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Navigating Diabetes Medication Supply Shortages: Strategies for Prescribers

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Medication supply chain disruptions force patients and providers to seek alternate strategies for managing type 2 diabetes.¹ Commonly affected classes include long-acting glucagon-like peptide-1 receptor agonists (GLP-1 RA), such as dulaglutide and injectable semaglutide, and dual GLP-1/glucose-dependent insulinotropic polypeptide (GIP) receptor agonists, such as tirzepatide. Recent shortages occurred due to an unforeseen demand for medication and did not affect products or doses equally.¹

Clinicians can consider the following options when navigating unexpected medication shortages:

1. Use therapeutic interchanges between products. It is reasonable to initiate an available GLP-1 RA in place of the original product at an equivalent dose. Interchanging agents may require prescribing a nonformulary product that requires prior authorization. Maintaining a line of communication between the prescriber and the pharmacy can help ensure this process occurs seamlessly.^{1,2}

Table 1. GLP-1 RA Drug Shortages and Suggested Comparative Doses for Treating Type 2 Diabetes

Agent	Dosing Route and Interval	Comparative Doses													
		5 µg	10 µg	2 mg	3 mg	4.5 mg	7 mg	14 mg	1 mg	2 mg	5 mg	7.5 mg	10 mg	12.5 mg	15 mg
Dulaglutide	SC weekly		0.75 mg	1.5 mg	3 mg	4.5 mg									
Exenatide	SC twice daily	5 µg	10 µg												
Exenatide XR	SC weekly			2 mg											
Liraglutide	SC daily	0.6 mg	1.2 mg	1.8 mg											
Lixisenatide	SC daily	5 µg	20 µg												
Semaglutide	PO daily	3 mg	7 mg	14 mg											
Semaglutide	SC weekly		0.25 mg	0.5 mg		1 mg	2 mg								
Tirzepatide	SC weekly			2.5 mg			5 mg	7.5 mg	10 mg	12.5 mg	15 mg				

By mouth=PO; Subcutaneous=SC

Adapted from *Special report: potential strategies for addressing GLP-1 and dual GLP-1/GIP receptor agonist shortages*

2. If a comparable GLP-1 RA agent is not available, consider prescribing another antihyperglycemic.¹ Different retail pharmacy chains may have different supplies in stock; consider mail-order pharmacy services if patients have barriers to transportation or pharmacy access.
3. Consider alternative dosing options to maintain the desired weekly dose or extend the duration of the current supply while minimizing adverse effects. For example, taking an injection every 8 or 9 days, versus every 7 days, might be preferable to fully depleting a patient’s supply, though this approach is not supported by evidence or consistent with the FDA labeled dosing.¹ Manufacturer’s instructions vary for timing of dosing when usual intervals are changed.¹ If refills are not available for an extended period, clinicians can consider restarting dose titration to mitigate gastrointestinal side effects.¹

For more information, access Cardi-OH’s expanded resource on **outpatient diabetes management and navigating barriers to medication access.**

References

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2. Almandoz JP, Lingvay I, Morales J, Campos C. Switching between glucagon-like peptide-1 receptor agonists: rationale and practical guidance. *Clin Diabetes*. 2020;38(4):390-402. doi:10.2337/cd19-0100.

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