phs health care

INJECTABLE OPIOID AGONIST TREATMENT: PHS NURSING POLICY

PURPOSE

Injectable opioid agonist treatment (iOAT) is an evidence-based treatment intervention for people with severe opioid use disorder who have been refractory to treatment with oral agonist therapy. Injectable treatment has been demonstrated to increase retention to care, decrease illicit opioid use, and increase quality of life. iOAT is part of the continuum of care when treating people with opioid use disorder.

MODELS OF CARE

The patient selection, titration, dosing, and clinical care are the same across all of our models of care.

Pharmacy Model

PHS Heath Care partners with community pharmacies in order to provide this low-barrier treatment option for our most vulnerable patients.

The initial titration dosing of hydromorphone is done at clinic, under nursing supervision. This is an unstable time for patients and they require close observation during this titration period. Once patients have reached a stable dose, they are transitioned to our community pharmacy partner, Pier Pharmacy.

The most common dosing schedule is two injectable doses per day with the addition of long-acting OAT such as methadone or SROM in the evening or with their last dose. This long acting oral component of treatment prevents withdrawal overnight between injection doses.

Please note- Pier Pharmacy is open from 0800-1700 Monday to Friday (the last iOAT hydromorphone injection is at 1630 - staff are strict on this) but 0800-1400 Saturday and Sunday (last dose for iOAT is at 1330). It is important to let patients know so they can plan on getting there with enough time between doses, and to also have enough time for post injection observation.

Housing Model

PHS Health Care also provides housing-based iOAT programming. Each of these programs is tailored to the staffing and structure of the different housing projects. Injections are done under the supervision of the nurse or mental health worker. Mental Health Workers are trained to supervise self-administration of iOAT and to perform a pre- and post-injection assessment of the patients.

ADMINISTRATION OF INJECTIONS

Starting the Program

When starting patients, ask about their daily opioid use. Go over the titration schedule, and advise them what happens with missed doses.

Discuss the options to self-administer by IV or IM, or to have the nurse administer IM.

Discuss the time limit for injection. We allow each person to have 7 minutes per injection. If they are not able to inject during that 7 minutes, they can administer it IM, or have the nurse administer it IM. The nurse cannot administer the injection IV. It is important that we are patient with our clients as well as firm with the timing restrictions. As we expand the program, timing will be essential in order to provide care for each of our clients.

Encourage the patient to plan come in for their injection when they are not intoxicated, otherwise they may not receive their dose. Discuss with patients the questions that will be asked, ex. "May I see your eyes", "have you used any other drugs today", etc.

Discuss the dangers of alcohol and benzodiazepine use with iOAT. Patients will not be able to receive their dose if they are intoxicated on alcohol or benzodiazepines. Ongoing alcohol or benzodiazepine use will result in discharge from the program due to the high probability of adverse events such as respiratory depression.

Titration

Each patient will go through a formal titration schedule to find the appropriate dose for each individual. Not all patients will end up on the same dose. Factors affecting individual dosage include baseline opioid tolerance, genetics, and history of opioid use.

The titration schedule is as follows:

Day 1

Dose 1 - initial dose. Draw up **15mg (0.3mL)** of hydromorphone. Have the client inject IV/IM. Suggest that the patient inject all dosses of hydromorphone slowly, as to reduce the amount of pins and needles as well as itchiness (this can cause extreme discomfort). Observe for 20 minutes (the client may wait in the waiting room). Assess for signs of intoxication, if the dose is tolerated well, draw up **30mg (0.6mL)** of hydromorphone and allow the client to inject. Have the patient wait in the clinic for 15-20 minutes post-dose where they can be observed for signs of intoxication.

Dose 2 - Draw up **45mg (0.9mL)** of hydromorphone. Have the client inject IV/IM. Observe for 20 mins. Assess for signs of intoxication. If tolerated well, draw up **30mg (0.6mL)** of hydromorphone and allow client to inject. Have them wait for 15-20 minutes post-dose.

Day 2

Dose 1 - Draw up **50mg (1mL)** of hydromorphone. Give the client the option of using the regular 1cc syringe or moving up to a 3cc syringe (the 1cc will be quite full and some find it difficult to flag). After 20 minutes, if well-tolerated, draw up another **30mg (0.6ml)** of hydromorphone and have them inject then wait 15-20 minutes.

Dose 2 -Draw up **80mg (1.6mL)** of hydromorphone and have the client inject (this dose will need to be in a 3mL syringe- change the needle to 27g for injection after drawing up). If well-tolerated after 20 minutes, draw up another **20mg (0.4mL)** of hydromorphone and have the patient inject, then wait 15-20 minutes in the clinic.

Day 3

Dose 1 and 2 on Day 3 are often the ongoing final dose for the patient. If all previous titration doses were well tolerated, doses on day 3 be 100mg (2mL) BID.

As the patients go through the titration, they stop at the dose where they are comfortable and have alleviated withdrawal. This will be their dose ongoing. If a patient is over sedated post-injection, discuss with the physician to adjust the dose for the next injection. The physician may order a lower dose at the next injection, with the option to continue to titrate up depending on how the patient tolerates the new dose.

Assessment

Prior to administering each dose, perform a pre-dose assessment of the patient.

Review recent chart notes to ensure that no intoxication occurred at last dose and that there have been no missed doses. In the event of a missed dose refer to the "Missed Doses" section of this document. Assess the patient for the following:

- Signs of opiate intoxication including level of consciousness, slurred speech, and pupil size
- Signs of withdrawal including diaphoresis, restlessness/agitation, runny nose, tremor, pain, GI upset, and goosebumps.
- Recent drug use. Even if they have used that day, they still are able to receive their dose as long as the patient passes the pre-injection assessment. If the patient is too drowsy, hold the dose and ask them to return when they are less intoxicated.

Please see the pre-dose assessment check list below.

	YES	NO
Anxious or agitated?		
Overly sedated?		
Slurred speech?		
Smells of alcohol?		
Decreased breathing rate?		
Looks unwell?		

Administering the injection

- Draw up the prescribed dose, making adjustments as necessary (ie. Missed doses).
- Patients may not inject into their jugular.
- Encourage the patient to wash their hands before injecting.
- Provide injection supplies - tourniquet, alcohol swabs, gauze. Patients often have not utilized some of these supplies when injecting in the past, explain the benefits of each of these if necessary.
- Give the patient the option to change syringes as the needle will be dulled from drawing up the medication.
- Observe the patient as they inject themselves IV or IM. Support them to have good injection technique and monitor for diversion.
- If the patient requests, the nurse may administer the injection IM in the deltoid, quadriceps, or gluteal muscles. Depending on the dose amount, the IM injection site should rotated and preferably injected into a larger muscle area (quadriceps or gluteal muscle).

- Ideally, the client should present for 2 injectable doses a day. They are required to have at least 3 hours between doses.
- The client must tolerate the previous dose well, without appearing too intoxicated to continue to the next titration dose. If they presented as over-sedated at the previous dose, discuss with the doctor about the next dose.

Example 1

On day 1 of his titration, Fred receives 45mg and tolerates it well, after the additional dose of 30mg, he is drowsy but easily rousable. The doctor decides to keep his dose at 75mg ongoing. Fred is now finished his titration, and the doctor will provide a prescription for 75mg IV/IV BID all witnessed. Fred will have the next day at 75mg IM/IV witnessed at the clinic with the nurse to confirm this is his appropriate dose, and then he will transition to the pharmacy for ongoing injection observations.

Example 2

Harpreet is on day 2, injection 2, and receives 80mg which she injects IV. After observation in the clinic for 20 minutes, she is too drowsy to receive the additional 20mg. You discuss with the physician who decides her dose will stay at 80mg BID. She will be seen at clinic the next day for 80mg IV/IM BID witnessed by the nurse to confirm that this is her appropriate dose, and then she will transition to the pharmacy for ongoing injection observations.

Example 3

On day 2, injection 1, Neveah tolerates 50mg well, but is nodding off after the additional 30mg. The physician decides her next dose will be 50mg with an additional 10mg. When she comes for the next dose you administer 50mg, then wait 20 minutes and administer 10mg. She tolerates this well, and reports that she still feels some ongoing mild withdrawal. She would to continue increasing, so you bring her in to see the doctor who orders an additional 10mg. After this injection (70mg in total for day 2 injection 1), she reports that she feels well. The doctor orders 70mg IV/IM BID as her ongoing dose. This will be witnessed by the nurse the next day, in order to confirm that this is her appropriate dose, and then she will transition to the pharmacy for ongoing injection observations.

Example 4

Seok is on day 2 of her titration, and presents for her morning dose where she injects 50mg. She leaves clinic after her observation period before getting the additional 30mg. She returns that afternoon, and you discuss with the physician. As she did not receive the second half of dose 1, she will receive 50mg again when she returns.

Post Injection Assessment

Patients are required to be observed for 15 – 20 minutes post injection.

Patients must pass the post injection checklist before leaving the clinic. If the patient does not pass the post injection checklist, please alert the physician to create a plan.

	YES	NO
Anxious or agitated?		
Overly sedated?		
Slurred speech?		
Smells of alcohol?		
Decreased breathing rate?		
Looks unwell?		

ONGOING CARE

Once the titration is finished, Hydromorphone can be increased every 24 hours by 10mg per dose. So, a patient can go from 100mg BID to 110mg BID.

When patients come in for their iOAT medication refills, it is just like any other clinic visit. Offer to do vital signs and collect a urine drug test. Ask the physician if there is any blood work due. Offer any immunizations that are due.

Check in with the patient about their drug use, cravings, sleep, and how they find their dosing.

MISSED DOSES

During titration, if a patient misses one dose they will receive the last dose they received, and continue to titrate up from there.

During titration, if a patient misses 2 doses or more, their titration must be started again from the beginning.

Once a patient is stable on their dose, they do not require dose adjustment unless they miss three days in a row. If this occurs, discuss with the physician, who will write prescriptions to restart. It is best for this re-start to take place at the clinic under nursing observation.

Example 1

On Monday Alex gets dose 1 and 2. He doesn't come back until Tuesday afternoon, so has missed Tuesday morning dose. He will get day 1 dose 2 as his Day 2 dose.

Example 2

Tony started his iOAT titration on Monday. On Tuesday morning he comes in and gets his full dose. He misses Tuesday afternoon, all day Wednesday and Thursday and Friday morning. He comes to clinic on Friday afternoon. He can be given a dose of hydromorphone at the day 1, dose 1 dose. However, he will have to come back and restart the titration on Monday morning because the clinic will be closed over the weekend. On Monday, he will start at day 1, dose 1 again.

ORAL AGONIST TREATMENT

Patients will be given the option to have Kadian or methadone with their afternoon dose to prevent withdrawal overnight. This will always be witnessed. If clients are concerned about taking this medication with their hydromorphone dose, you can assure them that it is safe for them to take these medications together. If they find they are experiencing withdrawal too early they can take the Kadian or methadone script to a different pharmacy that is opened later in order to have their dose in the evening.

The physician and the patient will decide which long acting medication is best for them. Some patients will choose not to take a long acting medication at all, however this leaves them susceptible to withdrawal overnight in between injections.

Methadone has a half-life of 8-59 hours, however the analgesic effects of methadone only last 4-8 hours. Methadone will have a peak serum concentration at 4 hours post dose, and then decrease its effectiveness. Kadian is a long acting morphine. Morphine has a half-life of 2-4 hours, but because the pellets are coated it is slowly released over 24 hours with no noticeable peak serum concentration.

Methadone can be increased every 3 days if there are no missed doses. Kadian can be increased every 2 days if there are no missed doses.

NURSING CONSIDERATIONS

It is very common for patients to have histamine reactions at the injection site. This may present as a red, itchy rash, or hives. By encouraging the patient to inject the hydromorphone very slowly, this can sometime reduce the sensation of pins and needles and itchiness. In more extreme cases, this can be managed with 25mg Benedryl PO. Often these reactions persist for the first few doses, so it is appropriate to administer Benedryl with each dose. Always monitor for signs and symptoms of anaphylaxis, and report any adverse effects to the physician. Always ensure there is epinephrine on site in the case of anaphylaxis.

When patients are providing urine drug tests on the iOAT program, ensure that UDS including fentanyl and 6-MAM is ordered (and methadone as well, if they are on it). 6-MAM is the heroin metabolite, so we are able to distinguish between morphine and heroin on the urine drug test.

Assisting with injection

Nurses who have completed phlebotomy may assist clients with: finding a vein, positioning the needle bevel up, and stabilizing the vein/syringe. Nurses may not: pierce the skin, flag, or depress the plunger on the syringe for an IV injection.

FREQUENTLY ASKED QUESTIONS

1. How long can I stay on this program?

As long as you want or need to.

2. What if 100mg isn't enough?

You can increase your hydromorphone every 24 hours by seeing your doctor. You can increase each dose by 10mg. So, if you are on 100mg BID, the doctor can increase to 110mg BID.

3. Why can't I have prescription heroin like SALOME?

SALOME has an exemption to import diacytalmorphine. We cannot access it at this time, but we are hoping to be able to prescribe it when it becomes available, although we do not know if that is going to happen.

4. How much is ___ mg? What is it equivalent to?

Hydromorphone is the same as Dilaudid. So 80mg of hydromorphone is equivalent of 10 "dilly 8's". Each "dilly 8" has 8mg of Dilaudid.

5. Can I move the hydromorphone over into a regular rig?

No. The patient can't adjust the syringe once you have loaded it. Often, they prefer the "rig" as this is a 27 gauge needle. This can be accommodated by changing the needle on the hydromorphone syringe to the 27 gauge.