## **GLP-1** receptor agonists

	Byetta (exenatide)	Victoza (liraglutide)
Image	Byetta Londing to the Control of the	Victoza® inguiste robit origin) spector
	Lyetta 10 page	
Dosing	<ul> <li>5 mcg anytime within 1 hr before meals, twice daily (1.2 mL prefilled pen), then uptitrate as tolerated after 1 month</li> <li>10 mcg anytime within 1 hr before meals, twice daily (2.4 mL prefilled pen)</li> </ul>	<ul> <li>0.6 mg daily, uptitrate to 1.8 mg as tolerated</li> <li>Each pen (18 mg/3mL) has all 3 dose options</li> <li>Take once daily without regard to meals</li> </ul>
Rx example	Byetta (10 mcg/2.4 mL). Inject 10 mcg SQ twice daily AC (#1 pen/mo) + <i>separate rx for pen needles</i> **note: 1 pen contains 60 doses for 1 month	Victoza (18 mg/3mL). Inject 1.2 mg SQ daily (#2 pens/mo) + separate rx for pen needles  **note: 0.6 mg daily dose=1 pen/mo / 1.2 mg daily dose=2 pens/mo / 1.8 mg daily dose=3 pens/mo
Preparation	Prime pen only with FIRST TIME use of pen by wasting the first dose. Uses same pen needles as insulin pens. Must rx separately. Instructions: <a href="https://www.byetta.com/taking-byetta/byetta-resource-center-Dummy.html">https://www.byetta.com/taking-byetta/byetta-resource-center-Dummy.html</a> User guide:	Prime pen only with FIRST TIME use of pen. Dial knob to the symbol of a line with 2 drops and waste this amount. Uses same pen needles as insulin pens. Must rx separately. <b>Demo video</b> : <a href="https://www.victoza.com/get-started-using-victoza-/your-first-injection.html">https://www.victoza.com/get-started-using-victoza-/your-first-injection.html</a>
	http://www.accessdata.fda.gov/drugsatfda_docs/label/2006/02 1773s005lbl.pdf	User guide: <a href="https://www.victoza.com/content/dam/diabetes-patient/victoza/pdfs/Victoza_User_Guide.pdf">https://www.victoza.com/content/dam/diabetes-patient/victoza/pdfs/Victoza_User_Guide.pdf</a>
Storage	Refrigerate new, unopened pens. Keep in-use pens at room temp < 77F	Refrigerate new, unopened pens. Keep in-use pens at room temp < 86F
Precautions	Pancreatitis, gastroparesis, avoid use if eGFR < 30	Medullary thyroid carcinoma, Multiple Endocrine Neoplasia syndrome, pancreatitis, gastroparesis. No dose adjustment needed for renal impairment
SE > 10%	Nausea, vomiting, diarrhea, reduced hunger, weight loss, hypoglycemia depending on other agents used	Nausea, diarrhea, vomiting, headache, reduced hunger, weight loss, hypoglycemia depending on other agents used

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	Bydureon (exenatide ER)	Trulicity (dulaglutide)
Image	Bydureon Pen  The state of the	trulicity. dulaglutide injection once weekly 0.75 mg/0.5 mL, 1.5 mg/0.5 mL
Dosing	<ul> <li>2 mg once a week without regard to meals, any time of the day. Inject immediately after mixing.</li> <li>If dose is missed, ok to take 1-2 days earlier or later</li> </ul>	<ul> <li>0.75 mg once a week without regard to meals, any time of the day. Max dose 1.5 mg</li> <li>If dose is missed, ok to take 1-2 days earlier or later</li> </ul>
Rx example	Bydureon or Bydureon Bcise 2 mg pen. Inject 2 mg SQ weekly (#4 pens/28 days); pen needle is included with pen (Bcise pen has built-in/hidden needle)	Trulicity (0.75 mg/0.5 mL) pen. Inject 0.75 mg SQ weekly (#4 pens=2 mL/28 days). Pen has built-in needle Quantity for 1.5 mg pen is still #4 pens=2 mL/28 days
Preparation	Bydureon pen contains powder and diluent and there are several steps to reconstitute and ensure uniform suspension prior to injection. <b>Demo video</b> : <b>Bcise</b> <a href="https://www.bydureon.com/using-bcise/how-to-use-bydureon-bcise.html">https://www.bydureon.com/using-bcise/how-to-use-bydureon-bcise.html</a> <b>Pen</b> <a href="https://www.bydureon.com/pen/taking-bydureon/your-first-bydureon-injection.html">https://www.bydureon.com/pen/taking-bydureon/your-first-bydureon-injection.html</a> <b>User guide</b> : <a href="https://www.bydureon.com/pen/bydureon-pen.html">https://www.bydureon.com/pen/bydureon-pen.html</a>	No reconstitution necessary. Remove grey needle guard, twist knob to green "unlock" symbol, place base of pen on skin and press green button. Wait to hear click of injection. Needle is built into pen and hidden from view. <b>Demo video</b> : <a href="http://www.trulicity.com/taking-diabetes-medicine.html">http://www.trulicity.com/taking-diabetes-medicine.html</a> <b>User guide</b> : <a href="http://pi.lilly.com/us/trulicity-highdose-ai-ifu.pdf">http://pi.lilly.com/us/trulicity-highdose-ai-ifu.pdf</a>
Storage	Refrigerate new, unopened pens. Keep in-use pens at room temp < 77F up to 4 wks	Refrigerate new, unopened pens. Keep in-use pens at room temp < 86F up to 14 days
Precautions	Medullary thyroid carcinoma, Multiple Endocrine Neoplasia syndrome, pancreatitis, gastroparesis. Use with caution in eGFR 30-50 d/t risk of n/v and transient hypovolemia that can worsen renal function	Medullary thyroid carcinoma, Multiple Endocrine Neoplasia syndrome, pancreatitis, gastroparesis. No dose adjustment needed in renal impairment
SE > 10%	Nausea, diarrhea, injection-site nodule/itching, reduced hunger, weight loss, hypoglycemia depending on other agents	Nausea, (diarrhea and vomiting at higher dose), reduced hunger, weight loss, hypoglycemia depending on other agents.  No injection-site reactions.

## **GLP-1** receptor agonists

	Ozempic (semaglutide)		
Image			
	OZEMPIC (semaplutide) injection [For Single Patient Use Cirily]		
Dosing	<ul> <li>Lower dose pen only allows for 0.25 mg and 0.5 mg dosing. Start 0.25 mg SQ weekly x 4 wk, then uptitrate to 0.5 mg SQ weekly</li> <li>Higher dose pen only allows for 1 mg dosing if needed beyond 0.5 mg</li> <li>No dose adjustment needed in renal/hepatic impairment</li> </ul>		
Rx example	Lower dose pen package (1 pen=2 mg/1.5 mL) contains 6 pen needles for 4-6 weekly injections depending on dose Higher dose pen package (2 pens=2 mg/1.5 mL x 2) contains 4 pen needles for 4 weekly injections		
Preparation	No reconstitution needed. Prime pen only with FIRST TIME use of pen. <b>Demo video</b> : <a href="https://www.ozempicpro.com/dosing-and-administration/ozempic-ifu.html">https://www.ozempicpro.com/dosing-and-administration/ozempic-ifu.html</a> <b>User guide:</b> <a href="https://www.novo-pi.com/ozempic.pdf">https://www.novo-pi.com/ozempic.pdf</a>		
Storage	Refrigerate new, unopened pens. In-use pens can be kept at room temp < 86F up to 56 days (8 wks).		
Precautions	Medullary thyroid carcinoma, Multiple Endocrine Neoplasia syndrome, pancreatitis, gastroparesis. No dose adjustment needed in renal impairment		
SE > 10%	Nausea, (diarrhea and vomiting at higher dose), reduced hunger, weight loss, hypoglycemia depending on other agents		