



Diabetes Management in Health Care:
Whose Responsibility is it Anyway?

Objectives

- Participant will define the difference in diagnosis and treatment between Type 1 and Type 2 diabetes
- Participant will define 3 diabetes medications and their mode of action
- Participant will define 2 symptoms and treatments of hypo & hyperglycemia



Prediabetes

~79 million American adults (1 in 3), ≥ 20 years old with pre-diabetes in 2010

- 50% >65 years old have prediabetes
- **Risk of Type 2 development can be reduced up to 58% with these interventions:**
 - Lose 7% of total body weight
 - Reduce dietary fat
 - Consume 14 grams of dietary fiber/1,000 calories consumed
 - Consume one-half of grain intake from whole grains
 - Increase physical activity to ≥150 minute/week
 - Moderate Alcohol intake (1-2/day)
 - Annually monitor individuals with prediabetes for diabetes development



Diabetes Diagnosis

Diagnosis	Fasting Test ≥8 hours	Casual Test	A1C
Diabetes (2 abnormal readings on subsequent days)	≥126 mg/dL	≥200 mg/dL (after 2-hour OGTT OR with classic symptoms)	≥6.5%
Prediabetes	100-125 mg/dL (IFG)	140-199 mg/dL (after 2-hour OGTT) (IGT)	5.7-6.4%
Normal	≤99 mg/dL	≤139 mg/dL	≤5.6%

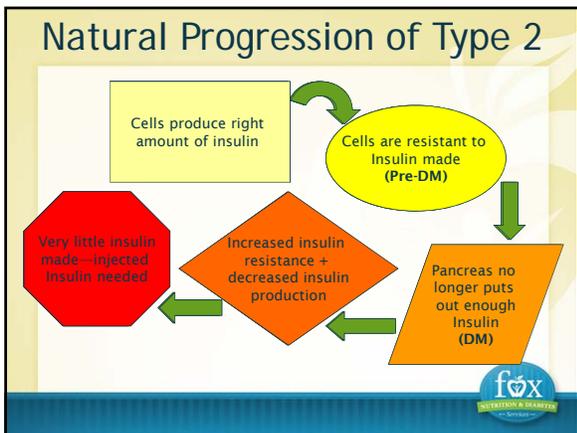
American Diabetes Association: Clinical Practice Recommendations 2013. Diabetes Care. January 2013, Volume 36, Supplement 1.



Case Study

- JM:
 - BMI 66, African American, HTN, Sleep Apnea, TG 170's, on Zyprexa
 - 1500 ADA Diet for weight loss
 - BG tested annually
 - 2005 FBG 115
 - 2009 FBG 82
 - 2012 FBG 130 & 118
 - 2013 FBG 138 & 198
- What is her diagnosis?





Diabetes Types

Type 1	Type 2
<ul style="list-style-type: none">• Insulin deficiency<ul style="list-style-type: none">- Immune system destroys insulin producing cells of pancreas- Injected insulin needed- Can occur at any age- 5-10% of those w/DM- Formerly called IDDM/Juvenile DM	<ul style="list-style-type: none">• Insulin Resistance<ul style="list-style-type: none">- Reduced insulin production OR body can't use insulin properly- Can occur at any age- 90-95% of those w/DM- Formerly called AODM/NIDDM



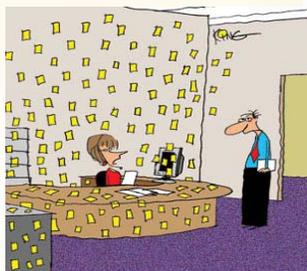
Fact or Fiction?

- Type 2 is the mild form of DM and Type 1 is the really serious one.

Answer: Fiction



Check Your Blood Sugar



"As you can see, your wife left a few messages reminding you to check your blood sugar."



When To Test

Insulin	BID: varied times before meals, HS
Oral Agents	2x/week: varied times before meals, HS
Additional Testing Suggested	Illness, surgery, stress, suspected low or change in condition



Diabetes Management in Long-term Care Facilities: A Practical Guide, 6th Edition, MN State Diabetes Educators.



Blood Glucose Goals

Time	ADA Goal
Pre Meal	90-130 mg/dL
Postprandial 1-2 hours	<180 mg/dL
Hgb A1C	<7%

Blood Glucose goals are individualized—discuss with your Health Care Provider

American Diabetes Association. Standards of medical care in diabetes—2013. Diabetes Care. 2013;36(suppl 1):S11-S66. January 2013

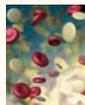


A1C Goals

2013 Recommendations

ADA Guidelines: Correlation of A1C With Average Glucose

A1C %	Mean plasma glucose	
	mg/dL	mmol/L
6	126	7.0
7	154	8.6
8	183	10.2
9	212	11.8
10	240	13.4
11	269	14.9
12	298	16.5



As A1C increases, FBS is more of the contributing factor

American Diabetes Association. Diabetes Care 2013;36(suppl 1):S11-S66.

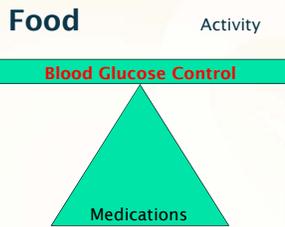


Case Study

- GF:
 - Type 1 diabetes
 - Testing Fasting BG only
 - A1C 9.8% (272 BG)
- Is there a problem with this situation?
- Who's Responsibility Is It Anyway?



Treatment Options



What Happens When We Eat?

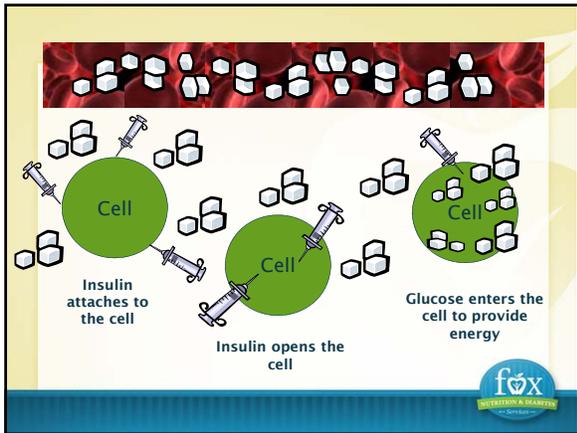
Food, Glucose and the Body

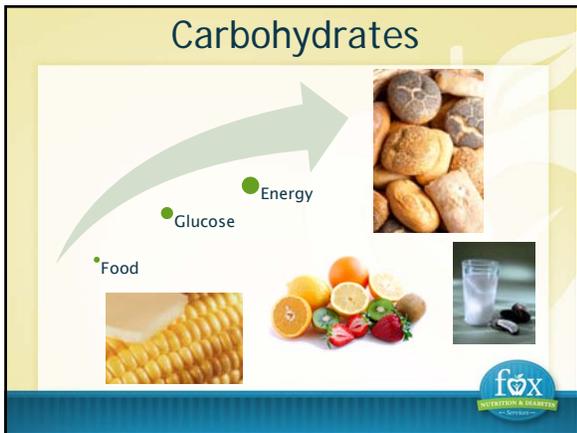


- Glucose comes from food that contains carbohydrate (eg, starch, sugar, rice, pasta, bread, cakes, etc.)
- The mouth, the stomach and the small intestine digest (break down) food to glucose
- Glucose enters the blood stream from the small intestine
- The blood then carries glucose to muscles and the brain

Image: R. Kozar & M. Maphua, Australian Community Centre for Diabetes, 2011







What to Eat

- **Carbohydrates**
 - Should provide 50-60% of total calories
 - Most people require 30-75 grams per meal and 15-30 grams per snack
 - Distribute evenly throughout the day
- Consistency more important than the source
 - **Not** < 2 carb/meal (30 grams)
 - Brain needs ~9 carb servings/day (~132 gm)
- Eat every 4-6 hours -- **DON'T SKIP MEALS**

RD 411. Diabetes Meal Planning: Easy as 1,2,3. http://www.nutrition411.com/diabetes_center/article.php?ID=65pat. Accessed February 15, 2013

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NUTRITION & DIABETES

What's a Carb?

- Carbohydrate Choices
 - Grains, Bread, Cereal, Starchy Vegetables
 - Milk, Yogurt, Pudding, Ice Cream
 - Fruit
 - Sweets



1 carbohydrate choice = 15 grams

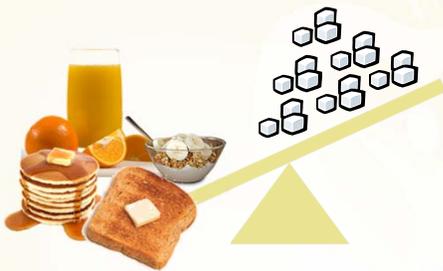


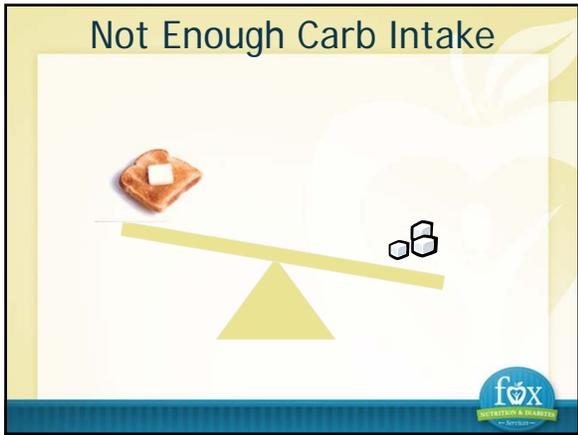
What's Not a Carb?

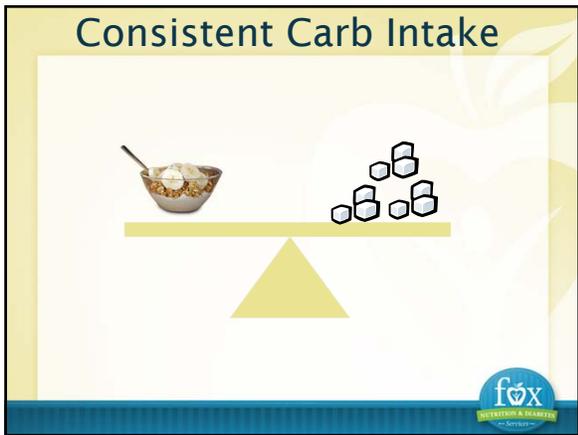
- Meat/Protein
 - Beef, Chicken, Pork, Fish, Eggs, Peanut Butter, Cottage Cheese, Cheese
- Fat
 - Butter, Margarine, Cream, Nuts, Seeds, Sour Cream, Salad Dressing, Mayonnaise



Too Much Carb Intake







What counts as a carb serving (~15 grams)?

Bread/Starch	Fruit	Milk
1 slice bread	1 small whole fruit	1 c white milk
$\frac{3}{4}$ c cold cereal	$\frac{1}{2}$ grapefruit	1 c low fat yogurt
$\frac{1}{2}$ c hot cereal	$\frac{1}{2}$ banana	
$\frac{1}{2}$ c pasta	1 c melon	
$\frac{1}{3}$ c rice	1 c berries	
$\frac{1}{2}$ c starchy veg	$\frac{1}{2}$ c juice	

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NUTRITION & DIETITIAN

What counts as a carb serving (~15 grams)?

Other Carbohydrates

½ cup ice cream	4 oz regular pop
¼ cup sherbet	8 oz sports drink
2" piece of unfrosted cake	1 Tbls sugar
1 oz (~12) potato chips	1 Tbsp syrup
1 fun size candy bar	1 Tbsp jam or jelly
2 small sandwich type cookies	



Putting it Together

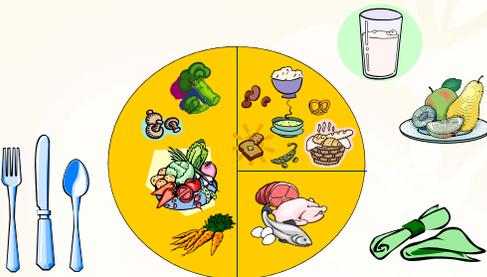
BREAKFAST

Orange Juice 4 oz	1 carb choice
Oatmeal 1 c	2 carb choices
WW Toast 1 slice	1 carb choice
Margarine 1 tsp	1 fat choice
Egg 1	1 protein choice
Skim Milk 1 c	1 carb choice

TOTAL: **5 carb choices (75 gm)**



Consistent Carbohydrate Meal



Benefits of Counting Carbs

- Flexibility
- Seeing effects of food on BG
- Enjoying an occasional “goody”
- Improved BG control
- Improved insulin dosing



Geil, PB. Sugars & Starches & Fibers, Oh My! Basic Carbohydrate Counting. 2005

Determining Amount of Carbs per Meal

Dependent on age, height, weight, activity level

Population	Carb choices per meal
Inactive women	2-4
Active women or inactive men	3-5
Active men	4-6
Carb choices (snack)	
Between meal or HS Snacks	1-2



3 Carb Sample Meal Pattern

Breakfast

2 starch
1 milk
0-1oz protein
0-1 fat

3 Carb

Lunch

2 starch
1 non-starchy veg
2 oz protein
1-2 fat
1 fruit

3 Carb

Supper

2 starch
1 non-starch veg
3-4 oz protein
~2 fat
1 milk

3 Carb

- Snacks: 1 fruit + 1 milk/yogurt



Thickeners

- Consider carbohydrate content of thickener
 - 8 oz Nectar thick water has 8 gm carb
 - 8 oz Honey thick water has 12 gm carb
 - 8 oz Pudding thick water has 16 gm carb
- Consider carbohydrate content in pre-thickened liquids



Food Labels



Fact or Fiction?

- As long as the item is sugar free, the person with DM can have as much as they desire.

Answer: Fiction



Food Labels

- Check serving size
- Check total gm of carbohydrate
- Don't focus on sugar
- Fiber counts
- Sugar free  carb free

Amount Per Serving	
Calories 80	Calories from Fat 0
<small>% Daily Value*</small>	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol less than 5mg	1%
Sodium 130mg	5%
Total Carbohydrate 12g	4%
Dietary Fiber 0g	0%
Sugars 11g	
Protein 8g	
Vitamin A 8%	Vitamin C 4%
Calcium 30%	Iron 0%
Vitamin D 25%	
<small>* Percent Daily Values are based on a diet of 2,000 calories a day. Your daily values may be higher or lower depending on your calorie needs.</small>	
Total Fat	Less than 5g
Sodium	Less than 500mg
Total Carbohydrate	Less than 50g
Dietary Fiber	25g

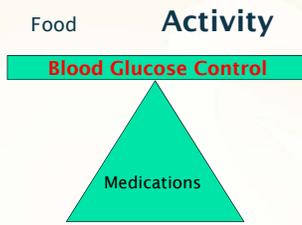


Counting Carbohydrates

Total Carb (g)	Carb Servings
0-5	Free
6-10	½
11-20	1
21-25	1 ½
26-35	2
36-39	2 ½
40-49	3
50-54	3 ½
55-64	4
65-69	4 ½
70-80	5



Treatment Options



Exercise Benefits

- Improves blood glucose
- Improves blood pressure
- Improves lipid levels
- Decreases fat around organs
- Promotes weight loss
- Reduces cardiovascular risk
- Improves insulin sensitivity




Exercise Recommendations

- ≥ 150 min/wk moderate-intensity aerobic activity spread over ≥ 3 days/wk with no more than 2 consecutive days without exercise
- Resistance training ≥ 2 times/wk




American Diabetes Association. Standards of medical care in diabetes—2013. Diabetes Care. 2013;36(suppl 1):S11-S66. January 2013.

Older Adult Exercises

- Swimming and aerobic exercises
 - 10-30 minutes, 5 days/week
- Strength and resistance training
 - 8-10 rep's every other day that target major muscle groups
- Balance exercises
 - 3 days/week
- Core stability to stabilize movement
- Flexibility exercises
 - 2 days/week for 10 minutes



On the Cutting Edge, Diabetes Care and Education. Vol. 30, No. 2, Spring 2009.

Older Adult Exercises

- Walk in halls, outside, in a swimming pool
- Chair or wheelchair exercises
- Walking up and down stairs
- Ball toss
- Exercise videos
- Use elastic bands
- Arm raises
- Leg raises
- Weights



On the Cutting Edge, Diabetes Care and Education, Vol. 30, No. 2, Spring 2009.

Treatment Options

Food Activity

Blood Glucose Control

Medications



Diabetes Medications

Oral

- Help body cells use insulin better
- Help pancreas release more insulin
- Make liver release less glucose into the bloodstream



Injectable

- Improve insulin release from the pancreas
- Make liver release less glucose into the bloodstream
- Slow stomach emptying
- Decrease appetite
- Injected daily, twice daily or weekly



Diabetes Medications

Sulfonylureas	Biguanides
<ul style="list-style-type: none"> • Pancreas • Hypoglycemia, wt gain • Avoid w/liver, renal Dz • Targets FBG, PPG • Initial dose at ½ usual <ul style="list-style-type: none"> – Glucotrol/Glipizide <ul style="list-style-type: none"> • Least hypoglycemia – Glucotrol XL/Glipizide XL <ul style="list-style-type: none"> • ↑ risk of hypoglycemia – Diabeta/Glyburide – Amaryl/Glimepiride 	<ul style="list-style-type: none"> • Liver, muscle • Nausea, diarrhea • Lactic Acidosis • Avoid w/age 80+, GFR <60 mL/min/1.73m² • Decreased B12 levels • Targets liver FBG <ul style="list-style-type: none"> – Glucophage/Metformin – Glucophage XR/Metformin ER – Riomet (liquid form)

Diabetes Medications

Thiazolidinediones	Alpha-Glucosidase Inhibitors
<ul style="list-style-type: none"> • Muscle cells, liver • Can increase LFT's, cause edema, weight ↑ • Contraindicated Class 3,4 CHF • Not recommended for elderly • Targets FBG <ul style="list-style-type: none"> – Actos/Pioglitazone 	<ul style="list-style-type: none"> • Small Intestines • Starch Blockers • Abdominal cramps, gas, diarrhea • No hypoglycemia • Targets PPG <ul style="list-style-type: none"> – Precose/Acarbose – Glyset/Miglitol

Diabetes Medications

Meglitinides	SGLT2 Inhibitors
<ul style="list-style-type: none"> • Pancreas • Take w/all meals • Short-acting, fast insulin secretagogues <ul style="list-style-type: none"> • Less hypoglycemia • Targets PPG <ul style="list-style-type: none"> – Starlix/Nateglinide – Prandin/Repaglinide 	<ul style="list-style-type: none"> • Kidney • Ist of a new drug class • Avoid with GFR < 45, ESRD, dialysis • Polyuria, hypotension, UTI's • Targets FBG <ul style="list-style-type: none"> – Invokana/Canagliflozin

Incretin/DPP-4 Connection

- **GLP-1:** (Incretin Hormone) Released from small intestine when eating
 - Reduces appetite
 - Regulates gastric emptying
 - Promotes insulin production
 - Prevents liver glucose release
- **DPP-4:** (Protein) Breaks down GLP-1
 - Prevents overproduction of insulin
- Insufficient incretins with Type 2 → ↑ BG



Diabetes Medications

Incretin Analogs

- Pancreas, liver, small intestine, brain
- Not broken down by DPP4
- Injected (protein), for T2
- Weight loss, nausea, cardioprotective, ↑ INR
- MTC, ? pancreatitis, pancreatic CA
- Targets FPG & PPG
 - Byetta/Exenatide (BID)
 - Victoza/Liraglutide (QD)
 - Bydureon/ (weekly)

DPP-4 Inhibitors

- Pancreas, liver
- Inhibit enzymes that break down GLP-1
- For Type 2
- OK w/kidney problems, elderly
- Targets PPG
 - Januvia/Sitagliptin
 - Onglyza/Saxagliptin
 - Tradjenta/Linagliptin
 - Nesina/Alogliptin



Amylin Analog

- Co-secreted with insulin:
 - Lacking or deficient with DM
 - Rapid gastric emptying, glc release from liver
- Liver, small intestine, brain
- For Type 1 or Type 2 on insulin
- Injected before meal with ≥250 Kcal OR 30g CHO
- Avoid w/gastroparesis Dx, hypoglycemia
- Targets PPG
 - Symlin/Pramlintide



Fact or Fiction?

- Use of insulin indicates that one has the “worst type” of diabetes.

Answer: Fiction



Insulin

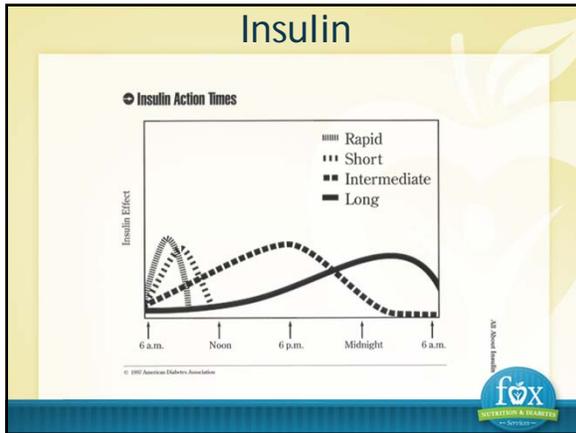
Basal	Bolus/Prandial
<ul style="list-style-type: none"> – A low level of continuous insulin <ul style="list-style-type: none"> » ~50% of insulin need – Suppresses hepatic glc production between meals, overnight <ul style="list-style-type: none"> » Targets FBS – Intermediate & Long-acting 	<ul style="list-style-type: none"> – A burst of insulin, often before meals <ul style="list-style-type: none"> • 10-20% of insulin need at each meal – Reduces PPG – Rapid & Short-acting – Premixed: Basal & Bolus mixed



Insulin Action Profile

Insulin	Starts	Peaks	Stops
BOLUS Humalog NovoLog Apidra	5-15 minutes	1-2 hours	3-4 hours
BOLUS Regular	30-45 minutes	2-5 hours	5-8 hours
BASAL NPH Lantus Levemir	2-4 hours 2 hours	4-8 hours flat	10-16 hours 14-24 hours





- ## Sliding Scale Insulin
- Avoid in elderly
 - Risk of hypoglycemia without improving hyperglycemia
 - Creates erratic BG control
 - Not supported by current literature
 - Looks at ~6 hours prior BG value
 - Doesn't provide basal coverage
 - No standardized clinical protocols exist
 - Meant for short-term
 - Initiated at BG > target
 - Convert to fixed insulin dose after 1 wk
- The Beers Criteria for Potentially Inappropriate Medication Use in Older Adults 2012 Publication
Diabetes Management in the Long-term Care Setting Clinical Practice Guidelines. AMDA.
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by Diabetes

- ## Correction Factor
- Calculates insulin sensitivity
 - Corrects high/low BG prior to the meal
 - Typically initiated when BG 30-50 points >/< target range
 - Does not cover meals
 - Bolus insulin does this
 - Supplemental Regular or Rapid-acting insulin used
- AADE's 32nd Annual Meeting & Exhibition 8-13-05, Marianne Baird, MN, RN & Amparo Gonzalez, SN, RN, CDE
- fox
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by Diabetes

Correction Factor Example

- Take 1 unit of insulin for every 50 points in BG greater than 150
- 100-150 = 0 units
- 151-200 = 1 unit
- 201-250 = 2 units

- Joe takes 3u Humalog before meals
- Premeal BG is 187
- Joe takes 4u insulin
(3u as ordered + 1 extra unit for CF)



Case Study

- SW:
 - On Lantus & Humalog
 - Humalog given before breakfast
 - SW chose to go back to bed without eating
- Is there a problem with this situation?
- Who's Responsibility Is It Anyway?



Fact or Fiction?

- People with DM have to eat an HS snack or their BG will drop too low overnight.

Answer: Fiction



Tube Feedings

- Match medication amount and action time to amount of carb consumed
- Specialized formulas for DM aren't required
- Options for continuous feeding on insulin
 - Basal insulin at HS (Lantus, etc.)
 - NPH every 12 hours
 - Regular insulin every 6 hours
- Options for nocturnal feeding on insulin
 - NPH at supper-time
 - Mixed insulin at supper-time

Diabetes Management in the Long-term Care Setting Clinical Practice Guidelines. AMDA.



Hyperglycemia

<p>Typical Symptoms</p> <ul style="list-style-type: none"> • Excessive hunger • Excessive thirst • Excessive urination • Dry mouth and skin • Fatigue • Weight loss 	<p>Possible Symptoms in Elderly</p> <ul style="list-style-type: none"> • Blurred vision • New or increasing confusion • Lethargy • Weakness • Weight loss • Worsening incontinence • Fruity breath <p style="font-size: x-small;">• Diabetes Management in the Long-term Care Setting Clinical Practice Guidelines. AMDA.</p> 
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Hyperglycemia

<p>Typical Causes</p> <ul style="list-style-type: none"> • BG levels kept purposely high to avoid lows • Eating more CHO than usual • Activity < normal • Not taking enough DM meds • Stress, depression • Infection/Illness • Some medications • Sleep deprivation 	<p>Medical Causes</p> <ul style="list-style-type: none"> • Obesity • Pancreatic diseases <ul style="list-style-type: none"> • Pancreatitis • Endocrine diseases <ul style="list-style-type: none"> • Cushing's syndrome, hyperthyroidism • Genetic syndromes <ul style="list-style-type: none"> • Down Syndrome, Huntington's chorea <p style="font-size: x-small;">• Diabetes Management in the Long-term Care Setting Clinical Practice Guidelines. AMDA.</p> 
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Meds That Can Increase BG

- Steroids
- Thiazides
- Antipsychotics
- Estrogen
- Thyroid hormones
- Dilantin
- Ca++ Channel Blockers
- Opiates
- Niaspan
- Protease Inhibitors
- Echinacea

• Diabetes Management in Long-term Care Facilities: A Practical Guide, 6th Edition. MN State Diabetes Educators.



Hyperglycemia

Concerns

- Increased infections
- Poor healing wounds
- Poor mouth/dentition
- BG > 200 mg/dL for extended period
 - Heart Attack/Stroke
 - 2-4x more frequent w/DM
 - Neuropathy
 - 20-40% of elderly
 - Nephropathy
 - Retinopathy
 - Effects 40-50% of DM population

Treatment

- Increase BG testing
- Check for ketones (Type 1)
- Monitor vitals
- Increase fluid intake
 - 6-8 oz/hour
- Monitor po and urine output
- Call provider per protocol

• Diabetes Management in the Long-term Care Setting Clinical Practice Guidelines. AMDA.



HHNS vs. Ketoacidosis

	Type 1 DKA	Type 2 HHNS
Onset	Rapid	Days-Weeks
Symptoms	Thirst, Need to urinate, Dry Mouth, Blurred Vision, Very Tired, Ketones, Nausea & Vomiting, Fruity breath, Stomach Pain, Weakness	Less GI symptoms, Dehydration, Sluggish, Kussmaul's respirations absent, Confusion May mimic CVA
Glucose	<600 mg/dL	<800 mg/dL
Treatment	Insulin Always required Rehydration	Rehydration Insulin often required
Mortality	3-10%	10-20%
Precipitating Factors	Illness, insulin, stress	Illness, fluid loss, hypertonic feeding, impaired thirst

Hypoglycemia

BG < 70 mg/dL

<ul style="list-style-type: none"> • Typical Symptoms <ul style="list-style-type: none"> - Confusion - Blurred vision - Sweaty/clammy - Shaky - Rapid heartbeat - Tingly lips - Irritable/anxious 	<ul style="list-style-type: none"> • Possible Symptoms in Elderly <ul style="list-style-type: none"> • Confusion, disorientation • Poor concentration • Drowsiness • Aggression, altered behavior/personality • Falls • Hallucinations
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INSULIN & DIABETES
EXPERTISE

Hypoglycemia

<p style="text-align: center;">Causes</p> <ul style="list-style-type: none"> • Skipping, delaying or eating less carb than usual • ETOH intake without food • Being more active than usual • Taking too much DM medication <ul style="list-style-type: none"> • Rapid/short-acting insulin too long before meals • Vomiting, acute diarrhea 	<p style="text-align: center;">Concerns</p> <ul style="list-style-type: none"> • Poor physical, mental performance • Impaired judgment • Mood changes • Weight gain • Seizures • Loss of consciousness • Death <p style="font-size: small;">Think Like a Pancreas. Gary Scheiner, MS, CDE. 2004.</p>
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INSULIN & DIABETES
EXPERTISE

Case Study

<ul style="list-style-type: none"> • SW: <ul style="list-style-type: none"> - Found confused & sweaty in her bed - BG tested - 62 - Treated with 4 Glucotabs, 1 whole sandwich (3 slices turkey, 1 slice cheese, 2 slices Light bread) - BG re-tested 20" later - 57 - Treated with 1 Glucotab, 1 apple 	<ul style="list-style-type: none"> • BG re-tested 15" later - 70 • Nurse suggested 1 slice bread + PB • Is there a problem with this situation? • Who's Responsibility Is It Anyway?
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INSULIN & DIABETES
EXPERTISE

Hypoglycemia

- Treatment Plan
 - **Rule of 15**
 - Eat 15 g Simple Carbohydrates
 - ½ c juice or regular soda pop
 - 1 c skim milk
 - 1 Tbls honey or sugar
 - 3-4 glucose tabs
 - Wait 15 minutes
 - Repeat if BG <70
 - Weight Gain
 - With treatment of frequent lows
 - Call provider if unresponsive or consecutive lows
 - Glucagon for severe reactions




Hypoglycemia Prevention

- Test BG regularly to find patterns, possible causes
- Provide consistent amounts of carb at consistent times
- Provide alternate carb when resident doesn't eat as usual
- Provide HS snack if problems occur during night
- Educate family about S/S, treatment and reporting of lows
- Contact physician for change in treatment plan based on occurrence number, severity



Diabetes Management in Long-term Care Facilities: A Practical Guide, 6th Edition, MN State Diabetes Educators

Dealing With Diabetes

- Denial, disbelief, disconnect
 - There must be a mistake -- I feel fine
 - Someone made an error
- Resistance
- Anxiety
- Nervous
- Scared
- Angry



Life With Diabetes

- “My sugar level is on my mind every second of the day.”
- “I hate it so much it really depresses me.”
- “Every day I wonder if this is the day I die from diabetes.”
- “This disease is manageable, but it still sucks.”
- “I think diabetes helped me turn my life around.”



Mental health issues

- 1 in 6 Americans have depression
- People with Type 2 DM are at a 54% greater risk of developing depression than those without DM
- People with a depression and DM have a higher Hgb A1C

Look on the Bright Side. Progress in Defining and Treating Depression, Erika Gebel, PhD, Diabetes Forecast, April 2013



Monitoring

Indicator	Suggested Follow-up
A1C	*Every 3 months if poorly controlled *Every 6 months if controlled
Dental	*Daily oral cares *Routine dental services as needed
Depression	*Annually
Foot Exam	*Daily by resident, weekly by caregiver, at practioner visits
Lipids	*Annually (if appropriate) *6 weeks with Tx change, initiation
Urine Microalbumin	*Every 6 months if >300 ug/mg *Annually if <30 ug/mg
Weight	*Monthly (more frequently if >5% change)
24-hour urine pro/creat clearance	*If significant decline in renal function

Managing Diabetes in the Long-term Care Setting. Clinical Practice Guidelines. amda



DM Management in Elderly

- Establish FBS and/or PPD targets and A1C
- Maintain adequate nutritional status
- Preventative foot, oral and skin care
- Control symptoms
- Delay onset of DM complications
- Maximize functional status and increase physical activity within the resident's ability and comorbidities
- Initiate medication intervention as appropriate

• Managing Diabetes in the Long-term Care Setting, Clinical Practice Guidelines, amda



Diabetes Management in Health Care.

Who's Responsibility is it Anyway?



Activities & Volunteers

- Engage residents in daily exercise
- Provide physical social activities
- Assist in transferring clients to the dining room
- Provide appropriate snacks at activities
 - Or non-food activities ☺



Registered Dietitians

- Nutrition Assessment
- Determine Nutrition Plan
- Develop menus & meal plans
- Develop an education strategy



Nursing

- Monitor Blood Glucose levels
- Administer medications
- Encourage patients to eat their meals
- Encourage activity
- Educate resident, family
- Notify practitioner as appropriate



Physicians

- Take appropriate action to resident, staff concerns
- Treat BG based on health, life expectancy
- Refer resident to specialists as appropriate



Administrators

- Get out of your office
- Talk to staff and residents daily
- Address staff and resident concerns
- Insure disciplines carry out their responsibilities
- Provide training and education for staff as needed



Diabetes:

Who's Responsibility Is It Anyway?

It belongs to ALL of us!!!



Resources

- American Diabetes Association
 - www.diabetes.org
- National Institute of Diabetes & Kidney Disease
 - www.niddk.nih.gov
- Joslin Diabetes Center
 - www.joslin.org
- National Diabetes Information Clearinghouse
 - www.diabetes.niddk.nih.gov
- American Association of Diabetes Educators
 - www.diabeteseducator.org
- Diabetes Self Management
 - www.DiabetesSelfManagement.com



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