

**CAN 28-DAY PRESCRIPTION PREVENT UNINTENTIONAL MEDICATION SURPLUS WITH 30-DAY PRESCRIPTION?**

To the editor:

Here is a question: Are we, mathematically, dispensing more pain medications over a year than what our chronic pain patients need for their 365 days? Herein is a virtual chronic pain patient scenario to solve the riddle. To ensure ideal scenario, the envisaged patient is assumed to be visiting only one pain clinic over the year with regular follow up every four weeks for medical evaluation plus 30-day medication prescription. The medication chosen for this virtual patient is methadone 5 mg three times a day. As usual with most pain clinics, the patient is scheduled to follow up on a designated weekday (in this case Tuesdays) as aligned to the weekly clinic day of a regular pain practitioner working in a multi-practitioner-clinical-practice.

Table 1 demonstrates that unless the pain practitioners are vigilant enough to keep track of the medications dispensed to their patients, their patients may be getting almost one month extra supply of medications over a year. The reason is simple that with every four-week visit for 30-day prescription, the patients are visiting pain clinics 13 times in a year and receiving 390 days' supply of medications instead of 364 days' supply (patients visiting every 28 days for a total of 13 visits within a 52-week calendar year = 364 days). Essentially, at the time of each follow-up visit, the chronic pain patients have sufficient medications for a few days from the prior months' prescriptions, and these extra days' medications keep accumulating over the year. However, the patients' medication supplies lag behind during most of their follow up visits if they are being followed up bimonthly or quarterly (second Tuesday of the month in the case of our virtual patient, Table 2) because the patients receive only 360 days' supply of medications in a 365-day calendar year when visiting pain clinics every eight to nine weeks (every 56 to 63 days) per bimonthly pattern and every 13 weeks (every 91 days) per quarterly pattern.

Henceforth, we should consider what the solutions can be for countering this clinical scenario.

Besides the current practices of: a) reviewing the medical records, b) accessing prescription drug

monitoring programs<sup>1,2</sup> for tracking patients' medication prescriptions, and c) "do not fill until date"<sup>3</sup> (but NOT post-dating<sup>4</sup>) on the medication prescriptions taking into consideration the calculated number of residual medications from prior visit's prescriptions, the pain clinics must keep better logs of the cumulative numbers of the medications dispensed over the year so that they do NOT overfill their patients' medication supply.

The pain clinics can get on board with the Drug Enforcement Administration (DEA) initiative for drug disposal.<sup>5,6</sup> Herein, the chronic pain patients can be motivated to: a) check with their pharmacies if they are controlled substance public disposal locations as authorized collectors, or else b) seek the pharmacies that are authorized collectors in their neighborhood.<sup>7,8</sup> Subsequently, at their pharmacies, the chronic pain patients can have an option to dispose of their extra-supply of unused, unwanted, and expired medications from the prior visits' prescriptions at the time of receiving their newly dispensed (refilled) medications.

In regards to economic implications for health-care with 28-day prescription (13 pharmacy bills per year) replacing 30-day prescription (12 pharmacy bills per year), the third party payers can learn from National Health Service (NHS) wherein one in three primary care trusts (PCTs) are using 28-days' supply limit for general practitioners' prescriptions despite the potential for increased costs.<sup>9</sup> Although Domino et al.<sup>10</sup> demonstrated increased costs when 34-day prescriptions replaced 100-day prescriptions, the payers would have to deduce whether 28-day prescriptions are still "costlier" than 30-day prescriptions when dangers of unwanted accumulation of pain medications with the patients are taken into account. Interestingly, the NHS patients' comparative cost data<sup>11</sup> demonstrated medications being dispensed for 28 days (four weeks), 56 days (eight weeks) and 84 days (12 weeks) rather than for 30 days (one month), 60 days (two months) and 90 days (three months) which is the routine followed among their American counterparts.<sup>4</sup> Counter-intuitively, although the American pharmacies usually follow the "unwritten" rule to not refill pain medications earlier than two days prior to the end of 30-days' supply, some third party payers allow the patients to get medications refilled about five days

**Table 1. Follow up patterns every four weeks**

<b>2017 monthly visit</b>	<b>Patient visit date</b>	<b>Prescribed medication start date</b>	<b>Patient follow up scheduled date</b>	<b>Prescribed medication finish date</b>
1st	January 10	January 11	February 7	February 9
2nd	February 7	February 10	March 7	March 11
3rd	March 7	March 12	April 4	April 10
4th	April 4	April 11	May 2	May 10
5th	May 2	May 11	May 30	June 9
6th	May 30	June 10	June 27	July 9
7th	June 27	July 10	July 25	August 8
8th	July 25	August 9	August 22	September 7
9th	August 22	September 8	September 19	October 7
10th	September 19	October 8	October 17	November 6
11th	October 17	November 7	November 14	December 6
12th	November 14	December 7	December 12	January 5
13th	December 12	January 6	January 9	February 4
1st visit in 2018	January 9	February 5		

**Table 2. Follow up patterns bimonthly and quarterly**

<b>2017 bimonthly visit</b>	<b>Patient visit date</b>	<b>Prescribed medication start date</b>	<b>Patient follow up scheduled date</b>	<b>Prescribed medication finish date</b>
1st	January 10	January 11	March 14	March 11
2nd	March 14	March 12	May 9	May 10
3rd	May 9	May 11	July 11	July 9
4th	July 11	July 10	September 12	September 7
5th	September 12	September 8	November 14	November 6
6th	November 14	November 7	January 9	January 5
<b>1st visit in 2018</b>	<b>January 9</b>	<b>January 6</b>		
<b>2017 quarterly visit</b>	<b>Patient visit date</b>	<b>Prescribed medication start date</b>	<b>Patient follow up scheduled date</b>	<b>Prescribed medication finish date</b>
1st	January 10	January 11	April 11	April 10
2nd	April 11	April 11	July 11	July 9
3rd	July 11	July 10	October 10	October 7
4th	October 10	October 8	January 9	January 5
<b>1st visit in 2018</b>	<b>January 9</b>	<b>January 6</b>		

prior to the end of 30-days' supply to accommodate the eventuality of patients' needs pertaining to running out of their 30 days' prescribed medications early.<sup>12</sup> Interestingly, the change to 28-day prescriptions would need prescribers to calculate the medication quantity prescribed as multiples of 28 instead of easily calculable multiples of 30 as currently needed with 30-day prescriptions.<sup>13</sup>

Summarily, as a countermeasure against unintentional surplus of pain medications among chronic pain patients, the apparently best option will be 28-day prescriptions replacing 30-day prescriptions by default, wherein the direct costs of extra pharmacy bills per year to the payers may counterbalance the indirect costs of extra medications per year accumulating with the patients.

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