

Table 1.

# Incretin Therapy Prescribing Tips

Drug	Indication	Dosing and titration	Managing missed doses	How supplied	Supplies required	Priming required	Storage and stability
<b>GLP-1 receptor agonists</b>							
<b>Liraglutide (Victoza)<sup>55</sup></b>	T2DM	Initial dose: 0.6 mg <sup>a</sup> once daily Dose may be titrated weekly by 0.6-mg increments to a maximum of 1.8 mg	Resume with the next scheduled dose (do not give an extra dose or increase the next scheduled dose); if >3 d have passed since the last liraglutide dose, reinstate therapy at 0.6 mg/d to avoid GI symptoms and titrate according to clinical judgment considering previous GI tolerability	18-mg/3-mL multidose pen injector 2 pen types are available One pen delivers doses of 0.6 and 1.2 mg. This pen pack comes with 2 pens Another pen delivers doses of 1.8 mg. This pen pack comes with 3 pens	Pen needles sold separately (manufacturer recommends NovoFine 32G needle)	Required with each new pen	Prior to initial use: store in refrigerator After initial use, may store in refrigerator or at room temperature Discard 30 d after initial use
<b>Liraglutide (Saxenda)<sup>56</sup></b>	Chronic weight management	Initial dose: 0.6 mg once daily for 1 wk Dose may be titrated every 4 wk by 0.6-mg increments to a target dose of 3 mg	Resume with the next scheduled dose (do not give an extra dose or increase the next scheduled dose); if >3 d have passed since the last liraglutide dose, reinstate therapy at 0.6 mg/d to avoid GI symptoms and titrate according to clinical judgment considering previous GI tolerability	18-mg/3-mL multidose pen injector Single pen delivers doses of 0.6, 1.2, 1.8, 2.4, or 3 mg Box includes 5 pens	Pen needles sold separately (manufacturer recommends NovoFine 32G needle)	Required with each new pen	Prior to initial use: store in refrigerator After initial use, may store in refrigerator or at room temperature Discard 30 d after initial use
<b>Semaglutide subcutaneous (Ozempic)<sup>32</sup></b>	T2DM	Initial dose: 0.25 mg <sup>a</sup> once weekly for 4 wk Dose may be increased every 4 wk to doses of 0.5 mg, 1 mg, and 2 mg	Missed dose should be administered as soon as possible within 5 d If >5 d have elapsed (there are <2 d before the next dose is due), skip the missed dose and resume administration at the next scheduled weekly dose	Prefilled, single-dose pen 3 different pens exist Red label: 2-mg/3-mL pen that delivers doses of 0.25 mg and 0.5 mg per injection Blue label: 4-mg/3-mL pen that delivers doses of 1 mg per injection Yellow label: 8-mg/3-mL pen that delivers doses of 2 mg per injection Each box contains 1 pen	32-g, 4-mm needle included with each pen (starter pen pack contains 6 needles; all other pens contain 4 needles)	For each new prefilled pen, prime the needle before the first injection by turning the dose selector to the flow check symbol and injecting into the air (priming is not required for subsequent injections)	Ozempic pen: Prior to initial use, store in refrigerator After initial use, may store in refrigerator or at room temperature Discard after 56 d from initial use

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Drug	Indication	Dosing and titration	Managing missed doses	How supplied	Supplies required	Priming required	Storage and stability
<b>Semaglutide subcutaneous (Wegovy)<sup>57</sup></b>	Chronic weight management Cardiovascular risk reduction in adults with heart disease who have obesity or overweight	Initial dose: 0.25 mg once weekly for 4 wk. Dose may be increased every 4 wk to 0.5 mg, 1 mg, 1.7 mg, and a maximum of 2.4 mg	Missed dose should be administered as soon as possible within 5 d; resume the usual schedule thereafter If >5 d have elapsed (there are <2 d before the next dose is due), skip the missed dose and resume administration at the next scheduled weekly dose. If 2 or more consecutive doses are missed, resume dosing as scheduled; alternatively, may reinstitute dosage adjustment schedule	Prefilled, single-dose pen 5 different dose packs exist: Green pen: 0.25 mg/0.5 mL Pink pen: 0.5 mg/0.5 mL Brown pen: 1 mg/0.5 mL Blue pen: 1.7 mg/0.75 mL Black pen: 2.4 mg/0.75 mL Each pack contains 4 Wegovy pens	Self-contained needle within the device	Wegovy is a single-dose device that does not require priming before injection	Store in a refrigerator. If needed, prior to cap removal, the pen can be kept from 8°C to 30°C (46°F–86°F) for up to 28 d
<b>Semaglutide oral (Rybelsus)<sup>58</sup></b>	T2DM	Initial: 3 mg <sup>a</sup> once daily for 30 d, then increase to 7 mg once daily, may increase to 14 mg once daily after 30 d on the 7-mg dose if needed to achieve glycemic goals Administer ≥30 minutes before the first food, beverage, or other medications of the day Waiting more than 30 minutes to eat may increase absorption Do not consume >4 oz of water with the medication Swallow tablets whole, do not split, chew, or crush	Oral: missed dose should be skipped; resume at the next scheduled dose	Oral tablet Rybelsus: 3 mg, 7 mg, 14 mg	Oral agent	Oral agent	Store at room temperature
<b>Dulaglutide (Trulicity)<sup>59</sup></b>	T2DM	Initial: 0.75 mg once weekly; may increase every 4 wk to doses of 1.5 mg, 3 mg, and 4.5 mg	Missed dose should be administered as soon as possible within 3 d; resume the usual schedule thereafter. If there are <3 d until the next scheduled dose, omit the missed dose and resume administration at the next scheduled weekly dose	Prefilled, single-use pen 4 available pens: Yellow label: 0.75 mg/0.5 mL Blue label: 1.5 mg/0.5 mL Gray label: 3.0 mg/0.5 mL Green label: 4.5 mg/0.5 mL Each box contains 4 pens	Self-contained needle in auto-injector	Dulaglutide is a single-dose device that does not require priming before injection	Store in refrigerator If needed, each single-dose pen or prefilled syringe can be kept at room temperature, not to exceed 86°F (30°C) for a total of 14 d
<b>Exenatide (Byetta)<sup>60</sup></b>	T2DM	Initial dose: 5 µg twice daily within 60 minutes prior to morning and evening meals (or before the 2 main meals of the day, ≥6 h apart); may increase to 10 µg twice daily after 1 month if needed to achieve glycemic goals	Missed dose should be skipped; resume at the next scheduled dose	Solution pen-injector: Byetta 10 mcg pen: 10 mcg/0.04 mL (2.4 mL) Byetta 5 mcg pen: 5 mcg/0.02 mL (1.2 mL)	Needles are not included and must be purchased separately Use 29 (thin), 30, or 31 (thinner) gauge disposable pen needles with the Byetta pen	Set up each new pen before the first use by priming it	Prior to initial use, store under refrigeration After initial use, may store at ≤25°C (≤77°F). Do not freeze Pen should be discarded 30 d after initial use

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Drug	Indication	Dosing and titration	Managing missed doses	How supplied	Supplies required	Priming required	Storage and stability
<b>Exenatide ER (Bydureon BCise)<sup>61</sup></b>	T2DM	Subcutaneous: 2 mg once weekly without regard to meals. If changing the day of administration is necessary, allow at least 3 d between 2 doses	Missed dose should be administered as soon as possible if the next scheduled dose is due in $\geq 3$ d; resume the usual schedule thereafter. If there are $<3$ d until the next scheduled dose, omit the missed dose and resume administration at the next scheduled weekly dose	Auto-injector, subcutaneous: Bydureon BCise: 2 mg/0.85 mL (0.85 mL)	Self-contained needle in auto-injector	Priming not required	Store under refrigeration at 2°C–8°C (36°F–46°F); if necessary, may store at $\leq 30^\circ\text{C}$ ( $\leq 86^\circ\text{F}$ ) for up to 4 wk. Protect from light. Must be stored flat
<b>Dual GIP and GLP-1 RA</b>							
<b>Tirzepatide (Mounjaro)<sup>62</sup></b>	T2DM	Subcutaneous: initial 2.5 mg once weekly for 4 wk. <sup>a</sup> May increase dose every 4 wk in 2.5-mg increments to a maximum dose of 15 mg	Missed dose should be administered as soon as possible within 4 d; resume usual schedule thereafter. If $>4$ d have elapsed, skip the missed dose and resume administration at the next scheduled weekly dose	Solution pen injector, subcutaneous (preservative free): 6 pens are available: Gray label: 2.5 mg/0.5 mL (0.5 mL) Purple label: 5 mg/0.5 mL (0.5 mL) Green label: 7.5 mg/0.5 mL (0.5 mL) Pink label: 10 mg/0.5 mL (0.5 mL) Blue label: 12.5 mg/0.5 mL (0.5 mL) Red label: 15 mg/0.5 mL (0.5 mL)	Self-contained needle in auto-injector	Priming not required	Store at 2°C–8°C (36°F–46°F). If needed, each single-dose pen can be stored unrefrigerated at temperatures $\leq 30^\circ\text{C}$ ( $\leq 86^\circ\text{F}$ ) for up to 21 d; do not return to the refrigerator and discard if not used within 21 d. Do not freeze or use if frozen. Store in the original carton to protect from light
<b>Tirzepatide (Zepbound)<sup>63</sup></b>	Chronic weight management Obstructive sleep apnea (moderate-severe)	Subcutaneous: initial 2.5 mg once weekly for 4 wk. <sup>a</sup> May increase dose every 4 wk in 2.5-mg increments to a maximum dose of 15 mg	Missed dose should be administered as soon as possible within 4 d; resume usual schedule thereafter. If $>4$ d have elapsed, skip the missed dose and resume administration at the next scheduled weekly dose	Solution auto-injector, subcutaneous (preservative free): 6 pens are available: Gray label: 2.5 mg/0.5 mL (0.5 mL) Purple label: 5 mg/0.5 mL (0.5 mL) Green label: 7.5 mg/0.5 mL (0.5 mL) Pink label: 10 mg/0.5 mL (0.5 mL) Blue label: 12.5 mg/0.5 mL (0.5 mL) Red label: 15 mg/0.5 mL (0.5 mL)	Self-contained needle in auto-injector	Priming not required	Store at 2°C–8°C (36°F–46°F). If needed, each single-dose pen can be stored unrefrigerated at temperatures $\leq 30^\circ\text{C}$ ( $\leq 86^\circ\text{F}$ ) for up to 21 d; do not return to the refrigerator and discard if not used within 21 d. Do not freeze or use if frozen. Store in the original carton to protect from light
<b>Triple GIP, glucagon, and GLP-1 RA</b>							
<b>Retatrutide<sup>64</sup></b>	No current FDA-approved indications Under investigation for weight management	Participants in the latest Phase II trial received doses of 1 mg, 4 mg with an initial dose of 2 mg, 4 mg with an initial dose of 4 mg, 8 mg with an initial dose of 2 mg, 8 mg with an initial dose of 4 mg, or 12 mg with an initial dose of 2 mg or placebo—all administered subcutaneously once weekly for 48 wk	NA	Unknown	Unknown	Unknown	Unknown

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Drug	Indication	Dosing and titration	Managing missed doses	How supplied	Supplies required	Priming required	Storage and stability
<b>Monitoring parameters</b>							
<b>Efficacy:</b> <ul style="list-style-type: none"> <li>• Body weight</li> <li>• HbA1c (if prediabetes, or T2DM)</li> </ul> <b>Adverse effects:</b> <ul style="list-style-type: none"> <li>• GI upset (nausea/vomiting, indigestion, diarrhea, and constipation)</li> <li>• Signs/symptoms of pancreatitis (severe abdominal pain ± radiating to back ± nausea/vomiting)</li> <li>• Signs/symptoms of gallbladder disease (upper abdominal pain, nausea/vomiting, fever/chills, jaundice)</li> <li>• Ocular changes</li> </ul> <b>Black box warnings:</b> <ul style="list-style-type: none"> <li>• Incretin therapies have been found to cause thyroid C-cell tumors in rats</li> <li>• All incretin therapies are contraindicated in patients with a personal or family history of medullary thyroid cancer or in patients with multiple endocrine neoplasia syndrome type 2</li> </ul> <p><sup>a</sup>This dose is intended to reduce GI symptoms; it does not provide effective glycemic control or weight loss.</p> <p>Abbreviations: FDA = US Food and Drug Administration, GI = gastrointestinal, GIPR = glucose-dependent insulinotropic polypeptide receptor, GLP-1 RA = glucagon-like peptide receptor agonist, HbA1c = hemoglobin A1c, T2DM = type 2 diabetes mellitus.</p>							