Long-Acting Naltrexone Induction Best Practices:

1) Research-Based Induction Protocol

"Long-Acting Injectable Naltrexone Induction: A Randomized Trial of Outpatient Opioid Detoxification with Naltrexone Versus Buprenorphine". The American Journal of Psychiatry. Published on-line: 10JAN2017 at https://doi.org/10.1176/appi.ajp.2016.16050548

TABLE 1. Outpatient Opioid Detoxification Regimen, by Treatment Arm, in a Study of Oral Naltrexone Versus Buprenorphine as Detoxification **Strategies for Extended-Release Injectable Naltrexone Induction in Opioid Dependence**

Day	Naltrexone-Assisted Detoxification	Buprenorphine-Assisted Detoxification
1	Ancillary medications[a] to support abstinence	
2	Buprenorphine, 2 mg sublingually every 1–2 hours, up to 8 mg	
3	(Washout)	Buprenorphine, 6 mg
4	Naltrexone, 1 mg	Buprenorphine, 4 mg
5	Naltrexone, 3 mg	Buprenorphine, 4 mg
6	Naltrexone, 12 mg	Buprenorphine, 2 mg
7	Naltrexone, 25 mg	Buprenorphine, 1 mg
8	Extended-release injectable naltrexone, 380 mg i.m.	
15		Extended-release injectable naltrexone, 380 mg i.m.

[a] Ancillary medications offered included clonidine (0.1 mg q.i.d., plus every 4 hours as needed; maximum daily dose, 1.2 mg), clonazepam (0.5 mg q.i.d.; maximum daily dose, 2.0 mg), prochlorperazine (10 mg t.i.d.), trazodone (100 mg h.s.), and zolpidem (10 mg h.s.).

2) Primary Care Practical Options for XR Naltrexone Induction:

a. *Ted Hall (Ho-Chunk Nation)*:
   i. Treat opioid withdrawal and, after ~ 3 days of heroin abstinence (longer for longer acting opioids), start oral naltrexone

      12.5mg (quarter tablet) for 4 days
      25mg for 2 days
      50mg daily until XR naltrexone injection

b. *Aleksandra Zgierska (UW Health)*
   i. Treat opioid withdrawal and, after ~ 3 days of heroin abstinence (longer for longer acting opioids), start oral naltrexone:

      Take 6.125-12.5 mg (eighth-quarter tablet)
      If tolerated, continue this dose every 1-3 hours until 50mg/day
      If not tolerated, wait until the next day, restart the process
      Continue 50 mg daily until XR naltrexone injection

c. *Other options*:
   i. Treat opioid withdrawal and, after ~ 3 days of abstinence (longer for longer acting opioids), start oral naltrexone:

      Dissolve 50mg oral naltrexone in 100cc of distilled water (5mg/10cc);
      2.5mg = 5cc and 5mg = 10cc, etc.

      2.5 mg day 1
      5 mg day 2
      10 mg day 3
      25 mg day 4
      then XR naltrexone injection

Opioid Withdrawal Treatment

Clinical Information	1) Assess withdrawal severity utilizing the Clinical Opiate Withdrawal Scale (COWS- objective, completed by nurse or provider) and the Subjective Opiate Withdrawal Scale (SOWS- subjective, completed by patient); record findings in the patient EMR profile. 2) Confirm presence of opioid with a drug toxicology lab test; Methadone and Buprenorphine often require a special lab order 3) Opioid withdrawal is extremely uncomfortable; although it is not life-threatening by itself, it dramatically increases the risk of opioid use and overdose. 4) Symptoms typically start within 12 hours of last Heroin use (short acting opioid) and 30 hours of last Methadone exposure (long acting opioid) Symptom Timeline: a) **Early Phase (~6-12 hours)**: agitation, anxiety, myalgia (muscle aches), hyperlacrimation (increased tearing), insomnia, rhinorrhea (runny nose), diaphoresis (sweating), yawning b) **Late Phase (~48-72 hours)**: abdominal cramping, diarrhea, mydriasis (dilated pupils), goose bumps, nausea, vomiting
Pharmacological Intervention **+** ***Support Measures:*** Ideally, brief daily clinic (nurse, pharmacist, or behavioral health counselor) visits for duration of withdrawal (2-10 days) to help manage symptoms and provide reassurance and support. These measures can help mitigate psychological obstacles and increase success of detoxification completion and extended release naltrexone (XR-NXT) initiation. **Recommended Interventions:** Mindfulness, CBT, Talk Therapy, Breathing Exercises, ACT (abbreviated)	• **Symptom**: Anxiety/Insomnia/Restlessness/Agitation a. Clonidine 0.1-0.2 mg: start 0.1 mg PO Q6-8H PRN #QS b. Hydroxyzine 25-50mg PO QID PRN c. Gabapentin 100-300 mg PO QID prn d. Quetiapine 12.5-25 mg PO QID prn e. Trazodone 50-100 mg PO QHS prn sleep trouble • **Symptom**: Nausea/Vomiting a. Prochlorperazine 5-10 mg PO Q6-8H PRN **OR** b. Promethazine 25 mg PO Q4-6h PRN **OR** c. Ondansetron 4-8 mg PO Q8H PRN (Ondansetron Oral Disintegrating, ODT works fastest, sublingually) • **Symptom**: Diarrhea a. Loperamide 2mg: 4mg PO x 1 dose, then 2 mg after each loose stool (maximum 16 mg/24hrs) b. For severe diarrhea, can consider Diphenoxylate/Atropine 2.5/0.025mg: 1-2 PO BID to QID PRN max of 8 tabs/24hrs • **Symptom**: Myalgias (muscle aches/pains) a. NSAIDs b. Acetaminophen c. Heating pad • **Symptom:** GI cramps a. dicyclomine 10-20 mg QID prn • **Hydration:** encourage electrolyte-rich fluids

Prescribe naloxone for fetal overdose prevention

Avoid / limit benzodiazepines and Z-drugs (e.g., zolpidem) for out-patient use