NON-INSULIN USING TYPE 2 DIABETES
Decision Tool for Self-Monitoring of Blood Glucose (SMBG)

DIABETES CARE PROGRAM OF NOVA SCOTIA

Routine, ongoing testing is not necessary in most non-insulin managed type 2 diabetes. This decision tool will help to identify exceptions.

Instructions: Considering the individual, indicate with a **Yes or No** if the specific issue/consideration has an impact on the need for SMBG. *The "prompting" considerations in italics should help in formulating your response.*

- "Yes" in either of the pink areas **is an indication** for SMBG.
- "Yes" in **all** of the green areas, along with a Yes in the pink area, are **required conditions before** SMBG is recommended.
- "Yes" in the white area, in conjunction with Yes in **all** the green areas, **may** indicate the need for **"low intensity" SMBG**.

SAFETY

	Y	N
Hyperglycemia: Is there moderate to severe hyperglycemia (A1C ≥ 8.5% and/or before meal BG >10-12 mmol/L)?		
• *Consider if treatment change; i.e., adding insulin or a secretagogue* is imminent.*	❑	❑
Hypoglycemia: Is there a risk of hypoglycemia?		
• *Consider if the medication, in combination with extra activity, alcohol, or lifestyle choice, may increase risk of hypoglycemia.*	❑	❑

HEALTH CARE TEAM (HCT)

	Y	N
Will the HCT **take appropriate/timely action** (management change) based on SMBG results?		
• *Consider if the HCT or provider will make a treatment change based on SMBG, or will the A1C be the telling factor.*	❑	❑

INDIVIDUAL'S KNOWLEDGE, SKILLS, AND WILLINGNESS

	Y	N
Is the individual **willing and able to test and record** SMBG results?		
• *Consider age (> 75), frailty, finances, and/or cognition before recommending SMBG.*	❑	❑
Is the individual willing and **able to interpret and ACT on results?**		
• *Consider if this individual is able to ACT on the SMBG results with lifestyle changes (targeted exercise, further food restrictions, etc.).*	Y	N
• *Consider if lifestyle changes related to food intake (diet) and/or exercise will really have an impact on the SMBG results.*	❑	❑

SELF-MANAGEMENT EDUCATION

	Y	N
Is education in SMBG essential at this point due to "safety" and/or other provider identified reasons?		
• *Consider if it would be better at this time to focus on monitoring physical activity (steps or time spent being active), food choices/portion sizes, weight, etc.*	❑	❑

RECOMMENDATION (Based on **shared decision-making by the individual with diabetes and the provider**):

- ❑ **No** SMBG required at this time.
- ❑ **Low** intensity testing (**time limited**).
- ❑ **High** Intensity testing (**time limited**).

* Sulfonylureas: glyburide, gliclazide, glimepiride; meglitinides: nateglinide, repaglinide.

Low Intensity Testing

- Used to ↑ individual's and/or provider's understanding of effects of treatment.
- May assist clinicians in guiding therapeutic adjustments, providing more timely feedback regarding potential medication changes, and to identify postprandial hyperglycemia, if in question.[1]

Examples for use at diagnosis and ongoing follow-up (times can vary for 1 to 3 wks, depending on the purpose [prior to office visit, new dx]):

- 3 tests/day for 2 days/wk–one weekday and one weekend day (fasting and ac/pc at the largest meal [often supper]) for 2-3 wks.
- 2 tests/day–varying times (ac breakfast/supper; ac lunch/bedtime; etc.) for 1 wk.
- 1 test/day at staggered times (ac breakfast, lunch, supper, or bedtime) for 1-2 wks (prior to office visit).
- 1 test/wk between office visits.

High Intensity Testing

- Used for "pattern analysis" to create BG profiles that can identify daily BG patterns that lead to action based on results. Should be used only for a **specific time and for a specific purpose**; e.g., change in treatment (adding insulin or changing time of insulin), acute illness (flu, GI upset, etc.) resulting in symptoms or added risk, etc.[1]

Examples:

- Generally 5-7 tests/day for 1-3 days.
- Staggered testing, 2 x/day (ac and pc testing for alternating meals) x 1 wk, or over a 2-3 wk period.[1] Duration of testing depends on medication and degree of hyperglycemia (what change is expected over what period of time).
- Results should be reviewed by phone or during an office visit immediately after the testing period.

NOTE: Gestational diabetes or women with type 2 diabetes planning for pregnancy/or in the early stages of pregnancy will be required to test more routinely for extended periods of time.

[1] International Diabetes Federation. *Self-Monitoring of Blood Glucose in Non-Insulin Treated Type 2 Diabetes*. Brussels, Belgium: Author; 2009.

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