Insert photo here

Diabetes: Outpatient or Inpatient

Instructor Information

Patient Name: Harris, Robert

Simulation Developer(s): Neil Coogan, Donna Karr, Bernadette Montano, Debra A. Mosley, and Martha Ybarra

Scenario Purpose:

- Provide a safe-learning opportunity for the new nurse employee to utilize professional skills and facility specific protocol to provide care for the patient with diabetes who is experiencing a hyper/hypoglycemic reaction

Learner(s):

- **Registered Nurses (RN), Licensed Practical Nurses (LPN), Unlicensed Assistive Personnel (UAP)**
- **Others as desired, depending on facility protocols**
- **Recommend no more than 6 learners (3 of which can be observers)**

Time Requirements:

- **Setup:** 5 minutes
- **Scenario:** 25 minutes
- **Debrief:** 25 minutes
- **Reset/Breakdown:** 5 minutes

Confederate(s):

- **Dr. Anderson via telephone**
- **2nd Nurse for insulin dose verification or "safety check" (per protocol). **May be a learner**

Scenario Prologue:

- **Outpatient:** Fifty-eight (58) year-old male presented to the outpatient clinic complaining of fingerstick blood sugars (FSBS) above 375 mg/dL for the past few days. His symptoms are fatigue, blurry vision, polydipsia, polyphasia, and polyuria. The patient will develop a hypoglycemic response after receiving insulin.
- **Inpatient:** Fifty-eight (58) year-old male admitted with uncontrolled diabetes with fingerstick blood sugars (FSBS) above 375 mg/dL for the past few days. His symptoms are fatigue, blurry vision, polydipsia, polyphasia, and polyuria. The patient will develop a hypoglycemic response after receiving insulin.
- **The simulation begins when the learners enter the room**

Patient information:

- ***General:*** *Generalized fatigue*
- ***Weight/Height:*** *107.7kg (237lbs) 177.8cm (70in); BMI 34*
- ***Vital Signs:*** *BP 164/95; Temp 99.1; HR 93; RR 24; O2 Sat 94%*
- ***Pain:*** *0/10*
- ***Neurological:*** *Alert; difficulty concentrating; blurry vision*
- ***Respiratory:*** *Clear; tachypneic*
- ***Cardiac:*** *Sinus rhythm*
- ***Gastrointestinal:*** *Unremarkable*
- **Genitourinary:** *Polyuria*
- **Musculoskeletal:** *Unremarkable*
- **Skin:** *Unremarkable*
- **Past Medical History:** *Type 2 diabetes and hypertension*
  - **Past Surgical History:** *Appendectomy*

Medications:

- Insulin Glargine 23 units subcutaneously daily
- Insulin Aspart 5 units subcutaneously with meals
- Lisinopril 20 mg by mouth daily

Allergies:

- Penicillin

Confederate

Change in Physiology

Learning Objectives

Scenario Specific Learning Objectives (Knowledge, Skills, and Attitudes = K/S/A):

**The learner(s) will demonstrate ICARE principles throughout the scenario.

Learning Objective 1: Perform a focused assessment for the patient experiencing a reaction to hyper/hypoglycemia (LPN collects data)

a. **K**- *Recognize signs and symptoms of* hyper/hypoglycemia
   A- *Elicit a sense of urgency while maintaining a composed demeanor throughout the scenario*
b. **S**- *Obtain a targeted history regarding* hyper/hypoglycemia
c. **K**- *Recognize deterioration of the patient's status*
d. **K-** *Recognize improvement in the patient's status*

Learning Objective 2: Demonstrate the steps required to provide safe and effective care for the patient with diabetes experiencing a hypo/hyperglycemic reaction

a. **K-** *Discuss facility specific protocol for insulin administration*
   S- *Follow facility specific protocol for insulin administration*
b. **K-** *Discuss facility specific protocol for hypoglycemia*
   S- *Follow facility specific hypoglycemia protocol*
   A- *Demonstrate a sense of urgency while maintaining a composed demeanor*

Learning Objective 3: Perform the safe administration of a subcutaneous insulin injection

a. **K.** *Discuss facility specific insulin administration procedure*
b. **S-** *Implement facility specific rights of medication administration*
c. **S**- *Perform a safety check prior to insulin administration*
d. **S-** *Utilize facility specific site and technique for insulin administration*
e. **S-** *Apply facility specific infection control measures*

Learning Objective 4: Communicate effectively when managing the care of the patient with diabetes experiencing a hyper/hypoglycemic reaction

a. **K-** *Discuss patient/family teaching for management of the patient with diabetes experiencing a hyper/hypoglycemic reaction*
   S- *Provide patient/family teaching including signs and symptoms of hyper/hypoglycemia with appropriate interventions*
   A- *Illicit professionalism when communicating with the patient/family*
b. **K**- *Identify essential information needed when communicating with the healthcare team*
   S- *Utilize the ISBAR tool when communicating with the healthcare team*
c. **S**- *Confirm/verify orders*
d. **S**- *Complete required facility specific documentation*

Debriefing Overview:

- Ask the learner(s) how they feel after the scenario
- Have the learner(s) provide a summary of the scenario from a healthcare provider/clinical reasoning point of view
- Discuss the scenario and ask the learners what the main issues were from their perspective
- Ask what was managed well and why.
- Ask what they would want to change and why.
- For areas requiring direct feedback, provide relevant knowledge by stating "I noticed you *[behavior]…"* Suggest the behavior they might want to portray next time and provide a rationale. "Can you share with us?"
- Indicate closing of the debriefing but provide learners with an opportunity to voice one or two take-aways that will help them in future practice
- Lastly, ask for any outstanding issues before closing the debrief

Critical Actions/Debriefing Points:

1. Recognize signs and symptoms of hyperglycemia
2. Verify orders
3. Perform patient/family education
4. Perform hand hygiene and put on gloves prior to FSBS
5. Verify Insulin type and dose with another nurse (if this is facility policy)
6. Ensure the patient is not NPO and evaluates dietary intake for previous meals
7. Perform rights of medication administration
8. Select appropriate injection site and administer insulin injection
9. Recognize signs and symptoms of hypoglycemia and obtain FSBS
10. Follow hypoglycemia protocol
11. Perform ISBAR communication
12. Complete facility specific documentation

Simulation Set-Up

Patient Name: Robert Harris **(High Fidelity Mannequin)**
Simulation Developer(s): Neil Coogan, Donna Karr, Bernadette Montano, Debra A. Mosley, and Martha Ybarra
Room Set-up:

- Set up like an outpatient exam room or hospital room with the patient in the stretcher/bed

Patient Preparation:

- Street clothes (Outpatient) or hospital gown (Inpatient)
- Saline lock in the right antecubital space
- Patient identification band indicating allergy to penicillin
- Monitoring device (3 Wave form):
  - ECG (Sinus Rhythm), O2 Sat 94%, BP 164/95, Temperature 99.1, HR 93, RR 24
- The patient will become pale and diaphoretic for the first physiology change
  **Be sure to prepare the fluid reservoir for diaphoretic episode
- Events will take place at 10 AM and 11 AM

Have the following equipment/supplies available:

- Telephone
- Gloves
- Hand sanitizer
- Glucometer
- Lancets
- Insulin syringe with safety needle
- Alcohol pads
- Glucometer strips
- Sharps container
- Blood pressure cuff
- Stethoscope
- Bedside table

Medications: **Calibration will be required if using radiofrequency identification (RFID)

- Glucagon 1mg subcutaneous or intramuscular (per protocol)
- 50 mL of dextrose 50%
- Aspart insulin
- Glucose tablets and/or glucose gel (per protocol)

Miscellaneous:

- Juice, soda, milk, and/or snack/meal (per protocol)

Note: Laerdal Simpad 5.8 software update is required to load scenarios (see below)
(http://cdn.laerdal.com/downloads/f4343/simpad-upgrade.vs2
Scenarios may be used with Laerdal or LLEAP software
Scenario Supplements:

- Confederate scripts
- Confederate and learner name tags
- Patient identification band
- Nurses Notes
- Orders
- Patient chart (facility specific)
- Finger stick blood sugar (FSBS) results #1, #2, and #3
- Hypoglycemia protocol (facility specific)

- Documentation for hypoglycemic reaction (facility specific)
- ZZ test patient/Demo patient in CPRS (if desired)
- ISBAR tool

Diabetes: Outpatient or Inpatient

Flowchart

Initial State:
Mental Status: Alert and oriented
Sp02: 94%
BP: 164/95
HR: 93
RR: 24
Lungs: Clear
ECG: Sinus rhythm
Eyes: Open
Pain level: None
Skin: Unremarkable

Fifty eight (58) year-old male with a history of fingerstick blood sugars (FSBS) above 375 mg/dL for the past few days. His symptoms are fatigue, blurry vision, polydipsia, polyphagia, and polyuria. The patient was sent to the emergency department and admitted with uncontrolled diabetes.

AM

- ***Recognizes signs and symptoms of hyperglycemia after initial assessment***
- ***The phone rings… Dr. Anderson states "I am checking to see if Mr. Harris has arrived."***
- ***Provides healthcare provider with ISBAR communication***
- ***Dr. Anderson states "Get a stat fingerstick blood sugar (FSBS). If it's above 250, give insulin aspart 8 units subcut and start hypoglycemia protocol. I entered the orders."***
- ***Confirms/verifies orders***
- ***Performs patient education regarding the reason for the need for insulin injection***
- ***Washes hands, puts on gloves, and obtains FSBS (see FSBS result #1: 373 mg/dL)***
- ***Gathers supplies to give regular insulin***
- ***Performs hand hygiene***
- ***Draws insulin and verifies with another nurse (if this is facility policy)***
- ***Ensures the patient is not NPO and evaluates dietary intake for previous meals***
- ***Performs rights of medication administration***
- ***Selects appropriate injection site and administers injection without aspirating***
- ***Places needle in sharps container, removes gloves, and performs hand hygiene***

***Did not … ***
- **…confirm/verify orders**
- **…perform patient education**
- **…perform hand hygiene**
- **…verify insulin type/dose in syringe with another nurse (if this is facility policy)**
- **Patient states "What are you doing? The way you do things is different!"**

AM

- ***Patient states "I don't know what's wrong with me. I feel so shaky and my hands are trembling. I feel dizzy. My sheets are soaking wet! What is going on with me? Help!"***
- ***Recognizes symptoms of hypoglycemia***
- ***Obtains FSBS (see FSBS #2: 56 mg/dL)***
- ***Performs patient education regarding the need to treat hypoglycemia***

Status Change
Mental Status: **Anxious**
Sp02: **93%**
BP: **166/94**
HR: **118**
RR: **26**
ECG: **Sinus tachycardia**
Skin: **Pale, diaphoretic**

- ***Follows facility specific hypoglycemia protocol for the conscious patient***
- ***Waits 15 minutes after treatment of hypoglycemia***
- ***Performs hand hygiene, puts on gloves, and obtains FSBS (see FSBS #3: 99 mg/dL)***
- ***Patient states "I feel so much better now. Phew! That was a scary feeling! Thank you!"***
- ***Places call to the healthcare provider regarding hypoglycemic episode***
- ***Phone rings… Dr. Anderson states "I am returning the call about Mr. Harris."***
- ***Performs ISBAR communication***
- ***Completes facility specific documentation* (End of scenario)**

Did not …
- **…recognize symptoms of hypoglycemia**
- **…obtain FSBS**
- **…follow facility specific hypoglycemia protocol for the conscious patient**

Status Change
Mental Status: **Unresponsive**
Sp02: **90%**
BP: **166/94**
HR: **125**
RR: **10**
ECG: **Sinus tachycardia**

- ***Follows facility specific hypoglycemia protocol for the unconscious patient***
- ***Waits 15 minutes after treatment of hypoglycemia***
- ***Performs hand hygiene, puts on gloves, and obtains FSBS (FSBS #3: 99 mg/dL)***
- ***Patient opens his eyes and states "What happened? I feel like I passed out."***
- ***Places call to the healthcare provider regarding hypoglycemic episode***
- ***Phone rings… Dr. Anderson states "I am returning the call about Mr. Harris."***
- ***Performs ISBAR communication***
- ***Completes facility specific documentation (End of scenario)***

Critical Actions/Debriefing Points:
- Recognize signs and symptoms of hyperglycemia, hypoglycemia and obtains FSBS
- Verify orders
- Perform patient/family teaching
- Perform hand hygiene and put on gloves before and after FSBS and giving insulin
- Verify Insulin type and dose with another nurse (if this is facility policy)
- Ensure the patient is not NPO and dietary intake for previous meals
- Perform rights of medication administration
- Select appropriate injection site and administer insulin injection
- Follow hypoglycemia protocol
- Perform ISBAR communication
- Complete facility specific documentation

Confederate

Red Text Physiology Change

Red Border Incorrect Action

Supplements

Confederate Scripts

Confederate Name Tags

Patient Identification Band

Nurses Notes

Orders

Fingerstick Blood Sugar #1

Fingerstick Blood Sugar #2

Fingerstick Blood Sugar #3

Hypoglycemia Protocol Sample

Types of Insulin

Confederate Scripts

Robert Harris: Patient (High Fidelity Mannequin)

- **The time is 1000: The patient presented to the outpatient clinic complaining of fingerstick blood sugars (FSBS) above 375 mg/dL for the past few days. He also complains of fatigue, blurry vision, polydipsia, polyphagia, and polyuria.**

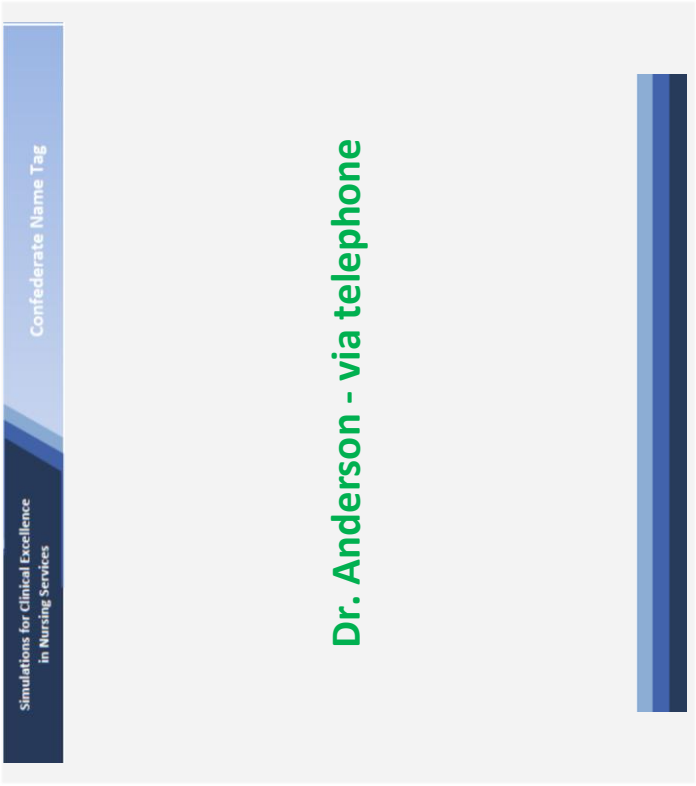
- **Medical/Surgical History: Type 2 diabetes, hypertension, and appendectomy**
- **Meds: Insulin Glargine 23 units subcut daily, Insulin Aspart 5 units subcut with meals, and Lisinopril 20 mg by mouth daily**
- **Allergies: Penicillin**

- **If the learner does not confirm the Dr.'s orders, perform patient education, wash hands, verify insulin type/dose in syringe with another nurse if this is facility policy, the patient will state "What are you doing? The way you do things is different!"**
- **The time is 1100. The patient states "I don't know what's wrong with me. I feel so shaky and my hands are trembling. I feel dizzy. My sheets are soaking wet! What is going on with me? Help!"**
- **If the learner does not recognize signs and symptoms of hypoglycemia, obtain fingerstick blood sugar, or follow hypoglycemia protocol, the patient will become unresponsive**
- **The learner will follow hypoglycemia protocol for the conscious/unconscious patient respectively**
- **After 15 minutes, the patient will state "I feel so much better now. Phew! That was a scary feeling! Thank you!"**

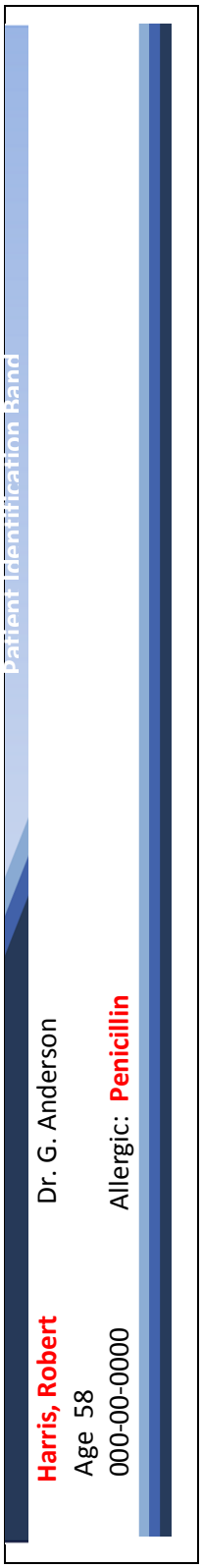
Dr. Anderson - via telephone

- **The time is 1000**
- **The phone rings after the learner performs initial assessment…**
- **Dr. Anderson states "I am calling to check and see if Mr. Harris has arrived."**
- **The learner will provide ISBAR communication.**
- **Dr. Anderson will state "Get a stat fingerstick blood sugar (FSBS). If it's above 250, give insulin aspart 8 units subcut and start hypoglycemia protocol since we are giving him insulin incase his blood sugar drops too low. I entered the orders."**
- **The learner will follow facility specific protocol for hypoglycemia**
- **The time is 1100**
- **The learner will place a call to Dr. Anderson, his service answers, he will call back**
- **The phone will ring… Dr. Anderson will state "I am returning the call about Mr. Harris."**
- **The learner will provide ISBAR communication**

Confederate Name Tags



Patient Identification Band



Nurses Notes

Date: Today
Patient Name: Robert Harris
Mode of Arrival: Personally owned vehicle
Accompanied by: Self

Insert picture of patient here

Chief Complaint: 58 year old male complains of fingerstick blood sugars (FSBS) above 375 mg/dL for the past few days. His symptoms are fatigue, blurry vision, polydipsia, polyphagia, and polyuria.

Active Problems: Type 2 Diabetes and hypertension
Patient information:

- **General:** Calm
- **Weight/Height:** 107.7kg (237lbs.) / 177.8cm (70in)
- **Vital Signs**: B/P: 164/95; Temp: 99.1; HR: 93; RR: 24; O2 Sat: 94%
- **Pain:** Denies
- **Neurological:** Alert and oriented
- **Respiratory:** Clear; tachypneic
- **Cardiac:** Sinus rhythm
- **Gastrointestinal:** Unremarkable
- **Genitourinary:** Unremarkable
- **Musculoskeletal:** Unremarkable
- **Skin:** Warm, dry, and intact
- **Past Medical History:** Type 2 Diabetes and hypertension
- **Past Surgical History:** Appendectomy

Medications:

- Insulin Glargine 22 units subcutaneously with breakfast
- Insulin Aspart 5 units subcutaneously with meals
- Lisinopril 20 mg by mouth daily

Allergies:

- **Penicillin**

SCREEN FOR ABUSE/NEGLECT: N/A
Does the patient show any evidence of abuse? No
Does the patient feel safe in his/her current living arrangements? Yes
Suicidal or homicidal ideation in the past two weeks? No
Is the patient currently enrolled in primary care? Yes
Diagnostic Procedures Ordered:
( ) X-Ray
(x) Labs
( ) None
( ) EKG
( ) Head CT without contrast
( ) Other
Triage Classification: Emergency Severity Index
Patient Disposition: To medical-surgical unit
Signed by: /DM/

Orders

Patient Information

Harris, Robert
Dr. G. Anderson
Age: 58
Social Security #: 000-00-0000
Allergies: **Penicillin**
Weight: 107.7kg (237lbs)
Height: 177.8cm (70in); BMI 34

Admit to	Medical Surgical unit
Diagnosis	Uncontrolled diabetes
Condition	Stable
Diet	Diabetic
Activity	Bathroom privileges
IV Therapy	Saline Lock
Medications (routine)	Insulin Glargine 23 units daily Insulin Aspart 5 units with meals Lisinopril 20 mg daily
Medications (prn)	
Diagnostics	
Fingerstick Blood Sugar	STAT fingerstick blood sugar If fingerstick blood sugar is greater than 250 mg/dL, give 8 units of Aspart insulin subcutaneously
Code Status	Full code
Respiratory Therapy Orders	N/A
Miscellaneous Orders	Hypoglycemia protocol

DO NOT WRITE IN THIS SPACE

Fingerstick Blood Sugar #1

Fingerstick Blood Sugar #1	
Date: Today	Robert Harris
373 mg/dL	

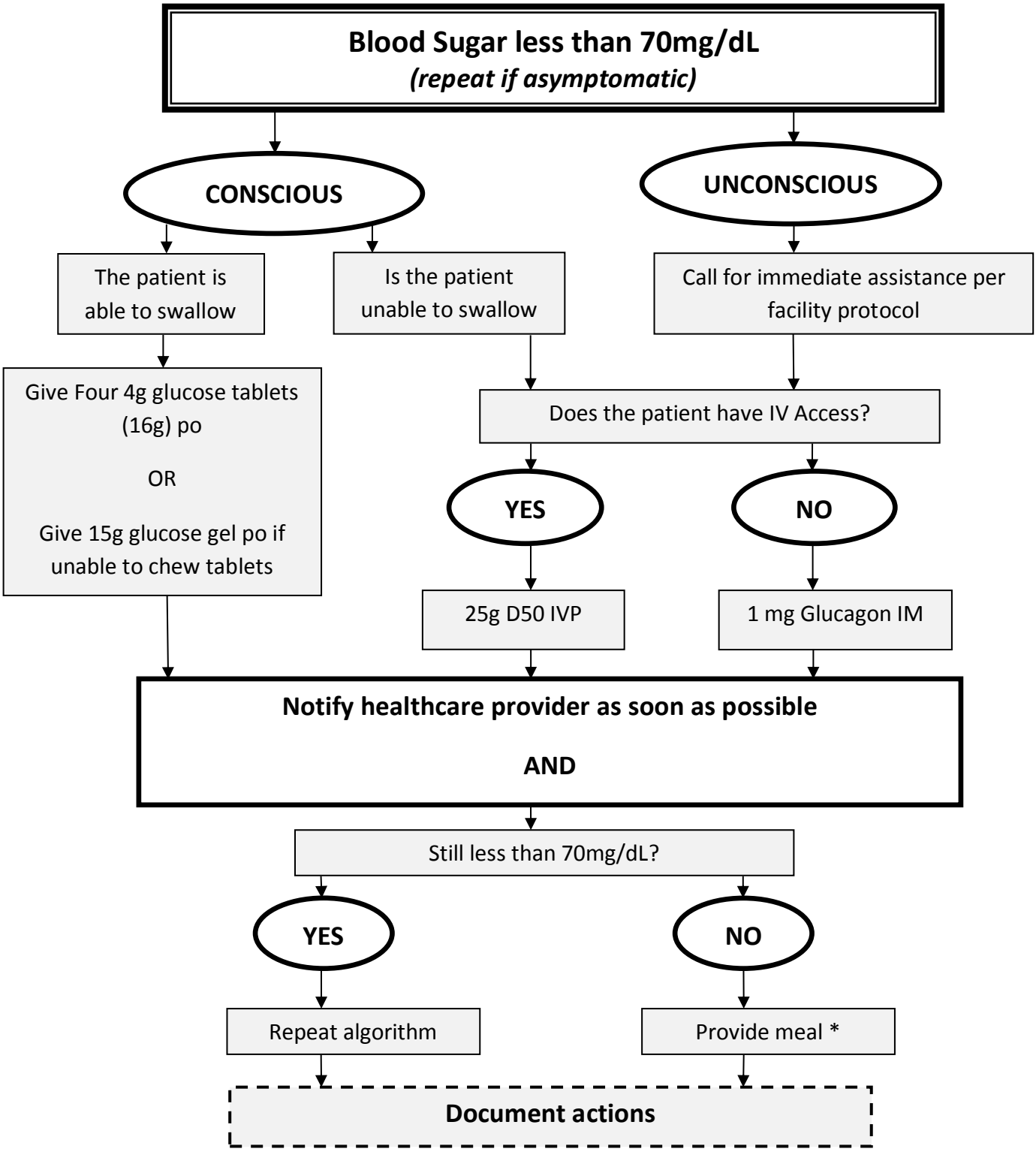
Fingerstick Blood Sugar #2

Fingerstick Blood Sugar #2	
Date: Today	Robert Harris
56 mg/dL	

Fingerstick #3

Fingerstick Blood Sugar #3	
Date: Today	Robert Harris
99 mg/dL	

Hypoglycemia Protocol



Types of Insulin

Types and Preparation	Onset	Peak	Duration
Rapid-acting (injectable) • Aspart (Novolog), Lispro (Humalog), Glulisine (Apidra), etc.	15 min	1 hr	2-4 hrs
Short-acting (injectable) • Regular (Humulin R, Novolin R)	30 min	2-3 hrs	3-6 hrs
Intermediate-acting (injectable) • NPH (Humulin N, Novolin N)	2-4 hrs	4-12 hrs	12-18 hrs
Long-acting (injectable) • Glargine (Lantus), Detemir (Levemir), etc.	1.5 hrs	------	24 hrs
Rapid-acting (inhaled) • Insulin human (Afrezza)	12-15 min	30 min	180 min

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