

## EMERGENCY PREPAREDNESS: LESSONS FROM HURRICANES MARIA & HARVEY

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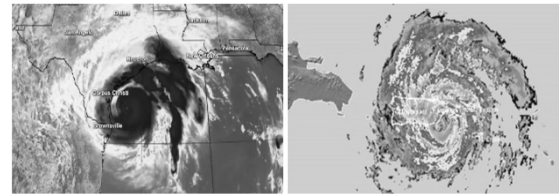
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## LEARNING OBJECTIVES

- ❑ Discuss how natural disasters can affect pharmacy operations
- ❑ Outline steps/action taken during a natural disaster from the pharmacy purchasing perspective
- ❑ Discuss lessons learned from recent natural disasters in preparation for potential future occurrences

## ARE YOU PREPARED?

**Our Disaster Recovery Plan  
Goes Something Like This...**



HURRICANE HARVEY MADE LANDFALL NEAR HOUSTON TEXAS AUGUST 25<sup>TH</sup>, 2017.

HURRICANE MARIA MADE LANDFALL NEAR SAN JUAN PUERTO RICO SEPTEMBER 20<sup>TH</sup>, 2017

## EFFECTS ON PHARMACY OPERATIONS

- ❑ Infrastructure damage including: Loss of utilities such as power, water, communications (telephone, internet) and road access.
- ❑ Staffing challenges - transportation to and from facility
- ❑ Delays in delivery of supplies and possible delays in state and federal aid
- ❑ Increased patient volume including those seeking refuge



## Steps/Action Taken During A Natural Disaster

- ❑ Essential personnel should secure their family and home prior to reporting to work.
- ❑ Pharmacy staff should come prepared to stay at work for a minimum of 5 days
  - ❑ Sleeping bags or inflatable mattress
  - ❑ Food and snacks (non-perishable), water,
  - ❑ Flashlight, batteries, transistor radio, battery operated television. (battery operated personal fans can be a plus).
  - ❑ Medications

### Steps/Action Taken During A Natural Disaster Continued

- ❑ Develop work and sleep schedule for staff on duty.
- ❑ Know emergency help centers contact numbers
- ❑ Know pharmacy staff and their family contact numbers
- ❑ Hospital Managers need to be aware that medications available at the hospital are for patients. Hospital staff should come prepared with their personal medications. The Hospital can also have a plan in place to refill medications for employees and visitors.
- ❑ Restock from central supply department including: IV fluids, labels, copy paper, hand sanitizer, hand towels.
- ❑ Recover medications from off site clinics such as temperature sensitive vaccines

### Steps/Action Taken During A Natural Disaster Continued

- ❑ Have a backup plan in the case of loss of power, communications (telephones, internet, fax machines) and automation system. Retrieve walkie-talkies, flashlights and batteries to ensure they are readily available if needed.
- ❑ Ensure that staff are aware of safety measures, such as security of medications.
- ❑ Begin contacting recovery pharmacy team as soon as the weather clears to communicate plans for them to report to work. The recovery team may be required to stay at work overnight.

### PURCHASING PERSPECTIVE

- ❑ The purchasing process has to be modified to ensure that services will not be affected before, during and after the impact of a disaster. For modifications, consider the following:
  - ✓ Hospital Census
  - ✓ Average of Emergency Department Visits
  - ✓ Actual patient therapy
  - ✓ Determine how many days or weeks you will stock medications
  - ✓ Know Wholesaler plan for the emergency
  - ✓ List all wholesaler contacts information
- ❑ Discuss plan with Director of Pharmacy and Clinical Manager

### PURCHASING PLAN IN PUERTO RICO

#### Examples of high consumption medications

- Chronic Conditions
- Analgesics
- Cardiovascular medications
- Vaccines
- Antibiotics
- Medications for opportunistic diseases
- Hygiene products
- Skin products
- Gastrointestinal

### PURCHASING PLAN IN PUERTO RICO

- ❑ After evaluating the inventory on hand, the decision was made to execute the emergency purchase order to cover at least 2 weeks.
- ❑ All the purchase orders that were submitted were confirmed with the distribution center to identify any backorders. If medications were unavailable, use secondary wholesaler.
- ❑ Daily inventories were conducted to determine the remaining stock in each area of the hospital. Medications were transferred based on utilization.

### LESSONS LEARNED

- ❑ Have a 72 hour ride out team and 24-72 hour relief team with policy and procedure. Teams would stay on site during their respective times.
- ❑ Check your disaster kit with your wholesaler annually and have a description in your P/P on when and how you execute the order.
- ❑ Have an understanding of if/how you can return items from your disaster kit.
- ❑ Be prepared to accrue high cost items with finance in your kit if you don't send them back.

### Lessons Learned

- ❑ Have a plan for dialysis patients if their local dialysis centers are offline. They will present to the hospital in droves and hospitals typically don't see that kind of volume. Dialysate will be difficult to get in the disaster (this is what happened in Houston).
- ❑ Make sure your hospital has some type of agreement with county resources and National Guard to deliver people and goods to your facility if couriers are unwilling or unable.
- ❑ Work with plant ops to do a generator test.

### Lessons Learned

- ❑ Establish communication plan internally + within other hospitals within network or nearby.
- ❑ Test HVAC system in pharmacy – ensure AC runs while on generator power
- ❑ DOP to have map of staff home locations (helps with flooded in areas)
- ❑ Test all red plugs in department for correct operation. Make sure you know every socket and light fixture in your department that runs on generator power. Don't rely on the socket being red.

### QUESTIONS?