When a Disaster Strikes: Access to Medications?
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Conflicts of Interest
• Dr. Ehret has no actual or potential conflicts of interest and no relevant financial interests associated with this presentation.

Pharmacist and Technician Objectives
• Describe pre-disaster planning for healthcare professionals, in particular for pharmacies
• Review medication supply chains and consider weak points in the chain
• Describe a needs assessment for a patient prior to a disaster
• Outline a disaster planning guide for a pharmacy setting

What type of practice setting are you currently working in?
• A. Community Pharmacy
• B. Hospital Pharmacy
• C. Advance Practice/Clinical Setting
• D. Academia
• E. Industry
• F. Government
• G. Veterans Affairs
• H. Other

Types of Events

“Drug Refugee”
• Minor Disaster
  − Power Outage
  − No pharmacist today
  − Evacuation
  − Riots/Protests
• Major Disaster
  − Flooding
  − Hurricanes
  − Earthquake
  − Tsunami
Minor Disaster Question

- Thunderstorm with major wind damage in a local town. Power is out at one of the major hubs and the independent pharmacy that everyone in town uses is closed. A major retail chain in the next town over has power.
- Patient presents to the major retail chain with a bottle for warfarin from the independent and states, “I am out of medication and my pharmacy is closed.”
- What do you do?

Minor Disaster Question

- A. Turn the patient away- you can’t call for a transfer due to the independent being closed
- B. Provide the patient with 3 days worth free of charge
- C. Provide the patient with an entire refill- worry about the transfer when the independent reopens
- D. Call the provider to obtain a new script for the medication to fill

Minor Disasters

- Pharmacies might not be open
  - Can I fill my prescription at any pharmacy that is open in town?
  - I don’t have my insurance card
  - I lost my prescription in the process
  - My pharmacy filled it, I didn’t pick it up yet, now they are not open
  - My medications were left out of the fridge, can I get new ones?
  - I am due for an injection, but my provider is not open or only doing telehealth

Major Disasters

- No medications available
  - Pharmacies are closed
  - Specialty medications- mail is slowed or stopped
  - Medications are expired- no fridge services available
  - No medicines coming into area
  - Disruption in supply chains
- Back order of medications
  - Medication is unable to be made- example IV fluids/sterile water
  - Hurricane Maria
  - Concerns over raw ingredients and drug supply manufacturing locations
- No providers to prescribe medications
  - Provider may not know medication history
  - Provider may be uncomfortable with certain medications (e.g. could a psychiatrist prescribe oncology medications?)

Supply Chains

- Social and technical system by which demand is identified, targeted, and fulfilled
- Process of deciding what, when, and how much is to be moved where

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Questions to Consider

• Do I have a clear understanding of what medications would be available through relief efforts? What is expected timetable would be for their restoration?
• What basic formulary should I anticipate?
• In case of an interruption in medication supply, which of my patients are likely to have the most severe discontinuation syndromes?
• What are my ethical and professional duties?

Questions to Consider

• Should I be considering maintaining a supply of certain medications? How do decision?
• If I opt to maintain a small supply of certain medications, do I know what I need to know to execute that plan? (e.g., securing of pharmaceuticals, expiration, temperature)
• For long-term stability-maintenance patients, what is a reasonable degree of disaster planning education/discussion?

Questions to Consider

• What could be the short-term and mid-term impacts of not having access to the electronic medical record be in may particular practice?
• How have other providers dealt with these questions in previous disasters?

Assessment of Where You Stand

Preparation  
Disaster  
Mitigation  
Response  
Recovery
### Reasons to do an Assessment

- Develop a strategic plan
- Reports to command, families, media
- Apportion resources
- Target interventions

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### Needs Assessment

- Individual
- Group
- Population
  - Consider vulnerable populations
    - Chronically mentally ill
    - Physically ill
    - Disabled

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### Basic First Assessment of Physical Needs

- Number affected
- Shelter
- Food
- Wounds/illnesses
- Infectious Disease
- Medications available
- Fuel
  - Heating
  - Cooking
- Continued violence
- Mass fatalities

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### Assessment of Health Needs

- Vulnerable populations
  - Mentally ill
  - Children
  - Prisoners
  - Wounded
  - Bereaved
- Medications
- Hospital Beds
  - General
  - ICU
  - Medical surge
  - Psychiatry

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### Assessment of Health Needs

- Try to gain as much information as possible before departure to affected site
- On the ground assessment usually necessary
- Persons to talk to
  - Schools
  - Hospitals
  - Clergy
  - Community leaders
  - Shelters

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Assessment Question

• In your current place of employment, have you ever had training in disaster planning?
  
  • A. Yes
  • B. No
  • C. I might have, but I can’t recall

Completing the Assessment

Disaster Assessment

• Identify your team
• Identify risks and needs (SWOT)
  – Access to regional healthcare resources
  – Prioritize resource gaps and mitigation strategies
  – Consider vulnerable populations
  – Regulatory compliance

Disaster Assessment

• Develop Preparedness Plan
  – Healthcare and medical response coordination
  – Emergency operations plan
  – Communications
  – Essential functions
    • Different for each setting
    • Supply chains
    • Finance functions
    • Shelters in place
    • Protecting healthcare information systems and networks
    • Protecting responders’ safety and health
  – Healthcare evacuation and relocation

Examples/Thoughts for Discussion

Disaster Assessment

• Recovery Plan

  • Train and prepare the healthcare medical workforce

  • Ensure preparedness is sustainable
**Psychiatric Issues-Acute**

- Stress as a reaction
- Additional fear of unknown with CBRNE
- Changes in mental status secondary to any agents
- Medical triage
- Quarantine, reverse isolation
- Loss, grief
- Under-reactions

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**“Drug Refugees”**

- Limited to no medications
- Withdrawal symptoms
- Symptoms return
- Self inflicted harm
- Psychosis
- Cravings

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**Opioid Withdrawal**

**Early**
- Watery eyes
- Runny nose
- Sweating
- Anxiety/Irritability
- Poor sleep
- Muscle pain

**Later**
- Cramping
- Diarrhea
- Vomiting
- Increased heart rate and blood pressure
- Restlessness
- Shakiness
- Chills
- Sweating
- Goose bumps
- Dilated pupils

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**Katrina Behavioral Health Needs**

- Chronically mentally ill off medications
  - Note: psychiatric medications not in stockpile
- Displaced psychiatrists and populations
  - Volunteers needed
  - Issues of housing, transportation
- Louisiana National Guard
  - All flooded to the “crash site”
- Importance of pets
- Long term issues of “diaspora”

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**Solutions**

**Patient**
- Refills prior to disaster (personal stockpile)
- Emergency kit prepared to grab if you need to go quickly
- Stock medications in multiple places: office, home, family members house
- Carry medication list with current and past medications, allergies, and provider contact information

**Provider**
- Develop emergency plans for injections, blood draws, and other time sensitive monitoring
- Provide patients with medication lists
- Discussions with patients to be prepared

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**Resources**

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Office of the Assistant Secretary for Preparedness and Response
Oath of a Pharmacist

I promise to devote myself, as a lifetime of service to others through the profession of pharmacy. Recognizing that this profession is an honorable and noble calling, I am honored to be a part of the legacy of care and support among humankind. I shall serve others with honor and respect, and shall be guided by the principles of ethics. I shall uphold the standards of professional conduct and integrity. I shall respect the confidentiality and privacy of my patients. I shall contribute to the advancement of knowledge and skill in the profession of pharmacy. I shall be an active participant in the lifelong learning and improvement of my professional abilities. I shall support the rights and responsibilities of my profession. I shall be an advocate for the health and well-being of my patients. I shall be a leader in the profession and the community. I shall be a role model for the next generation of pharmacists. I take these vows voluntarily with the full realization of the responsibility with which I am entrusted by the public.