## Point of Care Patient-Side Hemoglobin A1c Testing



### Caring for those with diabetes

Diabetes is a multifaceted disease.<sup>1</sup> Successful management requires patients to create new habits around medication adherence, changing their diets, exercise, and other lifestyle changes. Only 1 in 4 adults with diagnosed diabetes have been shown to achieve combined diabetes goals.<sup>1</sup>

## You are central to their success which requires utilizing creative and collaborative strategies to help them manage their disease.<sup>1</sup>

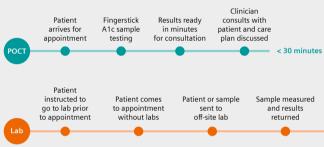
#### Caring about A1c

Checking patients' A1c levels regularly helps lower risks of complications from diabetes.<sup>2-6</sup> **Using A1c point-of-care testing (POCT) can help them comply.** Practices with A1c POCT are 3.7 times less likely to miss A1c testing compared with practices without POCT.<sup>7</sup> Testing A1c at the point of care has also been shown to reduce costs associated with post-visit testing.<sup>8</sup>

### Patient-side A1c testing

A1c testing can be performed at point-of-care patient-side settings such as a physician office or clinic. The ADA states that POCT for A1c provides opportunity for more timely treatment changes.<sup>9</sup>

Incorporating A1c POCT into a patient visit customizes the appointment to the patient's glycemic status. Providing A1c levels with immediate feedback helps providers influence patients to improve their glycemic control.<sup>10</sup>



### POCT A1c

- Streamlined and efficient with no patients lost in the process
- Better patient understanding
- Better clinician/patient relationship
- Better outcomes

#### Central lab

- Many steps can take several days with multiple visits, calls, follow-ups
- Patients can get "lost" along the way
- Inconvenient for the patient and provider
- Extra work for the practice



### Don't lose patients to follow-up.

	Patient instructed to go to lab prior to appointment	Patient comes to appointment without labs	Patient or sample sent to off-site lab	Sample measured and results returned	Case pulled, results reviewed, and treatment decision made	Patient called multiple times until reached	Letter sent to patient on lab results	Patient advised to adjust meds but has questions	Patient returns for consultation appointment
Lab		without labs		letumed			on lab results	but has questions	Day 5+
Lab		-							Suj St

## Guide your patients

American Diabetes Association A1c Guidelines <sup>®</sup>							
A1c goals	< 7.0% (53 mmol/mol)						
	Lower may be acceptable and beneficial if it can be achieved safely without significant hypoglycemia or other adverse effects						
	Less stringent goals (< 8.0% [64 mmol/mol]) may be appropriate for patients with limited life expectancy or where harms outweigh benefits of treatment.						
	Reassess glycemic targets based on individualized criteria						
	Setting a glycemic goal during consultations is likely to improve patient outcomes						
A1c assessment frequency	At least two times a year in patients who are meeting treatment goals and have stable glycemic control						
	At least quarterly and as needed in patients whose therapy has recently changed and/or who are not meeting glycemic goals.						

## Things to know about A1c

# The "A" in A1c stands for "Adult."

After a person reaches 6 months of age nearly all their hemoglobin is type A and approximately 98% is type 1. Type A1 has subtypes A1a, A1b, A1c, and others with A1c being the most common.<sup>11</sup>

The use of the A1c test for monitoring the degree of control of glucose metabolism in patients with diabetes was proposed in 1976.

# Almost all outcome studies on diabetes complications

are now based on HbA1c.<sup>3,6,12</sup>

Compared with glucose, A1c levels have lower biological variability and are not affected by stress and exercise.<sup>15</sup>

Though A1c results represent a long-term average, a person's blood glucose levels within the past

## Every 1%

decrease in the A1c level in a diabetes patient can remarkably lower the risk of complications.<sup>16-18</sup>

> have a greater effect on the A1c reading than those in previous months.<sup>14</sup>

#### Resources

A1c level of

<5.7%

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- 7 Crocker JB, Lynch SH, Guarino AJ, et al. The Impact of Point-of-Care Hemoglobin A1c Testing on Population Health-Based Onsite Testing Adherence: A Primary-Care Quality Improvement Study. J Diabetes Sci Technol. 2021 May;15(3):561-567.
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days

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- 13 Koenig RJ, Peterson CM, Kilo C et al. Hemoglobin Alc as an indicator of the degree of glucose intolerance in diabetes. Diabetes. 1976 Mar;25(3):230-2.
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- 15 Sacks DB. A1C versus glucose testing: a comparison. Diabetes Care. 2011 Feb;34(2):518-23.
- 16 Stratton IM, Adler AI, Neil HA, et al. Association of glycaemia with macrovascular and microvascular complications of type 2 diabetes (UKPDS 35): Prospective observational study. BMJ. 2000;321:405–12.
- 17 Gerich J, Raskin P, Jean-Louis L, et al. PRESERVE-beta: Two-year efficacy and safety of initial combination therapy with nateglinide or glyburide plus metformin. Diabetes Care. 2005;28:2093–9.
- 18 Rajasekharan D, Kulkarni V, Unnikrishnan B, et al. Self-care activities among patients with diabetes attending a tertiary care hospital in Mangalore Karnataka, India. Ann Med Health Sci Res. 2015;5:59–64.



### POINT OF CARE TESTING UNIVERSITY

Educational support provided by Siemens Healthineers.

All information is for education only and is not intended to be relied upon by the reader for instruction as to the practice of medicine. Any healthcare practitioner reading this information is reminded that they must use their learning, training, and expertise in dealing with their individual patients.