PAMORAS- Peripherally Acting Mu Opioid Receptor Antagonists

Medication	Dosing	Metabolism	Clinical Significance
Methylnaltrexone (Relistor) Oral Tablet 150mg SubQ Solution: 8mg/0.4mL or 12mg/0.6mL Indication: OIC with advanced illness, OIC with chronic non-cancer pain*	OIC with chronic non-cancer pain*: 12 mg SC daily or 450 mg PO daily *Max one dose daily CrCl<60mL/min decrease dose to 150mg PO QD or 6mg SC. OIC with Advanced Illness based on weight*: < 38kg: 0.15 mg/kg subQ every other day as needed; 38kg-61kg: 8 mg subQ every other day as needed 62kg-114kg: 12 mg subQ every other day as needed; >114kg 0.15 mg/kg subQ every other day as needed * MAX one dose in a 24 hr period CrCl<30 mL/min: decrease dose by 50%	Phase 1 by CYP2D6 Metabolites: Methyl-6-naltrexol isomers: Active Methylnaltrexone sulfate: Weakly active	Weak inhibitor of CYP2D6, no dose adjustments necessary for CYP2D6 substrates
Naloxegol (Movantik) Oral tablet 12.5mg & 25mg Indication: OIC with chronic non-cancer pain*	25 mg QAM on an empty stomach If poor toleration decrease to 12.5 mg PO QD *Max 25mg daily CrCl <60 mL/min: 12.5 mg daily	Phase 1 by CYP3A4 & P-gp Human metabolism data suggests absence of major metabolites	Use is contraindicated with strong 3A4 inhibitors. Reduce dose to 12.5 mg with moderate 3A4 inhibitors. Avoid grapefruit juice
Naldemedine (Symproic) Oral Tablet: 0.2 MG Indication: OIC with chronic non-cancer pain*	0.2 mg daily	Phase 1 by CYP3A4, P-gp, & UGT1A3 CYP 3A4 –to: nor-naldemedine UGT1A3- to: naldemedine 3-G.	Monitor with moderate inhibitors/inducers of CYP3A4. Strong inhibitors therapy should be monitored. Do not combine with strong CYP3A4 inducers. -Nor-naldemedine and naldemedine 3-G have been shown to have antagonistic activity for opioid receptors, with less potent effect than naldemedine.
Alvimopan (Entereg) Oral Capsule: 12 mg REMS drug Indication: Postoperative ileus	Post-Operative Ileus: 12 mg PO 30 minutes-5 hours prior to surgery and 12 mg BID for up to 7 days *MAX 15 doses **used inpatient only due to MI risk ***Not FDA approved for OIC	Unknown	

Axelopran is still in Phase-3 clinical trials for approval as a PAMORA for use in OIC FDA approved for OIC

http://paindr.com/wp-content/uploads/2018/03/PAMORAs-Table_2018-Mar.pdf

Lubiprostone (Amitiza) Oral capsule: 8 mcg and 24 mcg Indication: chronic idiopathic constipation, IBS-C, OIC	Constipation: 8 mcg BID with food and water Idiopathic constipation or OIC: 24 mcg BID with food and water *MAX 24 mcg BID	Carbonyl reductase	Lubiprostone concentration may be decreased with concurrent methadone use

Abbreviations: OIC: opioid induced constipation; IBS-C: irritable bowel syndrome with constipation
*OIC with chronic non-cancer pain: can be for patients with prior cancer or with current cancer pain as long as they are not receiving frequent (weekly) opioid dosage escalation.

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References:
Amitiza. [Package Insert]. Rockville, MD : Sucampo Pharma Americas LLC, & Deerfield, IL: Takeda Pharmaceuticals America, Inc. 2006
Entereg.[Package Insert]. Kenilworth, NJ: Merck. 2008
Methylnaltrexone [package insert] Philadelphia, PA: Wyeth Pharmaceuticals Inc. 09/2010
Naldemedine[package insert] Florham Park, NJ: Shionogi Inc. & Stamford, CT: Purdue Pharma L.P. 3/2017
Shapiro K, Garrett S, Schmitz J et al. *RXPREP COURSE BOOK .* RXPREP Inc. 2018