**Appendices:**

**1.0 Brief protocol for initiating treatment with injectable hydromorphone and diacetylmorphine**

**2.0 Induction Protocols**

* 1. Injectable Hydromorphone InductionSchedule

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**3.0 Daily conversion doses for patients receiving diacetylmorphine of equivalent**

**4.0 Missed dose protocol**

4.1 Missed dose protocol for diacetylmorphine and hydromorphone

4.2 Accelerated missed dose protocol for diacetylmorphine and hydromorphone

**1.0 Brief protocol for initiating treatment with injectable hydromorphone and diacetylmorphine**

**Assessment Check List**

* Criteria met for iOAT (injectable opioid agonist treatment)
* History (including history of current substance use) and physical exam
* Laboratory Assessment: complete blood count (CBC), liver enzymes, renal function, international normalized ratio (INR), HIV (human immunodeficiency virus), Hepatitis A B C serology, rapid plasma reagin (RPR), urine drug screen (UDS), Pregnancy test, CxR (Chest X-ray)
* Documentation of shared treatment goals between patient and provider: e.g., initial goals referring to reductions in drug use, from there build on other client centered goals (e.g., getting benefits, stable housing, going back to school, etc.). Ensuring there are goals beyond the pharmaceutical components of the treatment is important for measuring progress within the context of a chronic condition, specially considering high treatment retention in iOAT.
* Immunizations documented and updated
* TB skin test
* Contact the patient’s primary care provider
* Consent and treatment agreement reviewed and signed
* Check provincial prescription database for patient’s treatment history (i.e. opioid agonist and other medications).

**Induction Protocols**

* 3-Day Hydromorphone (HDM) InductionSchedule (Max HDM dose 90 mg)
* 3-Day Diacetylmorphone (DAM) InductionSchedule (Max DAM dose 180 mg)
* Accelerated 3-Day Hydromorphone InductionSchedule (Max HDM dose 130 mg)

**Missed Dose Protocol**

* Prescribing physician to be informed if their patient misses one day of DAM/HDM
* If a patient is absent for 1 or more days, an attempt to contact the patient or their place of residence should be made and documented.
* If a patient is absent less than or equal to 3 days, continue with prescribed dose (prescribed dose is not discontinued.
* If a patient is absent for more than 3 days and less than or equal to 7 days, follow “Missed Dose Protocol” (See below Section 3).
* “Accelerated Missed Dose Protocol” (See below Section 3) is now the standard default protocol (due to high tolerance to street opioids such as fentanyl)
* If a patient has been absent (e.g. vacation, hospitalization, incarceration, etc.) and on opioid agonist therapy treatment can be restarted by calling the physician on call for DAM/HDM dose.

**Reduced Dose Protocol**

* If a patient has requested and received a reduced dose of DAM or HDM for 3 consecutive days (as a result of dose intolerance), the physician is to be contacted for a prescription adjustment as it may not be safe for the patient to have their full dose.

**Substitution**

* If a patient is unable to attend the clinic, their DAM or HDM dose will be converted to either: Methadone, Slow Release Oral Morphine or Suboxone according to the “Conversion Table for Patients Engaged at Crosstown Clinic

**Discontinuation of Treatment**

* Patients wishing to discontinue their treatment with DAM/HDM are advised to see their physician to discuss alternative treatment options to include but not limited to:
* Methadone
* Suboxone
* Slow Release Oral Morphine (SROM)
* Patients that are missing treatment days will have their treatment plans re-evaluated and will be offered all reasonable interventions. Providers should offer other options that are more acceptable to the client, for example intensifying care (increasing dose) or offering alternative OAT, such as a switch from HDM to DAM.
* Providence Crosstown Clinic has developed a join contract of rights and responsibilities for patients and health care providers. In cases where patients engage in behaviours that cause others to feel unsafe or uncomfortable (e.g. violence or threats of violence) patients may be offered alternative treatment (methadone, suboxone, SROM) and have their care transferred to another, more suitable site.

**2.0 Induction Schedules**

**2.1 Injectable Hydromorphone Induction Schedule**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Session 1** | **Session 2** | **Session 3** | **Total HDM** |
| **Day 1** | 1. Give **10** mg  Wait 20 min  2. If tolerated dose give **15** mg  Wait 20 min  **(Max dose 25 mg)** | 1. Give **25**mg  Wait 20 min  2. If tolerated dose give **15** mg  Wait 20 min  **(Max dose 40 mg)** | 1. Give **40**mg  Wait 20 min  2. If tolerated dose give **15** mg  Wait 20 min  **(Max dose 55 mg)** | Up to 120 mg |
| **Day 2** | 1. Administer **40%** of total daily dose at Day 1  **(Max dose 45 mg)**  Wait 20 min  2. If tolerated dose give **15 mg**  Wait 20 min  **(Max dose 60 mg)** | 1. Give **60** mg  Wait 20 min  2. If tolerated dose give **15**mg  Wait 20 min  **(Max dose 75 mg)** | 1. Give **75** mg  Wait 20 min  2. If tolerated dose give **15**mg  Wait 20 min  **(Max dose 90 mg)** | Up to 225 mg |
| **Day 3** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 90 mg)** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 90 mg)** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 90 mg)** | Up to 270 mg |
| **Total** |  | | | Up to 615 mg |

**Footnotes:**

If a patient has not attended all 6 sessions Day 1 and Day 2, they may continue with their induction on Day 3 **with a physician order**

Patient to see physician weekly for assessment to ensure a therapeutic dose has been met

A small amount of each dose will be lost in the needle hubs and vials. It is necessary to add an additional 25mg to the prescription for each day (of both HDM and DAM) to counter this loss (e.g. total max day 1 dose becomes 145mg).

On day 3, in the first session, and after waiting 20 minutes, patients may be given 15 mg more if the patient wishes and there is no intoxication. This dose would then be given for the remaining doses.

* 1. **Injectable Diacetylmorphine Induction Schedule**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Session 1** | **Session 2** | **Session 3** | **Total DAM** | |
| **Day 1** | 1. Give **15** mg  Wait 20 min  2. If tolerated dose give **30** mg  Wait 20 min  **(Max dose 45 mg)** | 1. Give **45**mg  Wait 20 min  2. If tolerated dose give **30** mg  Wait 20 min  **(Max dose 75 mg)** | 1. Give **75**mg  Wait 20 min  2. If tolerated dose give **30** mg  Wait 20 min  **(Max dose 105 mg)** | Up to 225 mg | |
| **Day 2** | 1. Administer **40%** of total daily dose at Day 1  **(Max dose 90 mg)**  Wait 20 min  2. If tolerated dose give **30** mg  Wait 20 min  **(Max dose 120 mg)** | 1. Give **120** mg  Wait 20 min  2. If tolerated dose give **30** mg  Wait 20 min  **(Max dose 150 mg)** | 1. Give **150** mg  Wait 20 min  2. If tolerated dose give **30** mg  Wait 20 min  **(Max dose 180 mg)** | Up to 450mg | |
| **Day 3** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 180 mg)** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 180 mg)** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 180 mg)** | Up to 540mg | |
| **Total** |  | | | | Up to 1215 mg | |

**Footnote:**

If a patient has not attended all 6 sessions Day 1 and Day 2, they may continue with their induction on Day 3 **with a physician order**

Patient to see physician weekly for assessment to ensure a therapeutic dose has been met

A small amount of each dose will be lost in the needle hubs and vials. It is necessary to add an additional 25mg to the prescription for each day (of both HDM and DAM) to counter this loss (e.g. total max day 1 dose becomes 250mg).

On day 3, in the first session, and after waiting 20 minutes, patients may be given 30 mg more if the patient wishes and there is no intoxication. This dose would then be given for the remaining doses.

**2.3 Accelerated Injectable Hydromorphone Induction Schedule**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Session 1** | **Session 2** | **Session 3** | **Total HDM** |
| **Day 1** | 1. Give **20** mg  Wait 20 min  2. If tolerated dose give **20** mg  Wait 20 min  **(Max dose 40 mg)** | 1. Give **40** mg  Wait 20 min  2. If tolerated dose give **20** mg  Wait 20 min  **(Max dose 60 mg)** | 1. Give **60**mg  Wait 20 min  2. If tolerated dose give **20** mg  Wait 20 min  **(Max dose 80 mg)** | Up to 180 mg |
| **Day 2** | 1. Administer **40%** of total daily dose at Day 1  **(Max dose 70 mg)**  Wait 20 min  2. If tolerated dose give **20** mg  Wait 20 min  **(Max dose 90 mg)** | 1. Give **90** mg  Wait 20 min  2. If tolerated dose give **20** mg  Wait 20 min  **(Max dose 110 mg)** | 1. Give **110** mg  Wait 20 min  2. If tolerated dose give **20** mg  Wait 20 min  **(Max dose 130 mg)** | Up to 330 mg |
| **Day 3** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 130 mg)** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 130 mg)** | Administer the maximum tolerated amount from Day 2  Wait 20 min  **(Max dose 130 mg)** | Up to 390 mg |
| **Total** |  | | | Up to 900 mg |

**Footnote:**

If a patient has not attended all 6 sessions Day 1 and Day 2, they may continue with their induction on Day 3 **with a physician order**

Patient to see physician weekly for assessment to ensure a therapeutic dose has been met

A small amount of each dose will be lost in the needle hubs and vials. It is necessary to add an additional 25mg to the prescription for each day (of both HDM and DAM) to counter this loss (e.g. total max day 1 dose becomes 205 mg).

On day 3, in the first session, and after waiting 20 minutes, patients may be given 15 mg more if the patient wishes and there is no intoxication. This dose would then be given for the remaining doses.

**3.0 Daily conversion doses for patients receiving diacetylmorphine of equivalent**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Injectable Diacetylmorphine daily dose (mg)** | | **Oral Methadone daily dose (mg)** | **SROM (mg)** | | **Injectable Hydromorphone daily dose (mg)** | |
| **low** | **high** |  | **low** | **high** | **low** | **high** |
| 20 |  | 20 | 50 |  | 10 |  |
| 21 | 40 | 20 | 55 | 100 | 11 | 20 |
| 41 | 60 | 20 | 105 | 150 | 21 | 30 |
| 61 | 80 | 25 | 155 | 200 | 31 | 40 |
| 81 | 100 | 30 | 205 | 250 | 41 | 50 |
| 101 | 120 | 35 | 255 | 300 | 51 | 60 |
| 121 | 140 | 40 | 305 | 350 | 61 | 70 |
| 141 | 160 | 50 | 355 | 400 | 71 | 80 |
| 161 | 180 | 60 | 405 | 450 | 81 | 90 |
| 181 | 200 | 65 | 455 | 500 | 91 | 100 |
| 201 | 220 | 70 | 505 | 550 | 101 | 110 |
| 221 | 240 | 75 | 555 | 600 | 111 | 120 |
| 241 | 260 | 80 | 605 | 650 | 121 | 130 |
| 261 | 280 | 80 | 655 | 700 | 131 | 140 |
| 281 | 300 | 85 | 705 | 750 | 141 | 150 |
| 301 | 320 | 90 | 755 | 800 | 151 | 160 |
| 321 | 340 | 95 | 805 | 850 | 161 | 170 |
| 341 | 360 | 100 | 855 | 900 | 171 | 180 |
| 361 | 380 | 100 | 905 | 950 | 181 | 190 |
| 381 | 400 | 100 | 955 | 1000 | 191 | 200 |
| 401 | 420 | 100 | 1005 | 1050 | 201 | 210 |
| 421 | 440 | 100 | 1055 | 1100 | 211 | 220 |
| 441 | 460 | 100 | 1105 | 1150 | 221 | 230 |
| 461 | 480 | 100 | 1155 | 1200 | 231 | 240 |
| 481 | 500 | 100 | 1200 |  | 241 | 250 |
| 501 | 520 | 100 | 1200 |  | 251 | 260 |
| 521 | 540 | 100 | 1200 |  | 261 | 270 |
| 541 | 560 | 100 | 1200 |  | 271 | 280 |
| 561 | 580 | 100 | 1200 |  | 281 | 290 |
| 581 | 600 | 100 | 1200 |  | 291 | 300 |
| 601 | 620 | 100 | 1200 |  | 301 | 310 |
| 621 | 640 | 100 | 1200 |  | 311 | 320 |
| 641 | 660 | 100 | 1200 |  | 321 | 330 |
| 661 | 680 | 100 | 1200 |  | 331 | 340 |
| 681 | 700 | 100 | 1200 |  | 341 | 350 |
| 701 | 720 | 100 | 1200 |  | 351 | 360 |
| 721 | 740 | 100 | 1200 |  | 361 | 370 |
| 741 | 760 | 100 | 1200 |  | 371 | 380 |
| 761 | 780 | 100 | 1200 |  | 381 | 390 |
| 781 | 800 | 100 | 1200 |  | 391 | 400 |
| 801 | 820 | 100 | 1200 |  | 401 | 410 |
| 821 | 840 | 100 | 1200 |  | 411 | 420 |
| 841 | 860 | 100 | 1200 |  | 421 | 430 |
| 861 | 880 | 100 | 1200 |  | 431 | 440 |
| 881 | 900 | 100 | 1200 |  | 441 | 450 |
| 901 | 920 | 100 | 1200 |  | 451 | 460 |
| 921 | 940 | 100 | 1200 |  | 461 | 470 |
| 941 | 960 | 100 | 1200 |  | 471 | 480 |
| 961 | 980 | 100 | 1200 |  | 481 | 490 |
| 981 | 1000 | 100 | 1200 |  | 491 | 500 |

**Footnote:** SROM: slow-release oral morphine

Conversions have been determined with the goal of maintaining the average degree of saturation of the opiate receptors by opiates in order to prevent withdrawal symptoms while also avoiding over-dosage.

**4.1 Missed dose protocol for diacetylmorphine and hydromorphone**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Prescribed HDM/DAM Dose mg** | **Session 1 (1/3 Rx Dose)** | **Session 2 (+15% Rx Dose mg))** | **Session 3 (+15% Rx Dose mg))** | **Session 4 (+15% Rx Dose mg)** | **Session 5 (+15% Rx Dose mg)** | **Session 6 Prescribed Dose mg** |
| **40** | 13.3 | 19.3 | 25.3 | 31.3 | 37.3 | 40.0 |
| **45** | 15.0 | 21.8 | 28.5 | 35.3 | 42.0 | 45.0 |
| **50** | 16.7 | 24.2 | 31.7 | 39.2 | 46.7 | 50.0 |
| **55** | 18.3 | 26.6 | 34.8 | 43.1 | 51.3 | 55.0 |
| **60** | 20.0 | 29.0 | 38.0 | 47.0 | 56.0 | 60.0 |
| **65** | 21.7 | 31.4 | 41.2 | 50.9 | 60.7 | 65.0 |
| **70** | 23.3 | 33.8 | 44.3 | 54.8 | 65.3 | 70.0 |
| **75** | 25.0 | 36.3 | 47.5 | 58.8 | 70.0 | 75.0 |
| **80** | 26.7 | 38.7 | 50.7 | 62.7 | 74.7 | 80.0 |
| **85** | 28.3 | 41.1 | 53.8 | 66.6 | 79.3 | 85.0 |
| **90** | 30.0 | 43.5 | 57.0 | 70.5 | 84.0 | 90.0 |
| **95** | 31.7 | 45.9 | 60.2 | 74.4 | 88.7 | 95.0 |
| **100** | 33.3 | 48.3 | 63.3 | 78.3 | 93.3 | 100.0 |
| **110** | 36.7 | 53.2 | 69.7 | 86.2 | 102.7 | 110.0 |
| **120** | 40.0 | 58.0 | 76.0 | 94.0 | 112.0 | 120.0 |
| **130** | 43.3 | 62.8 | 82.3 | 101.8 | 121.3 | 130.0 |
| **140** | 46.7 | 67.7 | 88.7 | 109.7 | 130.7 | 140.0 |
| **150** | 50.0 | 72.5 | 95.0 | 117.5 | 140.0 | 150.0 |
| **160** | 53.3 | 77.3 | 101.3 | 125.3 | 149.3 | 160.0 |
| **170** | 56.7 | 82.2 | 107.7 | 133.2 | 158.7 | 170.0 |
| **180** | 60.0 | 87.0 | 114.0 | 141.0 | 168.0 | 180.0 |
| **190** | 63.3 | 91.8 | 120.3 | 148.8 | 177.3 | 190.0 |
| **200** | 66.7 | 96.7 | 126.7 | 156.7 | 186.7 | 200.0 |
| **210** | 70.0 | 101.5 | 133.0 | 164.5 | 196.0 | 210.0 |
| **220** | 73.3 | 106.3 | 139.3 | 172.3 | 205.3 | 220.0 |
| **230** | 76.7 | 111.2 | 145.7 | 180.2 | 214.7 | 230.0 |
| **240** | 80.0 | 116.0 | 152.0 | 188.0 | 224.0 | 240.0 |
| **250** | 83.3 | 120.8 | 158.3 | 195.8 | 233.3 | 250.0 |
| **260** | 86.7 | 125.7 | 164.7 | 203.7 | 242.7 | 260.0 |
| **270** | 90.0 | 130.5 | 171.0 | 211.5 | 252.0 | 270.0 |
| **280** | 93.3 | 135.3 | 177.3 | 219.3 | 261.3 | 280.0 |
| **290** | 96.7 | 140.2 | 183.7 | 227.2 | 270.7 | 290.0 |
| **300** | 100.0 | 145.0 | 190.0 | 235.0 | 280.0 | 300.0 |
| **310** | 103.3 | 149.8 | 196.3 | 242.8 | 289.3 | 310.0 |
| **320** | 106.7 | 154.7 | 202.7 | 250.7 | 298.7 | 320.0 |
| **330** | 110.0 | 159.5 | 209.0 | 258.5 | 308.0 | 330.0 |
| **340** | 113.3 | 164.3 | 215.3 | 266.3 | 317.3 | 340.0 |
| **350** | 116.7 | 169.2 | 221.7 | 274.2 | 326.7 | 350.0 |
| **360** | 120.0 | 174.0 | 228.0 | 282.0 | 336.0 | 360.0 |
| **370** | 123.3 | 178.8 | 234.3 | 289.8 | 345.3 | 370.0 |
| **380** | 126.7 | 183.7 | 240.7 | 297.7 | 354.7 | 380.0 |
| **390** | 130.0 | 188.5 | 247.0 | 305.5 | 364.0 | 390.0 |
| **400** | **133.3** | **193.3** | **253.3** | **313.3** | **373.3** | **400.0** |

* 1. **Accelerated missed dose protocol for diacetylmorphine and hydromorphone**

|  |  |  |  |
| --- | --- | --- | --- |
| **Prescribed HDM/DAM Dose mg** | **Session 1 (50% Rx**  **Dose mg)** | **Session 2 (75% Rx**  **Dose mg))** | **Session 3 (100% Rx Dose mg))** |
| **40** | 20 | 30 | 40 |
| **45** | 22.5 | 33.75 | 45 |
| **50** | 25 | 37.5 | 50 |
| **55** | 27.5 | 41.25 | 55 |
| **60** | 30 | 45 | 60 |
| **65** | 32.5 | 48.75 | 65 |
| **70** | 35 | 52.5 | 70 |
| **75** | 37.5 | 56.25 | 75 |
| **80** | 40 | 60 | 80 |
| **85** | 42.5 | 63.75 | 85 |
| **90** | 45 | 67.5 | 90 |
| **95** | 47.5 | 71.25 | 95 |
| **100** | 50 | 75 | 100 |
| **110** | 55 | 82.5 | 110 |
| **120** | 60 | 90 | 120 |
| **130** | 65 | 97.5 | 130 |
| **140** | 70 | 105 | 140 |
| **150** | 75 | 112.5 | 150 |
| **160** | 80 | 120 | 160 |
| **170** | 85 | 127.5 | 170 |
| **180** | 90 | 135 | 180 |
| **190** | 95 | 142.5 | 190 |
| **200** | 100 | 150 | 200 |
| **210** | 105 | 157.5 | 210 |
| **220** | 110 | 165 | 220 |
| **230** | 115 | 172.5 | 230 |
| **240** | 120 | 180 | 240 |
| **250** | 125 | 187.5 | 250 |
| **260** | 130 | 195 | 260 |
| **270** | 135 | 202.5 | 270 |
| **280** | 140 | 210 | 280 |
| **290** | 145 | 217.5 | 290 |
| **300** | 150 | 225 | 300 |
| **310** | 155 | 232.5 | 310 |
| **320** | 160 | 240 | 320 |
| **330** | 165 | 247.5 | 330 |
| **340** | 170 | 255 | 340 |
| **350** | 175 | 262.5 | 350 |
| **360** | 180 | 270 | 360 |
| **370** | 185 | 277.5 | 370 |
| **380** | 190 | 285 | 380 |
| **390** | 195 | 292.5 | 390 |
| **400** | 200 | 300 | 400 |

**Footnote:**

Physician to be contacted to initiate accelerated missed dose protocol