Diabetes, Disasters and Decisions: Update

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Disasters

• Natural Disasters: Earthquakes, Tsunamis, Infection, Hurricanes, Tornados, Flooding, Heat Waves

• Man Made Disasters: War, Terrorism, Bombs

• Combination Disasters: Tsunamis, Radiation accidents, Bioterrorism
Goals of Presentation

- Know that Preparedness Training should be part of general diabetes education
- Know where to find resources
- Recognize opportunities to partner with Emergency Preparedness Teams
Why are we talking about disasters and diabetes?

- Epidemic of chronic disease
- Training in disaster preparedness for professional organizations
- Preparedness web site and conference
- Early decisions and plans can help decrease later exacerbations of chronic conditions after a man made or natural disaster
Chronic Disease in Health Emergencies: Lessons Learned from Katrina

- 9.0% of had diabetes (87,000).
- 4.6% had angina or CHD
- 3.0% had Hx MI, 2.0% had had a stroke
- 25.4% adults had at least one of the above conditions.

Based on 2004 BRFSS data, the prevalence of chronic conditions in the New Orleans area

- Prev Chron Dis Volume 3: No. 2, April 2006,
- MMWR March 10, 2006 55:244-247
Earthquakes and Diabetes: Kobe

- Higher A1c levels in Kobe, worse health quality
- Other factors such as disruption of lifestyle, diet, access to meds looked at
- Role of acute and chronic stress in people with diabetes
- Recommend that anti-disaster programs address psychological interventions in people with chronic conditions such as diabetes, kidney failure
  - Arch Int med 158 (1998) 274-278
Shelters: What have we observed from past disasters?

- Shelter problems that could exacerbate problems with glucose control: infection, lack of water, diet high in simple carbs
- Cases of gangrene, DKA reported in shelters
- Propose every government develop special program that would teach basic diabetes information to emergency personnel
CDC Messages: Emergency Preparedness and You

- Gather Emergency Supplies
- Make a Plan
- Learn How to Shelter in Place
- Understand Quarantine and Isolation
- Maintain a Healthy State of Mind
- Adapt for diabetes
The Challenge of Teaching People to be prepared: Similar barriers in teaching people self management skills for a chronic condition
General
Diabetes Emergency Plans

• Some Things to Remember About Your Insulin and Syringes
• Some things to remember about diabetes pills
• Things to Remember About Your food Supplies
• Things to Remember About Your Meal Plan
• Things to Remember About Your Feet
• Hypo and hyperglycemia treatments
• General emergency principles
  • www.cdc.gov/diabetes/news/docs/hurricanes.htm
Family Emergency plan

• Tailor to diabetes
• Have a list of all meds, prescriptions, medical professionals and all medical conditions
• Train people with diabetes BEFORE the disaster
• Emergency food kit: “Appropriate food”.
• Appropriate meds and supplies (tests trips, syringes, meds etc)
General Care

• If you are not feeling well, call your doctor. If you are unable to reach your doctor, and are out of medication or food:
  • Go to the nearest hospital
  • Contact the police
  • Contact the American Red Cross
  • Go to an emergency medical center
  • Parental consent forms on file to treat in an emergency
Basic planning

- Know basic self care skills very well.
- Know diet principles such as what to take on a camping trip, or what to eat without electricity
- Stress management skills
- Disaster debris, such as wood, glass or metal pieces can increase your risk for injury
- Check your feet daily for open sores or blisters. Remember protective footwear
- Food safety principles www.bt.cdc.gov
Disaster planning

- Alcohol Swabs
- Meter to measure blood sugar and Strips to use with your meter or strips for visual reading
- Lancets and Lancet Device
- Sharps container
- Blood Sugar Testing Diary
- Urine ketone testing strips
- Glucose Tablets, cans of regular soda, juice and hard candies
- Glucagon Emergency Kit
Medical Supplies

• Sharps Container to dispose of your used syringes and lancets
• Prescriptions for diabetes supplies (insulin syringes, glucagon, etc.)
• Medication for nausea, vomiting and diarrhea
• Insulated bag for diabetes supplies if there is a loss of electricity, especially in warm climates
• ENOUGH SUPPLIES FOR 2 WEEKS. THESE SUPPLIES SHOULD BE CHECKED AT LEAST EVERY 2 TO 3 MONTHS.
• WATCH FOR EXPIRATION DATES AND REPLACE AS NEEDED.
Emergency Food Supplies

- 1 large box unopened crackers (saltines)
- 1 jar peanut butter
- 1 small box powdered milk (or milk that does not need refrigeration)
- 1 gallon of water per day per person for at least one week
- 2 packages cheese and crackers or 1 jar soft cheese
- 1 package dry, unsweetened cereal
- 6 cans sugar-free soda
- 6-pack of canned fruit juice or sports drink
- 6 cans of fruit packed in water or its own juice
- 1 spoon, fork and knife per person
- Disposable cups
- Glucose Tablets or small hard candies for low blood sugar
- Cans of tuna, salmon, chicken, nuts
- Manual can opener
- THESE SUPPLIES SHOULD BE CHECKED AND REPLACED YEARLY.
Insulin

• Never omit taking your insulin unless your doctor tells you.

• All insulin that comes in a bottle, except glargine can stay at room temperature (59°-86°) for 28 days. At the end of 28 days, an open bottle of insulin must be thrown away, even if some insulin is left in the bottle.

• Once an insulin bottle is opened, it is only good for 28 days even if it is refrigerated.

• Insulin must be kept from: Bright light, Extreme heat, Extreme cold.
Insulin Pens

- Insulin Pens that are not in use and are refrigerated are good until they have reached their expiration date
- Insulin Pens that are in use should not be refrigerated and are good:
  - Short acting regular or analogs: Are good for 28 days
  - NPH pens are good for 14 days
  - NPH combination premixed pens: Are good for 10 days
Chronic Disease in Health Emergencies: In the Eye of the Hurricane: CDC Study

- Establish a comprehensive understanding of the medical and chronic disease needs of communities using BRFSS as a model
- Use epi data to prepare: Know # of people who have diabetes, HTN, CVD etc to aid in preparing supplies, stockpile meds
- This information should arm public health professionals with the critical information needed to prepare for medical care of people with chronic diseases after a disaster.

- Prev Chronic Dis April 2006
What can we do

• Partner with Red Cross, IDF, WHO, ADA, Insulin for Life etc. Make new friends.
• Cross training
• Each state has a disaster preparedness team AND a DPCP, CVD team etc
• Give survival skills diabetes 101 talk
• Basics about diet, meds etc
• Same strategies: culturally appropriate messages, communication
Public Health Emergency Preparedness Education

Preparedness Education

- Form partnerships and collaborate with vulnerable populations
- Conduct targeted and tailored education and communications
- For health care providers, emergency responders
- For people with pre-existing chronic conditions (diabetes, CVD, asthma, seizures, pregnancy etc) and the people who care for them
  - During routine self management skills education
  - Availability of supplies, medications, and emergency kits

www.cdc.gov/diabetes/news/docs/hurricanes.htm
Strategies for Preparedness

- Issues and Concerns with Diabetes as an example of a chronic condition
  - Training about diabetes for emergency preparedness team at the state and local health department level (models already exist)
  - Use epidemiological data on chronic disease burden and share with emergency preparedness teams
  - Develop resources list for meds and supplies
  - Can be applied to other chronic conditions

www.cdc.gov/diabetes/news/docs/hurricanes.htm
Cross training and Competencies

Working with state PHEP teams

- PHEP Medical Supplies Management and Distribution Workgroup
- PHEP Community Resilience Workgroup
- Schools of Public Health Training
OPHPBR has the message!

• OPHPR’s Public Health Preparedness: Strengthening the Nation’s Emergency Response State by State says that “a healthy population is more resilient in public health emergencies. People with chronic conditions may require additional care such as specialized medications, equipment and other assistance.”

• The monograph lists the prevalence of asthma, heart disease and stroke and diabetes for each locale that has CDC-funded preparedness activities. The goal is to help guide policies on the availability of medications and supplies in stockpiles and at other resources in the community.

• http://www.bt.cdc.gov/publications/2010phprep/
IDF SACA Emergency Preparedness Manual

- To represent, engage and impact people with diabetes and their families, communities and governments in efforts to ensure the safety of people with diabetes in cases of natural disasters
- Help improve the quality life those living impacted and affected by this disease.
- Support government efforts
“Gone With the Wind”: Disaster Preparedness for persons with Diabetes AADE Tool Kit

- The Alamo Association of Diabetes Educators in Texas
- **Diabetes Clinic Set-up**
- Creating the necessary infrastructure for your emergency response
- **Additional Resources:** Information Regarding Insulin Storage and Switching Between Products in an Emergency (FDA)
- **Staffing**
- Determining your staffing
- **Charting Documentation**
- A helpful form to use in your temporary diabetes clinic
- **Policies and Procedures**
- Medical screening and care of evacuees.
- **Patient Education**
- Tips About Medical Devices and Hurricane Disasters (FDA)

http://www.diabeteseducator.org/ProfessionalResources/Library/Disaster_Response_Toolkit.html
Being Prepared For A Disaster: Kentucky Diabetes Prevention and Control Program

REMEMBER:

The best way to be safe during a disaster is to be prepared before the disaster!

- Make your plan
- Build and maintain your kit
- Know what might happen
- Organize and practice a family drill
- Don’t forget your health
KY DPCP

• Building Your Disaster Supplies Kit
• (Adapted from FEMA “Are You Ready? - An In-depth Guide to Citizen Preparedness”)
• Foods for your Disaster Supplies Kit
• http://chfs.ky.gov/dph/info/dpqf/cd/diabetes.htm
Sample Family Communication Plan from Ready.gov
Disaster Preparedness for Persons with Chronic Disease

- University of Louisville Hospital/ Kentucky Department for Public Health grant.
- Visit www.chronicdiseasepreparedness.org
- WHY PREPARE?..
- WHAT YOU NEED TO DO.
  - Get Informed..
  - 3. Assemble a Disaster Supplies Kit.
  - 4. Maintain Your Plan
- IF DISASTER STRIKES.
  - 1. Sources For Emergency Preparedness Information..
  - 2. Community Emergency/Disaster Resource Form...
  - 3. Personal Medical Information Form...
  - 4. Emergency Contact Cards....
CDC Web site: Help for People with Diabetes Affected by Natural Disasters

• Insulin, Drug and equipment advice
• Drug resources for Evacuees with diabetes
• Health Coverage
• General Hurricane recovery information
• The CDC has compiled many hurricane health and safety resources in English, Spanish, and several other languages.
• Additional links which may be especially useful for people with diabetes.

• www.cdc.gov/diabetes/news/docs/hurricanes.htm
Summary: Disasters Happen

• Be prepared
• Know your population
• Chronic conditions happen and don’t blow away
• Let DPCPs (and other chronic teams) be a model to teach others about disasters and chronic conditions
• Don’t loose the forest for the trees except in the case of hurricanes, tornados, earthquakes and tsunamis
References

- American Association of Clinical Endocrinologists  www.aace.com
- Insulin for life www.insulinforlife.org
- World Health Organization www.who.int
- International Diabetes Foundation www.idf.org
- www.redcross.org
- **BD Diabetes - Emergencies & Disasters**
  http://www.bddiabetes.com/ca/english/healthyliving/emergencies.asp
- American Diabetes Association Diabetes Forecast February 2006
  www.diabetes.org
- www.nfid.org: Improving Influenza vaccination rates in Adults and Children with Diabetes Resources