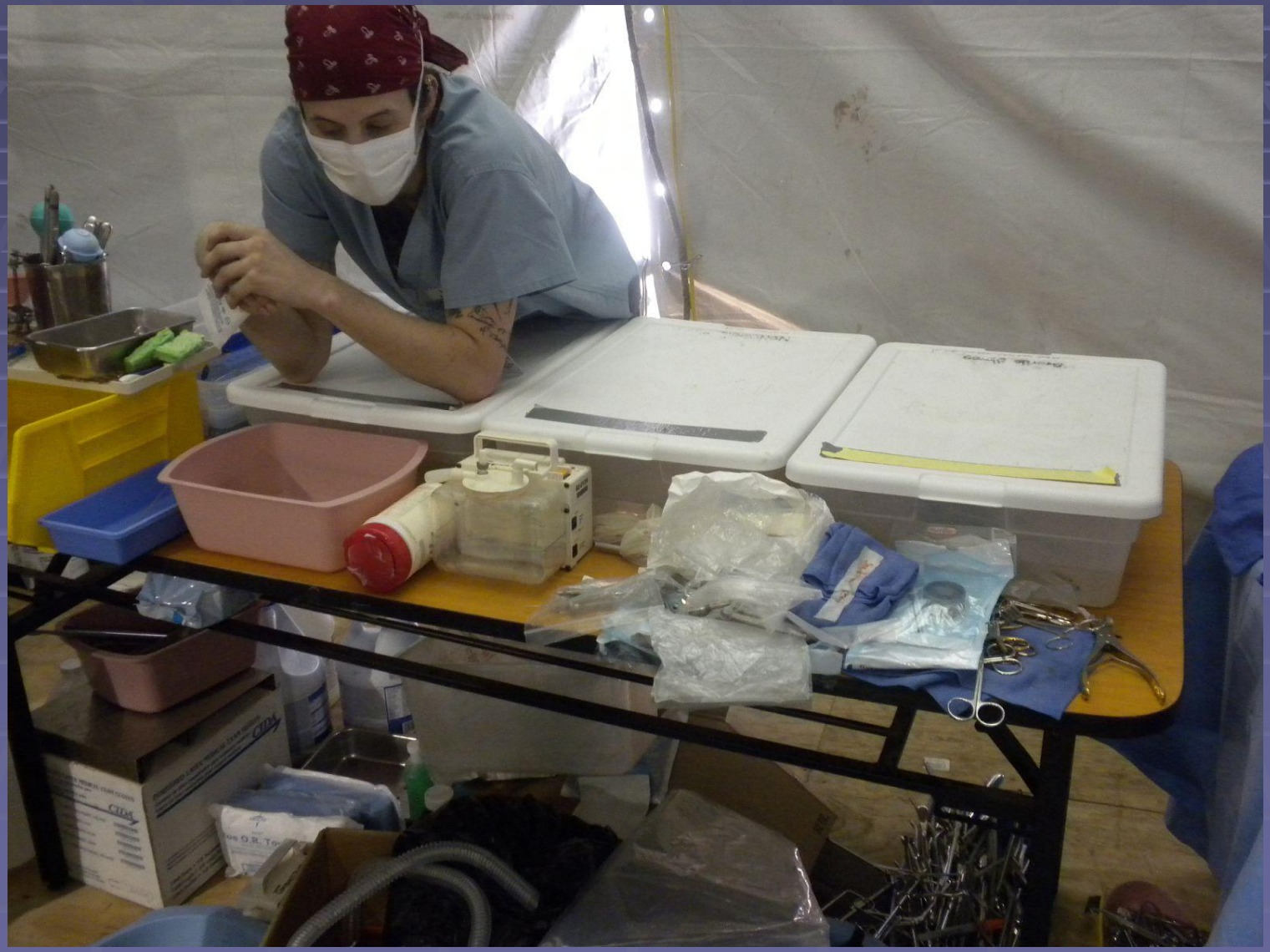
The Ortho team

OR supply

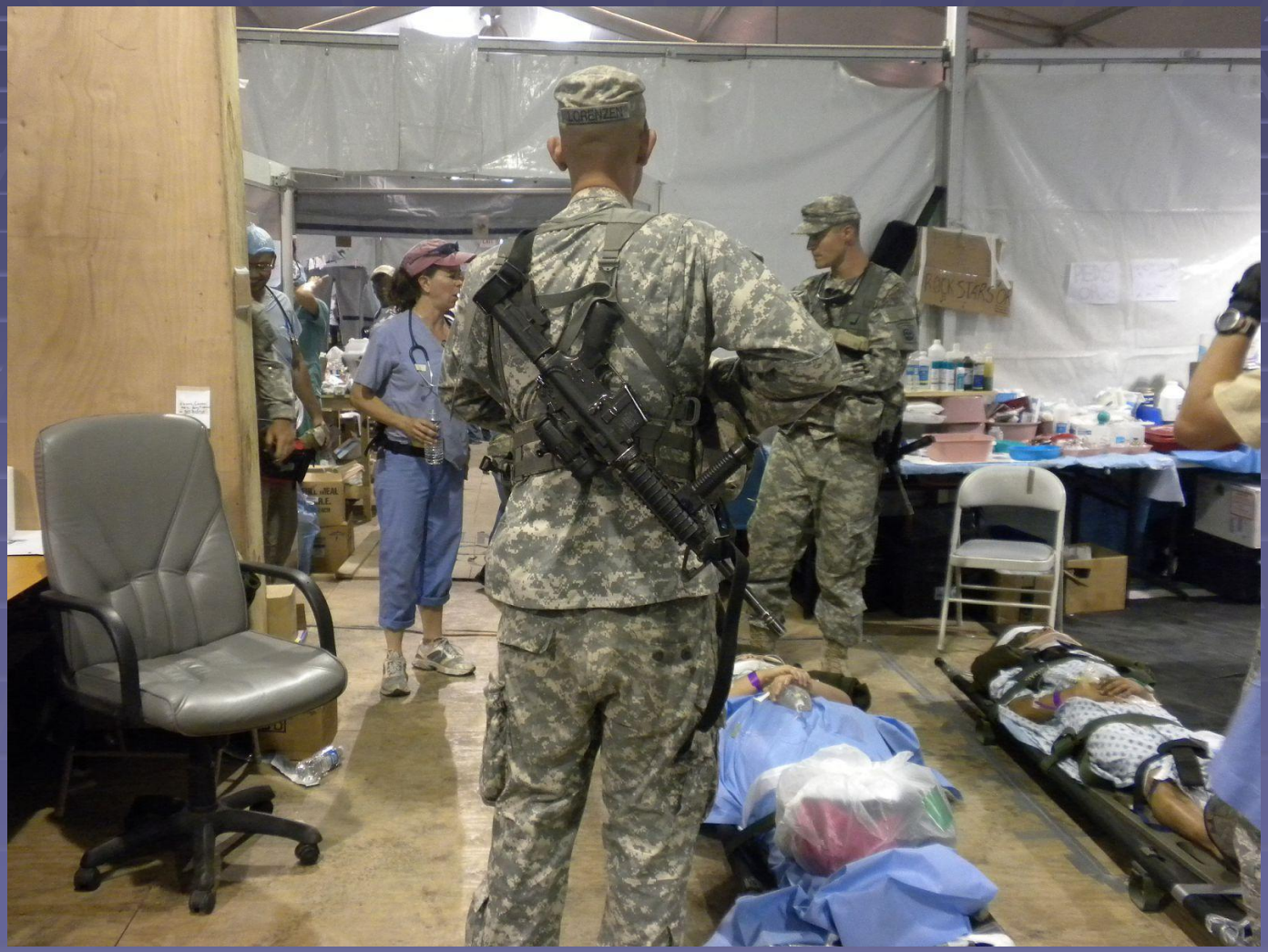
“Sterile” instruments



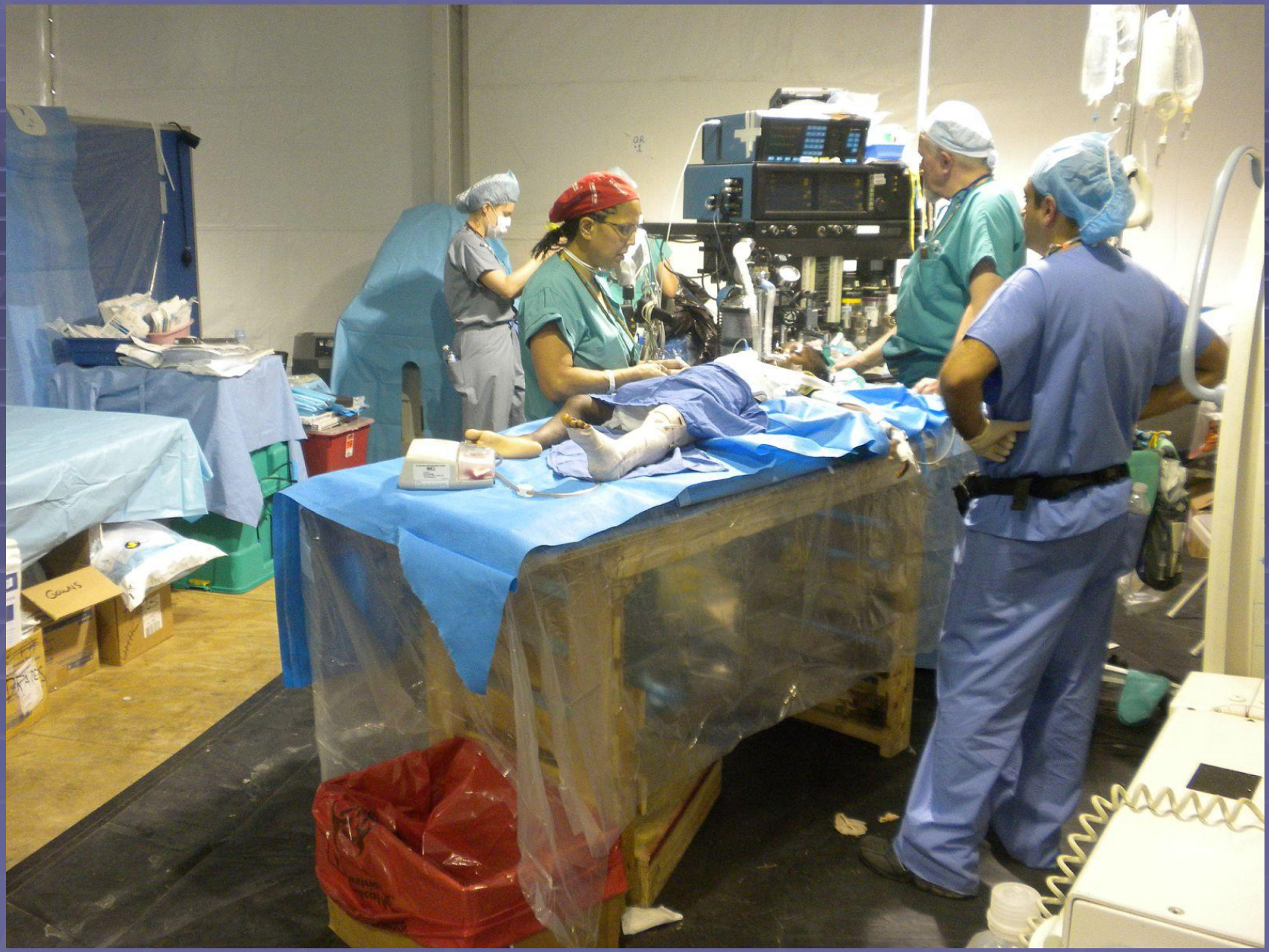
Bleach soak….no autoclave



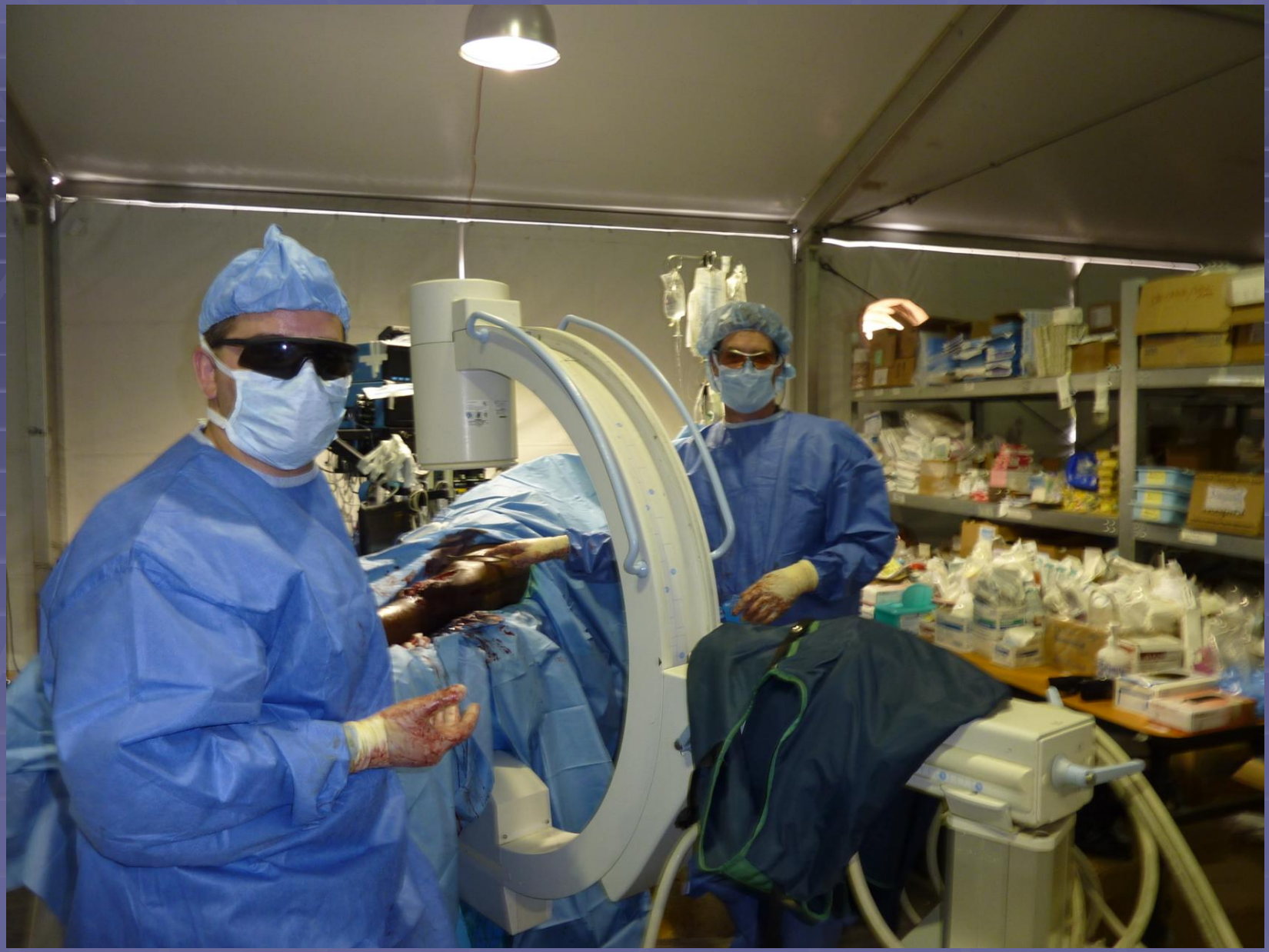
“Patient transport” inside the OR

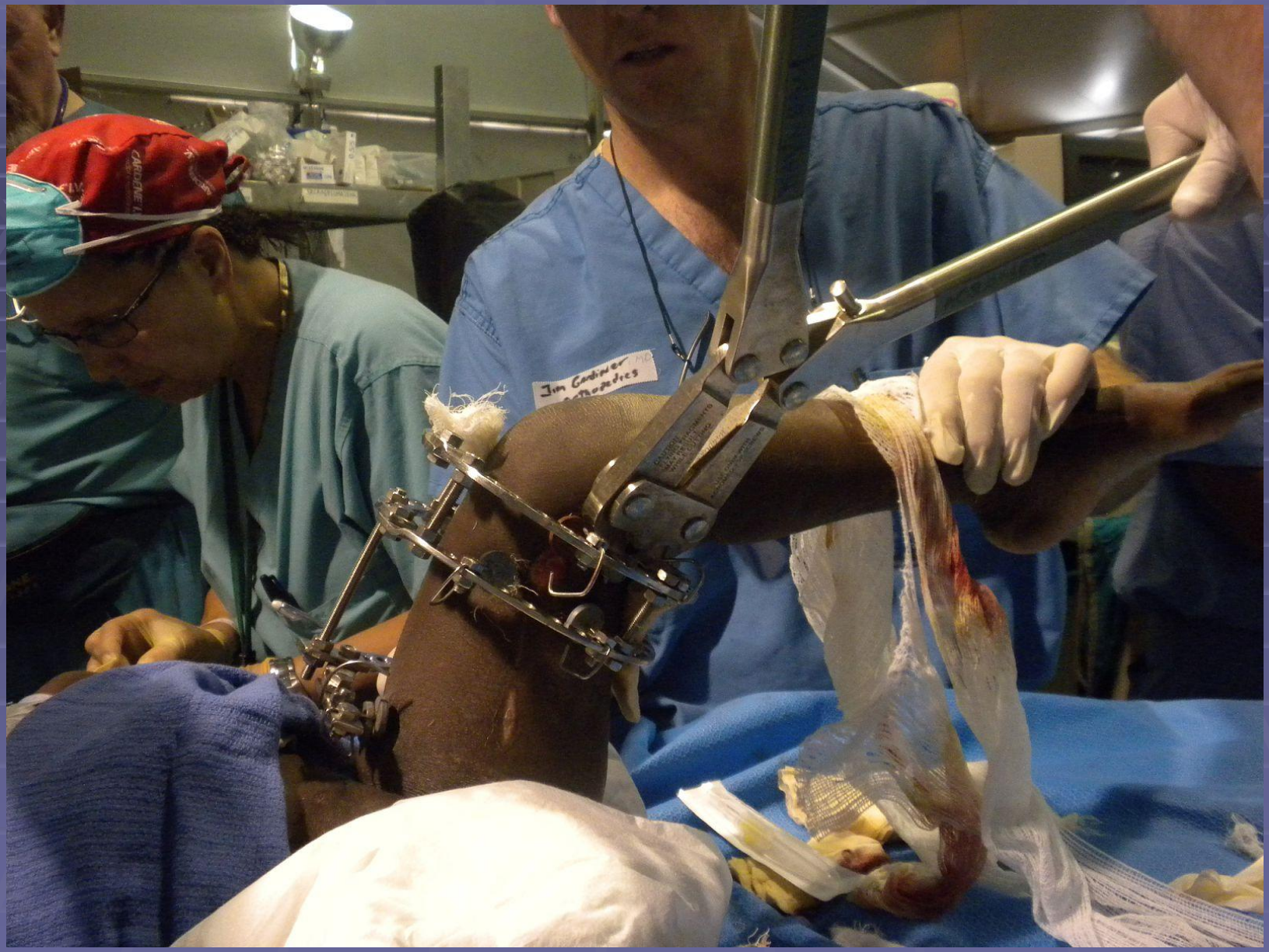


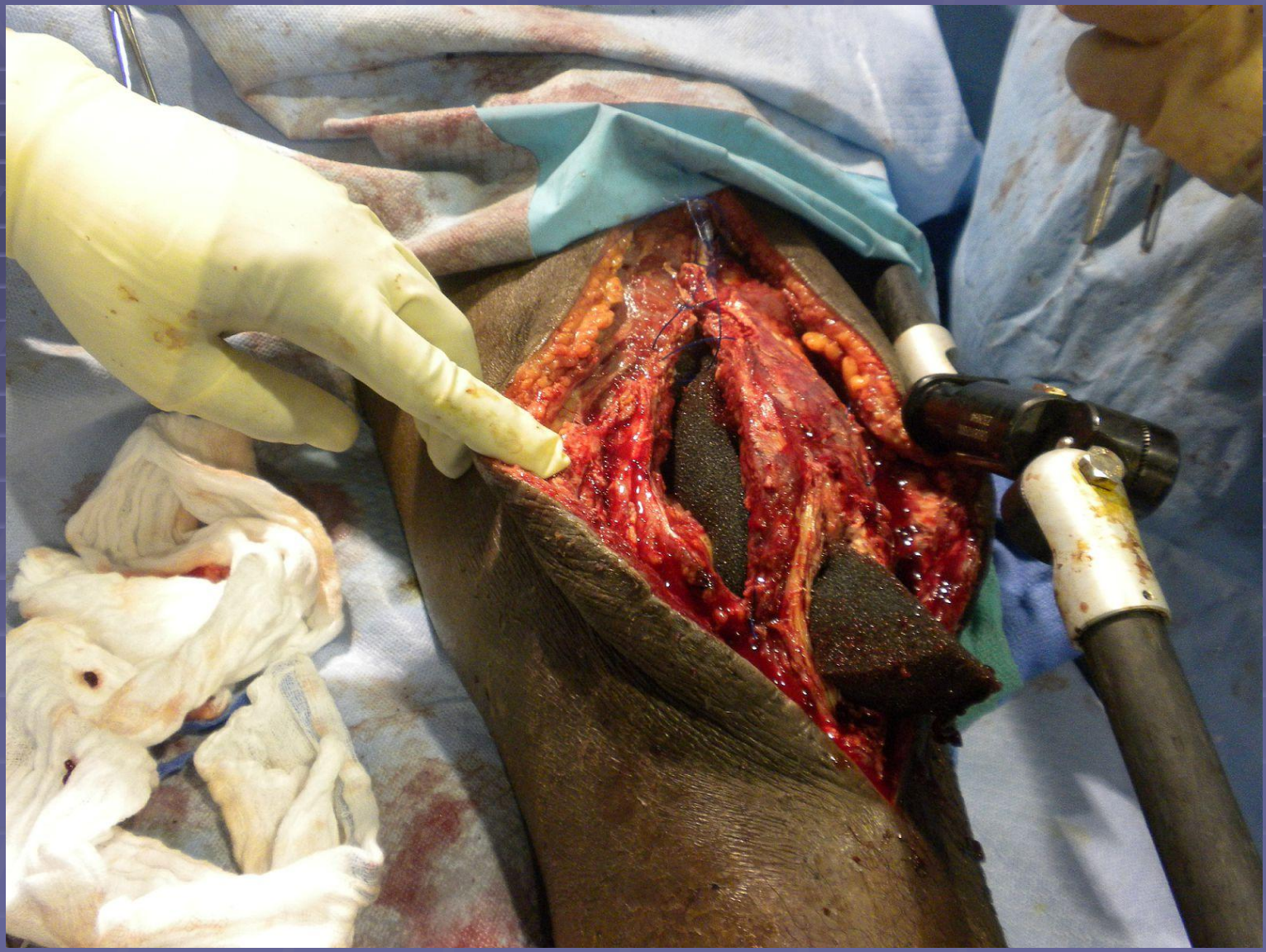

Future Cases



This was her “good” hand







4 week old untreated Galleazzi

Patient transfer

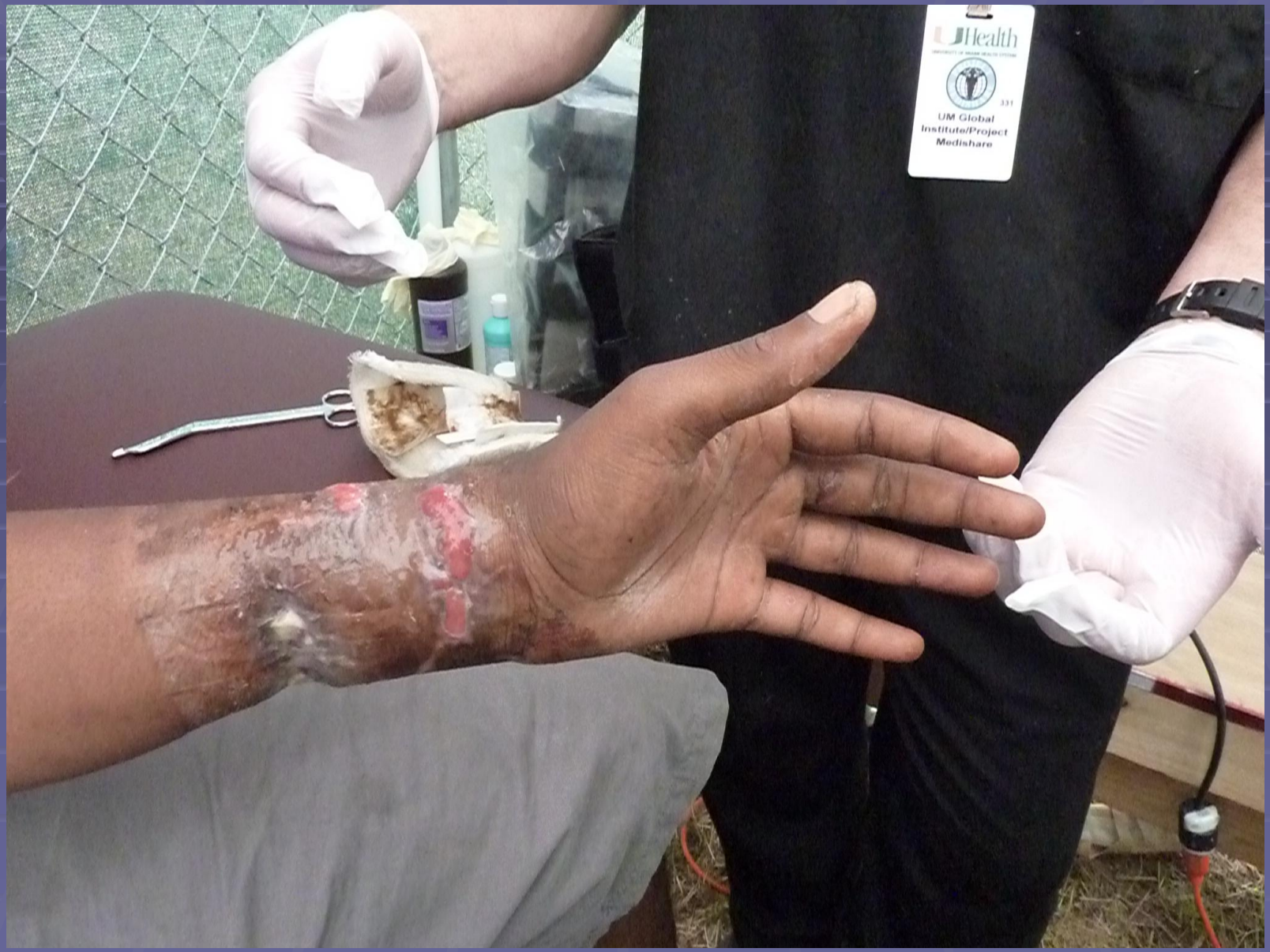
Port au Prince …Aftermath

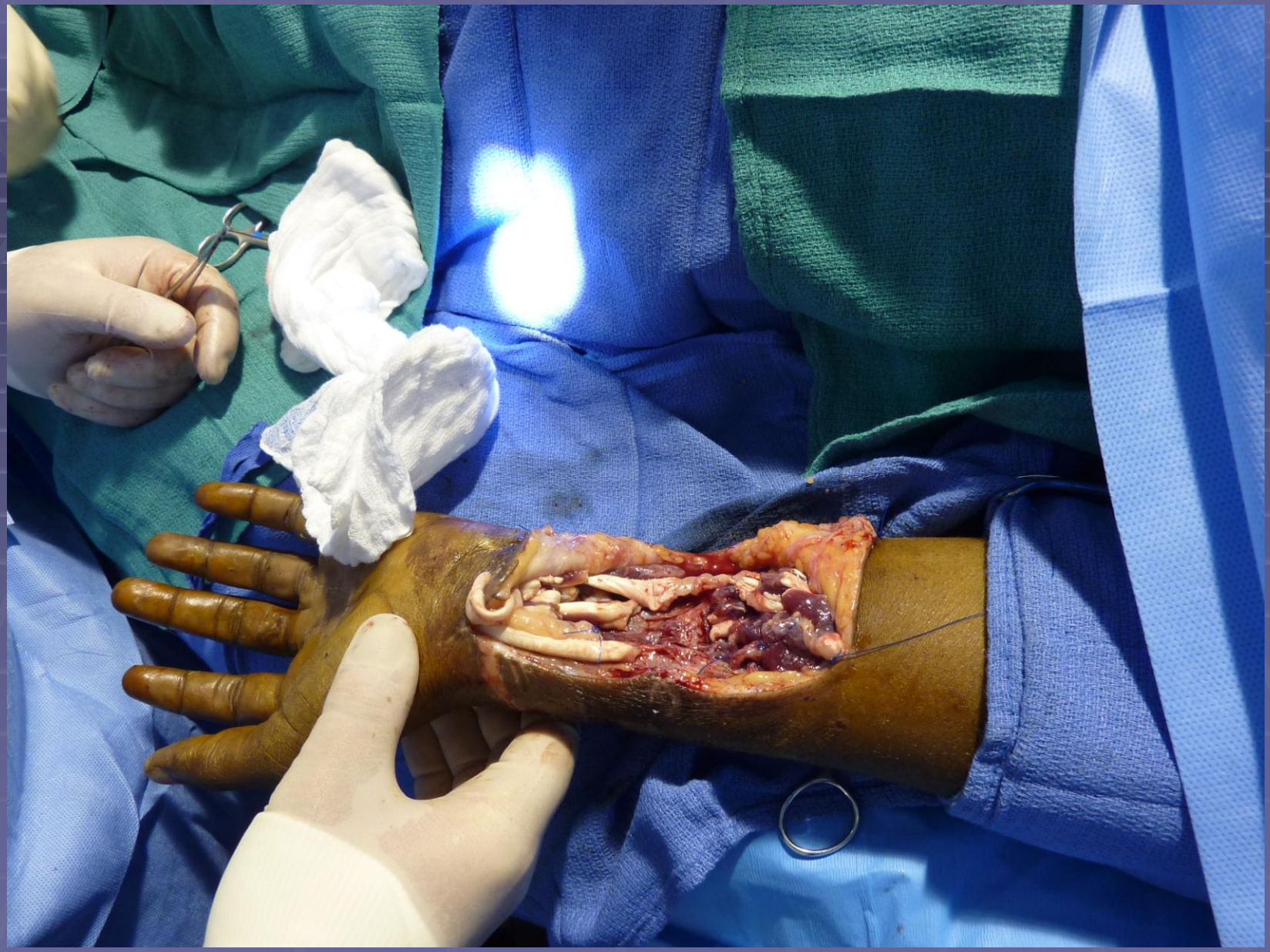

ELEKTRO

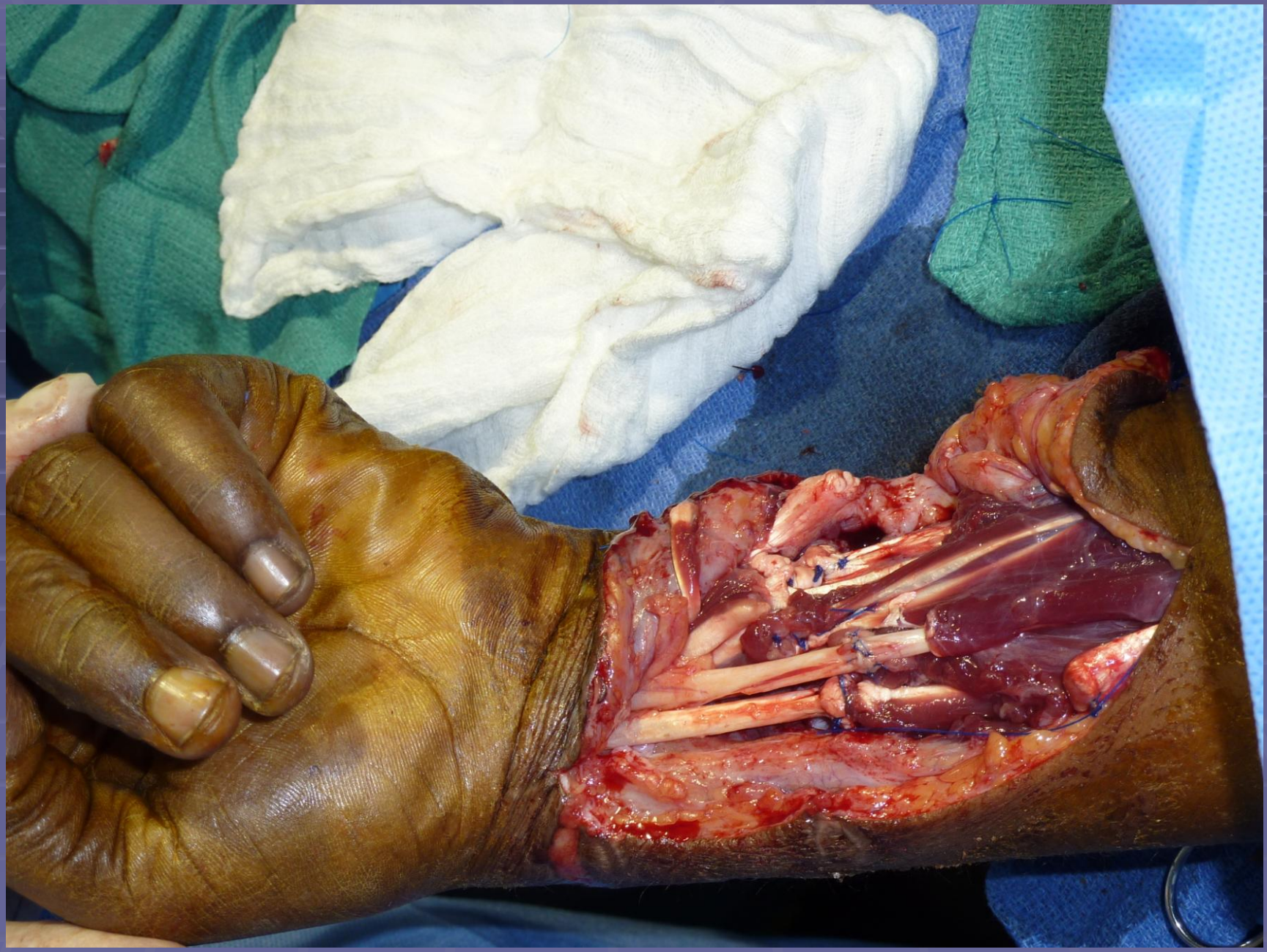
The National Cathedral

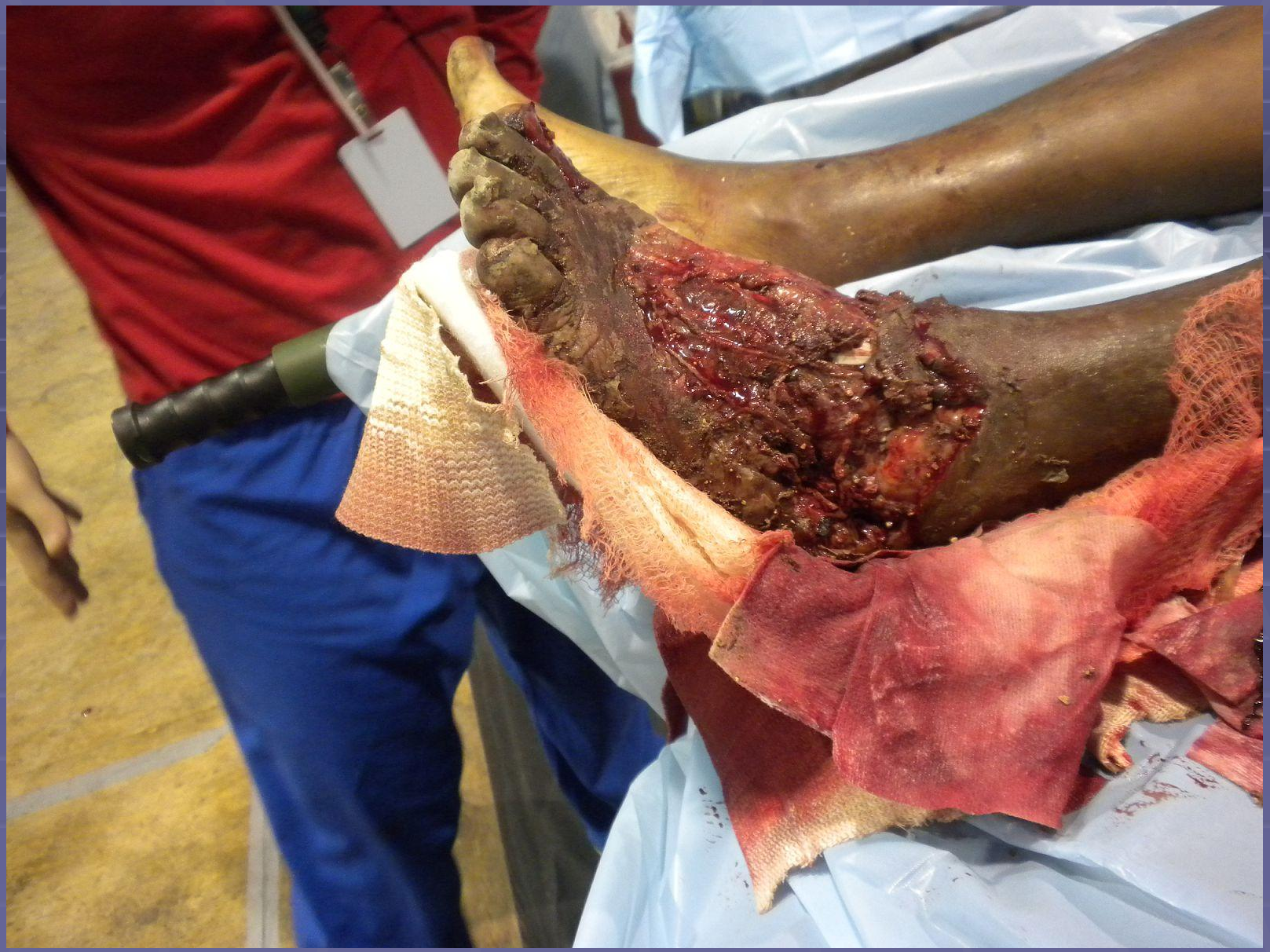
Municipal Cemetery


THE CHILDREN'S FOUNDATION OF HAITI
SPACE/ESPACE
HAOJIN
豪迅神威 ITT妙动力


UHealth
331
UM Global
Institute/Project
Medishare







Where was the USNS Comfort after 3 weeks?

The future of Haiti……

Project Medishare

- UM Project Medishare's facility at the airport in Port au Prince maintained and inpatient census of over 300 patient's
- It housed and fed 2x daily double that number in immediate family and patient's close friends
- It saw over 500 outpatient visits daily

PROBLEMS

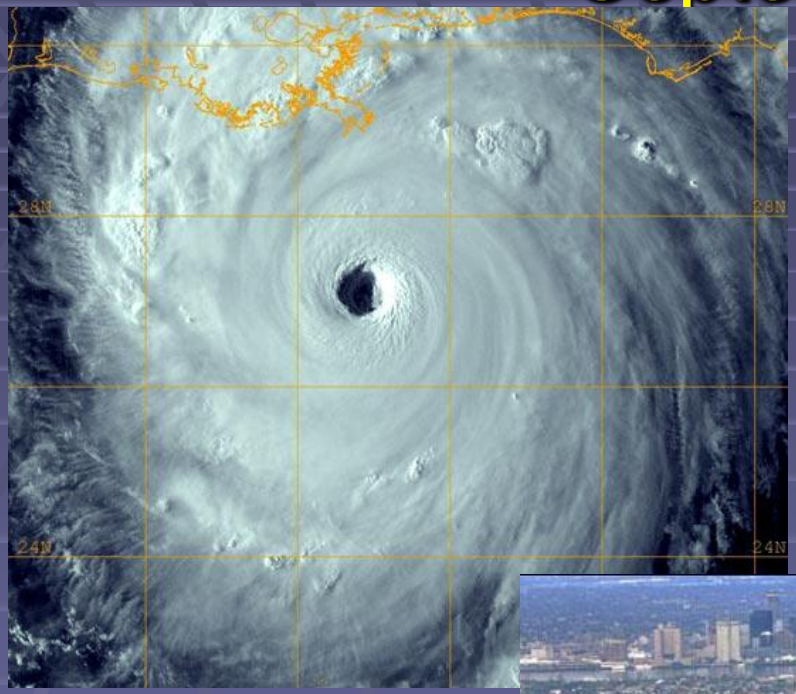
- However at the time of our “rotation” it was impossible to do any internal fixation on fractures as the infection rate from previously performed ORIF or IM rods neared 95%
- Soft tissue surgery, I&D with removal of infected hardware, external fixation and amputations were the mainstay of orthopedic surgery performed.
- THINGS COULD HAVE BEEN BETTER PLANNED AND EXECUTED FROM THE TOP DOWN.

PROBLEMS

- It was nearly impossible to transfer patients to other facilities with sterile OR's staffed by foreign or US teams.
- We were left "babysitting" patients with severe spinal injuries with unstable neuro status, unstable pelvic and subtrochanteric fractures.
- We were eventually able to transfer a handful of patients the last day

Hurricane Katrina: New Orleans

September 2005



Military transport C-130


JUNEAU ALASKA
RESPONSE
VOLUNTEER

At West Jefferson Hospital

The hospital feeding the community

“Commandeering” Meadow-crest Hospital

Living quarters

“Looting” the Hospital


WOUND
CARE
IV2D
Safe-T-Pro
VOLDYNE

Daily military briefing

Commandeering the school for use as a clinic


ABINGDON
FIRE CO.

Jefferson Parish… Aftermath

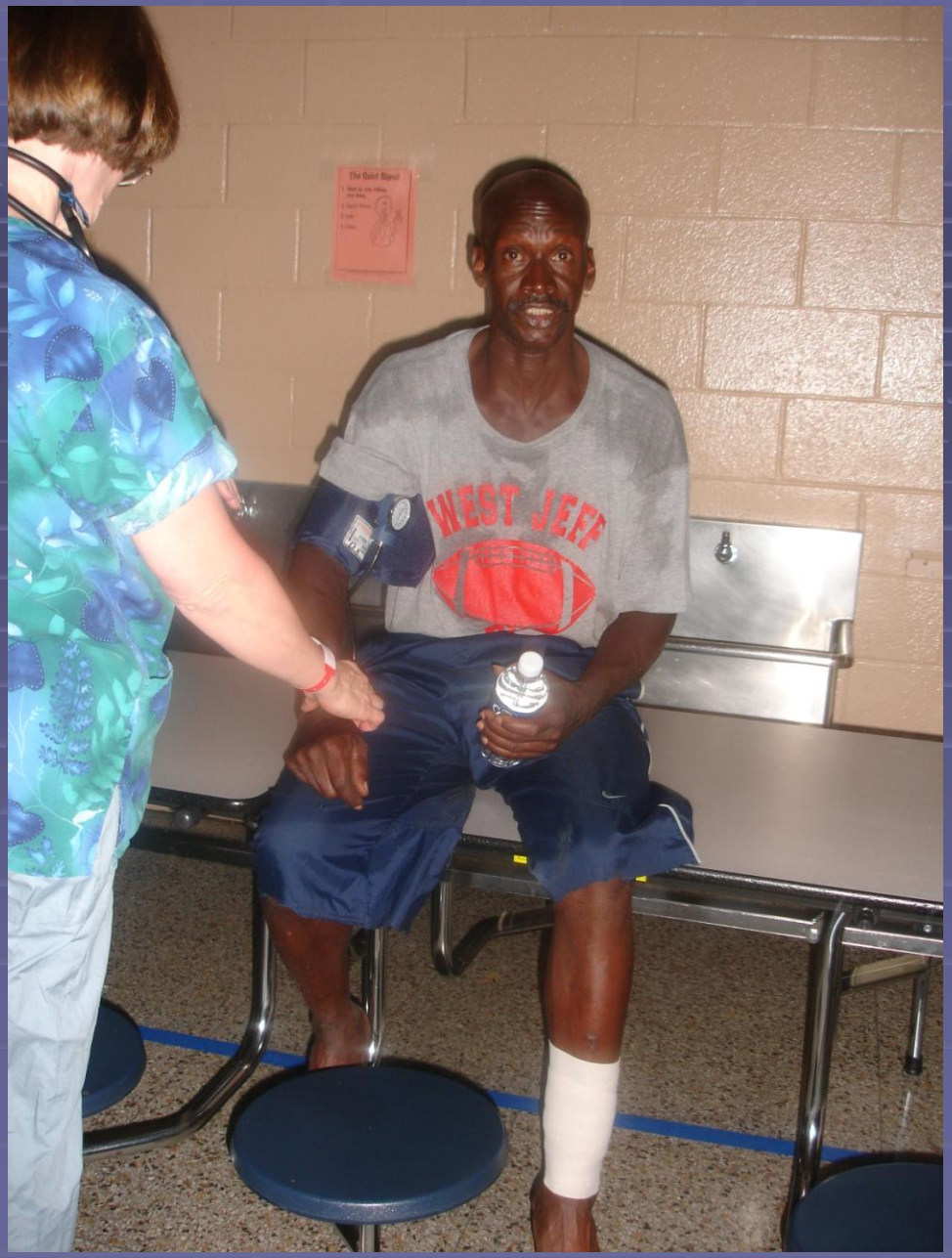
This used to be a gas station

Convoy to the clinic

The Surgical “clinic”

Triage

I&D in the kitchen sink


WEST JEFF

Unloading relief supplies


DO NOT STACK HEAVY ITEMS ON TOP
DO NOT STACK OVER 4 HIGH
3-1 Gal. Water
UP

The team


ST. VILLE ELEMENTARY
OPERATION LIFELINE
COMMUNITY HEALTH CTR
9:30AM-4:00PM

- In the four weeks of it's existence, "Operation Lifeline" saw and treated over 6,000 patients during September - October 2005

Katrina vs. Haiti
Similarities

- Military based infrastructure
- Austere working, living environment
- Conditions changed hourly
- The need to be flexible and not to stand on protocol. *You're not just a hand surgeon!*
- Physicians are not in charge but just "a cog in the wheel"
- Things are constantly "going wrong"

Similarities -2

- Our need to provide non medical services such as food, water, clothing and bedding to patients and extended families
- Miserable weather and concerns for our health i.e. typhoid , malaria, hepatitis
- Our food and water concerns

Similarities -3

- Extremely poor and vulnerable patient population
- Extreme disorganization in relief supply distribution
- Societal and governmental breakdown
- Security concerns
- Long term strategic planning not evident on the ground
- Things improved slowly as time went on

Katrina vs. Haiti
Differences

- Level of physical destruction far worse in Haiti
- Level of patient trauma far worse in Haiti
- Local infrastructure worse in Haiti but lessons learned from Katrina made the response in Haiti far more robust
- Referral for advanced care far more difficult in Haiti
- New Orleans is in the USA

Lessons Learned

- If you don’t have a means to sterilize instruments and maintain a sterile environment, you don’t HAVE an OR
- Disaster management must be managed prospectively and proactively and not reactively
- A well managed disaster management team if non military, should be comprised of members who have trained together and generally know each other.

Lessons Learned-2

- It is imperative to pre-position supplies that along with the team is ready to go in short notice
- Infrastructure in place for re-supply of personnel and materiel
- Teams must have ongoing and pre-exiting relationships with relief agencies on the ground that have been working locally long before the disaster especially in international missions.
- Disaster management is very different from ongoing elective relief missions in the developing world like “Orthopedics Overseas”

ASSH
Volunteer Services Committee

- Our new mandate is the formation of rapid response teams that would be available at short notice to provide upper extremity surgical services in the event of domestic or international disaster

Committee Responsibilities

- Form liaisons with the ACOS and AAOS to coordinate relief efforts
- This includes creating a database of potential volunteers: availability & areas of expertise
- Creating ongoing relationships with existing governmental relief agencies and NGO's which include training exercises and formal didactic instruction in general disaster management
- Creating relationships with surgical/medical supply vendors to donate OR and outpatient equipment prospectively
- Reporting to the ASSH council who will advise and consent