Hypoglycemia Reduction Clinical Decision Support Tool

Patient Information

Last Name _____ First Name _____ M.I. _____

MRN _____ DOB ____/____/_____

Duration of diabetes (years) _____

Race (Check all that apply)

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Other

Ethnicity (Select one)

- ◯ Hispanic or Latino
- ◯ Not Hispanic or Latino

Preferred Language

- ◯ English
- ◯ Spanish
- ◯ Other

Sex

- ◯ Male
- ◯ Female

Insurance Coverage

- ◯ Medicaid
- ◯ Medicare
- ◯ Other (e.g. VA, DoD)

Medicare Part D Coverage

- ◯ Yes
- ◯ No

Comorbid conditions that increase risk of hypoglycemia (Check all that apply)

- ☐ Amputation, Neuropathy, Retinopathy
- ☐ Cirrhosis
- ☐ Chronic Kidney Disease (excluding ESRD)
- ☐ End Stage Renal Disease (ESRD)
- ☐ Cognitive Impairment/Dementia
- ☐ Congestive Heart Failure (CHF)
- ☐ Depression
- ☐ Prior MI, Stroke, PVD
- ☐ Other _____

Visit Information

	Baseline Visit	1st Follow-Up Visit	2nd Follow-Up Visit
Date	____/____/_____	____/____/_____	____/____/_____
Provider NPI	_____	_____	_____

Assessment

The provider should assess the patients at risk for hypoglycemia on the following topics before/during the patient visit.

A. A1c Values

	Screening	Baseline (Optional)*	1st Follow-Up	2nd Follow-Up
Date of A1c Test	____/____/_____	____/____/_____	____/____/_____	____/____/_____
A1c Value	_____%	_____%	_____%	_____%

*Baseline A1c only needed if date of screening A1c value greater than 3 months before Baseline visit.

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B. Hypoglycemia

Ask the patient about severe hypoglycemia and record the response below: **How many times have you had an episode of hypoglycemia where you needed someone's help and were unable to treat yourself?**

Baseline	1st Follow-Up	2nd Follow-Up
In the last year _____	Since the last visit _____	Since the last visit _____

The following are suggested questions based on guideline-recommended assessments to consider asking patients at each visit to assess risk of hypoglycemia, inform the shared decision-making conversation with patients, and determine what actions should be taken to reduce future risk of hypoglycemia.

Hypoglycemia Assessments	Consider Asking the Patient…
Self-Monitoring of Blood Glucose (SMBG)	• Do you check your glucose levels? How often are you checking? • Can I see your log (or meter)? What are your observations about your results? • Do you check your glucose level before you drive? Why? • At what glucose level or with what signs and symptoms do you take action to treat low blood sugar? • What actions do you take to treat your glucose level if it is too low? • Do you always carry something to treat a low glucose level?
Episodes of Hypoglycemia	• Since your last visit, have you had a glucose level below 70 mg/dL? • In a typical week, how many times does your blood glucose go below 70 mg/dL? • When you experience low blood glucose, what is the usual reason for this? • Do you have night sweats and/or nightmares? (For nocturnal hypoglycemia) • Do you experience symptoms of hypoglycemia when your blood glucose is greater than 70 mg/dL?
Hypoglycemia Unawareness	• Can you feel it when your blood glucose is dropping too low? What are your signs and symptoms? • How low does your glucose level need to be for you to feel it? • Have you ever had a low blood glucose reading but did not feel that you were low?
Patient Self-Efficacy	• How confident are you that you can avoid serious problems due to hypoglycemia? • How confident are you that you can catch and respond to hypoglycemia before your blood sugar gets too low? • How confident are you that you can continue to do things you really want to do in your life, despite the risks of hypoglycemia?

Consider if you are concerned about your patient's ability to recognize and manage hypoglycemia based on your patient's responses.

C. Additional Assessments to Consider

Nutrition

- Insufficient or irregular access to food and/or malnutrition
- Meal/snacking patterns (i.e. any missed or delayed meals)

Medication Use

Ask the patient how they take their insulin with respect to timing, dose, frequency, and relationship to meals as relevant; Consider asking the patient to describe or demonstrate how they take their insulin

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Care Plan Development

A. Setting the Individualized A1c and Glucose Monitoring Goals

As part of shared decision-making, consider using this evidence-based framework to set individualized A1c goals and make recommendations for glucose self-monitoring.

Conceptual Framework for Determining Clinical Targets in Adults Aged 65 years and Older

These categories are general concepts. Not every patient will clearly fall into a particular category. Consideration of patient and caregiver preferences is an important aspect of treatment individualization. Additionally, your patient's health status and preferences may change over time.

Overall Health Category		Group 1: Good Health	Group 2: Intermediate Health	Group 3: Poor Health
Patient Characteristics		No comorbidities **or** 1-2 non-diabetes chronic illnesses **and** No ADL impairments and ≤1 IADL impairment	3 or more non-diabetes chronic illnesses **and/or** Any **one** of the following: mild cognitive impairment or early dementia ≥2 IADL impairments	Any **one** of the following: End-stage medical condition(s) Moderate to severe dementia ≥2 ADL impairments Residence in a long-term nursing facility
		Reasonable Glucose Target Ranges and HbA1c by Group		
Use of Drugs that May Cause Hypoglycemia (e.g., insulin, sulfonylurea, glinides)	No	Fasting: 90-130 mg/dL Bedtime: 90-150 mg/dL <7.5%	Fasting: 90-150 mg/dL Bedtime: 100-180 mg/dL <8%	Fasting: 100-180 mg/dL Bedtime: 110-200 mg/dL <8.5%
	Yes	Fasting: 90-150 mg/dL Bedtime: 90-180 mg/dL ≥7.0 and <7.5%	Fasting: 100-150 mg/dL Bedtime: 150-180 mg/dL ≥7.5 and <8.0%	Fasting: 100-180 mg/dL Bedtime: 150-250 mg/dL ≥8.0 and <8.5%

Source: Treatment of Diabetes in Older Adults: An Endocrine Society Clinical Practice Guideline (2019)

B. Medication Modifications

Use evidence-based guidance to consider deprescribing the patient's diabetes medications in order to reduce risk of hypoglycemia. Deprescribing is the planned and supervised process of dose reduction, stopping, or switching of medications that might be causing harm, or no longer be of benefit.

Recommended Actions	
Reduce dose(s) or stop agent(s)...	Most likely to contribute to hypoglycemia (e.g. sulfonylurea, insulin) or other adverse effects
Switch to an agent...	With lower risk of hypoglycemia (e.g. switch from glyburide to glipizide or non-sulfonylurea; change NPH or mixed insulin to a long-acting basal insulin to reduce nocturnal hypoglycemia
Reduce doses...	Of renally eliminated antihyperglycemics (e.g. metformin, sitagliptin)

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C. Care Planning

Please document the individualized A1c goal, any medication modifications, and the shared decision-making conversation used to set treatment goals. You can use this documentation for reference at future visits and for quality tracking.

Shared-Decision Making (SDM) Discussion to Set A1c Goal

Question	Baseline	1st Follow-Up	2nd Follow-Up
SDM Discussion?	◯ Yes ◯ No ◯ N/A **If No, Reason (Check all that apply)** [ ] Time constraints [ ] Lack of information to determine A1c goal/change treatment [ ] Benefits of lower A1c outweighs risk of hypoglycemia [ ] Other, specify ____________	◯ Yes ◯ No ◯ N/A **If No, Reason (Check all that apply)** [ ] Time constraints [ ] Lack of information to determine A1c goal/change treatment [ ] Benefits of lower A1c outweighs risk of hypoglycemia [ ] Other, specify ____________	◯ Yes ◯ No ◯ N/A **If No, Reason (Check all that apply)** [ ] Time constraints [ ] Lack of information to determine A1c goal/change treatment [ ] Benefits of lower A1c outweighs risk of hypoglycemia [ ] Other, specify ____________
Individualized A1c Goal Agreed to?	◯ Yes ◯ No ◯ N/A **If No, Reason (Check all that apply)** [ ] Patient not comfortable changing A1c goal [ ] Patient not comfortable changing medications [ ] Patient/Provider want to give this further thought (delay decision) [ ] Other, specify ____________	◯ Yes ◯ No ◯ N/A **If No, Reason (Check all that apply)** [ ] Patient not comfortable changing A1c goal [ ] Patient not comfortable changing medications [ ] Patient/Provider want to give this further thought (delay decision) [ ] Other, specify ____________	◯ Yes ◯ No ◯ N/A **If No, Reason (Check all that apply)** [ ] Patient not comfortable changing A1c goal [ ] Patient not comfortable changing medications [ ] Patient/Provider want to give this further thought (delay decision) [ ] Other, specify ____________
Individualized A1c Goal*	[ ] _____% or _____-_____%	[ ] _____% or _____-_____%	[ ] _____% or _____-_____%

*Only record goal during visit when set or changed. Goal can be recorded as specific A1c target or a range.

Medication Modifications to Reduce the Risk of Hypoglycemia

Record all changes made to the patient's antihyperglycemic medications at EACH visit, beginning with insulin. If the patient is not taking insulin, leave the first section blank. Add all other medication classes that apply in the following section; leave any additional rows blank. Note: Do not record medication changes due to formulary restrictions.

Insulin (Check one type of insulin per row)	Baseline	1st Follow-Up	2nd Follow-Up
◯ Basal ◯ Prandial ◯ Mixed	[ ] Maintained [ ] Increased [ ] Decreased [ ] Discontinued [ ] New Start [ ] Switch from vial to pen? [ ] If other switch, please specify ____________ ____________	[ ] Maintained [ ] Increased [ ] Decreased [ ] Discontinued [ ] New Start [ ] Switch from vial to pen? [ ] If other switch, please specify ____________ ____________	[ ] Maintained [ ] Increased [ ] Decreased [ ] Discontinued [ ] New Start [ ] Switch from vial to pen? [ ] If other switch, please specify ____________ ____________

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◯ Basal ◯ Prandial ◯ Mixed	☐ Maintained ☐ Increased ☐ Decreased ☐ Discontinued ☐ New Start ☐ Switch from vial to pen? ☐ If other switch, please specify _____ _____	☐ Maintained ☐ Increased ☐ Decreased ☐ Discontinued ☐ New Start ☐ Switch from vial to pen? ☐ If other switch, please specify _____ _____	☐ Maintained ☐ Increased ☐ Decreased ☐ Discontinued ☐ New Start ☐ Switch from vial to pen? ☐ If other switch, please specify _____ _____

Other Antihyperglycemic Medications (Check one medication class per row)	Baseline	1st Follow-Up	2nd Follow-Up
◯ Alpha-glucosidase Inhibitors ◯ Biguanides ◯ DPP-4 Inhibitors ◯ (GLP-1) Receptor Agonist ◯ Non-Sulfonylurea Insulin Secretagogues) repaglinide, nateglinide) ◯ SGLT2 Inhibitor ◯ Sulfonylureas (including combination agents) ◯ Thiazolidinediones (TZDs) ◯ Combination Oral Antihyperglycemic Drugs	☐ Maintained ☐ Increased ☐ Decreased ☐ Discontinued ☐ New Start	☐ Maintained ☐ Increased ☐ Decreased ☐ Discontinued ☐ New Start	☐ Maintained ☐ Increased ☐ Decreased ☐ Discontinued ☐ New Start
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Before the End of the Visit, Consider These Actions:

Create/review diabetes action plan

Ask the patient about whether they always/regularly carry and have access to foods, beverages or other products to prevent or manage hypoglycemia (e.g., glucose tablets)

Discuss ways to prevent and limit hypoglycemia in the future

Determine the patient's current needs for education, ongoing support and hypoglycemia-related resources

Make any necessary referrals:

- Certified diabetes educator
- Diabetes self-management education and support program
- Endocrinologist
- Registered dietitian/registered dietitian nutritionist
- Pharmacist