Transitional Care from Inpatient to Outpatient

Jane Jeffrie Seley
DNP MPH GNP BC-ADM CDE CDTC
FAADE FAAN

Division of Endocrinology, Diabetes & Metabolism
NewYork-Presbyterian Hospital
Weill Cornell Medicine
janeseley@nyp.org
Outline

● Strategies for Preventing Readmissions

● Diabetes Self Management Education:
  ● Patients
  ● Clinicians
How Do We Smooth the Transition

- From Inpatient to Outpatient?
Transitional Care: Why We Care

- Place where many errors occur
- Home to pre-op or hospital room to pre-op
- Pre-op to surgery
- Surgery to recovery
- Recovery to hospital unit or home
- Hand-Off at EVERY TRANSFER is key
- Need clear and timely communication
Promote EARLY Diabetes Education

- Educate *high-risk* patients as soon as patient is ready to learn:
- **Who is high risk??**
- Use BG monitoring, insulin administration, menus & meal trays as teaching moments
- Ensure RN access to DM
- self-management tools
Diabetes Teaching Resources

Practice Pens

Handouts in Multiple Languages

Teaching Checklist In EMR

Free Meters
Insulin Pen Teaching

Safety

- RN Education: *Be Aware: Don’t Share*
- *Barcoding* insulin type & PATIENT ID on one label
- Barcode fails: 2 RN Check?
- Pen returned to *pt specific drawer right after use*

Patient Education

- Generic Pen Handouts
- Teaching Kits
- Label Saline Pens: “*Do Not Inject*”

Compare Home & Hospital Glycemic Targets with Patient

Home:
- Before Meals: 80-130 mg/dl
- After Meals: 80-180 mg/dl at 1-2 hrs pc
- Random: less than 180 mg/dl

Hospital:
- Before Meals: 100-140 mg/dl in non-critical care
- Random: 100-180 mg/dl all in-patients
# Carb Controlled Menu

## Breakfast

### Hot Entrees
- Cinnamon French Toast (20g)
- Spicy Breakfast Burrito (25g)

### Bakery Selections
- Plain or (25g) Whole Wheat Bagel (25g)
- White (15g) or Whole Wheat (10g) Sliced Bread
- Blueberry (25g) or Corn Muffin (30g)
- Low-Fat Blueberry Muffin (40g)
- Low-Fat Banana Nut Muffin (40g)

### Hot Cereal
- Homemade Oatmeal (25g)
- Cream of Wheat (20g)

### Cold Cereal
- Corn Flakes (20g)
- Rice Chex (15g)
- Cheerios (15g)
- Kashi (20g)
- Raisin Bran (25g)

## Lunch and Dinner

### Soups
- Chicken Noodle (5g)
- Hearty Vegetable (15g)
- Cream of Mushroom (10g)
- Chicken Broth (5g)
- Split Pea (10g)
- Lentil (10g)
- Chicken Broth (0g)

### Sandwiches
- Egg Salad on Whole Wheat (25g)
- Ham and Swiss Cheese on Whole Wheat (25g)
- American Cheese on Whole Wheat (25g)
- Peanut Butter and Jelly on Whole Wheat (50g)
- Roast Beef on Whole Wheat (25g)
- Tuna Salad on Whole Wheat (25g)
- Turkey on Whole Wheat (25g)

### Appetizers
- Fresh Mozzarella with Grape Tomatoes (10g)
- Served with an Extra Virgin Olive Oil, Balsamic Vinegar and Basil Infusion
- Fresh Raw Vegetables and Ranch Dressing (10g)

### Salads
- Signature Side Salad (5g)
- Mixed Greens, Cucumbers, Tomatoes and Carrots
- Hummus and Pita Plate (50g)
- Middle Eastern Chickpea Puree with Roasted Red Peppers and Pita Points
- Tuna Salad Plate (35g)
- Homemade Tuna Salad, Tomatoes, Cucumbers and Chilled Pasta with Vinaigrette
- Green Salad with Grilled Chicken (5g)
- Mixed Greens, Cucumbers, Tomatoes and Carrots, Topped with Sliced Grilled Chicken Breast
- Fresh Seasonal Fruit Plate (30g)
- Sliced Fresh Fruits Served with Low-Fat Cottage Cheese

### Pastas
- Pasta Marinara (30g)
- Penne Pasta Tossed in Our Own Marinara Sauce Served with or without Meatballs
- Garden Vegetable Lasagna (40g)
- Sheets of Pasta Layered with Fresh Vegetables and a Creamy Béchamel Sauce
- Hearty Beef Lasagna (35g)
- Sheets of Pasta Layered with a Bolognaise Style Meat Sauce

## From the Grill
- Grilled Turkey Burger without Bun (0g)
- Grilled Turkey Burger with Bun (25g)
- Veggie Burger without Bun (20g)

## Chef's Specialties
- Yankee Pot Roast (5g)
- Thinly Sliced Pot Roast Topped with Homemade Gravy
- Rotisserie Chicken (0g)
- Roast Chicken Rubbed with Fine Herbs
- Chicken Marsala (10g)
- Grilled Chicken Breast Topped with a Mushroom Sauce
- Homemade Classic Meatloaf (5g)
- Freshly Ground Beef, Slowly Baked and Seasoned with Vegetables, Herbs and Spices
- Teriyaki Glazed Atlantic Salmon (5g)
- Baked Salmon Filet Topped with a Teriyaki Sauce
- Citrus Glazed Tilapia (20g)
- Baked Tilapia Filet with Seasoned Panko Breadcrumbs and Topped with a Citrus Glaze
- Chef Monty's Tofu Stir Fry (15g)
- Golden Tofu and Vegetables Sautéed with a Low-Sodium Soy Sauce

## Vegetables and Grains
- Green Beans (10g)
- Broccoli (10g)
- Mixed Seasonal Vegetables (5g)
- Roasted Potatoes (20g)
- Mashed Potatoes (20g)
- Steamed Brown Rice (20g)
- Southern Style Macaroni and Cheese (10g)

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Great Teaching Tool!
STRESS Importance of Timing
Diabetes Education Documentation: Use to Communicate With Team
Staff Education: Be Creative

- Unit Based Education
- Online learning
- Case Studies
- Grand Rounds
- Pocket Cards
- Team Web Sites
- Games
- AADE Inpatient Management Listserve for ideas
Diabetes Champions

- Intensive then ongoing additional education for clinicians: e.g. RNs, NPs, PA, RDs, PharmD
- Focus on education AND management
- Champions serve as unit based resource
- Most impact if house-wide & interdisciplinary
Review Insulin Doses & BGs Daily

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<td># High (BG&gt;180): 7</td>
<td># High (BG&gt;180): 4</td>
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Insulin Discharge Regimen: 4 Main Options

- Basal Alone: 1 shot/day
- Basal Plus: 2 shots/day
- Pre-Mix: 2 shots/day
- Basal-Bolus: 4 shots/day

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<tr>
<th>A1c &lt; 7%</th>
<th>A1c 7-9%</th>
<th>A1c &gt; 9%</th>
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</table>
| Return to home regimen PTA if not contraindicated | Restart home regimen if not contraindicated, start/keep basal at 50-100% of inpatient dose | **Best option**: Basal insulin at 75-100% of current dose & bolus insulin with meals at fixed or calculated dose  
**Other options:**  
- Basal Plus (basal qd + bolus at largest meal)  
- Pre-mixed insulin before breakfast & dinner  
- Basal insulin qd + repaglinide with meals  
- Basal insulin qd & GLP-1 daily or weekly to cover prandial needs |

Adapted with permission from algorithm by Umpierrez, G, *Diabetes Care* 2014

**Bolus insulins:** aspart, lispro, glulisine  
**Basal insulins:** degludec U100 & U200, detemir, glargine U100 & U300  
**Pre-Mixed insulins:** aspart 70/30 & lispro 75/25
Meet Mary

- 77 y.o. Caucasian female with 16 year hx of T2DM
- Widowed, lives alone in apartment, no family nearby
- Admitted with acute asthmatic episode
- Diabetes Meds prior to admission: linagliptin 5 mg qAM, glimepiride 2 mg qAM
- Admission BG 268 mg/dL, A1c 8.6%, eGFR >80
- Hospital Course: Antibiotics, steroids, basal/bolus insulin therapy
- Glargine 10 units q 9 PM, prandial insulin according to current BG
Mary’s current DM Regimen: glargine 10 units & aspart pre-meals according to BG

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<th>Breakfast</th>
<th>Lunch</th>
<th>Dinner</th>
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<td>220</td>
<td>172 aspart 2 units glargine 10 units</td>
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<td>147</td>
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<td>94</td>
<td>130</td>
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What diabetes discharge regimen would you recommend?
Individualize Discharge Regimen

- **CONSIDER:**
  - Current A1C
  - Duration of diabetes
  - Body weight & distribution
  - Age of patient
  - Co-morbidities
  - Cost of medication/ Assistance
  - Convenience / complexity of regimen: Is patient/family ready and able to follow proposed regimen?????
Review Diabetes RXs in EMR
## RX “Cheat Sheet”

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<th>Medications</th>
<th>Instructions</th>
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<tr>
<td><strong>BOLUS:</strong> NovoLog Flexpen® or Humalog U100 or U200 KwikPen®</td>
<td>Take (range, up to) _____ units before meals</td>
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<tr>
<td><strong>BASAL:</strong> Lantus or Basaglar U100 or Toujeo U300 Solostar Pen® or Levemir or Tresiba U100 or U200 FlexTouch Pen®</td>
<td>Take _____ units at ____ AM/PM OR Take _____ units at ____ AM and Take _____ units at ____ PM</td>
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<tr>
<td>PREMIX: NovoLog Mix 70/30 Flexpen® or Humalog Mix 75/25 KwikPen®</td>
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<td>NPH: Humulin N Kwik Pen®</td>
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<tr>
<td>BD Nano or DUO (safety) 4 or 5 MM pen needles</td>
<td>Dispense #100 (or #200), use as directed</td>
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<td>BD Ultrafine 6 mm 3/10 ml insulin syringe (Holds up to 30 units)</td>
<td>Dispense #100 (or #200) use as directed, DAW*</td>
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<td>BD Ultrafine 6 mm 1/2 ml insulin syringe (Holds up to 50 units)</td>
<td>Dispense #100 (or #200), use as directed</td>
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<tr>
<td>BD Ultrafine 6 mm 1 ml insulin syringe (Holds up to 100 units)</td>
<td>Dispense #100 (or #200) use as directed</td>
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<tr>
<td>Accu-Chek Connect, Bayer Contour Next EZ, FreeStyle Freedom LITE OR OneTouch Verio Flex blood glucose meter</td>
<td>Dispense: 1 meter</td>
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<td>Accu-Chek Connect, Bayer Contour Next EZ, FreeStyle Freedom LITE OR OneTouch Verio test strips</td>
<td>Test BG ____ x/day</td>
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<td>Accu-Chek Connect, Bayer Contour Next EZ, FreeStyle Freedom LITE OR OneTouch Verio lancets</td>
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Resolving Incomplete/Incorrect Prescriptions at NYP/WC Campus

- Distribute *Glycemic Management* pocket card to educate clinicians in correct Rx writing for diabetes meds & supplies
- Make Med-to-Bed standard of care to facilitate medication reconciliation of discharge RXs with insurance coverage prior to discharge
- Work with med-to-bed pharmacy to help identify missing RXs e.g. no needles, BGM supplies; educate pharmacists in current diabetes management and optimal substitutions
Preventing Readmissions

NYP/WC Best Practices

Diabetes Education

- Med-to-Bed
- 3-Day Phone Call
- 7-Day Outpatient Visit
Summary of Key Recommendations

Standardize Diabetes Transitional Care:

- Streamline Discharge RXs
- *Glycemic Management pocket cards*
- Med-to-Bed RX delivery for DM PTs
- Diabetes Self-Management Education (DSME)
- Empower beside nurse to make diabetes education a priority, expand role of diabetes champions to monitor unit BGs
- Improve access to & RN comfort with DSME teaching resources: practice pens, meters, books
Diabetes Reference Charts

Diabetes Treatments
http://www.empr.com/diabetes-treatments/article/123836/

Insulin Administration
http://www.empr.com/clinical-charts/insulin-administration/article/123646/

Insulin Pens

Blood Glucose Meters
https://www.diabeteshealth.com/charts/
Transitional Care References


Transitional Care References (Cont.)
