

DIABETIC EMERGENCIES

ALTERED LOC

Diabetes is the 6th leading cause of death by disease in the United States.

Diabetes Mellitus (Sweet Diabetes)- is a metabolic disorder in which the ability to metabolize carbohydrates (sugars) is impaired, usually because of a lack of insulin.

Glucose (Dextrose)- one of the basic sugars; it is the primary fuel, along with oxygen, for cellular metabolism.

Insulin-a hormone produced by the pancreas that enables sugar in the blood to enter the cells of the body, used in the synthetic form to treat and control Diabetes Mellitus.

Hormone-a chemical substance produced by a gland that has special regulatory effects on oilier body organisms and tissues.

TYPES OF DIABETES

TYPE I DIABETES- "juvenile diabetes" or "insulin dependent diabetes (IDDM)"- Usually do not produce insulin, need daily injections of supplemental synthetic Insulin, throughout their lives to control blood glucose, usually develops In children, but can develop later in life.

Medications

- Insulin-injections or pumps

TYPE II DIABETES -"non-insulin-dependent-diabetes (NIDD)"-patients usually produce inadequate amounts of insulin; or the insulin produced does not function properly. Usually develops later in life (adults)

Medications

- Chlorpropamide (Uabinase)
- Tolbutamide (Ornase)
- Glyburide (Micronase)
- Glipizide (Glucotrol)
- Insulin

DIABETIC EMERGENCIES

Normal blood glucose level is 80-120 mg/dl

Hypoglycemia-abnormally low levels of blood glucose

Hyperglycemia-abnormally high levels of blood glucose (usually around 200mg/dL, or About twice the 3 normal levels)



3 "P"s" of uncontrolled diabetes

- **Polyuria**-frequent and plentiful urination
- **Polydipsia**-frequent drinking of liquids
- **Polyphagia**-excessive eating (seen occasionally)

Diabetic Ketoacidosis (DKA)-a form of acidosis in uncontrolled diabetes in which certain acids accumulate when insulin is not available.

Acidosis-a pathologic condition resulting from the accumulation of acids in the body.

Signs and Symptoms of DKA

- Vomiting
- Abdominal pain
- **Kussmaul Respirations**-a type of deep rapid breathing
- Unconsciousness
- Diabetic coma
- Death

Diabetic Coma-unconsciousness caused by dehydration, very high blood glucose levels and acidosis in diabetes.

Signs and Symptoms

- Kussmaul Respirations
- Dehydration - warm dry skin, sunken eyes
- Rapid weak (thready) pulse
- Sweet or fruity (acetone) odor in breath
- Normal or slightly low blood pressure
- Varying degrees of unresponsiveness

Insulin Shock-low blood sugar-unconsciousness or altered mental status in a patient with diabetes, caused by significant hypoglycemia; usually the result of excessive exercise and activity or failure to eat after a routine dose of Insulin

Signs and Symptoms

- Normal or rapid respirations
- Pale, moist (clammy) skin
- Diaphoresis (sweating)
- Rapid pulse
- Normal or low blood pressure
- Altered mental status. Aggressive, confused, lethargic, or unusual behavior
- Intoxicated appearance, staggering, slurred speech
- Anxious or combative behavior
- Seizure-or fainting
- Weakness on one side of the body (may mimic stroke)
- Dizziness or headache

SEE ATTACHED CHART

Complications of Diabetes

- Renal failure-kidney disease
- Visual disturbances-eye disease
- Vascular disease
- Heart disease
- Stroke
- Ulcers
- Infections of the feet
- Amputations

Conditions that may cause Altered Mental Status

- Hypoperfusion (Stroke)
- Poisoning or overdose
- Seizure
- Infection
- Traumatic head injury
- Inadequate airway or breathing (hypoxia)
- Alcohol intoxication
- Stroke
- Diabetes

Assessment of a patient with altered level of consciousness

ASK:

- ✓ Do you take insulin or any pills that lower your blood sugar?
- ✓ Have you taken your insulin (pills) today?
- ✓ Have you eaten normally today?
- ✓ Have you had any illness or unusual amount of activity or stress today?

Emergency Medical Care

- Scene safety
- Body substance isolation (BSI)
- Airway
- Prepare to suction
- High flow oxygen as indicated
- Focused exam-SAMPLE history
- Check for medical alert tag
- Obtain blood glucose level-if available
- Administer Oral Glucose-**AS PER MEDICAL CONTROL**- IF INDICATED-SEE ATTACHED MEDICATION SHEET
- Reassess patient



ADMINISTRATION GO ORAL GLUCOSE

*****SEE ATTACHED MEDICATION SHEET*****

	Diabetic Coma DKA, Hyperglycemia	Insulin Shock Hypoglycemia
History Food Insulin Onset Appearance of Patient Skin Infection	Excessive Insufficient Gradual 12-24 hrs/days Extremely ill Warm and Dry May be present	Insufficient Excessive Sudden 20 Min. Very Weak Pale and Moist Absent
Gastrointestinal System Mouth Thirst Hunger Vomiting Abdominal pain	Dry Intense Absent Common Frequent	Drooling Absent Intense Uncommon Absent
Respiratory System Breathing Odor of Breath	Kussmaul Respirations Exaggerated air hunger Acetone odor usual (sweet, fruity)	Normal or Shallow Acetone odor maybe present
Cardiovascular System Blood pressure Pulse	Low Rapid, Weak	Normal Normal, may be rapid
Vision	Dim	Diplopia (double vision)
Nervous System Headache Mental status Tremors Convulsions	Absent Restlessness merging Into unconsciousness Absent None	Present Apathy, dizziness Irritability merging Into unconsciousness Present In late stages
Urine Sugar Acetone	Present Present	Absent May be present
Improvement	Gradual, within 6-12 hrs, following administration of insulin	Immediate improvement Following oral administration Of carbohydrates (sugar, Candy, orange juice, pepsi. Etc.)

VIRGINIA DEPARTMENT OF HEALTH - OFFICE OF EMERGENCY MEDICAL SERVICES
BASIC LIFE SUPPORT - PRACTICAL SKILL TEACHING SHEET

ADMINISTRATION OF ORAL GLUCOSE

SCENE SIZE-UP

Assess: Need for body substance isolation, Scene safety, Trauma(MOI) or Medical(NOI) nature, and Number of Patients

ASSESSMENT

Perform initial assessment and focused or detailed assessment as indicated.

Obtain history of present illness: **0-P-Q-R-S-T**

Obtain **S-A-M-P-L-E** history

Obtain base line vital signs

EMERGENCY MEDICAL CARE - ORAL GLUCOSE ADMINISTRATION

Actions:

- Increases blood sugar

Side Effects:

- None when given properly
- May be aspirated by the patient without a gag reflex

Indications:

- Patients with altered mental status with a known history of diabetes controlled by medication.

Contraindications:

- Unresponsive
- Unable to swallow

Dosage:

- One tube

Administration:

Obtain order from medical direction either on-line or off-line (Per local protocol)

Assure signs and symptoms of altered mental status with a known history of diabetes.

Assure patient is conscious and can swallow and protect the airway.

Administer glucose:

- Between cheek and gum
- Place on tongue depressor between cheek and gum

Perform on-going assessment and record findings:

- If patient loses consciousness or seizes, remove tongue depressor from mouth.

MAY 6 1984

Insulin Confusion Nearly Fatal

By JOE FITZGERALD
P-I Staff Writer

PETERSBURG — A city resident in insulin shock spent 4½ hours in the Petersburg jail Friday without medical treatment on a drunk in public charge.

Edward A. Smith, 64, of Sherwood Rd. in Petersburg, was arrested in front of Gates' Foodland at 2:40 p.m. Friday.

He said he had stopped to buy a candy bar to stave off the effects of an insulin reaction and remembers nothing from that time until he woke up in Petersburg General Hospital at 7:35 p.m.

During that time his wife found out about the arrest from a neighbor who at first refused to believe the story. She and the neighbor went to the jail and she said it took 15 to 20 minutes to convince a jailer he should release her husband so that he could be taken to the hospital.

The neighbor, Randolph Madison, said he heard about the arrest from someone at Petersburg Ford, where he and Smith both work. The car dealership had apparently been called by police to tell them where they could pick up the vehicle Smith was driving.

Madison said he did not believe the report at first because he knew Smith did not drink. He called Mrs. Smith, who confirmed the arrest by calling a magistrate at 6:40 p.m.

When they arrived at the jail, Madison said, "He was absolutely helpless and they should have known right off the bat that something was wrong."

Mrs. Smith said the jailer told her her husband could not be released because he had only been there two hours and had to be held at least four hours on a drunk in public charge.

She then gave the jailer a package of glucose tablets and asked him to try and get her husband to swallow them. She said she was allowed to see her husband after the jailer was unable to administer the pills.

"If he could have gotten them into him, that would have brought him around," she explained.

Mrs. Smith said she found her husband sweat-soaked and uncon-

scious in the drunk tank and persuaded the jailer to release him so she could take him to a hospital.

But she and Madison were unable to get Smith into a car and he finally left for the hospital at 7:10 in a Southside Emergency Crew ambulance.

He was given intravenous insulin there and released that evening. According to Mrs. Smith, a blood test there showed no traces of alcohol, but a blood sugar count of 50. 80-120 is normal, she said.

Smith said he still felt weak Saturday and couldn't recall any details of his experience. "I don't remember them arresting me or anything. It hit me and I just went out."

"I have never in my life been drunk," he added.

Smith said he has not yet decided whether to take legal action against the city. "It may not help me but it could solid help someone else in the same position."

Smith said a captain and two officers visited him at the hospital to check on his condition and he received a call there to come and pick up \$50 removed from his wallet when he was arrested.

He said he could not understand how they had missed seeing a red-edged card in the wallet. The card says "In case of emergency" and "I am a diabetic." He also wondered how police had gotten his name for the arrest warrant without seeing the emergency card.

"It was a terrible ordeal," Mrs. Smith said. "Why can't they call the family?"

Smith said he is still embarrassed about the incident. "I told my wife this morning I was afraid to go to church tomorrow." Smith had bruises on his wrists but said he did not know if he had been handcuffed.

No one in the sheriff's department could be reached Saturday for comment on Smith's 4½ hours in the jail.

Dave Williams, manager of Gates' Foodland, said police were called by a supervisor when a cashier reported someone who appeared to be drunk was blocking traffic in the parking lot.

"It was an unfortunate situation," Williams said.