

WEBVTT

NOTE duration:"00:10:18.400000"

NOTE recognizability:0.897

NOTE language:en-us

NOTE Confidence: 0.965230492857143

00:00:00.000 --> 00:00:03.675 Hi everyone. My name is Julia Joseph.

NOTE Confidence: 0.965230492857143

00:00:03.680 --> 00:00:05.510 I'm a current third year Internal

NOTE Confidence: 0.965230492857143

00:00:05.510 --> 00:00:07.256 Medicine resident at Yale New Haven

NOTE Confidence: 0.965230492857143

00:00:07.256 --> 00:00:08.915 Hospital and this is part two of

NOTE Confidence: 0.965230492857143

00:00:08.915 --> 00:00:10.683 our pain management series that I've

NOTE Confidence: 0.965230492857143

00:00:10.683 --> 00:00:12.816 created with the help of our palliative

NOTE Confidence: 0.965230492857143

00:00:12.816 --> 00:00:14.656 care faculty member, Doctor Persic.

NOTE Confidence: 0.965230492857143

00:00:14.656 --> 00:00:17.652 In our last video we discussed non

NOTE Confidence: 0.965230492857143

00:00:17.652 --> 00:00:20.226 opioid pain options and here we

NOTE Confidence: 0.965230492857143

00:00:20.226 --> 00:00:22.935 will focus on opioids largely again

NOTE Confidence: 0.965230492857143

00:00:22.935 --> 00:00:25.199 from the inpatient perspective.

NOTE Confidence: 0.965230492857143

00:00:25.200 --> 00:00:26.079 Shown here is

NOTE Confidence: 0.7325409225

00:00:26.080 --> 00:00:27.844 The Who analgesic ladder.

NOTE Confidence: 0.7325409225

00:00:27.844 --> 00:00:29.608 Our last video focused  
NOTE Confidence: 0.7325409225

00:00:29.608 --> 00:00:31.759 on step one analgesics.  
NOTE Confidence: 0.7325409225

00:00:31.760 --> 00:00:33.629 We are only going to briefly mention  
NOTE Confidence: 0.7325409225

00:00:33.629 --> 00:00:35.517 the Step 2 analgesics largely because  
NOTE Confidence: 0.7325409225

00:00:35.517 --> 00:00:38.223 they have fallen out of favor and the  
NOTE Confidence: 0.7325409225

00:00:38.223 --> 00:00:39.992 focus of our talk will be an intro  
NOTE Confidence: 0.7325409225

00:00:39.992 --> 00:00:42.840 to Step 3 analgesics that are listed here.  
NOTE Confidence: 0.7325409225

00:00:42.840 --> 00:00:44.940 Keep in mind that you may encounter  
NOTE Confidence: 0.7325409225

00:00:44.940 --> 00:00:46.700 patients who require further step up  
NOTE Confidence: 0.7325409225

00:00:46.700 --> 00:00:49.120 in therapy as noted here in Step 4,  
NOTE Confidence: 0.7325409225

00:00:49.120 --> 00:00:52.000 including PCA pumps and spinal stimulators.  
NOTE Confidence: 0.948208948571429

00:00:53.880 --> 00:00:56.036 Our talk is divided into two parts.  
NOTE Confidence: 0.948208948571429

00:00:56.040 --> 00:00:57.615 We will first discuss what the right  
NOTE Confidence: 0.948208948571429

00:00:57.615 --> 00:00:59.813 drug for a patient might be by going  
NOTE Confidence: 0.948208948571429

00:00:59.813 --> 00:01:01.278 through different types of opioids.  
NOTE Confidence: 0.948208948571429

00:01:01.280 --> 00:01:05.120 We will then focus on dosing strategies.

NOTE Confidence: 0.948208948571429  
00:01:05.120 --> 00:01:06.820 So the first question we want to  
NOTE Confidence: 0.948208948571429  
00:01:06.820 --> 00:01:08.960 answer is this the right drug?  
NOTE Confidence: 0.948208948571429  
00:01:08.960 --> 00:01:10.040 So let's dive in.  
NOTE Confidence: 0.92819662  
00:01:12.080 --> 00:01:13.568 Let's start with morphine,  
NOTE Confidence: 0.92819662  
00:01:13.568 --> 00:01:16.200 an old and very commonly used drug.  
NOTE Confidence: 0.92819662  
00:01:16.200 --> 00:01:18.186 It comes in many types of  
NOTE Confidence: 0.92819662  
00:01:18.186 --> 00:01:19.179 formulations including immediate  
NOTE Confidence: 0.92819662  
00:01:19.179 --> 00:01:21.448 and extended release, oral tablets,  
NOTE Confidence: 0.92819662  
00:01:21.448 --> 00:01:25.320 liquid form and sub Q amongst many others.  
NOTE Confidence: 0.92819662  
00:01:25.320 --> 00:01:27.280 So this allows you to use morphine  
NOTE Confidence: 0.92819662  
00:01:27.280 --> 00:01:28.880 in many types of patients.  
NOTE Confidence: 0.92819662  
00:01:28.880 --> 00:01:30.902 It's also very cheap and easily  
NOTE Confidence: 0.92819662  
00:01:30.902 --> 00:01:31.913 accessible for patients.  
NOTE Confidence: 0.92819662  
00:01:31.920 --> 00:01:33.942 So consider this when prescribing to  
NOTE Confidence: 0.92819662  
00:01:33.942 --> 00:01:35.855 a patient's outpatient's pharmacy.  
NOTE Confidence: 0.92819662

00:01:35.855 --> 00:01:39.530 Low doses to start include two milligrams

NOTE Confidence: 0.92819662

00:01:39.601 --> 00:01:41.799 IV or five to 10 milligrams PO.

NOTE Confidence: 0.92819662

00:01:41.800 --> 00:01:43.678 Morphine is also the standard when

NOTE Confidence: 0.92819662

00:01:43.678 --> 00:01:45.835 it comes to comparing the dosing to

NOTE Confidence: 0.92819662

00:01:45.835 --> 00:01:47.515 other types of opioids where you

NOTE Confidence: 0.92819662

00:01:47.515 --> 00:01:49.509 can actually calculate a patient's

NOTE Confidence: 0.92819662

00:01:49.509 --> 00:01:51.579 daily MME requirement or morphine

NOTE Confidence: 0.92819662

00:01:51.579 --> 00:01:52.392 milligram equivalent.

NOTE Confidence: 0.92819662

00:01:52.392 --> 00:01:52.784 Finally,

NOTE Confidence: 0.92819662

00:01:52.784 --> 00:01:55.528 make sure to avoid this in patients

NOTE Confidence: 0.92819662

00:01:55.528 --> 00:01:58.346 with renal impairment because of the risk

NOTE Confidence: 0.92819662

00:01:58.346 --> 00:02:00.760 of accumulation of toxic metabolites.

NOTE Confidence: 0.92819662

00:02:00.760 --> 00:02:01.448 So patients,

NOTE Confidence: 0.92819662

00:02:01.448 --> 00:02:04.200 especially with a GFR of less than 45,

NOTE Confidence: 0.92819662

00:02:04.200 --> 00:02:07.800 make sure to avoid morphine.

NOTE Confidence: 0.92819662

00:02:07.800 --> 00:02:08.520 Oxycodone

NOTE Confidence: 0.948519033

00:02:08.520 --> 00:02:10.200 is another type of opioid that

NOTE Confidence: 0.948519033

00:02:10.200 --> 00:02:11.320 you're likely to encounter.

NOTE Confidence: 0.948519033

00:02:11.320 --> 00:02:12.920 It's a bit more potent than morphine

NOTE Confidence: 0.948519033

00:02:12.920 --> 00:02:14.516 with a ratio of two to three.

NOTE Confidence: 0.948519033

00:02:14.520 --> 00:02:15.950 It comes in immediate and

NOTE Confidence: 0.948519033

00:02:15.950 --> 00:02:17.380 sustained release forms in the

NOTE Confidence: 0.948519033

00:02:17.432 --> 00:02:19.328 common starting dose for it is

NOTE Confidence: 0.948519033

00:02:19.328 --> 00:02:20.592 5 milligrams immediate release.

NOTE Confidence: 0.948519033

00:02:20.600 --> 00:02:21.680 Some data suggests

NOTE Confidence: 0.86972816

00:02:21.680 --> 00:02:23.535 that it may cause less delirium than

NOTE Confidence: 0.86972816

00:02:23.535 --> 00:02:26.060 morphine, but its drawback is that

NOTE Confidence: 0.86972816

00:02:26.060 --> 00:02:28.320 there's No 4 formulation available.

NOTE Confidence: 0.86972816

00:02:28.320 --> 00:02:30.510 Dilaudid is much more potent than

NOTE Confidence: 0.86972816

00:02:30.510 --> 00:02:33.039 morphine with a ratio of one to four.

NOTE Confidence: 0.86972816

00:02:33.040 --> 00:02:34.785 Both PO and four formulations

NOTE Confidence: 0.86972816

00:02:34.785 --> 00:02:37.002 are available out of the three  
NOTE Confidence: 0.86972816

00:02:37.002 --> 00:02:38.997 opioids we've mentioned so far,  
NOTE Confidence: 0.86972816

00:02:39.000 --> 00:02:41.472 Dilaudid is much safer to use and is  
NOTE Confidence: 0.86972816

00:02:41.472 --> 00:02:43.798 preferred to be used in renal patients.  
NOTE Confidence: 0.86972816

00:02:43.800 --> 00:02:45.075 For starting doses,  
NOTE Confidence: 0.86972816

00:02:45.075 --> 00:02:47.870 you can initially start with 0.25  
NOTE Confidence: 0.86972816

00:02:47.870 --> 00:02:52.560 milligrams of IV or two milligrams PO.  
NOTE Confidence: 0.86972816

00:02:52.560 --> 00:02:54.318 The next two medications that we'll  
NOTE Confidence: 0.86972816

00:02:54.318 --> 00:02:56.311 talk about are ones that you're  
NOTE Confidence: 0.86972816

00:02:56.311 --> 00:02:57.839 unlikely to actually prescribe,  
NOTE Confidence: 0.86972816

00:02:57.840 --> 00:02:59.112 but you may care for patients  
NOTE Confidence: 0.86972816

00:02:59.112 --> 00:02:59.960 who are on them.  
NOTE Confidence: 0.86972816

00:02:59.960 --> 00:03:01.135 So these are some pearls  
NOTE Confidence: 0.86972816

00:03:01.135 --> 00:03:02.075 that you should know.  
NOTE Confidence: 0.86972816

00:03:02.080 --> 00:03:04.180 The 1st is fentanyl, which is not  
NOTE Confidence: 0.86972816

00:03:04.180 --> 00:03:06.160 for patients who are opioid naive.

NOTE Confidence: 0.86972816

00:03:06.160 --> 00:03:08.568 It comes in patch form and you typically

NOTE Confidence: 0.86972816

00:03:08.568 --> 00:03:11.237 have to change the patch every 72 hours,

NOTE Confidence: 0.86972816

00:03:11.240 --> 00:03:13.232 but it takes 24 hours to

NOTE Confidence: 0.86972816

00:03:13.232 --> 00:03:14.560 reach the full effect.

NOTE Confidence: 0.86972816

00:03:14.560 --> 00:03:15.106 Like Dilaudid,

NOTE Confidence: 0.86972816

00:03:15.106 --> 00:03:17.677 it is safe to use in renal patients and

NOTE Confidence: 0.86972816

00:03:17.677 --> 00:03:19.317 is actually the preferred formulation

NOTE Confidence: 0.86972816

00:03:19.317 --> 00:03:21.558 in patients with a history of ESRD.

NOTE Confidence: 0.86972816

00:03:21.560 --> 00:03:23.198 Be aware that when using heat

NOTE Confidence: 0.86972816

00:03:23.198 --> 00:03:24.800 or patients who are spiking,

NOTE Confidence: 0.86972816

00:03:24.800 --> 00:03:27.116 high temperatures may end up having

NOTE Confidence: 0.86972816

00:03:27.116 --> 00:03:29.080 increased absorption from the patch.

NOTE Confidence: 0.86972816

00:03:29.080 --> 00:03:32.160 The patch is also not compatible with MRI,

NOTE Confidence: 0.86972816

00:03:32.160 --> 00:03:33.938 so if taken off before a study

NOTE Confidence: 0.86972816

00:03:33.938 --> 00:03:35.520 when the patient is down there,

NOTE Confidence: 0.86972816

00:03:35.520 --> 00:03:36.905 make sure it doesn't actually  
NOTE Confidence: 0.86972816

00:03:36.905 --> 00:03:38.685 stay off or you may precipitate  
NOTE Confidence: 0.86972816

00:03:38.685 --> 00:03:40.719 a pain crisis in your patient.  
NOTE Confidence: 0.904331047333333

00:03:41.760 --> 00:03:43.792 You may also see patients who are on  
NOTE Confidence: 0.904331047333333

00:03:43.792 --> 00:03:45.598 methadone that is used for chronic pain,  
NOTE Confidence: 0.904331047333333

00:03:45.600 --> 00:03:47.176 especially for cancer pain.  
NOTE Confidence: 0.904331047333333

00:03:47.176 --> 00:03:50.320 It's long acting and is very effective.  
NOTE Confidence: 0.904331047333333

00:03:50.320 --> 00:03:52.687 It's safe in renal and liver patients as well  
NOTE Confidence: 0.904331047333333

00:03:52.687 --> 00:03:54.597 because there are no active metabolites.  
NOTE Confidence: 0.904331047333333

00:03:54.600 --> 00:03:56.740 The things to look out for is that it  
NOTE Confidence: 0.904331047333333

00:03:56.740 --> 00:03:59.452 is associated with a prolonged QTC and  
NOTE Confidence: 0.904331047333333

00:03:59.452 --> 00:04:02.350 has several drug drug interactions and  
NOTE Confidence: 0.904331047333333

00:04:02.437 --> 00:04:05.705 also has a long half life if used for  
NOTE Confidence: 0.904331047333333

00:04:05.705 --> 00:04:08.075 pain indication which is TID dosing.  
NOTE Confidence: 0.904331047333333

00:04:08.080 --> 00:04:09.998 There is actually no special training  
NOTE Confidence: 0.904331047333333

00:04:10.000 --> 00:04:11.520 or waiver that is required.

NOTE Confidence: 0.858724166363636  
00:04:12.480 --> 00:04:13.880 Now, these are the weak  
NOTE Confidence: 0.858724166363636  
00:04:13.880 --> 00:04:15.840 opioids or the Step 2 opioids.  
NOTE Confidence: 0.858724166363636  
00:04:15.840 --> 00:04:17.400 If you remember from The Who  
NOTE Confidence: 0.858724166363636  
00:04:17.400 --> 00:04:19.159 ladder that was shown at the  
NOTE Confidence: 0.858724166363636  
00:04:19.159 --> 00:04:20.479 beginning of this presentation,  
NOTE Confidence: 0.858724166363636  
00:04:20.480 --> 00:04:22.718 we generally do not employ these.  
NOTE Confidence: 0.858724166363636  
00:04:22.720 --> 00:04:24.500 Codeine and hydrocodone are  
NOTE Confidence: 0.858724166363636  
00:04:24.500 --> 00:04:26.890 metabolized to morphine, which is how  
NOTE Confidence: 0.858724166363636  
00:04:26.890 --> 00:04:28.640 it provides its analgesic effect.  
NOTE Confidence: 0.858724166363636  
00:04:28.640 --> 00:04:30.780 The unpredictable metabolism, however,  
NOTE Confidence: 0.858724166363636  
00:04:30.780 --> 00:04:32.920 causes unpredictable side effects,  
NOTE Confidence: 0.858724166363636  
00:04:32.920 --> 00:04:35.236 and it's also hard to predict  
NOTE Confidence: 0.858724166363636  
00:04:35.236 --> 00:04:36.394 its analgesic effect.  
NOTE Confidence: 0.858724166363636  
00:04:36.400 --> 00:04:38.600 Tramadol or tramadol is a  
NOTE Confidence: 0.858724166363636  
00:04:38.600 --> 00:04:40.800 mixed opioid agonist in SNRI.  
NOTE Confidence: 0.858724166363636

00:04:40.800 --> 00:04:43.080 It also carries a lot of  
NOTE Confidence: 0.858724166363636

00:04:43.080 --> 00:04:44.600 different risks listed here.  
NOTE Confidence: 0.858724166363636

00:04:44.600 --> 00:04:45.809 So in general,  
NOTE Confidence: 0.858724166363636

00:04:45.809 --> 00:04:47.824 we recommend that you prescribe  
NOTE Confidence: 0.858724166363636

00:04:47.824 --> 00:04:49.092 alternative pain options  
NOTE Confidence: 0.858724166363636

00:04:49.092 --> 00:04:52.760 rather than ones listed here.  
NOTE Confidence: 0.858724166363636

00:04:52.760 --> 00:04:55.288 Opioids as a class carry a lot  
NOTE Confidence: 0.858724166363636

00:04:55.288 --> 00:04:56.520 of different adverse effects.  
NOTE Confidence: 0.858724166363636

00:04:56.520 --> 00:04:58.758 Constipation is a very common one.  
NOTE Confidence: 0.858724166363636

00:04:58.760 --> 00:05:00.384 So you always want to make sure  
NOTE Confidence: 0.858724166363636

00:05:00.384 --> 00:05:02.079 your patient is on a bowel regimen.  
NOTE Confidence: 0.858724166363636

00:05:02.080 --> 00:05:03.655 Sena and Miralax is listed  
NOTE Confidence: 0.858724166363636

00:05:03.655 --> 00:05:04.915 here are first line.  
NOTE Confidence: 0.766026368888889

00:05:05.080 --> 00:05:07.280 You can also prescribe peripheral  
NOTE Confidence: 0.766026368888889

00:05:07.280 --> 00:05:09.040 MU opioid receptor antagonists  
NOTE Confidence: 0.766026368888889

00:05:09.040 --> 00:05:10.840 or Pomoras such as methyl

NOTE Confidence: 0.893275689230769  
00:05:10.840 --> 00:05:12.644 nitroxone if the patient  
NOTE Confidence: 0.893275689230769  
00:05:12.644 --> 00:05:14.448 is still having refractory  
NOTE Confidence: 0.893275689230769  
00:05:14.448 --> 00:05:16.638 Constipation to first line agents.  
NOTE Confidence: 0.893275689230769  
00:05:16.640 --> 00:05:18.368 But you want to make sure that your  
NOTE Confidence: 0.893275689230769  
00:05:18.368 --> 00:05:19.772 patient does not have malignant  
NOTE Confidence: 0.893275689230769  
00:05:19.772 --> 00:05:21.008 bowel involvement because it  
NOTE Confidence: 0.893275689230769  
00:05:21.008 --> 00:05:23.200 carries a risk of perforation.  
NOTE Confidence: 0.893275689230769  
00:05:23.200 --> 00:05:25.400 Nausea and pruritus or itching  
NOTE Confidence: 0.893275689230769  
00:05:25.400 --> 00:05:26.876 is also very common at the  
NOTE Confidence: 0.822875177  
00:05:26.880 --> 00:05:28.548 initiation of opioids.  
NOTE Confidence: 0.822875177  
00:05:28.548 --> 00:05:30.216 Myoclonus and opioid  
NOTE Confidence: 0.822875177  
00:05:30.216 --> 00:05:32.440 hyperalgesia is also reported,  
NOTE Confidence: 0.822875177  
00:05:32.440 --> 00:05:33.952 but usually quite rare.  
NOTE Confidence: 0.822875177  
00:05:33.952 --> 00:05:35.848 Somnolence and respiratory  
NOTE Confidence: 0.822875177  
00:05:35.848 --> 00:05:37.572 depression is a very common  
NOTE Confidence: 0.822875177

00:05:37.572 --> 00:05:38.960 side effect and is one that is  
NOTE Confidence: 0.775842788333333

00:05:38.960 --> 00:05:40.718 feared by a lot of internus.  
NOTE Confidence: 0.875213337142857

00:05:41.000 --> 00:05:43.496 But in general, if the respiratory rate is  
NOTE Confidence: 0.875213337142857

00:05:43.496 --> 00:05:45.737 greater than six or the patient is able  
NOTE Confidence: 0.875213337142857

00:05:45.737 --> 00:05:48.760 to maintain O2 sets greater than 92%,  
NOTE Confidence: 0.875213337142857

00:05:48.760 --> 00:05:51.185 you can typically monitor them and  
NOTE Confidence: 0.875213337142857

00:05:51.185 --> 00:05:53.600 wait for the opioid to eventually wear  
NOTE Confidence: 0.83601680625

00:05:53.600 --> 00:05:56.440 off. You really want to try avoiding Narcan  
NOTE Confidence: 0.89103764

00:05:56.440 --> 00:05:58.268 in these patients because  
NOTE Confidence: 0.89103764

00:05:58.268 --> 00:06:00.553 precipitating a pain crisis can  
NOTE Confidence: 0.959293516666667

00:06:00.560 --> 00:06:02.176 be very uncomfortable and  
NOTE Confidence: 0.959293516666667

00:06:02.176 --> 00:06:04.196 sometimes even fatal for patients  
NOTE Confidence: 0.919582123333333

00:06:04.200 --> 00:06:06.759 with certain comorbidities.  
NOTE Confidence: 0.919582123333333

00:06:06.760 --> 00:06:08.272 All right, so we talked about whether  
NOTE Confidence: 0.919582123333333

00:06:08.272 --> 00:06:09.718 the patient is on the right drug.  
NOTE Confidence: 0.919582123333333

00:06:09.720 --> 00:06:11.070 Now, how do we know whether the

NOTE Confidence: 0.919582123333333  
00:06:11.070 --> 00:06:12.720 patient is getting the right dose?  
NOTE Confidence: 0.894656377777778  
00:06:14.640 --> 00:06:16.260 So these are the reasonable  
NOTE Confidence: 0.894656377777778  
00:06:16.260 --> 00:06:17.556 starting doses for morphine,  
NOTE Confidence: 0.894656377777778  
00:06:17.560 --> 00:06:19.360 oxycodone and Dilaudid that is  
NOTE Confidence: 0.894656377777778  
00:06:19.360 --> 00:06:21.545 included here as a reference slide  
NOTE Confidence: 0.894656377777778  
00:06:21.545 --> 00:06:23.483 for patients who you're not sure  
NOTE Confidence: 0.894656377777778  
00:06:23.483 --> 00:06:25.798 where to start and are opioid naive.  
NOTE Confidence: 0.944020245454545  
00:06:27.760 --> 00:06:29.824 So an easy way to remember how to  
NOTE Confidence: 0.944020245454545  
00:06:29.824 --> 00:06:31.400 convert between all of these different  
NOTE Confidence: 0.944020245454545  
00:06:31.400 --> 00:06:33.760 opioids is the 1020 thirty rule.  
NOTE Confidence: 0.944020245454545  
00:06:33.760 --> 00:06:35.559 10 milligrams of four morphine  
NOTE Confidence: 0.944020245454545  
00:06:35.560 --> 00:06:37.800 equals 20 milligrams of oxycodone,  
NOTE Confidence: 0.944020245454545  
00:06:37.800 --> 00:06:40.640 which is equal to 30 milligrams of morphine.  
NOTE Confidence: 0.944020245454545  
00:06:40.640 --> 00:06:41.780 The Dilaudid dosing is not  
NOTE Confidence: 0.944020245454545  
00:06:41.780 --> 00:06:42.920 as easy as to remember,  
NOTE Confidence: 0.944020245454545

00:06:42.920 --> 00:06:44.314 but I've included it here  
NOTE Confidence: 0.944020245454545

00:06:44.314 --> 00:06:45.958 in case you wanted to know.  
NOTE Confidence: 0.944020245454545

00:06:45.960 --> 00:06:47.808 So all of these are equal  
NOTE Confidence: 0.944020245454545

00:06:47.808 --> 00:06:49.800 to 1.75 of four Dilaudid,  
NOTE Confidence: 0.944020245454545

00:06:49.800 --> 00:06:54.560 which is equal to 7.5 of PO Dilaudid. So  
NOTE Confidence: 0.93121025

00:06:54.560 --> 00:06:56.527 make sure to ask the patient about  
NOTE Confidence: 0.93121025

00:06:56.527 --> 00:06:57.840 function and quality of life.  
NOTE Confidence: 0.93121025

00:06:57.840 --> 00:06:59.901 So for example, what dose allows them to do  
NOTE Confidence: 0.93121025

00:06:59.901 --> 00:07:02.318 a certain activity that's important to them.  
NOTE Confidence: 0.93121025

00:07:02.320 --> 00:07:04.364 Make sure then that you're asking about  
NOTE Confidence: 0.93121025

00:07:04.364 --> 00:07:06.318 comfort level and not just about pain.  
NOTE Confidence: 0.93121025

00:07:06.320 --> 00:07:07.544 From there you should  
NOTE Confidence: 0.93121025

00:07:07.544 --> 00:07:09.074 reassess the pain and adjust.  
NOTE Confidence: 0.93121025

00:07:09.080 --> 00:07:10.560 If the patient is still  
NOTE Confidence: 0.93121025

00:07:10.560 --> 00:07:12.040 in mild to moderate pain,  
NOTE Confidence: 0.93121025

00:07:12.040 --> 00:07:14.740 increase the dose by 25 to 50%.

NOTE Confidence: 0.93121025

00:07:14.740 --> 00:07:17.800 If the patient is in moderate to severe pain,

NOTE Confidence: 0.93121025

00:07:17.800 --> 00:07:20.655 then you can increase the dose by 50 to 100%.

NOTE Confidence: 0.93121025

00:07:20.655 --> 00:07:23.625 In general, you should not increase

NOTE Confidence: 0.93121025

00:07:23.625 --> 00:07:26.320 long acting formulations by over 100%.

NOTE Confidence: 0.898131664285714

00:07:27.520 --> 00:07:29.837 What about dosing frequency? The first part

NOTE Confidence: 0.8700980875

00:07:29.840 --> 00:07:30.800 is to decide if

NOTE Confidence: 0.87256724

00:07:30.800 --> 00:07:32.588 it's OK to keep a patient

NOTE Confidence: 0.87256724

00:07:32.588 --> 00:07:34.320 on PRN or scheduled dosing.

NOTE Confidence: 0.87256724

00:07:34.320 --> 00:07:35.993 If you notice a patient has to

NOTE Confidence: 0.87256724

00:07:35.993 --> 00:07:37.599 keep asking for pain medication,

NOTE Confidence: 0.87256724

00:07:37.600 --> 00:07:39.714 is not getting it at appropriate intervals,

NOTE Confidence: 0.87256724

00:07:39.720 --> 00:07:41.840 and is remaining in a lot of pain,

NOTE Confidence: 0.87256724

00:07:41.840 --> 00:07:43.632 then it may be best to keep the

NOTE Confidence: 0.87256724

00:07:43.632 --> 00:07:45.198 patient on a scheduled regimen.

NOTE Confidence: 0.87256724

00:07:45.200 --> 00:07:46.802 The next part is to decide

NOTE Confidence: 0.87256724

00:07:46.802 --> 00:07:48.520 based on the drug's half life.

NOTE Confidence: 0.87256724

00:07:48.520 --> 00:07:51.304 So for example, patients who are

NOTE Confidence: 0.87256724

00:07:51.304 --> 00:07:53.160 receiving IV pain medication,

NOTE Confidence: 0.87256724

00:07:53.160 --> 00:07:54.690 it may be appropriate to

NOTE Confidence: 0.87256724

00:07:54.690 --> 00:07:55.914 dose every 10 minutes.

NOTE Confidence: 0.87256724

00:07:55.920 --> 00:07:58.160 For IM it would be every 30 minutes,

NOTE Confidence: 0.87256724

00:07:58.160 --> 00:07:59.424 and for oral formulations,

NOTE Confidence: 0.87256724

00:07:59.424 --> 00:08:02.039 it could be every three to four hours.

NOTE Confidence: 0.87256724

00:08:02.040 --> 00:08:03.216 You should consider longer

NOTE Confidence: 0.87256724

00:08:03.216 --> 00:08:04.686 intervals in patients who have

NOTE Confidence: 0.87256724

00:08:04.686 --> 00:08:05.920 renal or hepatic failure.

NOTE Confidence: 0.968273834285714

00:08:07.280 --> 00:08:08.918 So how do we help this patient?

NOTE Confidence: 0.968273834285714

00:08:08.920 --> 00:08:10.786 Let's say you have a patient

NOTE Confidence: 0.968273834285714

00:08:10.786 --> 00:08:11.719 who's prescribed oxycodone,

NOTE Confidence: 0.968273834285714

00:08:11.720 --> 00:08:14.558 5 milligrams every six hours PRN,

NOTE Confidence: 0.968273834285714

00:08:14.560 --> 00:08:15.525 and you notice that they're

NOTE Confidence: 0.968273834285714  
00:08:15.525 --> 00:08:17.440 using all of their PRN doses.  
NOTE Confidence: 0.968273834285714  
00:08:17.440 --> 00:08:19.359 You talk to the patient and they tell you  
NOTE Confidence: 0.968273834285714  
00:08:19.359 --> 00:08:21.199 that the pain is being reduced by 80%,  
NOTE Confidence: 0.968273834285714  
00:08:21.200 --> 00:08:23.920 but the relief is only lasting 3 hours.  
NOTE Confidence: 0.968273834285714  
00:08:23.920 --> 00:08:25.516 By the time the patient is able  
NOTE Confidence: 0.968273834285714  
00:08:25.516 --> 00:08:26.998 to take the next PRN dose,  
NOTE Confidence: 0.968273834285714  
00:08:27.000 --> 00:08:28.420 their pain has escalated  
NOTE Confidence: 0.968273834285714  
00:08:28.420 --> 00:08:29.840 to an intolerable level.  
NOTE Confidence: 0.968273834285714  
00:08:29.840 --> 00:08:30.908 So in this situation,  
NOTE Confidence: 0.968273834285714  
00:08:30.908 --> 00:08:33.480 it makes sense to fix the dosing interval.  
NOTE Confidence: 0.968273834285714  
00:08:33.480 --> 00:08:35.510 Instead of the interval being every six  
NOTE Confidence: 0.968273834285714  
00:08:35.510 --> 00:08:37.798 hours, it should really be every three.  
NOTE Confidence: 0.968273834285714  
00:08:37.800 --> 00:08:40.048 You can also decide if it's worth putting  
NOTE Confidence: 0.968273834285714  
00:08:40.048 --> 00:08:41.812 the patient on a scheduled regimen  
NOTE Confidence: 0.968273834285714  
00:08:41.812 --> 00:08:43.960 instead of keeping them on APRN dosing.  
NOTE Confidence: 0.968273834285714

00:08:43.960 --> 00:08:44.584 And eventually,  
NOTE Confidence: 0.968273834285714

00:08:44.584 --> 00:08:46.260 it may be worth considering  
NOTE Confidence: 0.968273834285714

00:08:46.260 --> 00:08:48.110 whether the patient should be  
NOTE Confidence: 0.968273834285714

00:08:48.110 --> 00:08:50.520 on a long acting formulation.  
NOTE Confidence: 0.968273834285714

00:08:50.520 --> 00:08:50.960 Finally,  
NOTE Confidence: 0.948191105

00:08:50.960 --> 00:08:52.340 I've included this chart  
NOTE Confidence: 0.948191105

00:08:52.340 --> 00:08:53.720 as an easy reference.  
NOTE Confidence: 0.948191105

00:08:53.720 --> 00:08:56.792 It has morphine, Dilaudid,  
NOTE Confidence: 0.948191105

00:08:56.792 --> 00:08:58.862 fentanyl, methadone, and oxycodone.  
NOTE Confidence: 0.948191105

00:08:58.862 --> 00:09:00.598 And the chart includes  
NOTE Confidence: 0.948191105

00:09:00.598 --> 00:09:03.080 the IV and PO conversions,  
NOTE Confidence: 0.948191105

00:09:03.080 --> 00:09:06.320 the time of duration, its onset,  
NOTE Confidence: 0.948191105

00:09:06.320 --> 00:09:08.558 and the time for peak concentration,  
NOTE Confidence: 0.948191105

00:09:08.560 --> 00:09:10.280 as well as certain comments.  
NOTE Confidence: 0.948191105

00:09:10.280 --> 00:09:12.737 So you can use this chart as  
NOTE Confidence: 0.948191105

00:09:12.737 --> 00:09:14.639 a reference table as needed.

NOTE Confidence: 0.948191105

00:09:14.640 --> 00:09:15.558 So to summarize,

NOTE Confidence: 0.894654225263158

00:09:15.680 --> 00:09:17.647 morphine is a cheap opioid that comes

NOTE Confidence: 0.894654225263158

00:09:17.647 --> 00:09:19.622 in many types of formulations which

NOTE Confidence: 0.894654225263158

00:09:19.622 --> 00:09:21.758 should be avoided in renal patients.

NOTE Confidence: 0.894654225263158

00:09:21.760 --> 00:09:23.108 Oxycodone is associated with

NOTE Confidence: 0.894654225263158

00:09:23.108 --> 00:09:24.546 less delirium than morphine,

NOTE Confidence: 0.894654225263158

00:09:24.546 --> 00:09:26.492 but usually only the PO form

NOTE Confidence: 0.894654225263158

00:09:26.492 --> 00:09:28.400 is available on formulary.

NOTE Confidence: 0.894654225263158

00:09:28.400 --> 00:09:30.236 Dilaudid is much more potent than

NOTE Confidence: 0.894654225263158

00:09:30.236 --> 00:09:32.584 morphine and is safer to use in renal

NOTE Confidence: 0.894654225263158

00:09:32.584 --> 00:09:34.520 patients out of all three listed here.

NOTE Confidence: 0.894654225263158

00:09:34.520 --> 00:09:36.720 Be careful in those patients who come in

NOTE Confidence: 0.894654225263158

00:09:36.720 --> 00:09:38.423 with fentanyl patches as they're spiking

NOTE Confidence: 0.894654225263158

00:09:38.423 --> 00:09:40.838 high fevers or if they need to get an MRI.

NOTE Confidence: 0.894654225263158

00:09:40.840 --> 00:09:42.725 Watch out for QTC prolongation

NOTE Confidence: 0.894654225263158

00:09:42.725 --> 00:09:44.233 and drug drug interactions.  
NOTE Confidence: 0.894654225263158

00:09:44.240 --> 00:09:46.440 And those patients on methadone,  
NOTE Confidence: 0.894654225263158

00:09:46.440 --> 00:09:48.648 make sure to avoid prescribing weak  
NOTE Confidence: 0.894654225263158

00:09:48.648 --> 00:09:50.120 opioids which include tramadol,  
NOTE Confidence: 0.894654225263158

00:09:50.120 --> 00:09:51.680 hydrocodone, and Kodi.  
NOTE Confidence: 0.894654225263158

00:09:51.680 --> 00:09:52.720 And finally,  
NOTE Confidence: 0.894654225263158

00:09:52.720 --> 00:09:54.040 when deciding on a regimen,  
NOTE Confidence: 0.894654225263158

00:09:54.040 --> 00:09:56.400 it really is based on the individual patient.  
NOTE Confidence: 0.894654225263158

00:09:56.400 --> 00:09:58.409 So you should decide if a patient  
NOTE Confidence: 0.894654225263158

00:09:58.409 --> 00:10:00.329 is more appropriate to be on a  
NOTE Confidence: 0.894654225263158

00:10:00.329 --> 00:10:01.574 fixed schedule or APRN schedule  
NOTE Confidence: 0.894654225263158

00:10:01.574 --> 00:10:03.340 and also decide the dosing interval  
NOTE Confidence: 0.894654225263158

00:10:03.340 --> 00:10:05.146 based on the type of formulation  
NOTE Confidence: 0.894654225263158

00:10:05.146 --> 00:10:07.198 in terms of the half life.  
NOTE Confidence: 0.894654225263158

00:10:07.200 --> 00:10:09.344 So you can decide based on whether the  
NOTE Confidence: 0.894654225263158

00:10:09.344 --> 00:10:11.800 patient is getting an IV form or APO regimen,

NOTE Confidence: 0.894654225263158

00:10:11.800 --> 00:10:12.520 for example.

NOTE Confidence: 0.733226705

00:10:14.520 --> 00:10:16.165 Finally, here are some sources that I

NOTE Confidence: 0.733226705

00:10:16.165 --> 00:10:18.400 used for my talk. Thanks for listening.