



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF HEALTH CARE FINANCING AND POLICY  
1100 East William Street, Suite 101  
Carson City, Nevada 89701  
Telephone (775) 684-3676 • Fax (775) 687-3893  
<http://dhcfp.nv.gov>

## NOTICE OF PUBLIC MEETING – DRUG USE REVIEW BOARD

### AGENDA

**Date of Publication:** September 23, 2016

**Date and Time of Meeting:** Thursday, October 27, 2016 at 5:15 PM

**Name of Organization:** The State of Nevada, Department of Health and Human Services (DHHS), Division of Health Care Financing and Policy (DHCFP), Drug Use Review Board (DUR)

**Place of Meeting:** Best Western Plus Airport Plaza Hotel  
1981 Terminal Way  
Reno, NV 89502  
Phone: (775) 348-6370

**Webinar Registration:** <https://catamaranrx.webex.com/catamaranrx/onstage/g.php?MTID=e11cafafd2e70839221d21c67a0e609e5>

Or go to [www.webex.com](http://www.webex.com) and enter the Event Number listed below.

Once you have registered for the meeting, you will receive an email message confirming your registration. This message will provide the information that you need to join the meeting.

**Event Number:** 743 525 076

Click “Join Now”

Follow the instructions that appear on your screen to join the audio portion of the meeting. Audio will be transmitted over the internet. No phone number is required.

## AGENDA

1. **Call to Order and Roll Call**
2. **Public Comment on Any Matter on the Agenda**
3. **Administrative**
  - a. **For Possible Action:** Review and Approve Meeting Minutes from July 28, 2016.
  - b. Status Update by DHCFP: Governor's Summit on Prescription Drug Abuse  
DHCFP's public workshop on Prescription Opioid Use  
Chapter 1200 changes public hearing
  - c. **For Possible Action:** Discussion and presentation of Annual Drug Utilization Review Report.
    - i. Public comment on the Annual Drug Utilization Review Report
    - ii. Presentation of the Annual Drug Utilization Review Report
    - iii. Discussion by Board and review of the report.
    - iv. Proposed approval of the Annual Drug Utilization Review Report
4. **Clinical Presentations**
  - a. **For Possible Action:** Discussion and possible adoption of prior authorization criteria and/or quantity/prescription limits for the medication class opioids and opioid agonists used for the treatment of pain.
    - i. Public comment on proposed clinical prior authorization criteria.
    - ii. Presentation of utilization and clinical information.
    - iii. Discussion by Board and review of utilization data.
    - iv. Proposed adoption of updated prior authorization criteria.
  - b. **For Possible Action:** Discussion and possible adoption of prior authorization criteria for medications used to treat Hepatitis C.
    - i. Public comment on proposed clinical prior authorization criteria.
    - ii. Presentation of utilization and clinical information.
    - iii. Discussion by Board and review of utilization data.
    - iv. Proposed adoption of updated prior authorization criteria.
5. **Public Comment on any DUR Board Requested Report**
6. **DUR Board Requested Reports**
  - a. Utilization of agents used for the treatment of Opioid Induced Constipation

- i. Discussion by the Board and review of utilization data.
  - ii. **For Possible Action**: Requests for further evaluation or proposed clinical criteria to be presented at a later date.
- b. Non-opioid pain medication utilization.
- i. Discussion by the Board and review of utilization data.
  - ii. **For Possible Action**: Requests for further evaluation or proposed clinical criteria to be presented at a later date.
- c. Correlation of emergency room visits for Asthma and COPD and current treatment
- i. Discussion by the Board and review of utilization data.
  - ii. **For Possible Action**: Requests for further evaluation or proposed clinical criteria to be presented at a later date.
- d. Esophageal cancer diagnosis and proton pump inhibitor utilization
- i. Discussion by the Board and review of utilization data.
  - ii. **For Possible Action**: Requests for further evaluation or proposed clinical criteria to be presented at a later date.
- e. Utilization of dextromethorphan and/or guaifenesin
- i. Discussion by the Board and review of utilization data.
  - ii. **For Possible Action**: Requests for further evaluation or proposed clinical criteria to be presented at a later date.

**7. Public Comment on any Standard DUR Report**

**8. Standard DUR Reports**

- a. Review of Prescribing/Program Trends.
- i. Top 10 Therapeutic Classes for Q1 2016, Q2 2016 and Q3 2016 (by Payment and by Claims).
  - ii. Top 50 Drugs of Q1 2016, Q2 2016 and Q3 2016 (by Payment and by Claims).
- b. Concurrent Drug Utilization Review (ProDUR)
- i. Review of Q1 2016, Q2 2016 and Q3 2016.
  - ii. Review of Top Encounters by Problem Type.
- c. Retrospective Drug Utilization Review (RetroDUR)
- i. Status of previous quarter.
  - ii. Status of current quarter.
  - iii. Review and discussion of responses.

**9. Closing Discussion**

- a. Public comments on any subject.
- b. Date and location of the next meeting.
  - i. Discussion of the time of the next meeting.
- c. Adjournment.

**PLEASE NOTE:** Items may be taken out of order at the discretion of the chairperson. Items may be combined for consideration by the public body. Items may be pulled or removed from the agenda at any time. If an action item is not completed within the time frame that has been allotted, that action item will be continued at a future time designated and announced at this meeting by the chairperson. All public comment may be limited to 5 minutes.

This notice and agenda have been posted at <http://dhcfp.nv.gov/> and [notice.nv.gov/](http://notice.nv.gov/).

---

Notice of this meeting and draft copies of the changes will be available on or after the date of this notice at the DHCFP Web site <http://dhcfp.nv.gov/> Carson City Central office and Las Vegas DHCFP. The agenda posting of this meeting can be viewed at the following locations: Nevada State Library; Carson City Library; Churchill County Library; Las Vegas Library; Douglas County Library; Elko County Library; Lincoln County Library; Lyon County Library; Mineral County Library; Tonopah Public Library; Pershing County Library; Goldfield Public Library; Eureka Branch Library; Lander County Library; Storey County Library; Washoe County Library; and White Pine County Library and may be reviewed during normal business hours.

If requested in writing, a draft copy of the changes will be mailed to you. Requests and/or written comments on the proposed changes may be sent to the Ellen Felsing at the Division of Health Care Financing and Policy, 1100 E. William Street, Suite 101, Carson City, NV 89701.

All persons that have requested in writing to receive the Public Hearings agenda have been **duly notified by mail or e-mail.**

---

We are pleased to make accommodations for members of the public who have disabilities and wish to attend the meeting. If special arrangements are necessary, notify the Division of Health Care Financing and Policy as soon as possible and at least ten days in advance of the meeting, by e-mail at: [ellen.felsing@dhcfp.nv.gov](mailto:ellen.felsing@dhcfp.nv.gov), in writing, at 1100 East William Street, Suite 101, Carson City, Nevada 89701 or call Ellen Felsing at (775) 684-3684.

---



BRIAN SANDOVAL  
Governor

STATE OF NEVADA  
DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF HEALTH CARE FINANCING AND POLICY  
1100 E. William Street, Suite 101  
Carson City, Nevada 89701  
(775) 684-3676 • Fax (775) 687-3893

RICHARD WHITLEY, MS  
Director

MARTA JENSEN  
Acting Administrator

**NEVADA MEDICAID  
DRUG USE REVIEW BOARD  
DRAFT MEETING MINUTES**

**Date of Meeting:** Thursday, July 28, 2016 at 5:15 PM

**Name of Organization:** The State of Nevada, Department of Health and Human Services, Division of Health Care Financing and Policy (DHCFP), Drug Use Review Board (DUR).

**Place of Meeting:** Best Western Plus Airport Plaza Hotel  
1981 Terminal Way  
Reno, NV 89502  
Phone: (775) 348-6370

**Committee Members Present:** James Marx, MD; Michael Owens, MD; Paul Oesterman, Pharm.D.; David England, Pharm.D.

**Committee Members Absent:** Jeffrey Zollinger, DO; Chris Shea, Pharm.D.

**Others Present:**

**DHCFP:** Shannon Sprout, Chief, Program Services; Mary Griffith, RN, Pharmacy Services Specialist; Darrell Faircloth, Deputy Attorney General

**HPES:** Beth Slamowitz, Pharm.D.

**OptumRx:** Carl Jeffery, Pharm.D.

**Others:** James Osborne, GSK; Coleen Lawrence, Moxy Health; Jeanette K Belz, NV Psychiatry Assn; Laura Hill, Abbvie; Karen Nguyen, Allergan; Sean McGarr, Allergan; Contessa Fincher, Teva; Catherine O'Mara, NSMA; Jennifer Lauper, BMS; Melissa Walsh, Novartis; Lori Howarth, Bayer; Stephen Edney, MD

**Others On Line:** Mark Schwartz, GSK; Indira Mahidhara, Amerigroup; Altamit Lewis, Amerigroup; Chris Standfield, Supernus; Brian Brooks, Amerigroup; Betty Chan, Gilead; Kathleen Conaboy; Catherine O'Mara; Maya Zamir, Amerigroup; Jill Sugg, UCB

**1. Call to Order and Roll Call**

Meeting called to order at 5:22PM

Roll Call:

Carl Jeffery

James Marx

David England

Michael Owens

Paul Oesterman, Chair

Darrell Faircloth

Beth Slamowitz

Shannon Sprout

Mary Griffith

**2. Public Comment on Any Matter on the Agenda**

Paul Oesterman, Chair: Are there any general public comments. None.

**3. Administrative**

- a. **For Possible Action:** Review and Approve Meeting Minutes from April 28, 2016.

Paul Oesterman, Chair: We will start with the administrative section. I will ask for approval of the April 28, 2016 meeting minutes.

James Marx: I move for approval.

David England: Second.

Voting: Ayes across the board.

- b. **Status Update by DHCFP:**

Paul Oesterman, Chair: Our next item is an update from the Department.

Mary Griffith: There isn't a lot that is new. We have final rules from CMS for MCOs, final rules for outpatient drugs, and another final rule for durable medical equipment and there are a couple things coming from CMS. For the covered

drugs, we have to document in our State Plan how we are going to pay for 340B, how we are going to price our factor drugs and our physician administered drugs. Other than that, we don't have as much work as other states because we have done the NADAC pricing and dispensing fee survey. I'm still updating the policies.

Paul Oesterman, Chair: Any policy changes from January and April?

Mary Griffith: I'm still working on them.

#### 4. Clinical Presentations

- a. **For Possible Action:** Discussion and possible adoption of prior authorization criteria for pediatric use of gonadotropin-releasing hormone (GnRH) analogs.

Paul Oesterman, Chair: We will start on the clinical discussions. We are going to defer item F. until the next meeting. Our first item is a discussion of pediatric use of gonadotropin-releasing hormone analogs. Do we have any public comment? Hearing none, Carl do you want to present this information?

Carl Jeffery: This was brought to review because we talked about the medications used for transgender treatments at the last meeting. This drug came up as something being used for delaying puberty or used for transgender use. But we saw some questionable use in female patients with autism. There were some articles about this being used to delay menses and puberty in autistic youth. Starting on page 26, the usage is broken down by male and female. The megestrol doesn't concern me, but some of the other ones look a little funny.

Paul Oesterman, Chair: Do we know if these are ordered by an endocrinologist.

Mary Griffith: I think they were mostly pediatricians.

Carl Jeffery: We looked at diagnosis.

Mary Griffith: A lot of them did not have anything with an FDA approved use.

Carl Jeffery: We would expect to see precocious puberty, but we only saw only autism spectrum disorder.

Paul Oesterman, Chair: Is there any prior authorization criteria now?

Carl Jeffery: No. And one thing I wanted to update with the proposed criteria is to limit it to under 18, let the adults continue getting this without prior authorization.

James Marx: So what diagnosis are we going to use?

Carl Jeffery: The proposed criteria lists idiopathic or neurogenic precocious puberty, endometriosis, uterine leiomyomata and prostate cancer.

James Marx: This is just for the Lupron?

Carl Jeffery: We have it for the Eligard too.

Paul Oesterman, Chair: We have the proposed authorization criteria, but we are adding that this is only for patients under 18.

James Marx: So we are not talking about the other medications we discussed at the last meeting?

Carl Jeffery: No, we are ok with that one. There is no gender edit right now with this.

Paul Oesterman, Chair: We need a motion to approve the amended proposed criteria for ages under 18.

David England: So moved.

James Marx: Second.

Carl Jeffery: To make it clear for the record, this is for the amended criteria to only include patient under 18.

Paul Oesterman, Chair: Right, call for a vote for the amended criteria

Voting: Ayes across the board, the motion carries.

- b. **For Possible Action:** Discussion and possible adoption of prior authorization criteria for medications used to treat Irritable-Bowel Syndrome.

Paul Oesterman, Chair: Our next topic is the discussion and possible adoption of prior authorization criteria for medications used to treat irritable bowel syndrome. Do we have any public comment?

Karen Nguyen: I'm Karen Nguyen with Allergan. Today I will be talking about Linzess and Viberzi. I am providing the national treatment guidelines from the AGA. Linzess was the only drug to give strong recommendations. Viberzi was not available at the time the guidelines were written so are not included.

Carl Jeffery: This is a carryover from the last meeting. We passed some criteria for Viberzi, but this criteria include IBS-D and IBS-C. The proposed guidelines go through the more standard therapies even though as Karen pointed out, they may not be as effective. But by the time patients get to these drugs, they have likely tried all of these anyway.

David England: Karen, I just want to clarify. Your testimony suggests these other agents are not the best, but would there be any damage to the patient by prolonging the time to get these other agents?

Karen Nguyen: As far as worsening the disease, no. But as far as quality of life, there would be an impact, lower productivity. Studies show that patients failing initial treatment cost more than patients who get the proper treatment up front. It does impact patient's lives when they have to go to the bathroom multiple times a day or they are soiling their underpants. In essence, there is an indirect impact. A lot of these patients have tried everything available over the counter.

Paul Oesterman, Chair: Looking at the criteria, the IBS-D does not have the laxative failure for step therapy.

Karen Nguyen: But you are requiring antidepressants and antispasmodics. The guidelines recommend not using SSRI's because there is no evidence. The TCA's often have anticholinergic side effects, and they don't address all the effects for IBS.

James Marx: I think we should basically remove those criteria. There is a cost with quality of life issues, and we are requiring treatments that are not real effective in most cases and have significant side effects.

Paul Oesterman, Chair: You recommend we remove C.1. and D.3.?

James Marx: Correct, that would be my proposal.

David England: Since we now have better medications, we wouldn't want to eliminate the availability of these. Just because these are not included in the criteria, that doesn't mean they can't be used.

James Marx: No, they could still be used. We are not excluding them.

Paul Oesterman, Chair: We need a motion to approve the modified criteria with removing C.1. and D.3.a. and b.

David England: Moved.

James Marx: Second.

Voting: Ayes across the board, the motion carries.

- c. **For Possible Action:** Discussion and possible removal of prior authorization criteria for duloxetine.

Paul Oesterman, Chair: Our next agenda item is the discussion and possible removal of prior authorization criteria for duloxetine. Is there any public comment?

Carl Jeffery: Duloxetine has been on the market for a long time. I think this criteria has been here for years, so I wanted to have the Board review it. Similar agents do not have this criteria and the criteria may be a roadblock for patients from getting effective therapy.

Paul Oesterman, Chair: So we are proposing the removal of the PA criteria for duloxetine.

Carl Jeffery: Just to clarify, it will still require PA for the psychotropic criteria for children and polypharmacy criteria for children under 18.

James Marx: I move for the removal of the prior authorization for duloxetine.

David England: Second.

Voting: Ayes across the board, the motion carries.

- d. **For Possible Action:** Discussion and possible adoption of updated prior authorization criteria for the medication class Antiasthmatic Monoclonal Antibodies.

Paul Oesterman, Chair: Our next agenda item is the discussion and possible adoption of updated prior authorization criteria for the medication class antiasthmatic monoclonal antibodies. Do we have any public comment?

James Osborne: I'm James Osborn, a health outcomes liaison with Glaxo Smith Kline. I want to make a few remarks about Nucala. I am providing comments on the covered indication, efficacy numbers in the binder information, and warnings from the manufacturer. Item C. in your proposed criteria, in our clinical development sputum eosinophilia did not differentiate responders and non-responders. That is why we chose blood eosinophils levels. The request we have is for items F. and G., the requirement for the second generation antihistamine and a leukotrinine receptor antagonist. We defined severe asthma as patients on high dose corticosteroids plus a second controller who were inadequately controlled. These were not the allergic asthmatics per se. We recommend you change the requirements in F. and G. to high dose corticosteroids plus a second controller such as long-acting beta agonist, a leukotriene agonist, or we had some studies with people on theophylline.

David England: You recommend removing F. and G.?

James Osborne: I would replace F. and G. with high dose corticosteroid plus a second asthma controller as an appropriate way to identify patients with severe asthma. That is the severe asthma part, and the blood eosinophil is the other part to identify the phenotype.

Contessa Fincher: I'm Contessa Fincher, a medical outcomes liaison for Teva pharmaceuticals. I wanted to discuss Cinqair, a similar product to Nucala. It is

indicated to help patients who are uncontrolled on their standard of care and they will have Nucala added to their maintenance therapy. The main issue is these severe asthmatics need to have some kind of eosinophilic phenotype. I agree with the GSK speaker on F and G, the mechanism of action on these monoclonal antibodies. If there are not a lot of differences, the eosinophil count in the criteria of greater than 150 cells, the number of eosinophils in our trials was 400 cells and above and our researchers found the gold standard of 400 cells because that resembled what the sputum test would be. But physicians don't really use the sputum test, they use the blood eosinophil count. It is cheaper and easier to do. So we are fine with the count being more than 150 as long as the physician finds out if the patient has severe asthma or not because that would be the indication to use these products. The exacerbations are not mentioned in the criteria, but that is ok but that is a slight difference. If the patient in the prior year had more than one asthma attack, then they entered our trial, more than two then they entered the Nucala trials. Our efficacy is similar between the drugs. We decreased asthma exacerbations by 50-59% in two studies. Another difference is the safety, for our product, the most common adverse events were upper respiratory tract infection, pharyngitis. But we have a black box warning, there were three cases in total for anaphylaxis, but it is a risk. The mode of administration is IV, and Nucala is subq. It needs to be given by a health care professional. Both products decrease hospitalizations. I ask that F. and G. doesn't need to specify any kind of failure because they are already the worst of the worst. They don't need to fail anything as long as they have the high eosinophil count.

Paul Oesterman, Chair: Do we have any usage data at this point?

Carl Jeffery: There is some utilization, it is in the binder on page 50, the only one we have is Xolair. There is no utilization of the other products.

David England: So we are looking at changing F. and G. to patients that are already on their current products.

Contessa Fincher: We stated it as they are uncontrolled on their standard of care.

Carl Jeffery: Does the Board need to identify what is the minimum standard of care? Like high dose corticosteroid and a secondary agent?

Paul Oesterman, Chair: If we were to consolidate F and G to say something to the effect the recipient must be uncontrolled on current therapy included high dose inhaled steroids and a/or a secondary asthma inhaler.

James Marx: I propose that as a motion.

Paul Oesterman, Chair: I want to go back to the Zostavax that was mentioned, should we include that in the criteria for the Nucala?

James Osborne: If I could comment, I would ask the committee, can your members get the Zostavax vaccines? There are situations based on age, it may be

difficult to get. The package does not require it, but recommends the physician consider if the patient should receive it prior to starting Nucala. The indication is 50 and older.

Carl Jeffery: Maybe add a recommendation that Zostavax be considered.

David England: It could be any other infection that should be addressed before going on this product.

James Osborne: That is what our label says, the physician should consider before starting Nucala.

David England: We should get any other infection under control first as far as the class goes.

James Marx: Did you see any other type of infection like histoplasmosis or anything?

James Osborne: We didn't see anything like that. The only two opportunistic infections we saw were the two herpes zoster.

Paul Oesterman, Chair: Right now we have the proposed criteria with the modification of F. and G. Also, I wonder if we shouldn't eliminate the elevated sputum eosinophils out of C. Just keep with the blood eosinophil greater than 150.

David England: I like what we have done so far. I would like to have something for opportunistic infection, but what would be good language?

Carl Jeffery: I think some of this you just have to put back on the prescriber, they are taking the responsibility when prescribing this medication.

Paul Oesterman, Chair: Maybe it could be as simple as documenting vaccine status, they don't have to do it.

Michael Owens: All these prescribers will be allergists or pulmonologists or immunologists. They should have a pretty good idea of what to do.

Paul Oesterman, Chair: We have proposed criteria with three changes. One is the elimination of the sputum eosinophils, second is the F and G to read, "The recipient must be uncontrolled on current therapy including high dose corticosteroid and/or a secondary asthma inhaler." And then documentation of vaccine status.

David England: So moved.

James Marx: Second.

Voting: Ayes across the board, the motion carries.

Mary Griffith: Can you summarize that one more time for me?

Paul Oesterman, Chair: We are going to eliminate C, the elevated sputum eosinophils. F. and G. is now combined to read, "The recipient must be uncontrolled on current therapy which includes an inhaled high dose steroid and/or a secondary asthma inhaler." And then "I.", documentation of vaccine status.

- e. **For Possible Action:** Discussion and possible adoption of updated prior authorization criteria for the medication class Hepatitis C direct-acting antivirals.

Paul Oesterman, Chair: The next item is discussion and possible adoption of updated prior authorization criteria for the medication class Hepatitis C direct-acting antivirals. Do we have any public comment?

Laura Hill: My name is Laura Hill and I am with Medical Affairs at Abbvie. I have a couple comments for Viekira Pak. The PA criteria looked accurate. A couple things for consideration. Abbvie had an extended release product recently approved called Viekira XR. This is given as three tablets once daily with a meal. I have information on formulation, indications and warnings. The second part, the supplemental documentation, the Turquois 3 study was not included in the document, but is captured in the proposed criteria.

Paul Oesterman, Chair: Anyone else for public comment.

BC: This is Betty Chan for Gilead Sciences. I just want to make myself available for any questions. A new product was recently approved, Eplclusa, but didn't make it on the agenda.

Paul Oesterman, Chair: Thank you. What do we have for proposed revisions?

Carl Jeffery: We have another medication, so this will come back for the next meeting. The updated criteria with the new Zepatier product included. There are two sets of criteria that look very similar. The redlined version starts on page 71. That shows the changes we have added since the last time this was reviewed by the Board. The utilization numbers are also included. The use has leveled off. Still Harvoni is the favorite, they are all listed as preferred and the criteria is pretty fair for all products. The updated criteria takes into account a few additions including Zepatier, starting on your page 80. These criteria follow the AASLD criteria.

Paul Oesterman, Chair: This just keeps growing and becoming a bigger book. Is there a way to consolidate this for the call center?

Carl Jeffery: I don't think they have too many other issues with it, I think it is going pretty well.

Paul Oesterman, Chair: We have the revised prior authorization criteria, it will be coming back at the next meeting with at least two additions.

Carl Jeffery: If there is a way to narrow down the changes. We talked about using verbiage for following AASLD guidelines.

Paul Oesterman, Chair: Do we have a motion to approve the current proposed criteria updates?

David England: Moved.

James Marx: Second.

Voting: Ayes across the board, the motion carries.

Paul Oesterman, Chair: The next agenda item will be deferred to the next meeting.

- f. **For Possible Action:** Discussion and possible adoption of prior authorization criteria and/or quantity limits for the medication class short-acting opioids and opioid agonists used for the treatment of pain.

## 5. **Public Comment on any DUR Board Requested Report**

Paul Oesterman, Chair: Next is the DUR Board requested reports. Do we have any public comment on the reports?

## 6. **DUR Board Requested Reports**

### a. **Hepatitis C – 14 day trial compliance.**

Paul Oesterman, Chair: The first is the Hepatitis C – 14 day trial compliance.

Carl Jeffery: These are recipients who have received less than 56 days of therapy. To me that is not a full therapy for any approved products. There is a chance these recipients could have moved to a different plan or passed away. We implemented a requirement to start with 14 days of therapy before getting the full month on subsequent fills.

Paul Oesterman, Chair: Looking at page 93, the last Harvoni, there are two numbers below that.

Carl Jeffery: Yes, in May they got a 14 day supply and then April they got a 28 day supply.

Paul Oesterman, Chair: Ok, thanks. Is it possible to find out how many patients get the initial 14 day supply vs. the patients that get at least one more fill?

Carl Jeffery: Yes, the first page starts with members getting only 14 days and then not getting any more fills.

Paul Oesterman, Chair: I think what we really want to see is what happened, why they didn't complete the therapy.

Carl Jeffery: I'm not sure how we would gather that information. We would have to call every prescriber's office.

James Marx: Are we doing letters with issues and concerns? Make it easy to respond by email or fax.

Carl Jeffery: Like a retro-DUR for patients that get a 14 day supply and then never fill it again? Send a letter to the prescriber's office asking for an explanation. I don't know what the concern with resistance is here, but it could be an issue in the future.

Paul Oesterman, Chair: That is our follow-up, we will do a retro-DUR.

**b. Long-acting steroid inhaler combination utilization correlated with emergency department visits and short-acting rescue medication utilization.**

Paul Oesterman, Chair: The next report is long-acting steroid inhaler combination utilization correlated with emergency department visits and short-acting rescue medication utilization.

Carl Jeffery: I didn't get the chance to get the ER data in the report. So what you have is the steroid inhaler data and rescue inhaler use. We did take all the patients getting these medications, and had the medical claims team and they looked for ER visits. They did not find any ER visits for members who were on these medications. But they did find about 1400 patients with ER visits with a diagnosis related to asthma exacerbations. I didn't get the chance to take those 1400 patients to see what therapy those people were on.

David England: We had 1400 members on what?

Carl Jeffery: No, the 1400 that had ER visits that were not listed on the report getting long-acting steroids. We didn't have matching members on the reports.

Paul Oesterman, Chair: For follow-up for next time, can we get that correlation?

Carl Jeffery: Sure, we can put that together.

**c. Utilization of short-acting insulin without long-acting/basal insulin.**

Paul Oesterman, Chair: Our next report is utilization of short-acting insulin without long-acting/basal insulin.

Carl Jeffery: This is a redo of the report that was presented last time. We are still looking at about 1200 members in the last nine months.

David England: Any way you could tie in A1c values?

Carl Jeffery: We don't have access to lab values.

Paul Oesterman, Chair: What about ER visits for hypoglycemic events for patients on long-acting insulin without a short-acting?

Carl Jeffery: Beth, is that something you think we could pull?

Beth Slamowitz: With an actual diagnosis code, we could pull claims that have something similar. We don't have access to medical records or lab values.

Carl Jeffery: It would have to be the primary diagnosis on the ER visit.

David England: Even though they are on their insulin, the A1c is the acid test for if it is working. Without that, even ER visits, you want to know what the A1c was for the ER visit.

Paul Oesterman, Chair: In this day and age, what is it going to take to get access to medical records?

David England: Without lab values, we have the pie crust but no filling.

Carl Jeffery: Right, it would be great to have some outcomes data too.

David England: I saw a CMS email talking about their data being made available for meta-analysis studies. You could use their data to pull your own studies. It seems like Medicaid should be able to do the same thing. We should have access to our own data. It will be interesting to see how this works out.

**d. Proton pump inhibitors and complications/adverse effects.**

Paul Oesterman, Chair: Next we have the report on proton pump inhibitors and complications/adverse effects.

Carl Jeffery: I don't have access to the adverse events or complications. A lot of these are not severe enough to go to the ER, so they would likely report it to their prescriber. The binder has the utilization numbers, which mirrors what is on our preferred drug list.

Paul Oesterman, Chair: Maybe we can modify the request to see if patients are having to change from one proton pump inhibitor to another.

Carl Jeffery: But we're not going to know why they are changing.

James Marx: My concern is we should be looking at admissions related to a vascular event, like stroke, MI, Diabetic peripheral vascular disease. We don't really need to have a diagnosis. If someone comes for MI, gastritis isn't going to be the primary diagnosis.

Beth Slamowitz: The specific primary diagnosis for admission can be done.

James Marx: My thinking is to compare this population vs. the population that is not on a PPI.

David England: It would be interesting to see how long these people have been on these agents and how many have progressed to esophageal cancer.

Beth Slamowitz: We would only have a diagnosis for the ER visit, we may not have it available for regular doctor office visits.

Paul Oesterman, Chair: I think one would be esophageal cancer, start there. If we look at a year back.

**e. Long and short-acting opioid utilization.**

Paul Oesterman, Chair: Are we going to cover the last topic of long and short-acting opioid utilization?

Carl Jeffery: Yes, I think it is ok to discuss since this is an ongoing report. This chart is by days supply, we have the top drugs with hydrocodone and oxycodone. The first long-acting agent is the fourth one down.

David England: Is it possible to separate the long and short-acting?

Carl Jeffery: Yes, if you look back at page 90, there were some reports showing just short acting products. It is sorted by total quantity?

David England: People still use meperidine? Is this the oral tablet?

Carl Jeffery: Yes, I limited it to oral.

Paul Oesterman, Chair: I would think dental is using this most. Suboxone, do we know if that is being used for pain? You might be able to break that down by DEA.

Carl Jeffery: The problem is the pharmacy submits the NPI, not the DEA, so we don't know which one they are using. There is one NPI and they could have multiple DEA numbers.

James Marx: Is the oral fentanyl on here too?

Carl Jeffery: Yes, it should be on the back page. We don't get a lot of claims for this. On page 89, I took the top three drugs and looked at multiple product formulations. We have 3 recipients that are getting 6 different formulations.

Paul Oesterman, Chair: We may want to consider them for the lock-in program. We will be addressing this next time. Any other comments on the requested reports?

**7. Public Comment on any Standard DUR Report**

Paul Oesterman, Chair: Is there any public comment on our standard reports?

**8. Standard DUR Reports**

Carl Jeffery: These are the same reports but updated for the new quarter. The antipsychotics and blood factor products bounce back and forth. The first one is by paid amount, and the second is by claim count. Nothing pops out to me on these reports.

Paul Oesterman, Chair: Our anti-hemophilia products have always been on the list, there is a new single immunization that is coming through the FDA. I'm sure that will come up on a future meeting. When did aripiprazole go generic?

Carl Jeffery: Maybe a little over a year ago, but we still have the brand preferred.

Paul Oesterman, Chair: So this is a skewed number,

Carl Jeffery: The pharmacy paid amount will be higher than what it would be otherwise.

Paul Oesterman, Chair: Looking at the fourth quarter, tobramycin, there were 78 claims. Was that the inhaled Tobi or the parenteral?

David England: That is just a 10 day supply.

Carl Jeffery: If I had to guess, I would say it was the inhaled tobramycin used for cystic fibrosis. We have run the numbers for our CF kids and I think this is in line.

Paul Oesterman, Chair: In terms of claim counts, it seems very consistent. The top five really don't change much.

Carl Jeffery: Synagis drops off in quarter 2, but we will see it again on the coming quarters as the season picks up again in November.

Paul Oesterman, Chair: Pro-DUR and Retro-DUR, what do we have?

Carl Jeffery: The Pro-DUR is listed.

Paul Oesterman, Chair: On page 126, number 6 and 7, what is the difference between these two? Spironolactone and Lisinopril? Why is that showing up twice? Same with 2 and 4.

Carl Jeffery: That is a good question, I'm not sure. Maybe different NDC's or strengths.

Paul Oesterman, Chair: How are we doing with the promethazine DM? It looks like under age 4...

Carl Jeffery: We looked at the other promethazine, but we didn't look at the DM product. The DM is becoming a popular street drug. That is something worth looking at. And guaifenesin, high doses can be abused. The only thing left is the retro-DUR handout. They did opioids and benzos with some interesting results. There is an overview and the results.

James Marx: I think the issue with that, is the patients that get in trouble are new to the regimen. The risk is pretty low for patients on this long-term.

Paul Oesterman, Chair: I would ask the Board members to take notes on this. I think it will be relevant for our next meeting.

Carl Jeffery: We are always looking for other retro-DUR ideas if anyone has any ideas. We have the Hep C therapy with the 14 days compliance.

## **9. Closing Discussion**

Paul Oesterman, Chair: Anybody wish to address the Board?

Mary Griffith: Before we adjourn, we talked about moving the meetings back to days. What do you prefer?

Paul Oesterman, Chair: What we have been doing works for me.

James Marx: Doesn't really make a difference to me.

David England: We switched to the evenings to get better participation.

James Marx: I think if we want to increase physician involvement, the evenings are easier.

Mary Griffith: The next meeting we will have the annual DUR report draft.

Paul Oesterman, Chair: What is the date of the next meeting?

Carl Jeffery: October 27, 2016.

Paul Oesterman, Chair: We will adjourn the meeting. Thank you.

Meeting adjourned at 6:53PM.

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 1

OMB approved # 0938-0659

## MEDICAID DRUG UTILIZATION REVIEW ANNUAL REPORT

### FEDERAL FISCAL YEAR 2015

Section 1927(g)(3)(D) of the Social Security Act (the Act) requires each State to submit an annual report on the operation of its Medicaid Drug Utilization Review (DUR) program. Such reports are to include: descriptions of the nature and scope of the prospective and retrospective DUR programs; a summary of the interventions used in retrospective DUR and an assessment of the education program; a description of DUR Board activities; and an assessment of the DUR program's impact on quality of care as well as any cost savings generated by the program.

**This report is to cover the period October 1, 2014 to September 30, 2015 and is due for submission to CMS Central Office by no later than September 30, 2016. Answering the attached questions and returning the requested materials as attachments to the report will constitute compliance with the above-mentioned statutory requirement.**

**If you have any questions regarding the DUR annual report, please contact CMS at :  
DURPolicy@cms.hhs.gov**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid O.M.B. control number. The valid O.M.B. control number for this information collection is 0938-0659. The time required to complete this information collection is estimated to average 32 hours per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: CMS, 7500 Security Boulevard, Attn: Paperwork Reduction Act Reports Clearance Officer, Mail Stop C4-26-05, Baltimore, Maryland 21244-1850.

## DUR ANNUAL REPORT

### INSTRUCTIONS:Nomenclature Format for Attachments

States: Please use the standardized format for naming attachments.

**ATT#-FFY-State Abbrev-Abbreviated Report name (NO SPACES!)**

**Example for Arizona: (each state should insert their 2 letter state code)**

Attachments:

**ATT1-2015-AZ-POCCR** (Pharmacy Oral Counseling Compliance Report)  
**ATT2-2015-AZ-REOS** (RetroDUR Educational Outreach Summary)  
**ATT3-2015-AZ-SDBA** (Summary of DUR BD Activities)  
**ATT4-2015-AZ-GDSP** (Generic Drug Substitution Policies)  
**ATT5-2015-AZ-CSCAM** (Cost Savings/Cost Avoidance Methodology)  
**ATT6-2015-AZ-IPN** (Innovative Practices Narrative)  
**ATT7-2015-AZ-EAS** (E-Prescribing Activity Summary)  
**ATT8-2015-AZ-ES** (Executive Summary)

---

---

CMS-R-153 (06/2019)

---

**Please print a copy of this section for your records before clicking "NEXT" button.**

---

Next

0%

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 2

OMB approved # 0938-0659

## MEDICAID DRUG UTILIZATION REVIEW ANNUAL REPORT

FEDERAL FISCAL YEAR 2015

### 1. I. DEMOGRAPHIC INFORMATION

#### I-1. State Name Abbreviation \*

NV

### 2. I-2. MEDICAID AGENCY INFORMATION

**Identify State person responsible for DUR Annual Report preparation.**

#### I-2-1. **Name** \*

Carl Jeffery

#### 3. I-2-2. **Email Address:** \*

carl.jeffery@optum.com

#### 4. I-2-3. **Area Code/Phone Number (number only, no hyphen, example 4107860000)** \*

7757371877

CMS-R-153 (06/2019)

**Please print a copy of this section for your records before clicking "NEXT" button.**

Back Next

8%

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 3

## 5. II. PROSPECTIVE DUR (ProDUR)

II-1. Indicate the type of your pharmacy POS vendor – (Contractor, State-operated, Other).

\*

Contractor

6. If contractor or other, please identify the vendor name or explain. \*

OptumRx

7. II-2. If not State-operated, is the POS vendor also the MMIS Fiscal agent? \*

No

8. II-3. Identify prospective DUR criteria source. \*

Medispan

9. II-4. Are new prospective DUR criteria approved by the DUR Board? \*

No

10. If answer to II-4 above is "No," please explain. \*

Medispan provides the criteria, the DUR Board does not review or approve new criteria.

**11. II-5. When the pharmacist receives a Pro DUR alert message that requires a pharmacist's review, does your system allow the pharmacist to override the alert using the "conflict, intervention and outcome" codes? \***

Yes

**12. II-6. How often do you receive and review periodic reports providing individual pharmacy provider activity in summary and in detail? \***

Quarterly

**13. b) If you receive reports, do you follow-up with those providers who routinely override with interventions? \***

No

**14. If the answer to (b) above is "No," please explain why you do not follow-up with providers. \***

Have not implemented a process yet.

**15. II-7. Early Refill:**

**a) At what percent threshold do you set your system to edit? \***

	Percentage
Non-controlled drugs: *	<input type="text" value="80%"/>
Controlled drugs: *	<input type="text" value="90%"/>

**16. b) When an early refill message occurs, does the State require prior authorization for non-controlled drugs?**

\*

Yes

**17. If answer to (b) above is "Yes," who obtains authorization? \***

Either

**18. c) When an early refill message occurs, does the State require prior authorization for controlled drugs? \***

Yes

**19. If answer to (c) above is "Yes," who obtains authorization? \***

Either

**20. II-8. When the pharmacist receives an early refill DUR alert message that requires the pharmacist's review, does your state's policy allow the pharmacist to override for situations such as: \***

	Select
a) Lost/stolen Rx *	No <input type="button" value="v"/>
b) Vacation *	No <input type="button" value="v"/>
c) Other *	No <input type="button" value="v"/>

**21. If answer to II-8 above is " Other," please provide details.**

**22. II-9. Does your system have an accumulation edit to prevent patients from continuously filling prescriptions early? \***

No

23. b) If answer to II-9 above is "No," do you plan to implement this edit? \*

No

24. II-10. Does the state or the state's Board of Pharmacy have any policy prohibiting the auto-refill process that occurs at the POS?

No

25. II-11. Has the state provided DUR data requested on Table 1 – Top 10 Drug Claims Data reviewed by the DUR Board? \*

Yes

**26. TABLE 1 – TOP DRUG CLAIMS DATA REVIEWED BY THE DUR BOARD**

List the requested data in each category in the chart below.

Column 1- Top 10 Prior Authorization (PA) Requests by Drug Name

Column 2- Top 10 PA Requests by Drug Class

Column 3- Top 5 Claim Denial Reasons other than eligibility (i.e. Quantity Limits, Early Refill, PA, Therapeutic Duplications, Age Edits)

Column 4- Top 10 Drug Names by Amount Paid

Column 5- From Data in column 4, Determine the Percentage of Total Drug Spend

Column 6- Top 10 Drug Names by Claim Count

Column 7- From Data in Column 6, Determine the Percentage of Total Claims

	Top 10 PA Requests By Drug Name	Top 10 PA Requests By Drug Class	Top 5 Claim Denial Reasons (i.e. QL, Early Refill, PA, Duplication)	Top 10 Drug Names by Amount Paid	% of Total Spent for Drugs by Amount Paid	Top 10 Drug Names by Claim Count	Drugs By Claim Count % of Total Claims
1	AMPHET/	ADHD/AN	PRIOR AU	ADVATE	7	HYDROC	4
2	OMEPRA	ANTIDEPI	PDL	HARVONI	7	LISINOPF	2
3	LIDEXAL	ANTIDEP	CRITERIA	ADILEV	6	CARAFEN	2

	Top 10 PA Requests By Drug Name	Top 10 PA Requests By Drug Class	Top 5 Claim Denial Reasons (i.e. QL, Early Refill, PA, Duplication)	Top 10 Drug Names by Amount Paid	% of Total Spent for Drugs by Amount Paid	Top 10 Drug Names by Claim Count	Drugs By Claim Count % of Total Claims
4	AMPHET/	ANTICON	ADMINIS1	SOVALDI	3	ALPRAZC	2
5	ARIPIPR/	ULCER D	QUANTIT	KOATE-D	2	IBUPROF	2
6	DULOXE1	ANALGES		LATUDA	2	OXYCOD	2
7	GUANFAC	ANTIAXI		INVEGA S	2	PROAIR F	2
8	ESOMEPI	ANTIASTI		NEXIUM	1	AMOXICII	1
9	RISPERIC	DIAGNOS		ADVAIR C	1	LEVOTHY	1
10	METHYLF	DERMATC		SEROQUI	1	AMLODIP	1

**27. II-12. Section 1927(g)(A) of the Social Security Act requires that the pharmacist offer patient counseling at the time of dispensing. Who in your state has responsibility for monitoring compliance with the oral counseling requirement? Check all that apply. \***

- a) Medicaid agency
- b) State Board of Pharmacy
- c) Other- please explain

**28. II-13. Has the state included Attachment 1 – Pharmacy Oral Counseling Compliance Report, a report on state efforts to monitor pharmacy compliance with the oral counseling requirement? \***

Yes

**29. ATTACHMENT 1 - PHARMACY ORAL COUNSELING COMPLIANCE REPORT**

This attachment reports the monitoring of pharmacy compliance with all prospective DUR requirements performed by the State Medicaid agency, the State Board of Pharmacy, or other entity responsible for monitoring pharmacy activities. If the State Medicaid agency itself monitors compliance with these requirements, it may provide a survey of a random sample of pharmacies with regard to compliance with the Omnibus Budget Reduction Act (OBRA) of 1990 prospective DUR requirement. This report details State efforts to monitor pharmacy compliance with the oral

**counseling requirement. This attachment should describe in detail the monitoring efforts that were performed and how effective these efforts were in the fiscal year reported. State ATT#-FFY-State Abbrev-Abbreviated Report name (NO SPACES!) Example for Arizona: (each state should insert their State code) ATT1-2015-AZ-POCCR \***

File: ATT1-2015-NV-POCCR.docx

Browse...

---

CMS-R-153 (06/2019)

---

**Please print a copy of this section for your records before clicking "NEXT" button.**

---

Back

Next

85%

**FFY 2015  
Nevada Medicaid**

**Attachment 1: Pharmacy Oral Counseling Compliance Report**

The State of Nevada Medicaid Program relies on the State Board of Pharmacy to audit pharmacist compliance with the oral counseling requirement. The Nevada State Board of Pharmacy includes adherence with counseling requirements as part of each annual pharmacy inspection. In addition, during any investigation of an incident or patient complaint, counseling records are checked by the inspector.

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 4

OMB approved#: 0938-0659

## 30. III. RETROSPECTIVE DUR (RetroDUR)

**III-1. Identify, by name and type, the vendor that performed your retrospective DUR activities during the time period covered by this report. (company, academic institution or other organization) \***

Academic institution

## 31. Organization Name \*

Univeristy of Mass

**32. III-1. a) Is the retrospective DUR vendor also the Medicaid fiscal agent? \***

No

**33. III-1. b) Is this retrospective DUR vendor also the developer/supplier of your retrospective DUR Criteria? \***

Yes

**34. III-2. Does the DUR Board approve the retrospective DUR criteria? \***

No

**35. If answer to III-2 above is "No," please explain. \***

The DUR Board offers topics and reviews results, but does not approve before letters are sent.

36. III-3. Has the state included Attachment 2 - Retrospective DUR Educational Outreach Summary, a year end summary of the Top 10 problem types for which educational interventions were taken? \*

Yes



37. ATTACHMENT 2 – RETROSPECTIVE EDUCATIONAL OUTREACH SUMMARY This is a year-end summary report on RetroDUR screening and educational interventions. The year-end summary reports should be limited to the TOP 10 problem with the largest number of exceptions. The results of RetroDUR screening and interventions should be included. State ATT#-FFY-State Abbrev-Abbreviated Report name (NO SPACES!) Example for Arizona: (each state should insert their State code) ATT2-2015-AZ-REOS \*

File: ATT2-2015-NV-REOS.xlsx

Browse...

CMS-R-153 (06/2019)

Please print a copy of this section for your records before clicking "NEXT" button.

Back

Next

85%

Profile Cycle Month/Year	Number of Letters to Providers for Interventions	Letters to Pharmacies for Interventions	Number of Responses	% of Responses	Insufficient Dose
October 2014	100		0	0%	
November 2014				#DIV/0!	
December 2014				#DIV/0!	
January 2015				#DIV/0!	
February 2015				#DIV/0!	
March 2015	30		1	3%	
April 2015				#DIV/0!	
May 2015				#DIV/0!	
June 2015				#DIV/0!	
July 2015	6921		1094	16%	
August 2015				#DIV/0!	
September 2015				#DIV/0!	
<b>Total</b>	<b>7051</b>	<b>0</b>	<b>1095</b>	<b>#DIV/0!</b>	<b>0</b>

Month Reviewed	RetroDUR Intervention Topic
10/2014	Atypical Antipsychotic use in pediatrics
3/15	Clopidogrel/morphine combination
7/15	Benzodiazepine with Opioid combination

**Criteria Interventions**

Drug/Drug Interaction	Incorrect Duration	Drug/Disease Contraindication	Over Utilization	Therapeutic Duplication	Under Utilization	Appropriate Use of Generics
			X			
X						
X						
0	0	0	0	0	0	0

--

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 5

OMB approved#: 0938-0659

## 38. IV. DUR BOARD ACTIVITY

**IV-1. State is including a summary report of DUR Board activities and meeting minutes during the time period covered by this report as Attachment 3 - Summary of DUR Board Activities. \***

Yes



## 39. ATTACHMENT 3 - SUMMARY OF DUR BOARD ACTIVITIES

This summary should be a brief descriptive report on DUR Board activities during the fiscal year reported. This summary should:

- \* Indicate the number of DUR Board meetings held.
- \* List additions/deletions to DUR Board approved criteria.
  - a. For prospective DUR, list problem type/drug combinations added or deleted.
  - b. For retrospective DUR, list therapeutic categories added or deleted.
- \* Describe Board policies that establish whether and how results of prospective DUR screening are used to adjust retrospective DUR screens. Also, describe policies that establish whether and how results of retrospective DUR screening are used to adjust prospective DUR screens.
- \* Describe DUR Board involvement in the DUR education program. (e.g., newsletters, continuing education, etc.) Also, describe policies adopted to determine mix of patient or provider specific intervention types (e.g., letters, face to face visits, increased monitoring). ATT#-FFY-State Abbrev-Abbreviated Report name (NO SPACES!) Example for Arizona: (each state should insert their State code) ATT3-2015-AZ-SDBA \*

File: ATT3-2015-NV-SDBA.docx

Browse...

## 40. IV-2. Does your State have a Disease Management Program? \*

No

**41. IV-3. Does your State have an approved CMS Medication Therapy Management Program? \***

No

**42. If answer to IV-3 above is "No," are you planning to develop and implement a program? \***

No

CMS-R-153 (06/2019)

**Please print a copy of this section for your records before clicking "NEXT" button.**

Back

Next

85%

## **FFY 2015**

### **Nevada Medicaid**

#### **Attachment 3 – Summary of Drug Use Review Board Activities**

In FFY 2015, the Drug Use Review Board held three regular meetings, on January 22, 2015, April 23, 2015 and September 3, 2015.

The summary of the actions taken by the board are detailed below.

#### January 22, 2015

- Presentation on Nevada's Prescription Drug Monitoring Program.
- Hepatitis C medication utilization and prior authorization criteria updated.
- Oxycodone with acetaminophen CR utilization and prior authorization criteria adopted.
- Oral anticoagulants – update of current criteria.
- Immunomodulator class of medications, review utilization and update existing prior authorization criteria.
- Transdermal fentanyl, review utilization and discuss changes to prior authorization criteria.
- Palivizumab criteria updated and confirmed for the next season.
- Top 10 Black Box warning medications reported for monitoring.
- Controlled substance utilization and trends reviewed.
- Report on psychotropic utilization in children discussion.
- Report on buprenorphine and buprenorphine/naloxone use and availability to members.
- Review of Nevada's Lock-in Program rules.
- Review of medications used for the treatment of asthma.
- Review of Tussionex utilization.

#### April 23, 2015

- Presentation of Nevada's Health Care Guidance Program
- Discussion on Psychotropics for Children and Adolescents prior authorization process and policy.
- Naltrexone prior authorization criteria discussion.
- Hepatitis C medication utilization and prior authorization criteria updated to include new agents.
- New prior authorization criteria for Sodium Oxybate adopted.
- Updated prior authorization criteria for omalizumab adopted.
- New prior authorization criteria added for naproxen/esomeprazole combination and delayed-release prednisone.
- New quantity limits added for extended release hydrocodone.
- Review of utilization on diabetic patient compliance with blood glucose testing
- Review of utilization of guaifenesin with codeine

#### May 2015

- DUR Board members participated in the National Governor's Association Nevada Drug Policy Academy Statewide Workshop. This workshop focused on prescription drug abuse with discussions on mandatory usage of the PDMP for prescribers, increasing access to emergency naloxone, and Good Samaritan legislation in the cases of drug overdoses among many other topics.

DUR Board members participated in a Children's Psychotropic Workshop. This workshop focused on increasing communication among prescribers, the clinical call center, pharmacies and recipients, and recommended increased utilization of the fiscal agent's website for education materials

- September 3, 2015
- Discussion of prior authorization requirements for psychotropics for children.
- Discussion of changes to the Lock-in program
- Updated prior authorization criteria for Ivacaftor adopted.
- Updated prior authorization criteria for agents used to treat onychomycosis.
- Updated prior authorization and quantity limits for sedative/hypnotic medications
- Adopted new prior authorization criteria for the utilization of Ivabradine

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 6

OMB approved#: 0938-0659

## 43. V. PHYSICIAN ADMINISTERED DRUGS

The Deficit Reduction Act requires collection of NDC numbers for covered outpatient physician administered drugs. These drugs are paid through the physician and hospital programs. Has your MMIS been designed to incorporate this data into your DUR criteria for

V-1. Prospective DUR? \*

No



44. If "No" to V-1 above, do you have a plan to include this information in your DUR criteria in the future? \*

Yes



45. V-2. Retrospective DUR? \*

Yes



CMS-R-153 (06/2019)

Please print a copy of this section for your records before clicking "NEXT" button.

Back

Next

85%

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 7

OMB approved#: 0938-0659

## 46. VI. GENERIC POLICY AND UTILIZATION DATA

**VI-1. State is including a description of policies used that may affect generic utilization percentage as Attachment 4 - Generic Drug Substitution Policies. \***

Yes



## 47. ATTACHMENT 4 – GENERIC DRUG SUBSTITUTION POLICIES

**Please report any factors that could affect your generic utilization percentage and include any relevant documentation. ATT#-FFY-State Abbrev-Abbreviated Report name (NO SPACES!) Example for Arizona: (each state should insert their State code) ATT4-2015-AZ-GDSP**

File: ATT4-2015-NV-GDSP.docx

Browse...

**48. VI-2. In addition to the requirement that the prescriber write in his/her own handwriting "Brand Medically Necessary" for a brand name drug to be dispensed in lieu of the generic equivalent, does your state have a more restrictive requirement? \***

Yes



**49. If "Yes" to VI-2 above, check all that apply. \***

- a) Require that a MedWatch Form be submitted
- b) Require medical reason for override accompany prescription
- c) Prior authorization is required
- d) Other – please explain

**50. To answer questions VI-3 and VI-4 below use TABLE 2 – GENERIC UTILIZATION DATA**

Please provide the following utilization data for this DUR reporting period for all covered outpatient drugs paid. Exclude Third Party Liability.  
(COMPLETE TABLE2)

Computation Instructions:

1. **Generic Utilization Percentage:** To determine the generic utilization percentage of all covered outpatient drugs paid during this reporting period, use the following formula:

$$N \div (S + N + I) \times 100 = \text{Generic Utilization Percentage}$$

2. **Generic Expenditures Percentage of Total Drug Expenditures:** To determine the generic expenditure percentage (rounded to the nearest \$1000) for all covered outpatient drugs for this reporting period use the following formula:

$$\$N \div (\$S + \$N + \$I) \times 100 = \text{Generic Expenditure Percentage}$$

CMS has developed an extract file from the Medicaid Drug Rebate Program Drug Product Data File identifying each NDC along with sourcing status of each drug: S, N, or I (see Key below), which can be found at <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Prescription-Drugs/Drug-Utilization-Review.html> (Click on the link "an NDC and Drug Category file [ZIP]," then open the Medicaid Drug Product File 4th Qtr 2015 Excel file). This file will be made available from CMS to facilitate consistent reporting across States with this data request.

**KEY:**

Single-Source (S) - Drugs that have an FDA New Drug Application (NDA) approval for which there are no generic alternatives available on the market.

Non-Innovator Multiple-Source (N) - Drugs that have an FDA Abbreviated New Drug Application (ANDA) approval and for which there exists generic alternatives on the market.

Innovator Multiple-Source (I) - Drugs which have an NDA and no longer have patent exclusivity.

\*

	Single-Source (S) Drugs	Non-Innovator (N) Drugs	Innovator Multi-Source (I)Drugs
Total Number of Claims	277,024	67,242	1,593,684
Total Reimbursement Amount Less Co-Pay	\$156,865	\$31,162,8	\$41,400,1

51. VI-3. Indicate the generic utilization percentage for all covered outpatient drugs paid during this reporting period, using the computation instructions in Table 2 - Generic Drug Utilization Data.

Number of Generic Claims \*

**52. Total Number of claims \*****53. Generic Utilization Percentage \***

**54. VI-4. Indicate the percentage dollars paid for generic covered outpatient drugs in relation to all covered outpatient drug claims paid during this reporting period using the computation instructions in Table 2 – Generic Drug Utilization Data.**

**Generic Dollars \*****55. Total Dollars \*****56. Generic Expenditure Percentage \***

---

CMS-R-153 (06/2019)

---

**Please print a copy of this section for your records before clicking "NEXT" button.**

---

**FFY 2015**

**Nevada Medicaid**

**Attachment 4: Generic Drug Substitution Policies**

The Nevada Statute NRS 639.2583 requires that if a practitioner has prescribed a drug by brand name and the practitioner has not indicated that a substitution is prohibited, the pharmacist who fills or refills the prescription shall dispense, in substitution, another drug which is available to him or her if the other drug is a) less expensive than the drug prescribed by brand name; b) is biologically equivalent to the drug prescribed by brand name; c) has the same active ingredient or ingredients of the same strength, quantity and form of dosage as the drug prescribed by brand name; and d) is of the same generic type as the drug prescribed by brand name. If the pharmacist has available to him or her more than one drug that may be substituted for the drug prescribed by brand name, the pharmacist shall dispense, in substitution, the least expensive of the drugs that are available to him or her for substitution. Before a pharmacist dispenses a drug in substitution for a drug prescribed by brand name, the pharmacist shall: a) advise the person who presents the prescription that the pharmacist intends to dispense a drug in substitution; and b) advise the person that he or she may refuse to accept the drug that the pharmacist intends to dispense in substitution, unless the pharmacist is being paid for the drug by a governmental agency. If a person refuses to accept the drug that the pharmacist intends to dispense in substitution, the pharmacist shall dispense the drug prescribed by brand name, unless the pharmacist is being paid for the drug by a governmental agency, in which case the pharmacist shall dispense the drug in substitution.

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 8

OMB approved#: 0938-0659

## 57. VII. PROGRAM EVALUATION/COST SAVINGS/COST AVOIDANCE

**VII-1. Did your State conduct a DUR program evaluation of the estimated cost savings/cost avoidance? \***

Yes

**58. VII-2. Who conducted your program evaluation for the cost savings estimate/cost avoidance? (company, academic institution, other institution) \***

Company

**59. Organization Name to VII-2 \***

OptumRx

**60. VII-3. Please provide your ProDUR and RetroDUR program cost savings/cost avoidance in the chart below. \***

	Data
ProDUR Total Estimated Avoided Costs *	113,773,8
RetroDUR Total Estimated Avoided Costs *	n/a
Other cost avoidance *	n/a
Grand Total estimated Avoided Costs *	113,773,8

61. VII-4. Please provide the estimated percent impact of your state's cost savings/cost avoidance program compared to total drug expenditures for covered outpatient drugs.

Use the following formula:

Divide the estimated Grand Total Estimated Avoided Costs from Question 3 above by the total dollar amount provided in Section VI, Question 4. Then multiply this number by 100.

Grand Estimated Net Savings Amount / Total Dollar Amount \* 100 = \*

62. VII-5. State is providing the Medicaid Cost Savings/Cost Avoidance Evaluation as Attachment 5 – Cost Savings/Cost Avoidance Methodology. \*



63. ATTACHMENT 5 - COST SAVINGS/COST AVOIDANCE METHODOLOGY Include copies of Cost Savings/Cost Avoidance evaluation prepared by State or its contractor noting the methodology used. ATT#--FFY-State Abbrev-Abbreviated Report name (NO SPACES!) Example for Arizona: (each state should insert their State code) ATT5-2015-AZ-CSCAM \*

CMS-R-153 (06/2019)

Please print a copy of this section for your records before clicking "NEXT" button.

**FFY 2015**

**Nevada Medicaid**

**Attachment 5: Cost Savings/Cost Avoidance Methodology**

OptumRx calculates the ProDUR savings by summing the amounts on claims either reversed or denied due to a ProDUR edit. We understand these numbers will be inflated as there is no way to track if the medication was later filled again after consulting with the prescriber or patient, or taken to a different pharmacy. Below is the summary by types ProDUR edits.

<b>Conflict Code</b>	<b>Sum of Total DUR Savings</b>
COMPLIAN	\$ 5,140,298.01
DDI-DTMS	\$ 16,459,431.14
DOSECHEK	\$ 14,959,864.43
DRUG_AGE	\$ 115.17
DUPRX	\$ 25,276,849.19
DUPTHER	\$ 38,720,606.73
TOO SOON	\$ 13,216,693.84
<b>Grand Total</b>	<b>\$ 113,773,858.51</b>

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 9

OMB approved#: 0938-0659

## 64. VIII. FRAUD, WASTE AND ABUSE DETECTION

### VIII A. LOCK-IN or PATIENT REVIEW AND RESTRICTIVE PROGRAMS

**VIII-A1. Do you have a documented process in place that identifies potential fraud or abuse of controlled drugs by beneficiaries? \***

Yes

**65. If "Yes" to VIII-A1 above, what action(s) does this process initiate? Check all that apply. \***

- a. Deny claims and require prior authorization
- b. Refer to lock-in program
- c. Refer to Program Integrity Unit
- d. Other (eg.SURS,Office of Inspector General), please explain.

**66. VIII-A2. Do you have to a "lock-in" program for beneficiaries who misuse or abuse controlled substances? \***

Yes

**67. If answer to VIII-A2 above is "Yes," what criteria does your state use to identify candidates for lock-in? Check all that apply. \***

- Number of controlled substances (CS)
- Different prescribers of CS
- Multiple pharmacies
- Number days' supply of CS
- Exclusivity of short-acting opioids

N Multiple ER visits

8 Other

---

**68. If answer to VIII-A2 above is "Yes" do you restrict the beneficiary to: \***

Pharmacy only

---

**69. If answer to VIII-A2 above is "Yes," what is the usual "lock-in" time period? \***

Other

---

**70. If answer to above is "Other," please explain. \***

Indefinite, we do not have a process  
for review to remove from lock-in.

---

**71. VIII-A3. On the average, what percentage of the FFS population is in lock-in status annually? \***

0.54%

---

**72. VIII-A4. Please provide an estimate of the savings attributed to the lock-in program for the fiscal year under review. \***

3666631

---

**73. VIII-A5. Do you have a documented process in place that identifies possible fraud or abuse of controlled drugs by prescribers? \***

No

---

**74. VIII-A6. Do you have a documented process in place that identifies potential fraud or abuse of controlled drugs by pharmacy providers? \***

No

---

75. VIII-A7. Do you have a documented process in place that identifies potential fraud or abuse of non-controlled drugs by beneficiaries? \*

No

76. VIII B. PRESCRIPTION DRUG MONITORING PROGRAM (PDMP)

VIII-B1. Does your state have a Prescription Drug Monitoring Program (PDMP)? \*

Yes

77. If answer to VIII-B1 above is "Yes," does your agency have the ability to query the state's PDMP database? \*

Yes

78. If answer to VIII-B1 above is "Yes," do you require prescribers (in your provider agreement with the agency) to access the PDMP patient history before prescribing restricted substances? \*

No

79. If answer to VIII-B1 above is "Yes," please explain how the state applies this information to control fraud and abuse. \*

The State Board of Pharmacy has this requirement.

80. If answer to VIII-B1 above is "Yes," do you also have access to border states' PDMP information? \*

No

81. VIII-B2. Are there barriers that hinder the agency from fully accessing the PDMP that prevent the program from being utilized the way it was intended to be to curb abuse? \*

Yes

**82. If answer to VIII-B2 above is "Yes," please explain the barriers (eg. lag time in prescription data being submitted, prescribers not accessing, pharmacists unable to view prescription history before filling script). \***

Only the State staff have access to the data, contractors for the State are not allowed to access the PMP unless they have responsibility for direct patient care. Unable to query by prescriber.

**83. VIII-B3. Have you had any changes to your state's Prescription Drug Monitoring Program during this reporting period that have improved the agency's ability to access PDMP data? \***

Yes

**If answer to VIII-B3 above is "Yes," please explain. \***

They system has improved in response time making queries faster.

**84. VIII C. Pain Management Controls**

**VIII-C1. Does your state or your agency require that Pain Management providers be certified? \***

No

**85. VIII-C2. Does your program obtain the DEA Active Controlled Substance Registrant's File in order to identify prescribers not authorized to prescribe controlled drugs? \***

No

**86. If answer to VIII-C2 above is "No," do you plan to obtain the DEA Active Controlled Substance Registrant's file and apply it to your POS edits? \***

No

**87. VIII-C3. Do you apply this DEA file to your RetroDUR reviews? \***



---

**88. VIII-C4. Do you have measures in place to either monitor or manage the prescribing of methadone for pain management? \***



**89.**

If answer to VIII-C4 above is either “No” or “Other,” please explain what you do in lieu of the above or why you do not have measures in place to either manage or monitor the prescribing of methadone for pain management.

\*

Methadone is non-preferred on our PDL. We are looking at ways to better control it's use.



---

**90. VIII D. OPIOIDS**

**VIII-D1. Do you currently have POS edits in place to limit the quantity of short-acting opioids? \***



**91. VIII-D2. Do you currently have POS edits in place to limit the quantity of long-acting opioids? \***



**92. a) If answer to VIII-D2 above is “Yes,” what is your maximum daily limit in terms of numbers of units (i.e. tablets, capsules)?**

\*

c 2 units/day

b 3 units/day

---

**93. b) If answer to VIII-D2 above is “Yes,” what is your maximum days supply per prescription limitation? \***

30 day supply

**94. VIII-D3. Do you currently have edits in place to monitor opioids and benzodiazepines being used concurrently? \***

No

**95. VIII E. MORPHINE EQUIVALENT DAILY DOSE (MEDD)**

**VIII-E1. Have you set recommended maximum morphine equivalent daily dose measures? \***

No

**96. If answer to VIII-E1 above is "No," please explain the measure or program you utilize. \***

The DUR Board reviews utilization of these products at nearly all quarterly meetings.

**97. VIII-E2. Do you provide information to your prescribers on how to calculate the morphine equivalent daily dosage? \***

No

**98. VIII-E3. Do you have an algorithm in your POS system that alerts the pharmacy provider that the morphine equivalent daily dose prescribed has been exceeded? \***

No

**99. VIII F. BUPRENORPHINE and BUPRENORPHINE/NALOXONE COMBINATIONS**

**VIII-F1. Does your agency set total mg/ day limits on the use of buprenorphine and buprenorphine/naloxone combination drugs?**

\*

Yes

**100. If answer to VIII-F1 above is "Yes," please specify the total mg/day? \***



101. VIII-F2. What are your limitations on the allowable length of this treatment? \*



102. VIII-F3. Do you require that the maximum mg per day allowable be reduced after a set period of time? \*



103. VIII-F4. Do you have at least one preferred buprenorphine/naloxone combination product available on your PDL? \*



104. VIII-F5. Do you currently have edits in place to monitor opioids being used concurrently with any buprenorphine drug? \*



105. VIII G. ANTIPSYCHOTICS /STIMULANTS

VIII G1. ANTIPSYCHOTICS

VIII-G1-1. Do you have a documented program in place to either manage or monitor the appropriate use of antipsychotic drugs in children? \*



106. a) If answer to VIII-G1-1 above is "Yes," do you either manage or monitor:

\*



107. b) If answer to VIII-G1-1 above is "Yes," do you have edits in place to monitor? Check all that apply.

\*

8 Child's Age

N Dosage

8 Polypharmacy

**108. c) Please briefly explain the specifics of your antipsychotic monitoring program(s).**

\*

Children age 7 to 17 are allowed one drug from each class (antidepressant, antianxiety, antipsychotic, anticonvulsant) without PA up to three medications total. The fourth class

**109. d) If you do not have antipsychotic monitoring program, do you plan on implementing a program in the future?**

\*

Yes

**110. VIII-G2. STIMULANTS****VIII-G2-1 Do you have any documented restrictions or special program in place to monitor, manage or control the use of stimulants? \***

Yes

**111. a) If answer to VIII-G2-1 above is "Yes," is your program limited to : \***

both

**112. b) Please briefly explain your program. \***

PA criteria for both adults and children established by the DUR Board.

---

CMS-R-153 (06/2019)

---

**Please print a copy of this section for your records before clicking "NEXT" button.**

---

Back

Next

85%

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 10

OMB approved#: 0938-0659

---

113.

## IX. INNOVATIVE PRACTICES

**Have you developed any innovative practices during the past year which you have included in Attachment 6 - Innovative Practices (e.g. Hepatitis C, Cystic Fibrosis, MEDD, Value Based Purchasing)? \***

No



---

CMS-R-153 (06/2019)

---

**Please print a copy of this section for your records before clicking "NEXT" button.**

---

Back

Next

85%

## FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 11

OMB approved#: 0938-0659

### 114. X. E-PRESCRIBING

**X-1. Does your MMIS or pharmacy vendor have a portal to electronically provide, patient drug history data and pharmacy coverage limitations to a prescriber prior to prescribing, upon inquiry? \***

No



**115. c) If answer to X-1 above is "No," are you planning to develop this capability? \***

Yes



**116. X-2. Does your system use the NCPDP Origin Code that indicates the prescription source? \***

Yes



CMS-R-153 (06/2019)

**Please print a copy of this section for your records before clicking "NEXT" button.**

Back

Next

85%

# FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 12

OMB approved#: 0938-0659

## 117. XI. MANAGED CARE ORGANIZATIONS (MCOs)

### XI-1. Does your state have MCOs?

\*

Yes

### 118. XI-2. Is your pharmacy program included in the capitation rate (carved-in)? \*

Yes

### 119. XI-3. Does the state set requirements for the MCO's pharmacy benefit? (e.g. same PDL, same ProDUR/Retro DUR)? \*

No

### 120. If answer to XI-3 above is "No," do you plan to set standard in the future? \*

Yes

### 121. XI-4. Does the state require the MCOs to report their DUR activities? \*

No

### 122. b) If answer to XI-4 above is "No," do you plan to develop a program to have MCOs report their DUR activities in the future? \*

Yes

**123. XI-5. Does all of the Medicaid MCOs in your state have a targeted intervention program (i.e. CMC/ Lock In) for the misuse or abuse of controlled substances? \***

Yes

---

CMS-R-153 (06/2019)

---

**Please print a copy of this section for your records before clicking "NEXT" button.**

Back

Next

85%

## FFY 2015 Medicaid Drug Utilization Review Annual Report

Page 13

OMB approved#: 0938-0659

---

### 124. XII. EXECUTIVE SUMMARY - Attachment 8 - Executive Summary

**ATT8-FFY-State Abbrev-Abbreviated Report name (NO SPACES!) Example for Arizona: (each state should insert their State code) ATT8-2015-AZ-ES \***

File: ATT8-2015-NV-ES.docx

Browse...

---

CMS-R-153 (06/2019)

---

**Please review report for accuracy and print a copy of report for your records before clicking "SUBMIT" button.**

---

Back

Submit

92%

## **FFY 2015**

### **Nevada Medicaid**

#### **Attachment 8: Executive Summary**

The Nevada Medicaid Drug Utilization Review (DUR) Board serves in an advisory role for the Division of Health Care Financing and Policy (DHCFP). The DUR Board develops and maintains the prior authorization criteria for Nevada Medicaid's Medicaid Service Manual (MSM) Chapter 1200 – Prescribed Drugs. The DUR Board considers medical necessity, safety and well as abuse potential when making their recommendations for prior authorization criteria. MSM Chapter 1200 defines policy for drug coverage, restrictions, prior authorizations and exclusions.

The DUR Board currently is comprised of three physicians (2 pain specialists, and 1 family practice physician) and three pharmacists (2 hospital pharmacists and 1 long term care pharmacist) from various backgrounds and locations around the State of Nevada. Other non-voting members who contribute to Board discussions include employees from DHCFP, a Deputy Attorney General and representatives from the contractors for MMIS and PBM services. The public is welcome to provide testimony to the board before they vote on topics.

Clinical reviews and proposed prior authorization criteria for the Board are supplied by Clinical Pharmacy Services, associated with the University of Massachusetts. Additional input is provided by pharmaceutical manufacturers, members of the public and the DUR Boards unique experiences and research.

Two of the focus areas for 2015 were psychotropic drug criteria for children and adolescents and prescription opiate overuse.

Specific areas for psychotropics for children and adolescents was defining polypharmacy and including specific polypharmacy in prior authorization criteria.

Prescription opiate overuse is an ongoing process with initiating quantity limitations, prior authorization criteria, and prescriber education while ensuring the health and safety of recipients.

All DUR Board meeting information is posted on the fiscal agent's website for the public before each meeting. This includes all clinical drug reviews, meeting materials and proposed criteria.

## FFY 2015 Medicaid Drug Utilization Review Annual Report

Thank you for completing this survey.

This is your confirmation that your survey has been successfully submitted.

Please print a copy of this page and keep it with a copy of your report.

---

100%

**Opioid Utilization - Top 20 Members  
October 1, 2015 - September 30, 2016**

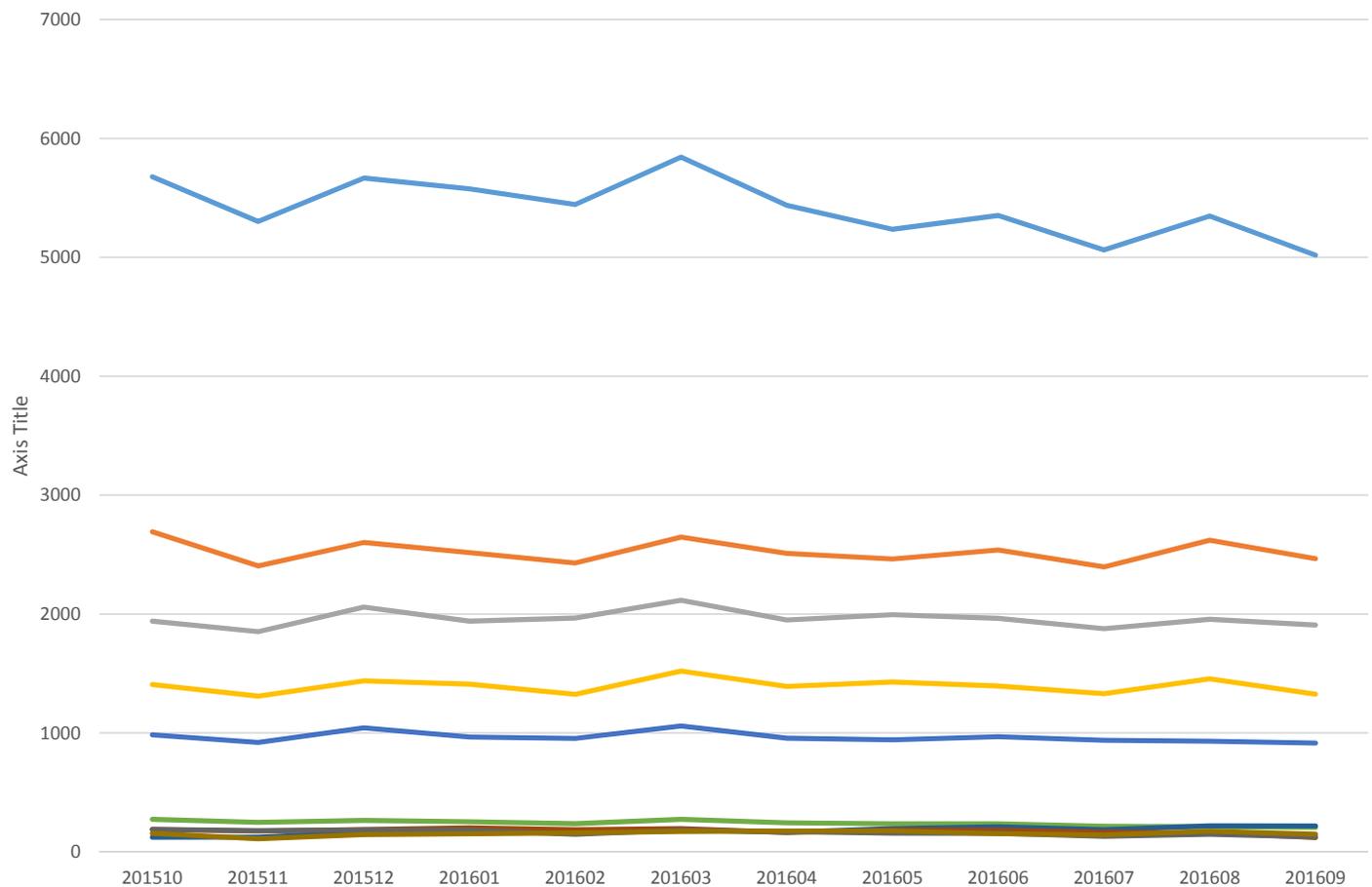
Encrypted ID	Product Name	Qty Long	Qty Short	Grand Total
90209455556		15,120	30	15,150
	HYDROCODONE/ACETAMINOPHEN		30	30
	METHADONE HCL	15,120		15,120
15466833334		6,720	1,680	8,400
	METHADONE HCL	6,240		6,240
	OXYCODONE HCL		1,680	1,680
	OXYCODONE HCL ER	420		420
	OXYCONTIN	60		60
11110100737		6,817	1,200	8,017
	HYDROCODONE/ACETAMINOPHEN		840	840
	METHADONE HCL	6,127		6,127
	MORPHINE SULFATE ER	690		690
	OXYCODONE HCL		120	120
	OXYCODONE/ACETAMINOPHEN		240	240
66666846275		3,510	3,630	7,140
	HYDROCODONE/ACETAMINOPHEN		3,630	3,630
	METHADONE HCL	3,510		3,510
27483344445		780	6,300	7,080
	ENDOCET		180	180
	MORPHINE SULFATE		2,640	2,640
	MORPHINE SULFATE ER	540		540
	NUCYNTA ER	240		240
	OXYCODONE/ACETAMINOPHEN		1,980	1,980
	TRAMADOL HCL		1,380	1,380
	TRAMADOL HYDROCHLORIDE/AC		120	120

Encrypted ID	Product Name	Qty Long	Qty Short	Grand Total
04346000003		6,840		6,840
	METHADONE HCL	5,760		5,760
	MORPHINE SULFATE ER	1,080		1,080
00000086592			6,660	6,660
	HYDROMORPHONE HCL		3,420	3,420
	OXYCODONE HCL		3,240	3,240
44448546720			6,630	6,630
	HYDROCODONE/ACETAMINOPHEN		1,950	1,950
	OXYCODONE HCL		4,680	4,680
56292500001			6,360	6,360
	ACETAMINOPHEN/CODEINE		3,240	3,240
	ACETAMINOPHEN/CODEINE #4		360	360
	BUTALBITAL/ASPIRIN/CAFFEI		240	240
	HYDROCODONE/IBUPROFEN		2,520	2,520
99990064039		3,630	2,640	6,270
	METHADONE HCL	3,360		3,360
	OXYCODONE HCL		2,640	2,640
	OXYCODONE HCL ER	270		270
44446484875		4,500	1,440	5,940
	METHADONE HCL	4,500		4,500
	OXYCODONE/ACETAMINOPHEN		1,440	1,440
11119297885		250	5,665	5,915
	FENTANYL	10		10
	HYDROCODONE/ACETAMINOPHEN		30	30
	HYDROMORPHONE HCL		30	30
	MORPHINE SULFATE ER	240		240
	OXYCODONE HCL		5,605	5,605

Encrypted ID	Product Name	Qty Long	Qty Short	Grand Total
99999925809		4,320	1,560	5,880
	METHADONE HCL	4,320		4,320
	OXYCODONE HCL		1,560	1,560
11111238374		4,320	1,440	5,760
	METHADONE HCL	4,320		4,320
	OXYCODONE/ACETAMINOPHEN		1,440	1,440
99992951654		3,510	1,950	5,460
	METHADONE HCL	3,510		3,510
	OXYCODONE/ACETAMINOPHEN		1,950	1,950
55202899990		4,320	1,140	5,460
	HYDROMORPHONE HCL		60	60
	METHADONE HCL	4,320		4,320
	OXYCODONE HCL		1,080	1,080
44448489229		2,340	2,985	5,325
	METHADONE HCL	2,340		2,340
	OXYCODONE HCL		1,425	1,425
	OXYCODONE/ACETAMINOPHEN		1,560	1,560
93471899990		3,720	1,560	5,280
	METHADONE HCL	3,720		3,720
	OXYCODONE HCL		1,560	1,560
33330458115		1,170	3,998	5,168
	MORPHINE SULFATE ER	1,170		1,170
	OXYCODONE HCL		3,998	3,998
66661670824			5,160	5,160
	HYDROCODONE/ACETAMINOPHEN		2,880	2,880
	OXYCODONE HCL		2,280	2,280
<b>Grand Total</b>		<b>71,867</b>	<b>62,028</b>	<b>133,895</b>

Sum of Claims

### Top 10 Opioids Trending



Product Name

- HYDROCODONE/ACETAMINOPHEN
- OXYCODONE/ACETAMINOPHEN
- OXYCODONE HCL
- TRAMADOL HCL
- MORPHINE SULFATE ER
- METHADONE HCL
- SUBOXONE
- ACETAMINOPHEN/CODEINE #3
- HYDROMORPHONE HCL
- ACETAMINOPHEN/CODEINE PHO

YearMonth

Top 20 Opioids by Claim Count  
 October 1, 2015 - September 30, 2016

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
<b>HYDROCODONE/ACETAMINOPHEN</b>	<b>59,140</b>	<b>64,963</b>	<b>4,809,499</b>	<b>1,278,255</b>	<b>\$ 1,543,173</b>
201510	5,129	5,678	426,426	112,014	\$ 142,043
201511	4,887	5,301	401,875	105,242	\$ 131,892
201512	5,089	5,667	431,759	113,966	\$ 136,593
201601	5,135	5,576	411,969	108,604	\$ 130,232
201602	5,018	5,444	401,212	106,022	\$ 130,851
201603	5,237	5,843	426,037	112,777	\$ 140,790
201604	5,012	5,438	396,982	105,767	\$ 127,083
201605	4,799	5,236	393,681	104,583	\$ 126,501
201606	4,828	5,352	400,147	106,264	\$ 123,596
201607	4,642	5,062	371,145	100,700	\$ 116,105
201608	4,818	5,347	382,078	103,155	\$ 121,079
201609	4,546	5,019	366,188	99,161	\$ 116,407
<b>OXYCODONE/ACETAMINOPHEN</b>	<b>27,423</b>	<b>30,288</b>	<b>2,469,912</b>	<b>630,053</b>	<b>\$ 1,660,568</b>
201510	2,386	2,692	215,574	53,734	\$ 168,408
201511	2,209	2,405	193,878	49,185	\$ 129,592
201512	2,315	2,602	212,678	54,013	\$ 137,165
201601	2,318	2,516	203,008	51,240	\$ 141,043
201602	2,253	2,430	196,413	50,197	\$ 131,202
201603	2,350	2,647	218,415	55,393	\$ 153,392
201604	2,302	2,511	202,950	52,028	\$ 143,217
201605	2,262	2,463	202,876	52,027	\$ 138,918
201606	2,280	2,539	210,052	53,986	\$ 139,371
201607	2,197	2,396	199,165	51,323	\$ 124,446
201608	2,338	2,621	210,882	54,362	\$ 128,148
201609	2,213	2,466	204,021	52,565	\$ 125,667
<b>OXYCODONE HCL</b>	<b>21,383</b>	<b>23,524</b>	<b>2,583,966</b>	<b>613,661</b>	<b>\$ 908,269</b>
201510	1,730	1,940	212,794	50,243	\$ 92,237
201511	1,719	1,852	203,304	47,968	\$ 68,538
201512	1,823	2,059	229,406	53,706	\$ 77,095
201601	1,799	1,940	214,597	50,295	\$ 76,381

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
201602	1,829	1,966	216,623	51,253	\$ 73,686
201603	1,853	2,116	232,901	55,117	\$ 79,573
201604	1,796	1,951	214,605	51,166	\$ 74,609
201605	1,806	1,995	214,368	51,189	\$ 75,245
201606	1,764	1,964	215,717	51,912	\$ 73,858
201607	1,750	1,877	205,752	49,350	\$ 71,901
201608	1,773	1,956	213,665	51,099	\$ 73,877
201609	1,741	1,908	210,234	50,363	\$ 71,269
<b>TRAMADOL HCL</b>	<b>15,630</b>	<b>16,742</b>	<b>1,208,599</b>	<b>320,396</b>	<b>\$ 185,754</b>
201510	1,302	1,407	102,046	26,961	\$ 12,272
201511	1,235	1,310	94,452	24,537	\$ 14,820
201512	1,319	1,439	107,489	27,846	\$ 16,467
201601	1,336	1,411	101,152	26,540	\$ 15,843
201602	1,254	1,325	96,571	25,258	\$ 15,050
201603	1,413	1,521	111,980	29,348	\$ 17,376
201604	1,311	1,392	100,227	26,469	\$ 15,959
201605	1,329	1,429	99,894	26,279	\$ 15,969
201606	1,299	1,395	98,270	27,011	\$ 15,595
201607	1,233	1,331	96,397	25,823	\$ 15,156
201608	1,364	1,456	104,991	28,787	\$ 16,398
201609	1,235	1,326	95,130	25,537	\$ 14,848
<b>MORPHINE SULFATE ER</b>	<b>10,531</b>	<b>11,580</b>	<b>736,741</b>	<b>333,290</b>	<b>\$ 712,199</b>
201510	901	985	64,102	28,382	\$ 67,017
201511	852	920	59,756	26,479	\$ 58,754
201512	919	1,043	66,972	29,958	\$ 67,708
201601	901	967	62,809	27,927	\$ 63,196
201602	896	954	61,094	27,632	\$ 60,738
201603	931	1,059	66,798	30,281	\$ 66,309
201604	880	956	60,083	27,346	\$ 59,831
201605	861	943	59,580	27,281	\$ 58,287
201606	882	969	61,477	28,085	\$ 57,660
201607	856	938	58,675	26,867	\$ 52,599
201608	835	931	58,005	26,695	\$ 50,481

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
201609	817	915	57,390	26,357	\$ 49,620
<b>METHADONE HCL</b>	<b>2,700</b>	<b>2,900</b>	<b>412,319</b>	<b>81,599</b>	<b>\$ 83,330</b>
201510	255	274	40,319	7,940	\$ 6,889
201511	235	249	36,272	7,052	\$ 7,267
201512	247	264	37,646	7,348	\$ 7,932
201601	242	253	35,420	7,062	\$ 7,220
201602	232	238	34,663	6,761	\$ 7,442
201603	241	274	38,813	7,530	\$ 8,295
201604	232	244	34,606	6,924	\$ 6,983
201605	218	236	34,991	6,640	\$ 7,245
201606	212	236	31,692	6,539	\$ 6,282
201607	197	215	29,562	6,001	\$ 6,210
201608	198	212	30,468	6,044	\$ 6,203
201609	191	205	27,867	5,758	\$ 5,363
<b>SUBOXONE</b>	<b>1,238</b>	<b>2,126</b>	<b>52,071</b>	<b>34,953</b>	<b>\$ 389,357</b>
201510	83	123	3,674	2,217	\$ 26,606
201511	75	125	3,116	1,931	\$ 22,551
201512	92	164	4,091	2,688	\$ 29,566
201601	105	178	4,397	2,800	\$ 32,190
201602	99	154	4,130	2,676	\$ 31,035
201603	106	185	5,048	3,330	\$ 38,054
201604	104	165	4,033	2,668	\$ 30,415
201605	111	196	4,460	2,980	\$ 33,720
201606	119	212	4,753	3,406	\$ 35,907
201607	106	187	4,521	3,125	\$ 34,298
201608	124	219	4,982	3,649	\$ 37,639
201609	114	218	4,866	3,483	\$ 37,375
<b>ACETAMINOPHEN/CODEINE #3</b>	<b>1,990</b>	<b>2,117</b>	<b>69,841</b>	<b>19,694</b>	<b>\$ 28,554</b>
201510	180	188	5,838	1,614	\$ 1,743
201511	169	176	5,782	1,592	\$ 2,321
201512	174	188	6,513	1,767	\$ 2,599
201601	192	202	6,564	1,780	\$ 2,725
201602	172	187	5,822	1,613	\$ 2,440

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
201603	181	196	6,035	1,592	\$ 2,641
201604	158	164	5,200	1,470	\$ 2,269
201605	175	185	6,465	1,817	\$ 2,704
201606	173	183	6,504	1,967	\$ 2,694
201607	153	165	5,505	1,627	\$ 2,367
201608	150	162	5,392	1,597	\$ 2,311
201609	113	121	4,221	1,258	\$ 1,739
<b>HYDOMORPHONE HCL</b>	<b>1,770</b>	<b>1,960</b>	<b>175,157</b>	<b>43,999</b>	<b>\$ 43,945</b>
201510	164	190	16,363	4,091	\$ 4,396
201511	160	179	15,645	3,696	\$ 3,831
201512	163	186	16,723	4,134	\$ 4,215
201601	163	181	15,791	3,981	\$ 4,081
201602	137	149	13,298	3,391	\$ 3,395
201603	167	183	17,433	4,259	\$ 4,247
201604	156	171	15,575	3,927	\$ 3,962
201605	149	158	14,360	3,686	\$ 3,542
201606	137	156	14,366	3,574	\$ 3,543
201607	124	132	12,301	3,153	\$ 2,976
201608	135	149	12,635	3,248	\$ 3,119
201609	115	126	10,667	2,859	\$ 2,639
<b>ACETAMINOPHEN/CODEINE PHO</b>	<b>1,789</b>	<b>1,866</b>	<b>63,694</b>	<b>17,066</b>	<b>\$ 25,953</b>
201510	152	156	4,894	1,283	\$ 1,340
201511	108	110	4,024	1,025	\$ 1,641
201512	140	146	5,455	1,555	\$ 2,172
201601	148	152	5,373	1,466	\$ 2,220
201602	155	160	5,158	1,396	\$ 2,252
201603	163	172	6,037	1,504	\$ 2,494
201604	167	175	6,256	1,791	\$ 2,544
201605	169	177	5,695	1,604	\$ 2,521
201606	142	153	5,211	1,335	\$ 2,190
201607	138	143	4,722	1,361	\$ 2,027
201608	164	174	6,074	1,476	\$ 2,490
201609	143	148	4,795	1,270	\$ 2,061

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
<b>FENTANYL</b>	<b>1,566</b>	<b>1,755</b>	<b>17,429</b>	<b>49,160</b>	<b>\$ 147,034</b>
201510	125	142	1,377	3,905	\$ 15,647
201511	131	146	1,404	3,944	\$ 11,584
201512	128	149	1,477	4,134	\$ 11,577
201601	136	150	1,500	4,249	\$ 12,230
201602	133	144	1,441	3,996	\$ 12,019
201603	146	168	1,719	4,712	\$ 14,257
201604	133	150	1,491	4,184	\$ 12,620
201605	128	143	1,439	4,098	\$ 11,601
201606	137	152	1,547	4,383	\$ 12,472
201607	130	141	1,400	4,004	\$ 11,156
201608	123	140	1,357	3,904	\$ 10,870
201609	116	130	1,277	3,647	\$ 11,002
<b>MORPHINE SULFATE</b>	<b>1,435</b>	<b>1,579</b>	<b>154,246</b>	<b>40,932</b>	<b>\$ 47,363</b>
201510	124	139	13,109	3,751	\$ 3,038
201511	111	120	11,495	3,060	\$ 2,793
201512	133	154	14,826	3,853	\$ 3,901
201601	124	133	12,528	3,432	\$ 3,468
201602	117	125	11,502	3,281	\$ 3,813
201603	123	138	12,131	3,578	\$ 4,464
201604	119	130	12,128	3,248	\$ 4,157
201605	121	132	12,981	3,435	\$ 4,351
201606	128	139	14,465	3,656	\$ 4,666
201607	114	125	12,594	3,297	\$ 4,227
201608	116	128	14,338	3,272	\$ 4,479
201609	105	116	12,149	3,069	\$ 4,007
<b>ACETAMINOPHEN/CODEINE</b>	<b>1,308</b>	<b>1,399</b>	<b>171,745</b>	<b>17,176</b>	<b>\$ 23,939</b>
201510	128	139	16,609	1,606	\$ 1,715
201511	106	115	15,410	1,285	\$ 1,903
201512	117	123	16,024	1,501	\$ 2,118
201601	124	135	16,029	1,531	\$ 2,187
201602	116	123	17,978	1,627	\$ 2,223
201603	114	120	13,236	1,520	\$ 2,003

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
201604	114	119	13,975	1,349	\$ 2,060
201605	105	116	13,376	1,403	\$ 2,132
201606	99	108	12,411	1,363	\$ 2,008
201607	88	92	12,710	1,347	\$ 1,824
201608	99	104	11,172	1,458	\$ 2,072
201609	98	105	12,815	1,186	\$ 1,692
<b>OXYCONTIN</b>	<b>1,190</b>	<b>1,285</b>	<b>82,531</b>	<b>36,815</b>	<b>\$ 681,239</b>
201510	114	125	8,213	3,633	\$ 72,769
201511	117	124	7,825	3,525	\$ 54,161
201512	124	144	9,229	4,089	\$ 71,227
201601	110	117	7,406	3,316	\$ 61,740
201602	113	118	7,728	3,408	\$ 65,591
201603	102	112	7,238	3,149	\$ 64,932
201604	93	98	6,418	2,811	\$ 53,293
201605	89	94	6,051	2,691	\$ 50,548
201606	86	94	6,024	2,710	\$ 50,631
201607	83	88	5,584	2,523	\$ 46,523
201608	82	88	5,461	2,523	\$ 46,319
201609	77	83	5,354	2,437	\$ 43,506
<b>HYDROCODONE BITARTRATE/AC</b>	<b>1,093</b>	<b>1,165</b>	<b>298,624</b>	<b>10,961</b>	<b>\$ 60,836</b>
201510	105	112	29,180	1,012	\$ 7,388
201511	87	92	18,579	871	\$ 4,595
201512	86	94	24,506	883	\$ 4,380
201601	83	89	22,821	840	\$ 4,376
201602	89	97	20,106	847	\$ 4,507
201603	105	111	26,983	1,018	\$ 5,656
201604	114	120	28,443	1,167	\$ 5,839
201605	75	81	20,104	718	\$ 4,475
201606	90	96	30,796	1,045	\$ 5,506
201607	83	86	26,317	878	\$ 4,687
201608	90	97	24,219	895	\$ 4,720
201609	86	90	26,570	787	\$ 4,706
<b>BUTALBITAL/ACETAMINOPHEN/</b>	<b>567</b>	<b>671</b>	<b>39,566</b>	<b>10,645</b>	<b>\$ 102,994</b>

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
201510	57	69	3,676	1,013	\$ 9,902
201511	43	48	2,975	774	\$ 7,636
201512	46	61	3,265	850	\$ 8,213
201601	46	55	3,550	968	\$ 8,147
201602	38	46	2,406	639	\$ 6,748
201603	51	64	3,210	799	\$ 8,522
201604	47	53	3,200	886	\$ 8,563
201605	52	58	3,495	980	\$ 9,173
201606	44	49	3,033	755	\$ 7,739
201607	47	55	3,636	1,042	\$ 10,208
201608	51	60	3,634	979	\$ 9,381
201609	45	53	3,486	960	\$ 8,764
<b>OXYMORPHONE HYDROCHLORIDE</b>	<b>527</b>	<b>588</b>	<b>46,806</b>	<b>17,189</b>	<b>\$ 149,308</b>
201510	47	51	4,120	1,487	\$ 13,761
201511	47	53	4,470	1,578	\$ 12,564
201512	42	48	4,020	1,406	\$ 11,469
201601	45	49	4,090	1,444	\$ 12,244
201602	42	48	3,784	1,375	\$ 11,770
201603	49	54	4,240	1,593	\$ 13,931
201604	43	49	3,932	1,444	\$ 14,022
201605	44	47	3,800	1,393	\$ 12,740
201606	49	58	4,660	1,690	\$ 15,472
201607	41	46	3,435	1,308	\$ 10,245
201608	43	48	3,495	1,373	\$ 11,659
201609	35	37	2,760	1,098	\$ 9,432
<b>TRAMADOL HYDROCHLORIDE/AC</b>	<b>480</b>	<b>495</b>	<b>25,448</b>	<b>6,053</b>	<b>\$ 10,314</b>
201510	40	41	2,055	493	\$ 1,031
201511	32	32	1,710	413	\$ 664
201512	36	38	2,157	482	\$ 797
201601	45	45	2,316	530	\$ 918
201602	44	46	2,445	592	\$ 954
201603	42	42	2,778	704	\$ 982
201604	34	37	1,773	430	\$ 761

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
201605	32	33	1,545	418	\$ 650
201606	49	50	2,550	600	\$ 997
201607	41	43	2,109	466	\$ 849
201608	39	40	1,831	443	\$ 788
201609	46	48	2,179	482	\$ 925
<b>OPANA ER (CRUSH RESISTANT)</b>	<b>441</b>	<b>468</b>	<b>28,224</b>	<b>13,768</b>	<b>\$ 253,940</b>
201510	39	40	2,456	1,183	\$ 22,111
201511	37	37	2,290	1,085	\$ 20,041
201512	40	42	2,606	1,258	\$ 22,168
201601	41	43	2,610	1,290	\$ 22,438
201602	38	41	2,482	1,211	\$ 23,365
201603	39	42	2,497	1,211	\$ 22,958
201604	36	37	2,272	1,091	\$ 20,633
201605	40	46	2,706	1,323	\$ 23,679
201606	37	39	2,374	1,157	\$ 21,689
201607	32	34	1,941	964	\$ 18,352
201608	30	33	1,950	990	\$ 17,747
201609	32	34	2,040	1,005	\$ 18,759
<b>OXYCODONE HCL ER</b>	<b>260</b>	<b>283</b>	<b>18,046</b>	<b>8,175</b>	<b>\$ 160,264</b>
201510	9	11	628	269	\$ 3,997
201511	12	13	900	360	\$ 8,409
201512	17	20	1,260	540	\$ 11,718
201601	19	20	1,320	570	\$ 12,463
201602	23	25	1,680	720	\$ 14,384
201603	26	28	1,830	810	\$ 16,812
201604	26	27	1,740	775	\$ 16,230
201605	27	31	2,010	915	\$ 17,412
201606	25	27	1,740	810	\$ 15,176
201607	25	25	1,518	726	\$ 13,053
201608	29	31	1,860	930	\$ 15,821
201609	22	25	1,560	750	\$ 14,788
<b>ENDOCET</b>	<b>277</b>	<b>283</b>	<b>26,761</b>	<b>6,947</b>	<b>\$ 19,062</b>
201510	22	23	2,160	627	\$ 1,894

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Paid
201511	23	23	2,132	609	\$ 1,433
201512	21	22	2,235	565	\$ 1,480
201601	24	25	2,430	631	\$ 1,807
201602	73	75	7,573	1,778	\$ 5,321
201603	31	31	2,990	733	\$ 2,195
201604	17	17	1,227	347	\$ 896
201605	15	15	1,405	422	\$ 981
201606	9	9	766	231	\$ 549
201607	9	10	748	210	\$ 447
201608	16	16	1,512	380	\$ 999
201609	17	17	1,583	414	\$ 1,060
<b>Grand Total</b>	<b>152,738</b>	<b>168,037</b>	<b>13,491,224</b>	<b>3,590,787</b>	<b>\$ 7,237,395</b>

**Opioid Utilization by Days Supply  
October 1, 2015 - September 30, 2016**

Product Name	Count of Mbrs	Count of Claims	Total Qty	Total Days Supply	Qty Per Claim	Days supp Per Clm	Qty per member	Days supply per member
	<b>Long Acting</b>							
MORPHINE SULFATE ER	1,934	11,580	736,741	333,290	64	29	381	172
METHADONE HCL	338	2,811	406,036	80,431	144	29	1,201	238
FENTANYL	295	1,755	17,429	49,160	10	28	59	167
OXYCONTIN	206	1,285	82,531	36,815	64	29	401	179
SUBOXONE	326	2,126	52,071	34,953	24	16	160	107
OPANA ER (CRUSH RESISTANT)	78	468	28,224	13,768	60	29	362	177
OXYMORPHONE HYDROCHLORIDE	56	291	17,256	8,568	59	29	308	153
OXYCODONE HCL ER	54	283	18,046	8,175	64	29	334	151
EMBEDA	74	168	7,213	4,851	43	29	97	66
NUCYNTA ER	20	85	4,804	2,409	57	28	240	120
BUTRANS	22	83	331	2,344	4	28	15	107
HYDROMORPHONE HCL ER	15	79	3,117	2,312	39	29	208	154
TRAMADOL HCL ER	12	64	2,040	1,920	32	30	170	160
HYSINGLA ER	12	51	1,650	1,530	32	30	138	128
BUNAVAIL	7	28	1,060	632	38	23	151	90
ZOHYDRO ER	8	18	1,011	521	56	29	126	65
DURAGESIC	4	17	170	510	10	30	43	128
ZUBSOLV	10	23	1,298	489	56	21	130	49
BUPRENORPHINE HCL/NALOXON	4	17	847	454	50	27	212	114
KADIAN	2	15	900	450	60	30	450	225
BUPRENORPHINE HCL	3	5	83	61	17	12	28	20
BELBUCA	1	1	60	30	60	30	60	30
EXALGO	1	1	30	30	30	30	30	30
XTAMPZA ER	1	1	60	30	60	30	60	30
<b>Total</b>	<b>3,145</b>	<b>18,444</b>	<b>976,972</b>	<b>503,302</b>	<b>53</b>	<b>27</b>	<b>311</b>	<b>160</b>

Product Name	Count of Mbrs	Count of Claims	Total Qty	Total Days Supply	Qty Per Claim	Days supp Per Clm	Qty per member	Days supply per member
	<b>Short Acting</b>							
HYDROCODONE/ACETAMINOPHEN	21,444	64,964	4,809,559	1,278,285	74	20	224	60
OXYCODONE/ACETAMINOPHEN	9,641	30,288	2,469,912	630,053	82	21	256	65
OXYCODONE HCL	4,217	23,448	2,562,587	612,902	109	26	608	145
TRAMADOL HCL	7,362	16,742	1,208,599	320,396	72	19	164	44
HYDROMORPHONE HCL	575	1,960	175,157	43,999	89	22	305	77
MORPHINE SULFATE	338	1,499	136,739	39,602	91	26	405	117
ACETAMINOPHEN/CODEINE #3	1,555	2,117	69,841	19,694	33	9	45	13
ACETAMINOPHEN/CODEINE PHO	1,421	1,866	63,694	17,066	34	9	45	12
ACETAMINOPHEN/CODEINE	165	555	46,406	11,015	84	20	281	67
BUTALBITAL/ACETAMINOPHEN/	193	671	39,566	10,645	59	16	205	55
OXYMORPHONE HYDROCHLORIDE	64	297	29,550	8,621	99	29	462	135
ENDOCET	177	283	26,761	6,947	95	25	151	39
TRAMADOL HYDROCHLORIDE/AC	358	495	25,448	6,053	51	12	71	17
HYDROCODONE/IBUPROFEN	115	267	18,920	4,607	71	17	165	40
HYDROCODONE BITARTRATE/AC	150	246	13,532	3,815	55	16	90	25
NUCYNTA	23	129	12,170	3,277	94	25	529	142
VICODIN HP	36	124	10,926	2,970	88	24	304	83
BUTALBITAL/ASPIRIN/CAFFEI	30	119	7,379	1,829	62	15	246	61
PRIMLEV	21	69	6,306	1,829	91	27	300	87
ACETAMINOPHEN/CODEINE #4	26	55	5,074	1,346	92	24	195	52
VICODIN ES	34	64	3,528	1,136	55	18	104	33
VICODIN	86	108	3,417	784	32	7	40	9
ASCOMP/CODEINE	17	55	3,224	763	59	14	190	45
MEPERIDINE HCL	23	37	1,581	422	43	11	69	18
PENTAZOCINE/NALOXONE HCL	4	26	1,770	343	68	13	443	86
FENTANYL CITRATE ORAL TRA	1	11	1,260	315	115	29	1,260	315
ACETAMINOPHEN/CAFFEINE/DI	4	5	460	114	92	23	115	29

Product Name	Count of Mbrs	Count of Claims	Total Qty	Total Days Supply	Qty Per Claim	Days supp Per Clm	Qty per member	Days supply per member
PERCOCET	1	3	390	90	130	30	390	90
OXYCODONE/IBUPROFEN	1	3	180	68	60	23	180	68
LEVORPHANOL TARTRATE	1	2	180	60	90	30	180	60
OXYCODONE/ASPIRIN	5	7	197	47	28	7	39	9
MEPERITAB	1	2	40	40	20	20	40	40
LORTAB	1	2	141	37	71	19	141	37
CODEINE SULFATE	3	3	140	30	47	10	47	10
NORCO	1	1	150	25	150	25	150	25
<b>Total</b>	<b>48,432</b>	<b>149,334</b>	<b>12,160,820</b>	<b>3,109,656</b>	<b>81</b>	<b>21</b>	<b>251</b>	<b>64</b>

	Liquid							
HYDROCODONE BITARTRATE/AC	752	919	285,092	7,146	310	8	379	10
ACETAMINOPHEN/CODEINE	753	844	125,339	6,161	149	7	166	8
BUTORPHANOL TARTRATE	17	66	245	1,512	4	23	14	89
MORPHINE SULFATE	38	80	17,507	1,330	219	17	461	35
METHADONE HCL	27	89	6,283	1,168	71	13	233	43
SUBSYS	9	39	4,680	931	120	24	520	103
OXYCODONE HCL	48	75	21,329	751	284	10	444	16
NALBUPHINE HCL	2	25	470	617	19	25	235	309
LORTAB	39	42	11,450	261	273	6	294	7
LAZANDA	1	4	32	118	8	30	32	118
ZAMICET	1	1	420	7	420	7	420	7
MEPERIDINE HCL	2	2	6	2	3	1	3	1
<b>Total</b>	<b>1,689</b>	<b>2,186</b>	<b>472,853</b>	<b>20,004</b>	<b>216</b>	<b>9</b>	<b>280</b>	<b>12</b>
<b>Grand Total</b>	<b>53,266</b>	<b>169,964</b>	<b>13,610,645</b>	<b>3,632,962</b>	<b>80</b>	<b>21</b>	<b>256</b>	<b>68</b>

---

---

## **Therapeutic Class Overview** **Long-acting Opioids**

### **Therapeutic Class**

- **Overview/Summary:** As a class, opioid analgesics encompass a group of naturally occurring, semisynthetic, and synthetic drugs that stimulate opiate receptors and effectively relieve pain without producing loss of consciousness. The long-acting opioids and their Food and Drug Administration (FDA)-approved indications are outlined in Table 1.<sup>1-19</sup> Previously, they were prescribed for the management of moderate to severe chronic pain; however, starting in March 2014, the FDA's required label changes were made for most of the agents, updating their indication.<sup>20</sup> Currently, long-acting opioids are indicated for the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. This change was made for all long-acting opioids in an effort to help prescribers and patients make better decisions about who benefits from opioids and also to help prevent problems associated with their use.<sup>20</sup> In addition to indication changes, the long-acting opioid label must include statements that the long-acting opioid is not for "as needed" use, that it has an innate risk of addiction, abuse and misuse even at recommended doses, and finally it must include an update to the black box warning for increased risk of neonatal opioid withdrawal syndrome (NOWS).<sup>20</sup> Long-acting opioids are available in a variety of different dosage forms, and currently several agents are available generically.

Pain is one of the most common and debilitating patient complaints, with persistent pain having the potential to lead to functional impairment and disability, psychological distress, and sleep deprivation. Two broad categories of pain include adaptive and maladaptive. Adaptive pain contributes to survival by protecting individuals from injury and/or promoting healing when injury has occurred. Maladaptive, or chronic pain, is pain as a disease and represents pathologic functioning of the nervous system. Various definitions of chronic pain currently exist and may be based on a specified duration of pain; however, in general, the condition can be defined as pain which lasts beyond the ordinary duration of time that an insult or injury to the body needs to heal. Pain can also be categorized as being either nociceptive or neuropathic, and treatments for each are specific. Nociceptive pain is caused by damage to tissue and can further be divided into somatic (pain arising from injury to body tissues) and visceral pain (pain arising from the internal organs). Visceral pain is often described as poorly localized, deep, dull, and cramping. In contrast, neuropathic pain arises from abnormal neural activity secondary to disease, injury, or dysfunction of the nervous system.<sup>21</sup>

Several mechanisms are thought to be involved in the promotion and/or facilitation of chronic pain, and include peripheral and central sensitization, ectopic excitability, structural reorganization/phenotypic switch of neurons, primary sensory degeneration, and disinhibition. Patients not responding to traditional pain treatments may require individualized and supplemental conventional treatment approaches that target different mechanisms.<sup>21</sup> Several pharmacologic and nonpharmacologic options are currently available for the management of chronic pain. Available treatment options make up six major categories: pharmacologic, physical medicine, behavioral medicine, neuromodulation, interventional, and surgical approaches. As stated previously, some patients may require multiple treatment approaches in order to achieve adequate control of their chronic pain. Pharmacologic therapy should not be the sole focus of pain treatment; however, it is the most widely utilized option to manage chronic pain. Major pharmacologic categories used in the management of pain include nonopioid analgesics, tramadol, opioid analgesics,  $\alpha$ -2 adrenergic agonists, antidepressants, anticonvulsants, muscle relaxants, N-methyl-d-aspartate receptor antagonists, and topical analgesics. Combining pharmacologic therapies may result in improved analgesia, and because lower doses of each agent can be used, patients may experience fewer treatment-emergent adverse events. Response to pharmacologic therapies will vary between individual patients, and currently no one approach has been demonstrated to be appropriate for all patients. Treatment decisions are largely based on the type of pain (e.g., neuropathic, nociceptive), comorbidities, concurrent medications, pharmacokinetic/pharmacodynamic properties of the agent, and anticipated adverse events.<sup>22</sup>

For the treatment of neuropathic pain, generally accepted first line therapies include calcium channel  $\alpha$  2-delta ligand anticonvulsants (e.g., gabapentin, pregabalin) and tricyclic antidepressants. Serotonin norepinephrine reuptake inhibitors should be utilized second line, and opioids should be considered as a second or third line option for most patients. Ideally, nociceptive pain is primarily managed with the use of non-opioid analgesics, with acetaminophen and nonsteroidal anti-inflammatory drugs utilized first line in the management of mild to moderate pain. Opioids are associated with a risk of abuse and overdose, and the evidence for the effectiveness of long term opioid therapy in providing pain relief and improving functional outcomes is limited. Use of opioids in the management of chronic noncancer pain remains controversial, and consideration for their use in this clinical setting should be weighed carefully. Opioids should be reserved for the treatment of pain of any severity not adequately controlled with non-opioid analgesics or antidepressants, more severe forms of acute pain, and cancer pain. If being considered for the treatment of chronic noncancer pain, opioids should be further reserved for patients with moderate to severe chronic pain that is adversely affecting patient function and/or quality of life.<sup>22</sup>

The long-acting opioid agents primarily produce intense analgesia via their agonist actions at mu receptors, which are found in large numbers within the central nervous system. The binding of these agents to mu receptors produces a variety of other effects including bradycardia, sedation, euphoria, physical dependence, and respiratory depression. Key safety concerns associated with the opioid analgesics include respiratory depression, and to a lesser degree, circulatory depression.<sup>22,23</sup>

All of the long-acting opioids are classified as Schedule II controlled substances by the FDA, with the exception of buprenorphine transdermal systems which are a Schedule III controlled substance. Buprenorphine is a partial opiate agonist, and the transdermal system is the first and only seven day transdermal opioid approved by the FDA.<sup>1</sup> On July 9, 2012, the FDA approved a Risk Evaluation and Mitigation Strategy (REMS) for all long-acting opioids. The program requires companies who manufacture long-acting opioids to make training regarding proper prescribing practices available for health care professionals who prescribe these agents, as well as distribute educational materials to both prescribers and patients on the safe use of these agents. The new REMS program is part of the national prescription drug abuse plan announced by the Obama Administration in 2011 to combat prescription drug misuse and abuse.<sup>24</sup>

According to the FDA abuse and misuse of prescription opioid products has created a serious and growing public health problem. The FDA considers the development of abuse-deterrent products a priority. As outlined in their guidance for evaluation and labeling, “abuse-deterrent properties” are defined as those properties shown to meaningfully deter abuse, even if they do not fully prevent abuse. The FDA elected to use the term “abuse-deterrent” rather than “tamper-resistant” because the latter term refers to, or is used in connection with, packaging requirements applicable to certain classes of drugs, devices, and cosmetics. Abuse-deterrent technologies should target known or expected routes of abuse relevant to the proposed product. The FDA has provided several categories for abuse-deterrent formulations. Categories include physical/chemical barriers, agonist/antagonist combinations, aversion (adding a product that has an unpleasant effect if manipulated or is used at a higher than recommended dose), delivery systems, new molecular entities/prodrugs, a combination of these methods, or a novel approach (encompasses approaches or technologies not currently captured in previous categories).<sup>25</sup>

Buprenorphine buccal film is formulated using bioerodible mucoadhesive (BEMA<sup>®</sup>) technology. BEMA<sup>®</sup> is a film formulation that consists of a water-soluble polymer that adheres to the buccal mucosa. The film dissolves over approximately 30 minutes into the buccal mucosa, leaving behind no residual film. Delivery into the buccal mucosa enhances the bioavailability of buprenorphine, as it bypasses gastrointestinal absorption and first-pass metabolism.<sup>1</sup>

Hysingla ER<sup>®</sup> (hydrocodone extended-release [ER]) tablets are resistant to crushing, breaking and dissolution using different solvents, and the tablets still retain some ER properties after tampering. Attempts to dissolve the tablets result in the formation of a viscous gel, which may cause difficulty passing through a hypodermic needle.<sup>5</sup> In addition, the tablets appear to be associated with less “drug liking”

based upon results reported from two unpublished clinical abuse potential studies conducted in a small number of non-dependent recreational opioid users.<sup>26</sup>

There are currently two formulation of oxycodone ER which are considered abuse deterrent, OxyContin<sup>®</sup> and Xtampza ER<sup>®</sup>. OxyContin<sup>®</sup> utilizes the RESISTEC<sup>®</sup> technology that employs a combination of polymer and processing that gives tablet hardness, imparts viscosity when dissolved in aqueous solutions and resists increased drug release rate when mixed with alcoholic beverages.<sup>10</sup> Results from trials support that, the reformulated oxycodone ER is able to resist crushing, breaking, extraction and dissolution in small volumes using a variety of tools and solvents.<sup>28-29</sup> Xtampza ER<sup>®</sup> utilizes DETERx technology, which is designed to provide adequate pain control while maintaining its drug release profile after being subjected to common methods of manipulation, including chewing and crushing.<sup>30,31</sup>

Originally approved by the FDA in 2009, Embeda<sup>®</sup> (morphine sulfate/naltrexone hydrochloride) was voluntarily recalled from the market in March 2011 due to stability issues with the manufacturing process.<sup>32</sup> Subsequently, in November 2013, the FDA approved a manufacturing supplement for the product after the stability concerns were addressed through the manufacturing process. The abuse deterrent formulation of Embeda<sup>®</sup> (morphine sulfate/naltrexone hydrochloride) was granted FDA approval in October 2014, making it the third ER opioid analgesic to obtain this designation and the first among the morphine ER products.<sup>33</sup> Embeda<sup>®</sup> (morphine sulfate/naltrexone hydrochloride) capsules contain pellets consisting of morphine sulfate with a sequestered core of naltrexone hydrochloride at a ratio of 100:4.<sup>18</sup> If morphine sulfate/ naltrexone hydrochloride is crushed, chewed, or dissolved up to 100% of the sequestered naltrexone is released, reversing the effects of morphine, potentially precipitating withdrawal in opioid tolerant individuals, and increasing the risk of overdose and death.<sup>33</sup>

**Table 1. Current Medications Available in the Therapeutic Class<sup>1-19</sup>**

Generic (Trade Name)	Food and Drug Administration Approved Indications	Dosage Form/Strength	Generic Availability
<b>Single-Entity Agents</b>			
Buprenorphine (Belbuca <sup>®</sup> , Butrans <sup>®</sup> )	The management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.	Buccal Film (Belbuca <sup>®</sup> ): 75 µg 150 µg 300 µg 450 µg 600 µg 750 µg 900 µg  Transdermal patch: 5 µg/hour 7.5 µg/hour 10 µg/hour 15 µg/hour 20 µg/hour	-
Fentanyl (Duragesic <sup>®*</sup> )	The management of pain in opioid-tolerant patients, severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. <sup>†</sup>	Transdermal system <sup>‡</sup> : 12 µg/hour <sup>§</sup> 25 µg/hour 37.5 µg/hour 50 µg/hour 62.5 µg/hour 75 µg/hour 87.5 µg/hour 100 µg/hour	✓

Generic (Trade Name)	Food and Drug Administration Approved Indications	Dosage Form/Strength	Generic Availability
Hydrocodone (Hysingla ER <sup>®</sup> , Zohydro ER <sup>®</sup> )	The management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.	Capsule, extended release (Zohydro ER <sup>®</sup> ): 10 mg 15 mg 20 mg 30 mg 40 mg 50 mg <sup>†</sup>  Tablet, extended release (Hysingla ER <sup>®</sup> ): 20 mg 30 mg 40 mg 60 mg 80 mg <sup>†</sup> 100 mg <sup>†</sup> 120 mg <sup>†</sup>	-
Hydromorphone (Exalgo <sup>®*</sup> )	The management of pain in opioid-tolerant patients severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. <sup>†</sup>	Tablet, extended release: 8 mg <sup>†</sup> 12 mg <sup>†</sup> 16 mg <sup>†</sup> 32 mg <sup>†</sup>	✓
Methadone (Dolophine <sup>®*</sup> , Methadose <sup>®*</sup> )	Management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. (solution, tablet).  For detoxification treatment of opioid addiction (heroin or other morphine-like drugs) (concentrate solution, dispersible tablet, solution, tablet).  For maintenance treatment of opioid addiction (heroin or other morphine-like drugs), in conjunction with appropriate social and medical services (concentrate solution, dispersible tablet, solution, tablet).	Concentrate solution, oral (sugar-free available): 10 mg/mL  Solution, oral: 5 mg/5 mL 10 mg/5 mL  Tablet, extended release: 5 mg 10 mg  Tablet for oral suspension: 40 mg	✓
Morphine sulfate (Avinza <sup>®</sup> , Kadian <sup>®*</sup> , MS Contin <sup>®*</sup> )	For the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate (biphasic capsule, capsule, tablet).	Capsule, biphasic extended release: 30 mg 45 mg 60 mg 75 mg 90 mg <sup>†</sup> 120 mg <sup>†</sup>	✓

Generic (Trade Name)	Food and Drug Administration Approved Indications	Dosage Form/Strength	Generic Availability
		Capsule, extended release: 10 mg 20 mg 30 mg 40 mg 50 mg 60 mg 80 mg 100 mg <sup>‡</sup> 200 mg <sup>‡</sup>  Tablet, extended release: 15 mg 30 mg 60 mg 100 mg <sup>‡</sup> 200 mg <sup>‡</sup>	
Oxycodone (OxyContin <sup>®*</sup> , Xtampza ER <sup>®</sup> )	For the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate in adults (all formulations) and in opioid-tolerant pediatric patients 11 years of age and older who are already receiving and tolerate a minimum daily opioid dose of at least 20 mg oxycodone orally or its equivalent (extended release tablet). <sup>†</sup>	Capsule, extended release (Xtampza ER <sup>®</sup> ): 9 mg 13.5 mg 18 mg 27 mg 36 mg  Tablet, extended release (OxyContin <sup>®</sup> ): 10 mg 15 mg 20 mg 30 mg 40 mg 60 mg <sup>‡</sup> 80 mg <sup>‡</sup>	✓ #
Oxymorphone (Opana <sup>®</sup> ER*)	For the management of pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.	Tablet extended release: 5 mg 7.5 mg 10 mg 15 mg 20 mg 30 mg 40 mg	✓
Tapentadol (Nucynta ER <sup>®</sup> )	Pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.  Neuropathic pain associated with diabetic	Tablet, extended release: 50 mg 100 mg 150 mg 200 mg	-

Generic (Trade Name)	Food and Drug Administration Approved Indications	Dosage Form/Strength	Generic Availability
	peripheral neuropathy (DPN) in adults severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.	250 mg	
<b>Combination Products</b>			
Morphine sulfate/ naltrexone (Embeda®)	Pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate.†	Capsule, extended release: 20 mg/0.8 mg 30 mg/1.2 mg 50 mg/2 mg 60 mg/2.4 mg 80 mg/3.2 mg 100 mg/4 mg‡	-
Oxycodone/ Acetaminophen (Xartemis XR®)	For the management of acute pain severe enough to require opioid treatment and for which alternative treatment options are inadequate	Biphasic tablet, extended release: 7.5 mg/325 mg	-

\*Generic is available in at least one dosage form or strength.

†Opioid-tolerant are those who are taking, for one week or longer, at least 60 mg of morphine daily, or at least 30 mg of oral oxycodone daily, or at least 8 mg of oral hydromorphone daily, 25 mcg fentanyl/hr, or an equianalgesic dose of another opioid.

‡Specific dosage form or strength should only be used in patients with opioid tolerance.

§Actual fentanyl dose is 12.5 µg/hour, but it is listed as 12 µg/hr to avoid confusion with a 125 µg dose.

#Generic availability is sporadic and does not include all strengths.

¶ A single dose of OxyContin® or Xtampza ER® >40 mg or a total daily dose of 80 mg are only for use in patients who are tolerant to opioids.

### Evidence-based Medicine

- Food and Drug Administration (FDA) approval of hydrocodone ER tablets (Hysingla ER®) was evaluated in an unpublished randomized double-blind, placebo controlled, multi-center, 12-week clinical trial in both opioid-experienced and opioid-naïve patients with moderate to severe chronic low back pain. Patients received either hydrocodone ER 20 to 120 mg tablets or matching placebo in a 1:1 ratio. There was a statistically significant difference in the weekly average pain scores at week 12 between the hydrocodone ER and placebo groups with a least square mean (standard deviation [SD]) difference of -0.53 (0.180) (95% confidence interval [CI], -0.882 to -0.178; P=0.0016). There were also significant improvements in proportion of responders, and Patient's Global Impression of Change scores.<sup>5,36</sup>
- The efficacy and safety of buprenorphine buccal film was evaluated in three phase III clinical trials. However one of the clinical trials, which is currently not published, did not show a significant difference between buprenorphine and placebo.<sup>1</sup> The other two studies evaluated patients who had a diagnosis of chronic low back pain in a randomized withdrawal design. The first study evaluated opioid-naïve patients while the second study evaluated opioid-experienced patients. The double-blind treatment phase for both studies was 12 weeks.<sup>1,38,39</sup> In the first study, the increase in mean (standard deviation [SD]) pain intensity scores on the NRS from baseline to week 12 for buprenorphine buccal film (0.94 [1.85]) was significantly lower than that of patients who received placebo (1.59 [2.04]; P=0.0012).<sup>38</sup> The increase in mean (SD) pain intensity scores on the NRS from baseline to week 12 for buprenorphine buccal film was significantly less than that of placebo (0.88 [1.79] versus 1.92 [1.87], respectively; P<0.00001).<sup>39</sup>
- The effectiveness of fentanyl in relieving pain appears to be similar to that of morphine sulfate sustained-release for the treatment of cancer and noncancer pain, and chronic lower back pain. Compared to morphine sulfate sustained-release, fentanyl transdermal systems appear to be associated with less constipation.<sup>49-51</sup>
- A trial comparing hydrocodone ER capsules to placebo in patients with moderate to severe chronic low back pain demonstrated hydrocodone ER had a lower mean change from baseline in pain intensity scores compared to placebo at 12 weeks (P=0.008). In addition, there was a significantly

- higher amount of treatment responders in the hydrocodone ER group compared to the placebo group ( $P < 0.001$ ) at the end of treatment, and subject global assessment of medication scores increased from baseline significantly in the hydrocodone ER group compared to placebo ( $P < 0.0001$ ).<sup>52</sup>
- In one trial, hydromorphone ER demonstrated greater efficacy in the treatment of lower back pain with regard to reducing pain intensity ( $P < 0.001$ ) and pain scores ( $P < 0.01$ ) compared to placebo.<sup>53</sup> In a noninferiority analysis of a hydromorphone ER compared to oxycodone ER, two agents provided similar pain relief in the management of osteoarthritic pain.<sup>54</sup>
  - Methadone has demonstrated a greater efficacy over placebo for the treatment of nonmalignant neuropathic pain and similar efficacy compared to slow-release morphine sulfate for the treatment of cancer pain.<sup>58,59</sup>
  - A trial comparing different long-acting formulations of morphine sulfate for the treatment of osteoarthritis pain demonstrated that both Avinza<sup>®</sup> (morphine sulfate ER) and MS Contin<sup>®</sup> (morphine sulfate ER) significantly reduced pain from baseline ( $P \leq 0.05$  for both). Both treatments also reduced overall arthritis pain intensity, and achieved comparable improvements in physical functioning and stiffness. Each treatment significantly improved certain sleep parameters compared to placebo.<sup>61</sup> In a crossover trial, morphine sulfate (MS Contin<sup>®</sup>) was compared to fentanyl transdermal systems, and more patients preferred fentanyl transdermal systems ( $P < 0.001$ ), and reported on average, lower pain intensity scores than morphine sulfate phase ( $P < 0.001$ ).<sup>62</sup>
  - Clinical trial data evaluating the combination long acting opioid agent morphine/naltrexone is limited. As mentioned previously, this product was recalled by the manufacturer due to not meeting a pre-specified stability requirement during routine testing in March 2011.<sup>32</sup>
  - Morphine/naltrexone has demonstrated significantly better pain control compared to placebo in patients with osteoarthritis pain.<sup>65</sup>
  - Oxycodone ER (OxyContin<sup>®</sup>) has demonstrated significantly greater efficacy compared to placebo for the treatment of neuropathic pain and chronic refractory neck pain.<sup>66-68</sup> For the treatment of cancer pain, no significant differences were observed between oxycodone ER and morphine sulfate ER in reducing pain intensity. The average number of rescue doses used within a 24 hour period was significantly less with morphine sulfate ER ( $P = 0.01$ ), and the incidence of nausea and sedation were similar between treatments.<sup>69</sup>
  - The FDA-approval of oxycodone ER (Xtampza ER<sup>®</sup>) was based upon an enriched-enrollment, randomized-withdrawal, double-blind, placebo-controlled, parallel group, study was conducted in patients with persistent, moderate-to-severe chronic lower back pain, with inadequate pain control from their prior therapy ( $n = 740$ ). Following the titration phase, 389 subjects met the study randomization criteria of adequate analgesia and acceptable tolerability and entered the randomized, double-blind maintenance phase. Patients were randomized at a ratio of 1:1 into a 12-week double-blind maintenance phase with their fixed stable dose of oxycodone ER (Xtampza ER<sup>®</sup> or matching placebo). There was a significant difference in pain reduction as assessed by average pain intensity favoring the oxycodone ER group when compared to placebo from randomization baseline to week 12 (0.29 vs. 1.85 ; $P < 0.0001$ ).<sup>71</sup>
  - Oxymorphone ER has produced similar mean daily pain intensity scores compared to both morphine sulfate and oxycodone ER for the treatment of chronic cancer pain.<sup>72,73</sup> The average scheduled daily dose of study drug and average total daily dose decreased after patients crossed over to oxymorphone ER from morphine sulfate or oxycodone ER. No significant changes were observed in visual analog pain scores, quality of life domains, or quality of sleep in any of the treatment groups.<sup>72</sup> In another trial, oxymorphone ER demonstrated greater efficacy for the relief of osteoarthritis pain compared to placebo.<sup>74</sup>
  - In a 12-week active comparator and placebo-controlled trial, significant pain relief was achieved with tapentadol ER compared to placebo (least squares mean difference, - 0.7; 95% CI, -1.04 to -0.33) at week 12. The average pain intensity rating at endpoint with oxycodone ER was reduced significantly compared to placebo for the overall maintenance period (least squares mean difference vs placebo, - 0.3), but was not significantly lower at week 12 (least squares mean, -0.3; P values not reported).<sup>76</sup> In a, placebo-controlled and active comparator trial in adults with moderate to severe low back pain, improvements in average pain intensity scores occurred with tapentadol ER and oxycodone ER relative to placebo ( $P < 0.001$ ).<sup>77</sup> Schwartz et al evaluated tapentadol ER among adults with painful diabetic peripheral neuropathy. The least squares mean change in average pain intensity at week 12

was 1.4 in the placebo group, indicating a worsening in pain intensity, and 0.0 in the tapentadol ER group, indicating no change in pain intensity, (least squares mean difference, -1.3; 95% CI, -1.70 to -0.92;  $P < 0.001$ ).<sup>75</sup>

- The combination product oxycodone/acetaminophen's efficacy was established in a clinical trial evaluating its effectiveness at treating pain over the 48 hours after surgery. Singla et al concluded that pain, evaluated by the summed pain intensity difference (SPID) score, was significantly higher in the oxycodone/acetaminophen group ( $P < 0.001$ ) through that time period. Mean total pain relief values for oxycodone/APAP XR and placebo from 0 to 48 hours were 91.3 and 70.9, respectively, resulting in a treatment difference of 20.5 (95% CI, 11.0 to 30.0;  $P < 0.001$ ). The median time to perceptible pain relief for oxycodone/APAP XR was 33.56 minutes vs 43.63 minutes for placebo ( $P = 0.002$ ). The median times to confirmed pain relief and meaningful pain relief for the oxycodone/APAP XR group were 47.95 minutes and 92.25 minutes; however, neither of these metrics could be determined for the placebo group ( $P < 0.001$ ). The percentage of patients reporting at least a 30% reduction in PI after 2 hours was 63.1% for oxycodone/APAP XR versus 27.2% for placebo ( $P < 0.0001$ ).<sup>83</sup>
- Methadone is the only long-acting narcotic that is Food and Drug Administration-approved for the management of opioid addiction; however, in one study slow-release morphine sulfate demonstrated noninferiority to methadone in terms of completion rate for the treatment of opioid addiction (51 vs 49%).<sup>84</sup>

### Key Points within the Medication Class

- According to Current Clinical Guidelines:
  - The current clinical guidelines regarding the use of opioids recognize their established efficacy in the treatment of moderate to severe pain. None of the available agents are distinguished from the others in the class, and recommendations for treatment are made for the class as a whole.<sup>86-98</sup>
  - Guidelines published by Centers for Disease Control and Prevention's (CDC) opioid use in the management of chronic pain recommend physicians start with immediate-release (IR) opioids and reserve ER formulations for severe, continuous pain that IR opioids cannot treat.<sup>86</sup>
  - Physicians should prescribe the lowest effective dose and carefully reassess benefits and risks when considering a dose of  $\geq 50$  morphine milligram equivalents (MME) while avoiding increasing opioid doses to  $\geq 90$  MME unless justified.<sup>86</sup>
  - Optimal analgesic selection will depend on the patient's pain intensity, any current analgesic therapy, and concomitant medical illness. ER products are generally similar and selection should be based on clinical or patient-specific factors.<sup>87</sup>
- Other Key Facts:<sup>1-19</sup>
  - Products currently available as a generic include fentanyl patches, hydromorphone ER tablets, methadone (all formulations), morphine ER (all formulations), oxycodone ER tablets and oxymorphone ER tablets.
  - There are currently several abuse deterrent ER opioids approved by the FDA. These include buprenorphine sublingual film (Belbuca<sup>®</sup>), oxycodone ER (OxyContin<sup>®</sup>, Xtampza ER<sup>®</sup>) and hydrocodone ER (Zohydro ER<sup>®</sup>, Hysingla ER<sup>®</sup>) as well as morphine sulfate/naltrexone (Embeda<sup>®</sup>).
  - Oxymorphone ER (Opana ER<sup>®</sup>) and hydromorphone ER (Exalgo<sup>®</sup>) have also been formulated with abuse deterrent properties, however they are classified as abuse deterrent by the FDA.
  - All long-acting opioids are pregnancy category C, with the exception of oxycodone.
  - Only fentanyl transdermal system (age 2 to 17 years) and oxycodone ER tablets (age 11 and older) are approved for use in children
  - Tapentadol is contraindicated with monoamine oxidase inhibitors; although, caution should be used when used in combination with any long-acting opioid.
  - Oxymorphone is contraindicated in severe hepatic disease.

- Methadone and buprenorphine have been implicated in QT prolongation and serious arrhythmias, use caution in patients at increased risk of QT prolongation.
- Frequency of dosing varies by agent:
  - Buprenorphine patch: once every seven days
  - Fentanyl transdermal system: once every 72 hours
  - Hydromorphone ER (Exalgo<sup>®</sup>), hydrocodone ER (Hysingla ER<sup>®</sup>) and morphine ER (Avinza<sup>®</sup>): once daily
  - Morphine ER (Kadian<sup>®</sup>) and morphine/naltrexone (Embeda<sup>®</sup>): once or twice daily
  - Morphine ER (MS Contin<sup>®</sup>) and all methadone formulations: twice or three times daily
  - All remaining long-acting agents: twice daily
- Avinza<sup>®</sup> (morphine) and Xartemis XR<sup>®</sup> (oxycodone/acetaminophen) are the only long-acting opioids with a maximum daily dose.
  - Avinza<sup>®</sup> (morphine): max dose of 1,600 mg/day due to the capsules being formulated with fumaric acid, which at that dose has not been shown to be safe and effective and may cause renal toxicity<sup>11</sup>
  - Xartemis XR (oxycodone/acetaminophen): max dose is limited to four tablets per day, and/or if taking other acetaminophen products, a maximum of 4,000 mg/day<sup>19</sup>
- Most solid, long-acting opioid formulations (e.g., tablets, capsules) should be swallowed whole and should not be broken, chewed, cut, crushed, or dissolved before swallowing.<sup>1-18</sup>
  - Morphine ER capsules (Avinza<sup>®</sup>, Kadian<sup>®</sup>), morphine/naltrexone capsules (Embeda<sup>®</sup>) and oxycodone ER capsules (Xtampza ER<sup>®</sup>) can be opened and the pellets sprinkled on applesauce and then swallowed whole.<sup>11,12,15,18</sup>
  - Kadian<sup>®</sup> pellets can also be placed in water and used through a gastrostomy tube.
  - Xtampza<sup>®</sup> may be opened and administered through a gastrostomy or nasogastric tube.
  - Avinza<sup>®</sup>, Kadian<sup>®</sup>, and Embeda<sup>®</sup> pellets should not be used through a nasogastric tube.

## References

1. Belbuca<sup>®</sup> [package insert]. Malvern (PA): Endo Pharmaceuticals, Inc.; 2015 Dec.
2. Butrans<sup>®</sup> [package insert]. Stamford (CT): Purdue Pharma L.P.; 2014 Jun.
3. Duragesic<sup>®</sup> [package insert]. Titusville (NJ): Janssen Pharmaceuticals, Inc.; 2014 Apr.
4. Zohydro ER<sup>®</sup> [package insert]. San Diego (CA): Zogenix, Inc.; 2016 Jan.
5. Hysingla ER<sup>®</sup> [package insert]. Stamford (CT): Purdue Pharma L.P.; 2015 Feb.
6. Exalgo<sup>®</sup> [package insert]. Mallinckrodt Brand Pharmaceuticals, Inc., Hazelwood (MO): 2015 Jun.
7. Dolophine<sup>®</sup> tablet [package insert]. Columbus (OH): Roxane Laboratories, Inc.; 2016 May.
8. Methadose<sup>®</sup> tablet [package insert]. Hazelwood (MO): Mallinckrodt Inc; 2014 Apr.
9. Methadose<sup>®</sup> concentrate [package insert]. Hazelwood (MO): Mallinckrodt Brand Pharmaceuticals Inc; 2014 Oct.
10. Methadose<sup>®</sup> dispersible tablet [package insert]. Hazelwood (MO): Mallinckrodt Pharmaceuticals Inc; 2015 Jan.
11. Avinza<sup>®</sup> [package insert]. Bristol (TN): King Pharmaceuticals; 2014 May.
12. Kadian<sup>®</sup> [package insert]. Morristown (NJ): Actavis LLC; 2014 Aug.
13. MS Contin<sup>®</sup> [package insert]. Purdue Pharma LP, Stamford (CT): 2014 Jun.
14. OxyContin<sup>®</sup> [package insert]. Stamford (CT): Purdue Pharma L.P.; 2015 Aug.
15. Xtampza ER<sup>®</sup> [package insert]. Canton (MA): Collegium Pharmaceuticals; 2016 Apr.
16. Opana ER<sup>®</sup> [package insert]. Endo Pharmaceuticals Inc., Malvern (PA): 2014 Apr.
17. Nucynta<sup>®</sup> ER [package insert]. Titusville (NJ): Janssen Pharmaceuticals, Inc.; 2014 Apr.
18. Embeda<sup>®</sup> [package insert]. Bristol (TN): King Pharmaceuticals, Inc., 2014 Oct.
19. Xartemis XR<sup>®</sup> [package insert]. Hazelwood (MO): Mallinckrodt Brand Pharmaceuticals, Inc., 2015 Mar.
20. Goal of Labeling Changes: Better Prescribing, Safer Use of Opioids. FDA Consumer Health Information. 2013 Sep: 1-2.
21. Rosenquist EWK. Definition and pathogenesis of chronic pain. In: Aronson MD (Ed). UpToDate [database on the internet]. Waltham (MA): UpToDate; 2014 Jul [cited 2014 Aug 22]. Available from: <http://www.uptodate.com/utd/index.do>.
22. Rosenquist EWK. Overview of the treatment of chronic pain. In: Aronson MD (Ed). UpToDate [database on the internet]. Waltham (MA): UpToDate; 2014 Jul [cited 2014 Aug 22]. Available from: <http://www.uptodate.com/utd/index.do>.
23. Central nervous system agents 28:00, analgesics and antipyretics 28:08, opiate agonists 28:08.08. In: McEvoy GK, editor; American Hospital Formulary Service. AHFS drug information 2014 [monograph on the Internet]. Bethesda (MD): American Society of Health-System Pharmacists; 2014 [cited 2014 Apr 11]. Available from: <http://online.statref.com>.
24. Questions and answers: FDA approves a risk evaluation and mitigation strategy (REMS) for extended-release and long-acting (ER/LA) opioid analgesics [press release on the internet]. Rockville (MD): Food and Drug Administration (US); 2013 Mar 1 [cited 2014 Apr 11]. Available from: <http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm309742.htm>.
25. U.S. Department of Health and Human Services: Food and Drug Administration Center for Drug Evaluation and Research (CDER). Abuse-Deterrent Opioids — Evaluation and Labeling Guidance for Industry. 2015 Apr. [cited 2016 Jan 28]. Available from: <http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/default.htm>
26. Hysingla ER<sup>®</sup> (hydrocodone bitartrate extended-release tablets) product dossier. January 13, 2015. Version 3.1. Purdue Pharma L.P. Data on file.

27. Cone EJ, Giordano J, Weingarten B. An iterative model for in vitro laboratory assessment of tamper deterrent formulations. *Drug Alcohol Depend.* 2013; 131:100-105.
28. Harris SC, Perrino PJ, Smith I, Shram MJ, Colucci SV, Bartlett C, and Sellers EM. Abuse Potential, Pharmacokinetics, Pharmacodynamics, and Safety of Intranasally Administered Crushed Oxycodone HCl Abuse-Deterrent Controlled-Release Tablets in Recreational Opioid Users. *The Journal of Clinical Pharmacology*; 54(4):468-77.
29. Perrino PJ, Colucci SV, Apseloff G, Harris SC. Pharmacokinetics, tolerability and safety of intranasal administration of reformulated OxyContin tablets compared with original OxyContin tablets in healthy adults. *Clin Drug Investig.* 2013; 33:441-49.
30. Collegium Receives FDA Approval for Xtampza™ ER, an Analgesic with Abuse-Deterrent Properties for the Treatment of Chronic Pain [press release on the Internet]. Canton (MA): Collegium Pharmaceuticals: 2016 Apr 26 [cited 2016 July 5]. Available from: <http://ir.collegiumpharma.com/phoenix.zhtml?c=253995&p=irol-newsArticle&ID=2161728>
31. Collegium Announces Commercial Launch of Xtampza® ER [press release on the Internet]. Canton (MA): Collegium Pharmaceuticals: 2016 Jun 20 [cited 2016 July 5]. Available from: <http://ir.collegiumpharma.com/phoenix.zhtml?c=253995&p=irol-newsArticle&ID=2178754>
32. Statement of voluntary recall of Embeda® extended release capsules CII [press release on the internet]. New York (NY): King Pharmaceuticals Inc., a wholly owned subsidiary of Pfizer; 2011 Mar 16 [cited 2015 Nov 20]. Available at: [http://www.pfizer.com/files/news/embeda\\_recall\\_031611.pdf](http://www.pfizer.com/files/news/embeda_recall_031611.pdf)
33. FDA approves labeling with abuse-deterrent features for third extended-release opioid analgesic [press release on the internet]. Silver Spring (MD): U.S. Food and Drug Administration; 2014 Oct 17 [cited 2015 Nov 30]. Available at: <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm419288.htm>.
34. Micromedex® Healthcare Series [database on the Internet]. Greenwood Village (CO): Thomson Reuters (Healthcare) Inc.; Updated periodically [cited 2014 Aug 22]. Available from: <http://www.thomsonhc.com/>.
35. Hysingla ER® (hydrocodone bitartrate extended-release tablets) product dossier. January 13, 2015. Version 3.1. Purdue Pharma L.P. Data on file.
36. Purdue Pharma L.P. Data on file. Study # HYD3002. Wen W, Sitar S, Lynch SY, He E, Ripa SR. A randomized double-blind, placebo-controlled, multi-center, 12-week clinical trial to determine the efficacy and safety of Hysingla ER in both opioid-experienced and opioid-naïve patients with moderate to severe chronic low back pain [abstract]. Presented at: PAINWeek 2014; September; Las Vegas, NV. p.64-66.
37. Purdue Pharma L.P. Data on file. Study # HYD3003, HYD3003S. Lynch S, Wen W, Taber L, Munera C, Ripa S. An open-label study evaluating persistence of analgesia and long-term safety of Hysingla ER in patients with chronic, moderate to severe, nonmalignant and nonneuropathic pain [abstract]. *J Pain.* 2014;15(4):S91. p.67-70
38. Rauck RL, Potts J, Xiang Q, Tzanis E, Finn A. Efficacy and tolerability of buccal buprenorphine in opioid-naïve patients with moderate to severe chronic low back pain. *Postgrad Med.* 2016 Jan;128(1):1-11. doi: 10.1080/00325481.2016.1128307. Epub 2015 Dec 22.
39. Gimbel J, Spierings EL, Katz N, Xiang Q, Tzanis E, Finn A. Efficacy and Tolerability of Buccal Buprenorphine in Opioid-Experienced Patients With Moderate to Severe Chronic Low Back Pain: Results of a Phase 3, Enriched Enrollment, Randomized Withdrawal Study.
40. Gordon A, Rashid Q, Moulin DE, Clark AJ, Beaulieu AD, Eisenhoffer J, et al. Buprenorphine transdermal system for opioid therapy in patients with chronic low back pain. *Pain Res Manag.* 2010 May-Jun;15(3):169-78.
41. Gordon A, Callaghan D, Spink D, Cloutier C, Dzungowski P, O'Mahony W, et al. Buprenorphine transdermal system in adults with chronic low back pain: a randomized, double-blind, placebo-controlled crossover study, followed by an open-label extension phase. *Clin Ther.* 2010 May;32(5):844-60.
42. Karlsson M, Berggren AC. Efficacy and safety of low-dose transdermal buprenorphine patches (5, 10, and 20 microg/h) vs prolonged-release tramadol tablets (75, 100, 150, and 200 mg) in patients with chronic osteoarthritis pain: a 12-week, randomized, open-label, controlled, parallel-group noninferiority study. *Clin Ther.* 2009 Mar;31(3):503-13.
43. Conaghan PG, O'Brien CM, Wilson M, Schofield JP. Transdermal buprenorphine plus oral paracetamol vs an oral codeine-paracetamol combination for osteoarthritis of hip and/or knee: a randomized trial. *Osteoarthritis Cartilage.* 2011 Aug;19(8):930-8.
44. Agarwal A., Polydefkis M., Block B., Haythornthwaite J., Raja S. Transdermal fentanyl reduces pain and improves functional activity in neuropathic pain states. *Pain Medicine.* 2007;8(7):554-62.
45. Finkel JC., Finley A., Greco C., Weisman SJ., Zeltzer L. Transdermal fentanyl in the management of children with chronic severe pain. Results from an international study. *Cancer.* 2005;104:2847-57.
46. Mercadante S, Porzio G, Ferrera P, Aielli F, Adile C, Ficorella C. Low doses of transdermal fentanyl in opioid-naïve patients with cancer pain. *Curr Med Research Opin.* 2010;26(12):2765-8.
47. Park JH, Kim JH, Yun SC, Roh SW, Rhim SC, Kim CJ, et al. Evaluation of efficacy and safety of fentanyl transdermal patch (Durogesic® D-TRANS) in chronic pain. *Acta Neurochir.* 2011;153:181-90.
48. Langford R., McKenna F., Ratcliffe S., Vojtassak J., Richarz U. Transdermal fentanyl for improvement of pain and functioning in osteoarthritis. *Arthritis & Rheumatism* 2006;54(6):1829-37.
49. Ahmedzai S., Brooks D. Transdermal fentanyl vs sustained-release oral morphine in cancer pain; preference, efficacy, and quality of life. *J Pain Symptom Manage.* 1997;13:254-61.
50. Allan L., Richarz U., Simpson K., Slappendel R. Transdermal fentanyl vs sustained release oral morphine in strong-opioid naïve patients with chronic low back pain. *Spine.* 2005;30(22):2484-90.
51. Clark AJ, Ahmedzai SH, Allan LG, Camacho F, Horbay GL, Richarz U et al. Efficacy and safety of transdermal fentanyl and sustained-release oral morphine in patients with cancer and chronic non-cancer pain. *Current Medical Research and Opinion.* 2004;20(9):1419-28.
52. Rauck RL, Srinivas N, Wild JE, Walker GS, Robinson CY, Davis CS, et al. Single-Entity Hydrocodone Extended-Release Capsules in Opioid-Tolerant Subjects with Moderate-to-Severe Chronic Low Back Pain: A Randomized Double-Blind, Placebo-Controlled Study. *Pain Medicine.* 2014 Feb 12. doi: 10.1111/pme.12377. [Epub ahead of print]
53. Hale M, Khan A, Kutch M, Li S. Once-daily OROS hydromorphone ER compared to placebo in opioid-tolerant patients with chronic low back pain. *Curr Med Res Opin.* 2010;26(6):1505-18.

54. Hale M, Tudor IC, Khanna s, Thippawong J. Efficacy and tolerability of once-daily OROS® hydromorphone and twice-daily extended-release oxycodone in patients with chronic, moderate to severe osteoarthritis pain: results of a 6-week, randomized, open-label, noninferiority analysis. *Clin Ther.* 2007;29(5):874-88.
55. Quigley C. Hydromorphone for acute and chronic pain. *Cochrane Database Syst Rev.* 2002;(1):CD003447.
56. Felden L, Walter C, Harder S, Treede RD, Kayser H, Drover D, Geisslinger G, Lötsch J. Comparative clinical effects of hydromorphone and morphine: a meta-analysis. *Br J Anaesth.* 2011 Sep;107(3):319-28.
57. Pigni A, Brunelli C, Caraceni A. The role of hydromorphone in cancer pain treatment: a systematic review. *Palliat Med.* 2011 Jul;25(5):471-7.
58. Morley JS, Bridson J, Nash TP, Miles JB, White S, Makin MK. Low-dose methadone has an analgesic effect in neuropathic pain: a double-blind randomized controlled crossover trial. *Palliative Medicine.* 2003;17:576-87.
59. Bruera E, et al. Methadone vs morphine as a first-line strong opioid for cancer pain: a randomized, double-blind study. *J Clin Oncol.* 2004;22(1):185-92.
60. Musclow SL, Bowers T, Vo H, Glube M, Nguyen T. Long-acting morphine following hip or knee replacement: a randomized, double-blind and placebo-controlled trial (abstract). *Pain Res Manag.* 2012 Mar-Apr;17(2):83-8.
61. Caldwell JR, et al. Efficacy and safety of a once-daily morphine formulation in chronic, moderate-to-severe osteoarthritis pain: results from a randomized, placebo-controlled, double-blind trial and an open label extension trial. *J Pain Symptom Manage.* 2002;23:278-91.
62. Allan L, Hays H. et al. Randomized crossover trial of transdermal fentanyl and sustained release oral morphine for treating chronic non-cancer pain. *BMJ.* 2001;322:1-7.
63. Wiffen PJ, McQuay HJ. Oral morphine for cancer pain. *Cochrane Database Syst Rev.* 2007 Oct;(4):CD003868.
64. Caraceni A, Pigni A, Brunelli C. Is oral morphine still the first choice opioid for moderate to severe cancer pain? A systematic review within the European Palliative Care Research Collaborative guidelines project. *Palliat Med.* 2011 Jul;25(5):402-9.
65. Katz N, Hale M, Morris D, Stauffer J. Morphine sulfate and naltrexone hydrochloride extended release capsules in patients with chronic osteoarthritis pain. *Postgrad Med.* 2010 Jul;122(4):112-28.
66. Gimbel JS, Richards P, Portenoy RK. Controlled-release oxycodone for pain in diabetic neuropathy. *Neurology.* 2003;60:927-34.
67. Ma K., Jiang W., Zhou Q., Du DP. The efficacy of oxycodone for management of acute pain episodes in chronic neck pain patients. *Int J Clin Pract.* 2008;62(2):241-7.
68. Watson CPN, Moulin D, Watt-Watson J, Gordon A, Eisenhoffer J. Controlled-release oxycodone relieves neuropathic pain: a randomized controlled trial in painful diabetic neuropathy. *Pain.* 2003;105:71-8.
69. Bruera E, et al. Randomized, double-blind, cross-over trial comparing safety and efficacy of oral controlled-release oxycodone with controlled-release morphine in patients with cancer pain. *Journal of Clinical Oncology.* 1998;16:3222-9.
70. King SJ, Reid C, Forbes K, Hanks G. A systematic review of oxycodone in the management of cancer pain. *Palliat Med.* 2011 Jul;25(5):454-70.
71. Katz N, Kopecky EA, O'Connor M, Brown RH, Fleming AB. A phase 3, multicenter, randomized, double-blind, placebo-controlled, safety, tolerability, and efficacy study of Xtampza ER in patients with moderate-to-severe chronic low back pain. *Pain.* 2015 Dec;156(12):2458-67.
72. Slatkin NE, Rhiner MI, Gould EM, Ma T, Ahdieh H. Long-term tolerability and effectiveness of oxymorphone extended release in patients with cancer (abstract). *J Opioid Manag.* 2010;6(3):181-91.
73. Sloan P., Slatkin N., Ahdieh H. Effectiveness and safety of oral extended-release oxymorphone for the treatment of cancer pain: a pilot study. *Support Care Cancer.* 2005;13:57-65.
74. Kivitz A., Ma C., Ahdieh H., Galer BS. A 2-week, multicenter, randomized, double-blind, placebo-controlled, dose-ranging, phase III trial comparing the efficacy of oxymorphone extended release and placebo in adults with pain associated with osteoarthritis of the hip or knee. *Clinical Therapeutics.* 2006;38(3):352-64.
75. Schwartz S, Etropolski M, Shapiro DY, Okamoto A, Lange R, Haeussler J, et al. Safety and efficacy of tapentadol ER in patients with painful diabetic peripheral neuropathy: results of a randomized-withdrawal, placebo-controlled trial. *Curr Med Res Opin.* 2011 Jan;27(1):151-62.
76. Afilalo M, Etropolski MS, Kuperwasser B, Kelly K, Okamoto A, Van Hove I, et al. Efficacy and safety of tapentadol extended release compared to oxycodone controlled release for the management of moderate to severe chronic pain related to osteoarthritis of the knee: a randomized, double-blind, placebo- and active-controlled phase III study. *Clin Drug Investig.* 2010;30(8):489-505.
77. Buynak R, Shapiro DY, Okamoto A, Van Hove I, Rauschkolb C, Steup A, et al. Efficacy and safety of tapentadol extended release for the management of chronic low back pain: results of a prospective, randomized, double-blind, placebo- and active-controlled Phase III study. *Expert Opin Pharmacother.* 2010 Aug;11(11):1787-804.
78. Imanaka K, Tominaga Y, Etropolski M, Van Hove I, Ohsaka M, Wanibe M, et al. Efficacy and safety of oral tapentadol extended release in Japanese and Korean patients with moderate to severe, chronic malignant tumor-related pain. *Current Medical Research and Opinion.* 2013 Aug 19; 29(10):1399-1409.
79. Wild JE, Grond S, Kuperwasser B, Gilbert J, McCann B, Lange B, et al. Long-term safety and tolerability of tapentadol extended release for the management of chronic low back pain or osteoarthritis pain. *Pain Pract.* 2010 Sept-Oct;10(5):416-27.
80. Bekkering GE, Soares-Weiser K, Reid K, Kessels AG, Dahan A, Treede RD, et al. Can morphine still be considered to be the standard for treating chronic pain? A systematic review including pair-wise and network meta-analyses. *Curr Med Res Opin.* 2011 Jul;27(7):1477-91.
81. Whittle SL, Richards BL, Husni E, Buchbinder R. Opioid therapy for treating rheumatoid arthritis pain. *Cochrane Database Syst Rev.* 2011 Nov;(11):CD003113.
82. Eisenberg E, McNicol E, Carr DB. Opioids for neuropathic pain. *Cochrane Database Syst Rev.* 2006 Jul;(3):CD006146.
83. Singla N, Barrett T, Sisk L, Kostenbader K, Young J, Giuliani M. A randomized, double-blind, placebo-controlled study of the efficacy and safety of MNK-795, a dual-layer, biphasic, immediate-release and extended-release combination analgesic for acute pain. *Current Medical Research and Opinion.* 2014 Mar;30(3):349-359.

84. Madlung-Kratzer E, Spitzer B, Brosch R, Dunkel D, Haring C. A double-blind, randomized, parallel group study to compare the efficacy, safety and tolerability of slow-release morphine vs methadone in opioid-dependent in-patients willing to undergo detoxification. *Addiction*. 2009;104:1,549-57.
85. Butrans® (buprenorphine transdermal system) product dossier. May 5, 2011. Version 3.0. Purdue Pharma L.P. Data on file.
86. Centers for Disease Control and Prevention (CDC). CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016. Atlanta (GA): Centers for Disease Control and Prevention; 2016 Mar [cited 2016 Jul 12]. Available from: <https://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm>.
87. National Comprehensive Cancer Network (NCCN). NCCN clinical practice guidelines in oncology: adult cancer pain. Fort Washington (PA): 2016. Version 2.2016 [cited 2016 Jul 8]. Available from: [http://www.nccn.org/professionals/physician\\_gls/pdf/pain.pdf](http://www.nccn.org/professionals/physician_gls/pdf/pain.pdf).
88. Manchikanti L, Abdi S, Atluri S, Balog CC, Benyamin RM, Boswell MV, et al. American Society of Interventional Pain Physicians (ASIPP) guidelines for responsible opioid prescribing in chronic non-cancer pain: Part 2--guidance. *Pain Physician*. 2012 Jul;15(3 Suppl):S67-116.
89. Chou R, Fanciullo GJ, Fine PG, Adler JA, Ballantyne JC, Davies P, et al. Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. *J pain*. 2008 Feb;10(2):113-30.
90. Chou R, Qaseem A, Snow V, et al. Diagnosis and treatment of low back pain: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Ann Int Med*. 2007 Oct 2;147(7):478-91.
91. Hochberg MC, Altman RD, April KT, Benkhalti M, Guyatt G, McGowan J, Towheed T, Welch V, Wells G, Tugwell P; American College of Rheumatology. American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care Res (Hoboken)*. 2012 Apr;64(4):455-74.
92. American Academy of Orthopaedic Surgeons: Treatment of osteoarthritis of the knee. Rosemont (IL): 2013 [Guideline on the internet] [cited 2013 Jun 11]. Available from: <http://www.aaos.org/research/guidelines/TreatmentofOsteoarthritisoftheKneeGuideline.pdf>
93. Attal N, Cruccu G, Baron R, Haanpaa M, Hansson P, Jensen TS, et al. EFNS guidelines on the pharmacological treatment of neuropathic pain: 2010 revision. *Eur J Neurol*. 2010 Sep;17(9):1113-e88.
94. Bril V, England J, Franklin GM, Backonja M, Cohen J, Del Toro D, et al. Evidence-based guideline: treatment of painful diabetic neuropathy: report of the American Academy of Neurology, the American Association of Neuromuscular and Electrophysiological Medicine, and the American Academy of Physical Medicine and Rehabilitation. *Neurology*. 2011 May 17;76(20):1758-65.
95. Rodbard HW, Blonde L, Braithwaite SS, Brett EM, Cobin RH, Handelsman Y, et al. American Association of Clinical Endocrinologists medical guidelines for clinical practice for the management of diabetes mellitus. *Endocr Pract*. 2007 May-Jun;13(Suppl 1):S1-68.
96. Boulton AJ, Vinkik AL, Arezzo JC, Bril V, Feldman EL, Freeman R, et al. Diabetic neuropathies: a statement by the American Diabetes Association. *Diabetes Care*. 2005;28(4):956-62.
97. Dubinsky RM, Kabbani H, El-Chami, Boutwell C, Ali H; Quality Standards Subcommittee of the American Academy of Neurology. Practice parameter: treatment of postherpetic neuralgia: an evidence-based report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*. 2004;63:959.
98. Carville SF. EULAR evidence-based recommendations for the management of fibromyalgia syndrome. *Ann Rheum Dis*. 2008;67:536-41.

**DIVISION OF HEALTH CARE FINANCING AND POLICY**  
**NEVADA MEDICAID**  
**DRUG USE REVIEW (DUR) BOARD**  
**PROPOSED PRIOR AUTHORIZATION CRITERIA**

**Therapeutic Class:** Hepatitis C direct-acting antivirals

**Last Reviewed by the DUR Board:**

1. **Coverage and limitations:**

**A. All Requests must meet the following criteria:**

- 1) Recipient has a diagnosis of chronic Hepatitis C Virus (HCV) infection
- 2) Recipient is 18 years of age or older
- 3) All of the following must be included with the PA request:
  - a. Medical records and results of laboratory and diagnostic tests which support ALL of the following:
    1. HCV genotype (and subtype, if applicable)
    2. Baseline HCV RNA viral load and date drawn
    3. Hepatic fibrosis stage, including tests supporting liver disease staging (e.g. APRI, Fibroscan, Fibrosure, FIB-4)
      - i Results of diagnostic tests or imaging studies that are inconclusive may require additional testing
  - b. Complete treatment regimen
  - c. Duration of treatment
  - d. Previous treatment-experience and length of treatment, if any, including outcome (e.g. discontinued due to side effects, relapsed, non-responder, null-responder)
- 4) Prescriber must certify that treatment will be discontinued if the viral load is detectable at week 4 of treatment and has increased by greater than 10-fold ( $>1 \log_{10}$  IU/mL) on repeat testing at week 6 (or thereafter).
- 5) Requests for recipients with decompensated cirrhosis (Child Turcotte Pugh [CTP] class B or C) and requests for recipients who have chronic hepatitis C infection status-post liver transplant will be evaluated on a case-by-case basis.

**B. Harvoni (initial requests)**

- 1) Requested dose is one 90 mg/400 mg tablet once daily
- 2) Genotype 1
  - a. Recipient is treatment-naïve and ONE of the following is met:
    1. No cirrhosis, pre-treatment HCV RNA  $< 6$  million, and the requested duration is 8 weeks
    2. No cirrhosis, pre-treatment HCV RNA  $\geq 6$  million, and the requested duration is 12 weeks
    3. Compensated cirrhosis (CTP class A), requested duration is 12 weeks
  - b. Recipient is treatment-experienced (failed peginterferon + ribavirin) and ONE of the following is met:
    1. No cirrhosis and the requested duration is 12 weeks
    2. Compensated cirrhosis (CTP class A), will be treated with ribavirin, and requested duration is 12 weeks

3. Compensated cirrhosis (CTP class A), documentation is provided that the recipient is unable to take ribavirin, and the requested duration is 24 weeks
- c. Recipient is treatment-experienced (failed peginterferon + ribavirin + an NS3 protease inhibitor); ~~has had no prior treatment with an NS5A polymerase inhibitor (e.g. daclatasvir, ledipasvir, ombitasvir),~~ and ONE of the following is met:
  1. No cirrhosis and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with ribavirin, and requested duration is 12 weeks
  3. Compensated cirrhosis (CTP class A), documentation is provided that the recipient is unable to take ribavirin, and the requested duration is 24 weeks
- ~~d. Recipient is treatment-experienced (failed Olysio + Sovaldi), has had no prior treatment with an NS5A polymerase inhibitor (e.g. daclatasvir, ledipasvir, ombitasvir), and ONE of the following is met:
 
  1. No cirrhosis, will be treated with ribavirin, and the requested duration is 12 weeks
  2. Cirrhosis (CTP class A, B, or C), will be treated with ribavirin, and the requested duration is 24 weeks~~
- ~~e.d.~~ Recipient is treatment-experienced (failed Sovaldi + ribavirin ± peginterferon) and ONE of the following is met:
  1. No cirrhosis, will be treated with ribavirin, and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A, ~~B, or C~~), will be treated with ribavirin, and the requested duration is 24 weeks
- 3) Genotype 4
  - a. Recipient is treatment-naïve and ONE of the following is met
    1. No cirrhosis and the requested duration is 12 weeks
    2. Compensated cirrhosis (CTP class A) and the requested duration is 12 weeks
  - b. Recipient is treatment-experienced (failed peginterferon + ribavirin) and ONE of the following is met:
    1. No cirrhosis and the requested duration is 12 weeks
    2. Compensated cirrhosis (CTP class A), will be treated with ribavirin, and the requested duration is 12 weeks
    3. Compensated cirrhosis (CTP class A), documentation is provided that the recipient is unable to take ribavirin, and the requested duration is 24 weeks
- 4) Genotype 5 and 6
  - a. Recipient is treatment-naïve and the requested duration is 12 weeks
  - b. Recipient is treatment-experienced (failed peginterferon + ribavirin ~~± an NS3 protease inhibitor~~) and the requested duration is 12 weeks

### C. Viekira Pak (initial requests)

- 1) Requested dose is two ombitasvir/paritaprevir/ritonavir 12.5/75/50 mg tablets once daily (25/150/100 mg) and one dasabuvir 250 mg tablet twice daily
- 2) Genotype 1a
  - a. Recipient is treatment-naïve and ONE of the following is met:
    1. No cirrhosis, will be treated with ribavirin, and the requested duration is 12 weeks
    2. Compensated cirrhosis (CTP class A), will be treated with ribavirin, ~~and~~ the requested duration is ~~24~~2 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen

- b. Recipient is treatment experienced (failed peginterferon + ribavirin dual therapy)
  - 1. No cirrhosis, recipient will be treated with ribavirin, and the requested duration is 12 weeks
  - ~~4.2. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 24 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen~~
  - ~~2. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the recipient was a partial responder to peginterferon and ribavirin dual therapy, and the requested duration is 12 weeks~~
  - ~~3. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the recipient was a relapser after peginterferon and ribavirin dual therapy, and the requested duration is 24 weeks~~

3) Genotype 1b

- a. Recipient is treatment-naïve and ONE of the following is met:
  - 1. No cirrhosis and the requested duration is 12 weeks
  - 2. Compensated cirrhosis (CTP class A) and the requested duration is 12 weeks
- b. Recipient is treatment experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following:
  - 1. No cirrhosis and the requested duration is 12 weeks
  - 2. Compensated cirrhosis (CTP class A) and the requested duration is 12 weeks

**D. Technivie (initial requests)**

- 1) Requested dose is two ombitasvir/paritaprevir/ritonavir 12.5/75/50 mg tablets once daily (25/150/100 mg)

~~2) The Recipient does not have cirrhosis~~

~~3) 2) Genotype 4~~

- a. Recipient is treatment-naïve and ONE of the following:
  - 1. No cirrhosis, will be treated with ribavirin and the requested duration is 12 weeks
  - ~~4.2. Compensated cirrhosis (CTP class A) and the requested duration is 12 weeks~~
- ~~b. Recipient is treatment-naïve, documentation is provided showing that the recipient is unable to take ribavirin, and the requested duration is 12 weeks~~
- b. Recipient is treatment-experienced (failed peginterferon and ribavirin dual therapy) and ONE of the following:
  - 1. No cirrhosis, will be treated with ribavirin, and the requested duration is 12 weeks
  - ~~4.2. Compensated cirrhosis (CTP class A), will be treated with ribavirin, and the requested duration is 12 weeks~~

**E. Daklinza (initial requests)**

- 1) Requested dose is one of the following:
  - a. 60 mg (one tablet) daily
  - b. 30 mg (one tablet) and the recipient is receiving a strong CYP3A inhibitor
  - c. 90 mg (one ~~30 mg tablet and on 60 mg tablet~~) daily and the recipient is receiving a concomitant moderate CYP3A inducer ~~and clinical rationale documenting medical necessity for continuing the moderate CYP3A inducer during Daklinza therapy~~

2) Genotype 1

- a. Recipient is treatment-naïve and ONE of the following is met:
1. No cirrhosis, will be treated with Sovaldi ~~and ribavirin,~~ and the requested duration is 12 weeks
  - ~~2. No cirrhosis, will be treated with Sovaldi, the requested duration is 12 weeks and documentation has been provided showing that the recipient is unable to take ribavirin~~
  - ~~3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi ± ribavirin, and the requested duration is 12 weeks~~
  - 4.2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi + ribavirin, and the requested duration is 24 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  - 5.3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following:
1. No cirrhosis, will be treated with Sovaldi and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, ~~and~~ the requested duration is 24 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, requested duration is 24 weeks, ~~and~~ documentation is provided showing that the recipient is unable to take ribavirin and documentation is provided why the recipient cannot use a guideline-recommended regimen.
- c. Recipient is treatment-experienced (failed peginterferon + ribavirin + NS3 protease inhibitor), ~~has had no prior treatment with an NS5A polymerase inhibitor (e.g. daclatasvir, ledipasvir, ombitasvir)~~ and ONE of the following:
1. No cirrhosis, will be treated with Sovaldi and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, and the requested duration is 24 weeks
  3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, and documentation is provided showing that the recipient is unable to take ribavirin
- 3) Genotype 2
- a. Recipient is treatment-naïve, ~~documentation is provided showing that the recipient is unable to take ribavirin,~~ and ONE of the following is met:
1. No cirrhosis, will be treated with Sovaldi, and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, ~~and~~ the requested duration is ~~12~~16 weeks, and documentation is provided showing that the recipient is unable to take ribavirin
  - ~~3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, and the requested duration is 24 weeks~~
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy), documentation is provided showing the recipient is unable to take ribavirin, and ONE of the following:
1. No cirrhosis, will be treated with Sovaldi, and the requested 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated for Sovaldi, and the requested duration is 16 to 24 weeks

- b-c. Recipient is treatment-experienced (failed Sovaldi + ribavirin dual therapy), documentation has been provided showing that the recipient is unable to receive peginterferon, and ONE of the following:
  1. No cirrhosis, will be treated with Sovaldi and ribavirin, and the requested duration is 24 weeks
  2. No cirrhosis, will be treated with Sovaldi, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin
  3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, and the requested duration is 24 weeks
  - 3.4. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin

4) Genotype 3

- a. Recipient is treatment-naïve and ONE of the following is met:
  1. No cirrhosis, will be treated with Sovaldi and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, the requested duration is 24 weeks, ~~and documentation has been provided showing that the recipient is unable to receive peginterferon~~
  3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin ~~and showing that the recipient is unable to receive peginterferon~~
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy), documentation is provided showing that the recipient is unable to receive peginterferon, and ONE of the following:
  1. No cirrhosis, will be treated with Sovaldi and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, ~~and the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to receive peginterferon~~
  3. ~~Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin~~
- c. Recipient is treatment-experienced (failed Sovaldi + ribavirin therapy dual therapy), documentation is provided that the recipient is unable to receive peginterferon, and ONE of the following:
  1. No cirrhosis, will be treated with Sovaldi and ribavirin and the requested duration is 24 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin and the requested duration is 24 weeks

**F. Olysio (initial requests)**

- 1) Requested dose is 150 mg (one capsule) daily.
- 2) Genotype 1a
  - a. Recipient is treatment-naïve and ONE of the following is met:
    1. No cirrhosis, will be treated with Sovaldi ~~and ribavirin~~, and the requested duration is 12 weeks
    2. ~~No cirrhosis, will be treated with Sovaldi, the requested duration is 12 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin~~
    - 3.2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, the requested duration is 24 weeks, and the recipient is negative for the Q80K polymorphism, and documentation is provided why the recipient cannot use a guideline-recommended regimen

~~4.3.~~ Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, the recipient is negative for the Q80K polymorphism, ~~and~~ documentation has been provided showing that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen

- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following:
1. No cirrhosis, will be treated with Sovaldi and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, the requested duration is 24 weeks, and the recipient is negative for the Q80K polymorphism
  3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, the recipient is negative for the Q80K polymorphism, and documentation has been provided showing that the recipient is unable to take ribavirin

3) Genotype 1b

- a. Recipient is treatment-naïve and ONE of the following is met:
1. No cirrhosis, will be treated with Sovaldi, and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, and the requested duration is 24 weeks
  3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following:
1. No cirrhosis, will be treated with Sovaldi and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Sovaldi and ribavirin, the requested duration is 24 weeks
  3. Compensated cirrhosis (CTP class A), will be treated with Sovaldi, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin

**G. Sovaldi (initial requests)**

- 1) Requested dose is 400 mg daily
- 2) Genotype 1

- a. Recipient is treatment-naïve and ONE of the following is met:
1. No cirrhosis, will be treated with Daklinza ~~and ribavirin~~ and the requested duration is 12 weeks
  - ~~2. No cirrhosis, will be treated with Daklinza, the requested duration is 12 weeks and documentation has been provided showing that the recipient is unable to take ribavirin~~
  - ~~3.2.~~ No cirrhosis, ~~genotype 1a,~~ will be treated with Olysio ~~and ribavirin~~, and the requested duration is 12 weeks
  - ~~4. No cirrhosis, genotype 1a, will be treated with Olysio, the requested duration is 12 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin~~
  - ~~5. No cirrhosis, genotype 1b, will be treated with Olysio, and the requested duration is 12 weeks~~
  - ~~6. Compensated cirrhosis (CTP class A), will be treated with Daklinza ± ribavirin, and the requested duration is 12 weeks~~
  - ~~7.3.~~ Compensated cirrhosis (CTP class A), will be treated with Daklinza + ribavirin, ~~and~~ the requested duration is 24 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen

- ~~8-4.~~ Compensated cirrhosis (CTP class A), will be treated with Daklinza, requested duration is 24 weeks, ~~and~~ documentation has been provided showing that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- ~~9-5.~~ Compensated cirrhosis (CTP class A), genotype 1a, will be treated with Olysio and ribavirin, the requested duration is 24 weeks, ~~and~~ the recipient is negative for the Q80K polymorphism, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- ~~10-6.~~ Compensated cirrhosis (CTP class A), genotype 1a, will be treated with Olysio, the requested duration is 24 weeks, the recipient is negative for the Q80K polymorphism, ~~and~~ documentation has been provided showing that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- ~~11-7.~~ Compensated cirrhosis (CTP class A), genotype 1b, will be treated with Olysio and ribavirin, ~~and~~ the requested duration is 24 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- ~~12-8.~~ Compensated cirrhosis (CTP class A), genotype 1b, will be treated with Olysio, the requested duration is 24 weeks, ~~and~~ documentation has been provided that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following:
1. No cirrhosis, will be treated with Daklinza and the requested duration is 12 weeks
  2. No cirrhosis, will be treated with Olysio and the requested duration is 12 weeks
  3. Compensated cirrhosis (CTP class A), will be treated with Daklinza and ribavirin, ~~and~~ the requested duration is 24 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  4. Compensated cirrhosis (CTP class A), will be treated with Daklinza, requested duration is 24 weeks, ~~and~~ documentation is provided showing that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  5. Compensated cirrhosis (CTP class A), genotype 1a, will be treated with Olysio and ribavirin, the requested duration is 24 weeks, ~~and~~ the recipient is negative for the Q80K polymorphism, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  6. Compensated cirrhosis (CTP class A), genotype 1a, will be treated with Olysio, the requested duration is 24 weeks, the recipient is negative for the Q80K polymorphism, ~~and~~ documentation has been provided showing that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  7. Compensated cirrhosis (CTP class A), genotype 1b, will be treated with Olysio and ribavirin, the requested duration is 24 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  8. Compensated cirrhosis (CTP class A), genotype 1b, will be treated with Olysio, the requested duration is 24 weeks, ~~and~~ documentation has been provided showing that the recipient is unable to take ribavirin, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- c. Recipient is treatment-experienced (failed peginterferon + ribavirin + NS3 protease inhibitor), ~~has had no prior treatment with an NS5A polymerase inhibitor (e.g. daclatasvir, ledipasvir, ombitasvir)~~ and ONE of the following:
1. No cirrhosis, will be treated with Daklinza and the requested duration is 12 weeks
  2. Compensated cirrhosis (CTP class A), will be treated with Daklinza and ribavirin, and the requested duration is 24 weeks
  3. Compensated cirrhosis (CTP class A), will be treated with Daklinza, the requested duration is 24 weeks, and documentation is provided showing that the recipient is unable to take ribavirin

3) Genotype 2

- a. Recipient is treatment-naïve and ONE of the following is met:
1. No cirrhosis, will be treated with ribavirin, and the requested duration is 12 weeks
  2. No cirrhosis, will be treated with Daklinza, the requested duration is 12 weeks, ~~and documentation is provided showing that the recipient is unable to take ribavirin~~
  3. Compensated cirrhosis (CTP class A), will be treated with ribavirin, and the requested duration is 16 weeks to 24 weeks
  - ~~4. Compensated cirrhosis (CTP class A), will be treated with Daklinza, the requested duration is 12 weeks, and documentation is provided showing that the recipient is unable to take ribavirin~~
  - 5.4. Compensated cirrhosis (CTP class A), will be treated with Daklinza, the requested duration is 24-16 weeks, and documentation is provided showing that the recipient is unable to take ribavirin
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy), and ONE of the following:
1. No cirrhosis, will be treated with ribavirin, and the requested duration is ~~16-12~~ 12 weeks
  - ~~2. No cirrhosis, will be treated with ribavirin and peginterferon and the requested duration is 12 weeks~~
  2. No cirrhosis, will be treated with Daklinza, the requested duration is 12 weeks, and documentation is provided showing the recipient is unable to take ribavirin
  3. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 16 weeks to 24 weeks
  4. Compensated cirrhosis (CTP class A), will be treated with Daklinza and ribavirin, the requested duration is 16 weeks to 24 weeks, and documentation is provided showing the recipient is unable to take ribavirin
  5. Compensated cirrhosis (CTP class A), will be treated with ribavirin and peginterferon, ~~and the requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen~~
- c. Recipient is treatment-experienced (failed Sovaldi + ribavirin dual therapy) and ONE of the following:
1. No cirrhosis, will be treated with Daklinza and ribavirin, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to receive peginterferon
  2. No cirrhosis, will be treated with Daklinza, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin and showing that the recipient is unable to receive peginterferon
  3. No cirrhosis, will be treated with ribavirin and peginterferon, and the requested duration is 12 weeks
  4. Compensated cirrhosis (CTP class A), will be treated with Daklinza and ribavirin, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to receive peginterferon
  5. Compensated cirrhosis (CTP class A), will be treated with Daklinza, the requested duration is 24 weeks, and documentation is been provided showing that the recipient is unable to take peginterferon and ribavirin
  - ~~5.6. Compensated cirrhosis (CTP class A), will be treated with ribavirin and peginterferon, and the requested duration is 12 weeks~~

4) Genotype 3

- a. Recipient is treatment-naïve and ONE of the following is met:
1. No cirrhosis, will be treated with ribavirin and peginterferon, and the requested duration is 12 weeks

2. No cirrhosis, will be treated with ribavirin, the requested duration is 24 weeks, and documentation ~~is provided showing that the recipient is unable to receive peginterferon is provided why the recipient cannot use a guideline-recommended regimen~~
  3. No cirrhosis, recipient will be treated with Daklinza and the requested duration is 12 weeks
  4. Compensated cirrhosis (CTP class A), will be treated with ribavirin and peginterferon, and the requested duration is 12 weeks
  5. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 24 weeks, ~~and documentation has been provided that the recipient is unable to receive peginterferon and documentation is provided why the recipient cannot use a guideline-recommended regimen~~
  6. Compensated cirrhosis (CTP class A), will be treated with Daklinza and ribavirin, the requested duration is 24 weeks, ~~and documentation has been provided showing that the recipient is unable to receive peginterferon~~
  7. Compensated cirrhosis (CTP class A), will be treated with Daklinza, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin ~~and showing that the recipient is unable to receive peginterferon~~
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following:
1. No cirrhosis, will be treated with peginterferon and ribavirin, and the requested duration is 12 weeks
  2. No cirrhosis, will be treated with Daklinza, and the requested duration is 12 weeks
  3. Compensated cirrhosis (CTP class A), will be treated with peginterferon and ribavirin, and the requested duration is 12 weeks
  4. Compensated cirrhosis (CTP class A), will be treated with Daklinza and ribavirin, ~~and the requested duration is 24 weeks, and documentation is been provided showing that the recipient is unable to take peginterferon~~
  5. ~~Compensated cirrhosis (CTP class A), will be treated with Daklinza, the requested duration is 24 weeks, and documentation has been provided showing that the recipient is unable to take ribavirin~~
- c. Recipient is treatment-experienced (failed Sovaldi + ribavirin therapy dual therapy) and ONE of the following:
1. No cirrhosis, will be treated with peginterferon and ribavirin, and the requested duration is 12 weeks
  2. No cirrhosis, recipient will be treated with Daklinza and ribavirin, ~~and the requested duration is 24 weeks, and documentation is been provided showing that the recipient is unable to take peginterferon~~
  3. Compensated cirrhosis (CTP class A), will be treated with peginterferon and ribavirin, and the requested duration is 12 weeks
  4. Compensated cirrhosis (CTP class A), will be treated with Daklinza and ribavirin, ~~and the requested duration is 24 weeks, and documentation is been provided showing that the recipient is unable to take peginterferon~~
- 5) Genotype 4
- a. Recipient is treatment-naïve and ONE of the following is met:
1. No cirrhosis, will be treated with ribavirin and peginterferon, ~~and the requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen~~
  2. ~~No cirrhosis, will be treated with ribavirin and the requested duration is 24 weeks~~
  3. ~~2. Compensated Cirrhosis (CTP class A), will be treated with ribavirin and peginterferon, and the requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen~~
  4. ~~Cirrhosis, will be treated with ribavirin and the requested duration is 24 weeks~~

- b. Recipient is treatment-experienced (failed peginterferon alfa + ribavirin dual therapy) and ONE of the following:
    - 1. No cirrhosis, will be treated with ribavirin and peginterferon, ~~and~~ the requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
    - 2. ~~No cirrhosis, will be treated with ribavirin, and the requested duration is 24 weeks~~
    - 3. ~~Cirrhosis, will be treated with ribavirin and peginterferon, and the requested duration is 12 weeks~~
    - 4. Compensated Cirrhosis (CTP class A), will be treated with ribavirin, ~~and~~ the requested duration is 24 weeks, documentation is provided why the recipient cannot take peginterferon, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- 6) Genotype 5 and 6
- a. Recipient is treatment-naïve and ONE of the following is met:
    - 1. No cirrhosis, will be treated with ribavirin and peginterferon, ~~and~~ the requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
    - 2. Compensated Cirrhosis (CTP class A), will be treated with ribavirin and peginterferon, ~~and~~ requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  - b. Recipient is treatment-experienced (~~failed peginterferon alfa + ribavirin dual therapy~~) and ONE of the following:
    - 1. No cirrhosis, will be treated with ribavirin and peginterferon, ~~and~~ the requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen
    - 2. Compensated Cirrhosis (CTP class A), will be treated with ribavirin and peginterferon, ~~and~~ the requested duration is 12 weeks, and documentation is provided why the recipient cannot use a guideline-recommended regimen

#### H. Zepatier

1) The requested dose is one tablet (50/100 mg) daily

2) Genotype 1a

- a. Recipient is treatment-naïve and ONE of the following is met:
  - 1. No cirrhosis, the requested duration is 12 weeks, and there are no baseline NS5A RAVs for elbasvir detected
  - 2. No cirrhosis, will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  - 3. Compensated cirrhosis (CTP class A), requested duration is 12 weeks, and there are no baseline NS5A RAVs for elbasvir detected
  - 4. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following is met:
  - 1. No cirrhosis, the requested duration is 12 weeks, and there are no baseline NS5A RAVs for elbasvir detected

2. No cirrhosis, will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected, and documentation is provided why the recipient cannot use a guideline-recommended regimen
  3. Compensated cirrhosis (CTP class A), requested duration is 12 weeks, and there are no baseline NS5A RAVs for elbasvir detected
  4. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected, and documentation is provided why the recipient cannot use a guideline-recommended regimen
- c. Recipient is treatment-experienced (failed peginterferon + ribavirin + NS3 protease inhibitor) and ONE of the following is met:
1. No cirrhosis, will be treated with ribavirin, the requested duration is 12 weeks and there are no baseline NS5A RAVs for elbasvir detected
  2. No cirrhosis, will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected
  3. Compensated cirrhosis (CTP class A), will be treated with ribavirin, requested duration is 12 weeks, and there are no baseline NS5A RAVs for elbasvir detected
  4. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected
- 3) Genotype 1b
- a. Recipient is treatment-naïve and ONE of the following is met:
    1. No cirrhosis and the requested duration is 12 weeks
    2. Compensated Cirrhosis (CTP class A) and the requested duration is 12 weeks
  - b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following is met:
    1. No cirrhosis and the requested duration is 12 weeks
    2. Compensated Cirrhosis (CTP class A) and the requested duration is 12 weeks
  - c. Recipient is treatment-experienced (failed peginterferon + ribavirin + NS3 protease inhibitor) and ONE of the following is met:
    1. No cirrhosis, will be treated with ribavirin, the requested duration is 12 weeks and there are no baseline NS5A RAVs for elbasvir detected
    2. No cirrhosis, will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected
    3. Compensated cirrhosis (CTP class A), will be treated with ribavirin, requested duration is 12 weeks, and there are no baseline NS5A RAVs for elbasvir detected
    4. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 16 weeks, baseline NS5A RAVs for elbasvir have been detected
- 4) Genotype 4
- a. Recipient is treatment naïve and ONE of the following is met:
    1. No cirrhosis and the requested duration is 12 weeks
    2. Compensated cirrhosis (CTP class A) and the requested duration is 12 weeks
  - b. Recipient is treatment-experienced (failed peginterferon + ribavirin dual therapy) and ONE of the following is met:
    1. No cirrhosis, the requested duration is 12 weeks, and documentation has been provided showing that the recipient experienced virologic relapse to peginterferon + ribavirin dual therapy
    2. No cirrhosis, will be treated with ribavirin, the requested duration is 16 weeks, and documentation has been provided showing that the recipient experienced on-treatment virologic failure to peginterferon + ribavirin dual therapy
    3. Compensated cirrhosis (CTP class A), the requested duration is 12 weeks, and documentation has been provided showing that the recipient experienced virologic relapse to peginterferon + ribavirin dual therapy

4. Compensated cirrhosis (CTP class A), will be treated with ribavirin, the requested duration is 16 weeks, and documentation has been provided showing that the recipient experienced on-treatment virologic failure to peginterferon + ribavirin dual therapy

#### **H.I. Epclusa (sofosbuvir/velpatasvir)**

- 1) The requested dose is one tab daily AND
- 2) The Recipient is treatment-naïve, with or without cirrhosis and the requested duration is 12 weeks OR
- 3) The Recipient is treatment-experienced, with or without cirrhosis, the requested duration is 12 weeks and meets ONE of the following:
  - a. Genotype 1a PEG-IFN/Ribavirin Treatment-Experienced
  - b. Genotype 1b PEG-IFN/Ribavirin Treatment-Experienced
  - c. Genotype 1 HCV Nonstructural Protein 3 (NS3) Protease Inhibitor (telaprevir, boceprevir, or simeprevir) plus PEG-IFN/Ribavirin Treatment-Experienced
  - d. Genotype 2 PEG-IFN/Ribavirin Treatment-Experienced
  - e. Genotype 2 Sofosbuvir plus Ribavirin Treatment-Experienced
  - f. Genotype 3 PEG-IFN/Ribavirin Treatment-Experienced
  - g. Genotype 3 Sofosbuvir and Ribavirin Treatment-Experienced
  - h. Genotype 4 PEG-IFN/Ribavirin Treatment-Experienced
  - i. Genotype 5 or 6 PEG-IFN/Ribavirin Treatment-Experienced
  - a.j.

#### **H.J. Recipients who have received previous therapy with an NS5A inhibitor (e.g. daclatasvir, ledipasvir, ombitasvir) or combination therapy with sofosbuvir + simeprevir**

- ~~1) Genotype 4~~
- ~~2) 1) One of the following:
  - a. Recipient has cirrhosis
  - b. Documentation which includes clinical rationale for urgent retreatment have been provided~~
- 2) Testing for resistance-associated variants (RAVs) have been done and results have been provided
- 3) Requested regimen does not include agents in which RAVs have developed
- 4) Requested regimen includes ribavirin or documentation has been provided that ribavirin is contraindicated
- ~~3) No NS5A RAVs detected: Harvoni + ribavirin ± peginterferon x24 weeks~~
- ~~4) NS5A RAVs detected, no NS3 RAVs detected: Olysio + Sovaldi + ribavirin ± peginterferon x24 weeks~~

#### **J.K. \_\_\_\_\_ Requests for recertification (for treatment beyond 12 weeks) must meet ALL of the following:**

- 1) Laboratory results for HCV RNA viral load at week 4 and week 6 (if applicable) have been submitted with the PA request
- 2) HCV Viral load must meet ONE of the following:
  - a. Undetectable HCV RNA viral load at week 4
  - b. Detectable HCV RNA viral load at treatment week 4 and HCV RNA increased by  $\leq 10$ -fold ( $\leq 1 \log_{10}$  IU/mL) on repeat testing at treatment week 6 (or thereafter)
- 3) Recipient is compliant on all drugs in the treatment regimen

## **2. Prior Authorization Guidelines:**

A. Prior authorization approval will be granted for a maximum of 12 weeks (unless the requested regimen is less than 12 weeks long or the remaining duration of therapy is less than 12 weeks)

~~B. The initial prescription will be limited to a 14-day supply; subsequent refills can be up to 34 days.~~

3. **Quantity Limitations:**

A. Harvoni (ledipasvir/sofosbuvir): 1 tablet/day

B. Viekira Pak (ombitasvir/paritaprevir/ritonavir/dasabuvir): 1 pack/28 days

~~C. Technivie (ombitasvir/paritaprevir/ritonavir): 1 tablet/day~~

~~G.D. Zepatier (elbasvir and grazoprevir): 1 tablet/day~~

~~D.E. Daklinza (daclatasvir): 1 tablet/day~~

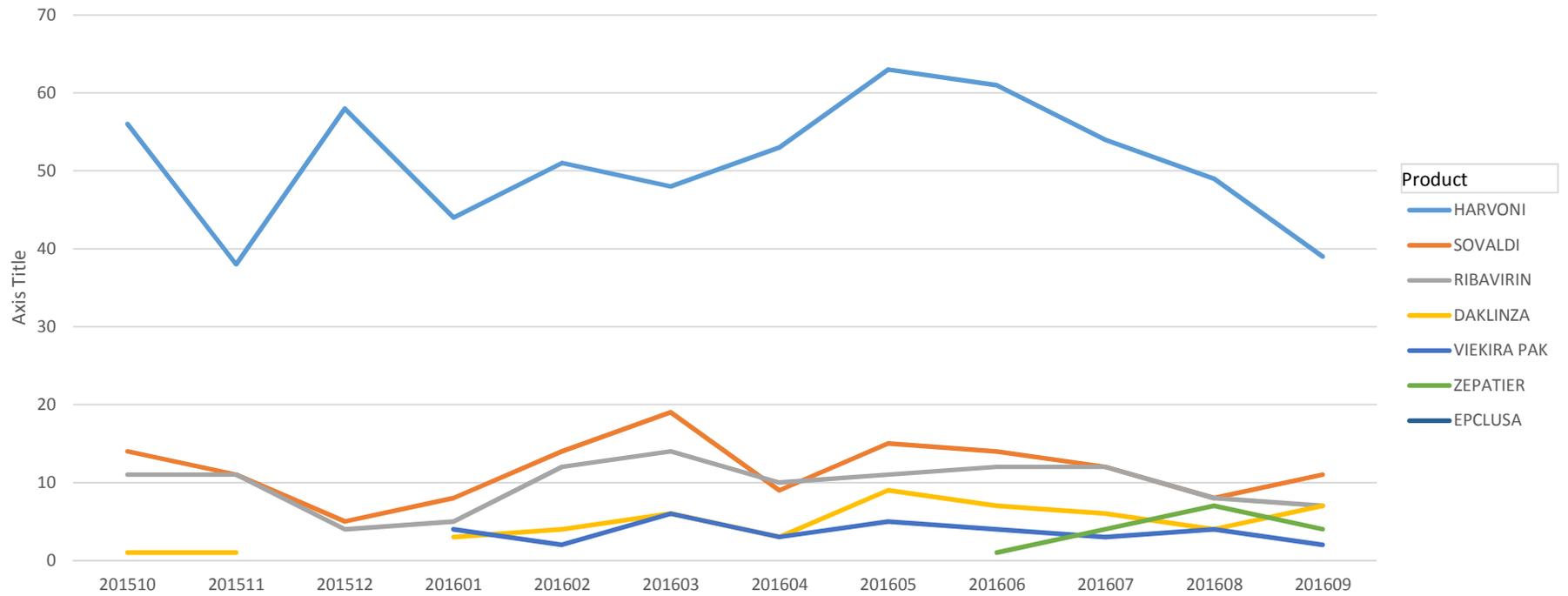
~~E.F. Olysio (simeprevir): 1 capsule/day~~

~~G. Sovaldi (sofosbuvir): 1 tablet/day~~

~~F.H. Epclusa (sofosbuvir/velpatasvir): 1 tablet/day~~

Sum of Claims

### Hepatitis C Treatment



Year Month

**Hepatitis C Treatments**  
**October 1, 2015 - September 30, 2016**

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Total Pd
<b>HARVONI</b>	<b>401</b>	<b>614</b>	<b>10,696</b>	<b>10,696</b>	<b>\$ 11,771,616</b>
201510	36	56	994	994	\$ 1,140,882
201511	27	38	672	672	\$ 737,027
201512	32	58	938	938	\$ 1,028,817
201601	32	44	742	742	\$ 813,821
201602	33	51	924	924	\$ 1,013,399
201603	31	48	910	910	\$ 998,022
201604	37	53	924	924	\$ 1,013,419
201605	38	63	1,064	1,064	\$ 1,166,988
201606	41	61	1,050	1,050	\$ 1,151,621
201607	36	54	966	966	\$ 1,059,469
201608	32	49	868	868	\$ 948,501
201609	26	39	644	644	\$ 699,652
<b>SOVALDI</b>	<b>119</b>	<b>140</b>	<b>3,738</b>	<b>3,738</b>	<b>\$ 3,688,720</b>
201510	11	14	364	364	\$ 371,347
201511	10	11	308	308	\$ 302,414
201512	5	5	140	140	\$ 137,461
201601	7	8	224	224	\$ 222,527
201602	12	14	392	392	\$ 392,142
201603	15	19	504	504	\$ 500,735
201604	9	9	252	252	\$ 245,867
201605	12	15	392	392	\$ 382,470
201606	13	14	364	364	\$ 355,152
201607	11	12	336	336	\$ 327,823
201608	6	8	182	182	\$ 177,586
201609	8	11	280	280	\$ 273,196
<b>RIBAVIRIN</b>	<b>109</b>	<b>117</b>	<b>17,132</b>	<b>3,323</b>	<b>\$ 16,209</b>
201510	11	11	1,508	314	\$ 2,726
201511	9	11	1,606	310	\$ 1,178
201512	4	4	598	114	\$ 421
201601	5	5	748	144	\$ 657
201602	10	12	1,864	344	\$ 1,401
201603	12	14	2,064	396	\$ 1,605
201604	10	10	1,484	280	\$ 1,215
201605	10	11	1,708	308	\$ 1,454
201606	12	12	1,804	338	\$ 1,519
201607	12	12	1,776	343	\$ 1,960
201608	8	8	1,008	229	\$ 1,091
201609	6	7	964	203	\$ 982
<b>DAKLINZA</b>	<b>40</b>	<b>51</b>	<b>1,330</b>	<b>1,330</b>	<b>\$ 993,633</b>
201510	1	1	28	28	\$ 21,425
201511	1	1	28	28	\$ 21,010
201601	2	3	84	84	\$ 63,031

Row Labels	Sum of Members	Sum of Claims	Sum of Qty	Sum of Days	Sum of Total Pd
201602	3	4	112	112	\$ 84,041
201603	4	6	140	140	\$ 105,061
201604	3	3	84	84	\$ 63,031
201605	7	9	252	252	\$ 189,092
201606	7	7	196	196	\$ 147,071
201607	5	6	168	168	\$ 126,061
201608	2	4	70	70	\$ 52,171
201609	5	7	168	168	\$ 121,640
<b>VIEKIRA PAK</b>	<b>21</b>	<b>33</b>	<b>1,960</b>	<b>490</b>	<b>\$ 478,036</b>
201601	1	4	112	28	\$ 27,689
201602	2	2	140	35	\$ 34,115
201603	2	6	252	63	\$ 61,432
201604	2	3	168	42	\$ 40,944
201605	4	5	280	70	\$ 68,241
201606	3	4	280	70	\$ 68,230
201607	3	3	280	70	\$ 68,220
201608	3	4	336	84	\$ 81,868
201609	1	2	112	28	\$ 27,296
<b>ZEPATIER</b>	<b>12</b>	<b>16</b>	<b>392</b>	<b>392</b>	<b>\$ 254,963</b>
201606	1	1	28	28	\$ 18,210
201607	3	4	84	84	\$ 54,641
201608	5	7	182	182	\$ 118,371
201609	3	4	98	98	\$ 63,741
<b>EPCLUSA</b>	<b>3</b>	<b>4</b>	<b>70</b>	<b>70</b>	<b>\$ 62,341</b>
201609	3	4	70	70	\$ 62,341
<b>Grand Total</b>	<b>705</b>	<b>975</b>	<b>35,318</b>	<b>20,039</b>	<b>\$ 17,265,517</b>

## **Therapeutic Class Overview**

### **Direct Acting Hepatitis C Antivirals and Combinations**

#### **Overview/Summary:**

The direct acting hepatitis C antiviral and combination products are all Food and Drug Administration (FDA)-approved for the treatment of chronic hepatitis C virus (HCV) infection; although, differences in indications exist relating to use in specific genotypes, with certain combination therapies and other patient factors.<sup>1-9</sup> Daklinza® (daclatasvir) is a once-daily NS5A inhibitor indicated for use with an NS5B polymerase inhibitor Sovaldi® (sofosbuvir) for 12 weeks in the treatment of patients with chronic hepatitis C virus (HCV) genotype 3 infection. It is the first Food and Drug Administration (FDA)-approved all-oral regimen for the HCV genotype 3 infection that does not require co-administration of interferon or ribavirin.<sup>1</sup> Technivie® (ombitasvir/paritaprevir/ ritonavir) in combination with ribavirin is the first interferon-free Food and Drug Administration (FDA)-approved drug for the treatment of HCV genotype 4 infection.<sup>7</sup>

HCV is an enveloped ribonucleic acid virus that is transmitted through exposure with infected blood and is the most common bloodborne infection in the United States, with an estimated prevalence of 3.2 million people chronically infected. Chronic HCV develops in 70 to 85% of HCV-infected persons and is associated with significant morbidity (e.g., cirrhosis, hepatocellular carcinoma [HCC]) and is the leading cause of liver transplantation.<sup>10-12</sup> The average annual incidence rate of HCC in the U.S. between 2001 and 2006 was 3.0 per 100,000 people, with 48% to cases attributed to HCV.<sup>11</sup> These agents act via several different mechanisms of action to exert their therapeutic effect.<sup>1-9</sup> Daclatasvir (Daklinza) binds to the N-terminus of NS5A, a nonstructural protein encoded by HCV, and inhibits both viral ribonucleic acid (RNA) replication and virion assembly.<sup>1</sup> Simeprevir (Olysio®) works via inhibition of the HCV NS3/4A protease of HCV genotype 1a and 1b, thus preventing replication of HCV host cells.<sup>2</sup> Similarly, sofosbuvir (Sovaldi®) inhibits HCV NS5B polymerase which also prevents the replication of HCV host cells, however, it is active against multiple genotypes of HCV.<sup>3</sup> The combination products that include direct acting hepatitis C antivirals include ledipasvir/sofosbuvir (Harvoni®), ombitasvir/paritaprevir/ritonavir (Technivie®), and ombitasvir/paritaprevir/ritonavir/dasabuvir (Viekira Pak®), elbasvir/grazoprevir (Zepatier®) and sofosbuvir/velpatasvir (Epclusa®). Grazoprevir and paritaprevir inhibit NS3/4A protease, dasabuvir inhibits NS5B polymerase and elbasvir, ledipasvir, ombitasvir and velpatasvir specifically inhibit HCV non-structural protein NS5A. Ritonavir, when used in Technivie® and Viekira Pak®, is used as a boosting agent that increases the peak and trough plasma drug concentrations of paritaprevir along with overall drug exposure; it has no direct effect on the hepatitis C virus.<sup>4-8</sup> Specific indications for each of the direct acting hepatitis C antiviral agents are listed in Table 1.

Efficacy of these agents have been established in multiple clinical trials with numerous clinical trials still underway.<sup>13-47</sup> Generally, therapy is determined by clinical guidelines developed by the American Association for the Study of Liver Diseases (AASLD) and the Infectious Diseases Society of America and International Antiviral Society (IDSA) rather than the FDA-approved labels of these agents.<sup>48</sup> The newer combination regimens that include direct hepatitis C antivirals are preferred over older pegylated interferon-based regimens (including those containing older protease inhibitors) due to a higher sustained virologic response (SVR) rate, improved side effects profile, and reduced pill burden. However, many different regimens with direct-acting agents or combinations, which may or may not also include ribavirin or pegylated interferon, are recommended based on HCV genotype, previous treatment experience and certain special populations. Each of the direct HCV antivirals is recommended as part of at least one first-line regimen.<sup>48-50</sup> Currently, there are no generic direct-acting antivirals available.

**Table 1. Current Medications Available in Therapeutic Class<sup>1-8</sup>**

<b>Generic (Trade Name)</b>	<b>FDA Approved Indications</b>	<b>Dosage Form/Strength</b>	<b>Generic Availability</b>
<b>Single Entity Agents</b>			
Daclatasvir (Daklinza®)	Treatment of chronic HCV genotype 3 infection in adults as part of a combination antiviral regimen	Tablet: 30 mg 60 mg	-
Simeprevir (Olysio®)	Treatment of chronic HCV genotype 1,4	Capsule: 150	-

Generic (Trade Name)	FDA Approved Indications	Dosage Form/Strength	Generic Availability
	infection in adults as part of a combination antiviral regimen	mg	
Sofosbuvir (Sovaldi®)	Treatment of chronic HCV genotype 1, 2, 3, and 4 infection in adults as part of a combination antiviral regimen	Tablet: 400 mg	-
<b>Combination Products</b>			
Elbasvir/grazoprevir (Zepatier®)	Treatment of chronic HCV genotype 1 and 4 infection in adults as part of a combination antiviral regimen	Tablet: 50/100 mg	-
Ledipasvir/sofosbuvir (Harvoni®)	Treatment of chronic HCV genotype 1, 4, 5, and 6 infection in adults as part of a combination antiviral regimen	Tablet: 90/400 mg	-
Ombitasvir/paritaprevir/ritonavir/dasabuvir (Viekira Pak®)	Treatment of chronic HCV genotype 1 infection in adults as part of a combination antiviral regimen	Tablet (dasabuvir): 250 mg  Tablet (ombitasvir/paritaprevir/ritonavir): 12.5/75/50 mg	-
Ombitasvir/paritaprevir/ritonavir (Technivie®)	Treatment of chronic HCV genotype 4 infection in adults as part of a combination antiviral regimen	Tablet: 12.5/75/50 mg	-
Sofosbuvir/velpatasvir (Epclusa®)	Treatment of chronic HCV genotypes 1, 2, 3, 4, 5 or 6 in adults	Tablet: 400 mg/100 mg	-

FDA=Food and drug administration, HCV=hepatitis C virus

### Evidence-based Medicine

- Clinical trials have demonstrated the safety and efficacy of the direct acting hepatitis C antivirals in various genotypes and regimens.<sup>13-47</sup> Overall, data from clinical trials support the FDA-approved indications and dosing recommendations for these agents.
- The FDA approval of daclatasvir was based on the results of ALLY-3, an open-label study evaluating 12 week regimen of daclatasvir 60 mg plus sofosbuvir 400 mg in treatment-naïve and treatment-experienced patients with chronic HCV genotype 3 infection. The primary endpoint was the SVR at post treatment week 12 (SVR12). High SVR12 rates were observed among patients without cirrhosis: 97% (73/75) and 94% (32/34) in treatment-naïve and treatment-experienced patients, respectively. In contrast, SVR12 rates in cirrhotic patients were much lower: 58% (11/19) and 69% (9/13) in treatment-naïve and treatment-experienced patients, respectively.<sup>33</sup>
  - An ongoing randomized phase III study is evaluating a combination of daclatasvir, sofosbuvir and ribavirin for 12 or 16 weeks to determine whether the addition of ribavirin or extending treatment duration improved SVR rates in cirrhotic patients with HCV genotype 3 infection.<sup>34</sup>
- The efficacy of simeprevir in patients with HCV genotype 1 infection was evaluated in several unpublished studies, including two phase III trials in treatment-naïve patients (QUEST 1 and QUEST 2), one phase III trial in patients who relapsed after prior interferon-based therapy (PROMISE).<sup>2</sup>
  - In the pooled analysis of QUEST 1 and QUEST 2, a greater proportion of patients in the simeprevir group achieved SVR at 12 weeks (SVR12) compared to control group (80 vs 50%; P value not reported).<sup>2</sup>
- The safety and efficacy of simeprevir in combination with sofosbuvir with or without ribavirin for the treatment of hepatitis C genotype 1 was evaluated in the COSMOS trial. Cohort 1 included prior null responders with METAVIR scores F0 to F2 and Cohort 2 included prior null responders and treatment-naïve patients with METAVIR scores F3 to F4.<sup>2,27</sup>
  - SVR at 12 weeks post therapy (SVR12) was achieved in 92% of the patients in the the intention to treat (ITT) population. SSVR12 for Cohort 1 and Cohort 2 were 90% (95% CI, 81

- to 96) and 94% (95% CI, 87 to 98), respectively. The results were not significantly altered by use of ribavirin, duration of treatment, or treatment history (no P values reported).<sup>20</sup>
- The FDA approval of sofosbuvir was based on the results of five phase III trials (N=1,724) in HCV mono-infected patients (genotypes 1 to 6) and one unpublished phase III trial (N=223) in HCV/HIV-1 co-infected patients (HCV genotype 1, 2 or 3).<sup>13,31,32</sup>
    - All trials utilized SVR12 as the primary endpoint and overall, these studies showed that sofosbuvir provided a significant improvement in SVR12 compared with control in both treatment-naïve and treatment-experienced patients.<sup>13,31,32</sup>
    - Sofosbuvir was not specifically studied in treatment-experienced patients with HCV genotype 1 infection. According to the prescribing information, the estimated response rate in patient who previously failed treatment with peginterferon alfa and ribavirin is 71%. This is based on the observed response rate in patients from the NEUTRINO study.<sup>13</sup>
  - The FDA-approval of elbasvir/grazoprevir was based on two placebo-controlled trials and four uncontrolled phase II and III clinical trials in 1,401 patients with genotype HCV genotype 1, 4, or 6 chronic HCV with compensated liver disease (C-EDGE TN, C-EDGE COINFECTION, C-SURFER, C-SCAPE, C-EDGE TE, and C-SALVAGE). All clinical trials evaluated SVR12 as the primary endpoint. Elbasvir/grazoprevir was administered once daily in all trials and ribavirin, if received, was dosed by weight.<sup>4,14-20</sup>
    - After 12 weeks to therapy, SVR12 rates in C-EDGE TN were 91.7% (genotype 1a), 98.5% (genotype 1b), 100% (genotype 4), and 80% (genotype 6). SVR12 was achieved in 97.1% of cirrhotic patients and 93.9% (231/246) of noncirrhotic patients.<sup>14</sup> After 12 weeks to therapy, SVR12 rates in C-EDGE COINFECTION (HIV-coinfection) were 96.5% (genotype 1a), 95.5% (genotype 1b), 96.4% (genotype 4), and 100% (genotype 6) with 100% of cirrhotic patients. All 35 patients with cirrhosis achieved SVR12.<sup>15</sup> The SVR12 rate after 12 weeks of therapy in C-SURFER (chronic kidney disease) was 99.1%.<sup>16</sup> The overall SVR12 rate in C-SALVAGE (genotype 1, previously failed ≥4 weeks of peginterferon alfa and ribavirin combined with a protease inhibitor [boceprevir, telaprevir, or simeprevir]) was 96.2% overall, including 91.2% in patients with baseline NS3 resistance, and 94.1% (32/34) in cirrhotic patients.<sup>17,18</sup> C-WORTHY (N=471) was a phase II, randomized, parallel-group, multicenter, open-label study comparing grazoprevir plus elbasvir with or without ribavirin in different patient populations (20 arms total) with chronic HCV genotype 1 infection. SVR12 rates ranged from 80% to 100%.<sup>19,20</sup>
  - The FDA approval of combination ledipasvir/sofosbuvir was based on the results of three phase III trials (N=1,518) in HCV mono-infected subjects with genotype 1 infection who had compensated liver disease. Treatment duration was fixed in each trial and was not guided by subjects' HCV RNA levels.<sup>20,21,25</sup>
    - ION-1 evaluated treatment-naïve patients include patients with cirrhosis; ION-2 evaluated patients with or without cirrhosis who failed previous therapy with an interferon-based regimen including those containing an HCV protease inhibitor; ION-3 evaluated non-cirrhotic, treatment-naïve patients.<sup>21,22,26</sup>
    - All studies showed that ledipasvir/sofosbuvir significantly improved SVR12 rate compared to control.<sup>21,22,26</sup>
  - The FDA approval of ombitasvir/paritaprevir/ritonavir and dasabuvir was based on the results of six randomized, multicenter, clinical trials (N=2,308) in HCV patients with genotype 1, including one trial exclusively in patients with cirrhosis and mild hepatic impairment (Child-Pugh A). All studies included at least one treatment arm with ribavirin, while several studies included treatment arms without ribavirin.<sup>23-25,28,29</sup>
    - Study populations for each of the studies include treatment-naïve, non-cirrhotic adults with HCV genotype 1 infection (SAPPHIRE-I), treatment-naïve, non-cirrhotic adults with HCV genotype 1b and HCV genotype 1a infections (PEARL-III and PEARL-IV, respectively), treatment-naïve or previously treated with peginterferon alfa and ribavirin cirrhotic adults with HCV genotype 1 infection (TURQUOISE-II), noncirrhotic adults with HCV genotype 1 infection who either relapsed or were nonresponders to prior peginterferon alfa and ribavirin therapy (SAPPHIRE-II) and finally, non-cirrhotic adults with HCV genotype 1b infection who either relapsed or were nonresponders to prior peginterferon alfa and ribavirin therapy (PEARL-II).<sup>23-25,28,29</sup>

- Overall, SVR12 rates were high and significantly improved compared with control after 12 weeks of therapy.<sup>23-25,28,29</sup> Only TURQUOISE-II evaluated patients beyond 12 weeks of therapy and found there was no difference between 12 weeks of therapy compared with 24 weeks of therapy (P=0.09).<sup>25</sup>
- The FDA-approval of ombitasvir/paritaprevir/ritonavir in the treatment of HCV genotype 4 was based on the results of an open-label, randomized, multicenter phase IIb PEARL-I study, which evaluated ombitasvir/paritaprevir/ritonavir with or without ribavirin and no cirrhosis. Patients were either treatment-naïve or treatment experienced (prior failure of peginterferon alfa and ribavirin). In treatment-naïve patients, the SVR12s were 100% (42/42) in the ribavirin-containing regimen and 90.9% (40/44) in the ribavirin-free regimen. In the treatment-naïve group without ribavirin, on-treatment virologic breakthrough was reported in one patient (2%), two patients (5%) experienced post-treatment relapse, and one patient (2%) was lost to follow-up. All 49 treatment-experienced patients in the ribavirin-containing group achieved SVR12.<sup>35</sup>
  - AGATE-I is an ongoing phase III study evaluating ombitasvir/paritaprevir/ritonavir with ribavirin for 12, 16 or 24 weeks in cirrhotic patients with HCV genotype 4 infection, including treatment-naïve patients and those who have failed peginterferon alfa and ribavirin or sofosbuvir-containing regimens.<sup>36</sup>
  - TURQUOISE-CPB is another ongoing phase III study evaluating ombitasvir/paritaprevir/ritonavir with ribavirin for 24 weeks in patients with HCV genotype 4 infection and decompensated cirrhosis.<sup>37</sup>
  - Several other studies are planned or recruiting patients to evaluate ombitasvir/paritaprevir/ritonavir with or without ribavirin in less well studied subpopulations with HCV genotype 4 infection, including severe renal disease, children (three to 17 years old), and status post successful treatment of early stage hepatocellular carcinoma.<sup>38-41</sup>
- The FDA-approval of sofosbuvir/velpatasvir was based on the results of four phase III studies (ASTRAL-1, ASTRAL-2, ASTRAL-3, and ASTRAL-4) in patients with HCV genotype 1 through 6.
  - ASTRAL-1 (N=706) was a phase III, randomized, double-blind, placebo-controlled study evaluating sofosbuvir/velpatasvir 400 mg/100 mg once daily for 12 weeks in adult patients with chronic HCV genotype 1, 2, 4, 5, or 6 infection. Overall, SVR12 rate in the sofosbuvir/velpatasvir group of 99% (618/624) was higher than the prespecified benchmark rate of 85% (P<0.001).<sup>42</sup>
  - ASTRAL-2 (N=266) and ASTRAL-3 (N=552) were two phase III, randomized, open-label studies comparing sofosbuvir/velpatasvir 400 mg/100 mg once daily for 12 weeks to sofosbuvir 400 mg plus weight-based ribavirin for 12 weeks (ASTRAL-2) or 24 weeks (ASTRAL-3) in adult patients with chronic HCV genotype 2 and HCV genotype 3 infections, respectively. Among patients with HCV genotype 2, the overall SVR12 rate in the 12-week sofosbuvir/velpatasvir group was 99% (133/134) as compared to 94% (124/132) in the 12-week sofosbuvir/ribavirin (P=0.02). Among patients with HCV genotype 3, the overall SVR12 rate in the 12-week sofosbuvir/velpatasvir group was 95% (264/277) as compared to 80% (221/275) in the 24-week sofosbuvir/ribavirin group (P<0.001).<sup>43</sup>
  - ASTRAL-4 (N=267) was a phase III, randomized, open-label study evaluating sofosbuvir/velpatasvir 400 mg/100 mg once daily for 12 weeks (with or without ribavirin) or 24 weeks in adult patients with chronic HCV genotype 1, 2, 4, or 6 infection and decompensated cirrhosis (Child-Turcotte-Pugh class B). Overall SVR12 rates were 83% (75/90), 94% (82/87), and 86% (77/90) among patients who received sofosbuvir/velpatasvir for 12 weeks, sofosbuvir/velpatasvir and ribavirin for 12 weeks, and sofosbuvir/velpatasvir for 24 weeks, respectively.<sup>44</sup>
  - Other trials are ongoing and full results have not been published. Sofosbuvir/velpatasvir has been evaluated in treating HCV/HIV coinfection in patients with genotypes 1 through 4 (ASTRAL-5), in patients with genotypes 1 through 3 and previous sofosbuvir/velpatasvir failures and in patients undergoing liver transplant.<sup>45-47</sup>

### Key Points within the Medication Class

- American Association for the Study of Liver Diseases, Infectious Diseases Society of America and International Antiviral Society-USA have included all current treatments in their guideline.<sup>48</sup>

- Old standards of therapy, including pegylated interferon alfa and ribavirin dual therapy and pegylated interferon alfa, ribavirin along with a protease inhibitor triple therapy are no longer recommended.
- Current, first-line therapies recommended in the new guidelines include all-oral combination therapies, each of which generally has at least one polymerase inhibitor and one other direct-acting agent that acts via a different mechanism of action.
- Each of the new HCV direct acting antivirals are recommended as part of a first-line regimen for at least one genotype and/or patient population.<sup>48</sup>
- Depending on genotype, previous treatment-experience and special populations, the recommended regimens and durations of treatment vary due to differences in efficacy provided by clinical trials.
  - For genotype 1, five regimens with similar efficacy are recommended. Duration and addition of ribavirin depend on cirrhosis status and/or previous treatment failures.
    - Daclatasvir 60 mg daily (QD) + sofosbuvir 400 mg QD ± ribavirin for 12 to 24 weeks
    - Ledipasvir/sofosbuvir 90/400 mg QD ± ribavirin for 12 to 24 weeks
    - Ombitasvir/ paritaprevir/ritonavir 25/150/100 mg QD + dasabuvir 250 mg twice-daily (BID) ± ribavirin for 12 to 24 weeks
    - Sofosbuvir 400 mg QD + simeprevir 150 mg QD for 12 to 24 weeks
    - Elbasvir/grazoprevir 50/100 mg QD ± ribavirin for 12 to 16 weeks
    - Sofosbuvir/velpatasvir 400 mg/100mg QD for 12 weeks
  - For genotype 2:
    - Daclatasvir 60 mg QD + sofosbuvir (400 mg) QD ± ribavirin for 12 to 24 weeks
    - Sofosbuvir/velpatasvir 400 mg/100mg QD ± ribavirin for 12 weeks
  - For genotype 3:
    - Daclatasvir (60 mg) and sofosbuvir (400 mg) ± ribavirin for 12 to 24 weeks
    - Sofosbuvir/velpatasvir 400 mg/100mg QD ± ribavirin for 12 weeks
  - For Genotype 4:
    - Ledipasvir/sofosbuvir 90/400 mg QD ± ribavirin for 12 to 24 weeks
    - Ombitasvir/ paritaprevir/ritonavir 25/150/100 mg+ ribavirin for 12 weeks
    - Elbasvir/grazoprevir 50/100 mg QD ± ribavirin for 12 to 16 weeks
    - Sofosbuvir/velpatasvir 400 mg/100mg QD for 12 weeks
  - Genotype 5 and 6:
    - Ledipasvir/sofosbuvir 90/400 mg QD for 12 weeks
    - Sofosbuvir/velpatasvir 400 mg/100mg QD for 12 weeks
  - In patients that fail a sofosbuvir, daclatasvir, ledipasvir/sofosbuvir, or paritaprevir/ritonavir/ombitasvir plus dasabuvir, it is recommended to defer therapy if they have minimal liver disease; guidelines do not offer a specific regimen for recipients with extensive liver disease, but recommend resistance-testing. They recommend treatment for at least 24 weeks with ribavirin, if not contraindicated.<sup>48</sup>
- Other Key Facts:
  - There are also disparities between the FDA-approved indications and first-line recommendations according to the AASLD-IDSA guidelines.<sup>1-8,48</sup>
  - Prior to initiating therapy with simeprevir (in combination with sofosbuvir) in cirrhotic patients with genotype 1a, they should be screened for the presence of NS3 Q80K polymorphism. Alternative therapy should be considered if this polymorphism is present.<sup>2</sup>
  - When prescribing ombitasvir/paritaprevir/ritonavir or ombitasvir/paritaprevir/ritonavir/dasabuvir, screening for drugs that should not be coadministered is recommended due to many, often severe, drug interactions.<sup>5,6</sup>
  - Dose of daclatasvir must be adjusted when given with strong CYP3A inhibitors (30 mg QD) and moderate CYP3A inducers (90 mg QD).<sup>1</sup>
  - Testing for NS5A-associated resistance is recommended prior to treatment with sofosbuvir, elbasvir/grazoprevir, ledipasvir/sofosbuvir and sofosbuvir/velpatasvir for several patient populations.<sup>48</sup>

## References

1. Daklinza® [package insert]. Princeton (NJ): Bristol-Myers Squibb Company; 2016 Apr.
2. Olysio® [package insert]. Titusville (NJ): Janssen Therapeutics; 2016 May.

3. Sovaldi® [package insert]. Foster City (CA): Gilead Sciences, Inc.; 2015 Aug.
4. Zepatier® [package insert on the internet]. Whitehouse Station (NJ): Merck and Co., Inc; 2016 January [cited 2016 Jan 29]. Available from: [http://www.merck.com/product/usa/pi\\_circulars/z/zepatier/zepatier\\_pi.pdf](http://www.merck.com/product/usa/pi_circulars/z/zepatier/zepatier_pi.pdf).
5. Harvoni® [package insert]. Foster City (CA): Gilead Sciences, Inc.; 2016 Feb.
6. Viekira Pak® [package insert]. North Chicago (IL): AbbVie; 2016 Apr.
7. Technivie® [package insert on the internet]. North Chicago (IL): AbbVie; 2016 Jan.
8. Eplusera® [package insert on the internet]. Foster City (CA): Gilead Sciences, Inc; 2016 June [cited 2016 June 28]. Available from: [http://www.accessdata.fda.gov/drugsatfda\\_docs/label/2016/208341s000lbl.pdf](http://www.accessdata.fda.gov/drugsatfda_docs/label/2016/208341s000lbl.pdf).
9. Micromedex® 2.0 [database on the Internet]. Greenwood Village (CO): Truven Health Analytics; Updated periodically [cited 2015 Nov 25]. Available from <http://www.micromedexsolutions.com/>.
10. Workowski KA, Berman S; Centers for Disease Control and Prevention (CDC). Sexually transmitted diseases treatment guidelines, 2010. *MMWR Recomm Rep*. 2010 Dec 17;59(RR-12):1-110.
11. Ghany MG, Strader DB, Thomas DL, Seeff LB; American Association for the Study of Liver Diseases. Diagnosis, Management and treatment of hepatitis C; An Update. 2009. *Hepatology* 2009; 49(4):1-40.
12. Ng J, Wu J. Hepatitis B- and hepatitis C-related hepatocellular carcinomas in the United States: similarities and differences. *Hepat Mon*. 2012 Oct;12(10 HCC):e7635.
13. Lawitz E, Mangia A, Wyles D, Rodriguez-Torres M, Hassanein T, Gordon SC, et al. Sofosbuvir for previously untreated chronic hepatitis C infection. *N Engl J Med*. 2013 May 16;368(20):1878-87.
14. Zeuzem S, Ghalib R, Reddy KR, Pockros PJ, Ben Ari Z, Zhao Y, et al. Grazoprevir-Elbasvir Combination Therapy for Treatment-Naive Cirrhotic and Noncirrhotic Patients With Chronic Hepatitis C Virus Genotype 1, 4, or 6 Infection: A Randomized Trial. *Ann Intern Med*. 2015 Jul 7;163(1):1-13.
15. Rockstroh JK, Nelson M, Katlama C, Lalezari J, Mallolas J, Bloch M, et al. Efficacy and safety of grazoprevir (MK-5172) and elbasvir (MK-8742) in patients with hepatitis C virus and HIV co-infection (C-EDGE COINFECTION): a non-randomised, open-label trial. *Lancet HIV*. 2015 Aug;2(8):e319-27.
16. Roth D, Nelson DR, Bruchfeld A, Liapakis A, Silva M, Monsour H Jr, et al. Grazoprevir plus elbasvir in treatment-naive and treatment-experienced patients with hepatitis C virus genotype 1 infection and stage 4-5 chronic kidney disease (the C-SURFER study): a combination phase 3 study. *Lancet*. 2015 Oct 17;386(10003):1537-45.
17. Forns X, Gordon SC, Zuckerman E, Lawitz E, Calleja JL, Hofer H, et al. Grazoprevir and elbasvir plus ribavirin for chronic HCV genotype-1 infection after failure of combination therapy containing a direct-acting antiviral agent. *J Hepatol*. 2015 Sep;63(3):564-72.
18. Buti M, Gordon SC, Zuckerman E, Lawitz E, Calleja JL, Hofer H, et al. Grazoprevir, Elbasvir, and Ribavirin for Chronic Hepatitis C Virus Genotype 1 Infection After Failure of Pegylated Interferon and Ribavirin With an Earlier-Generation Protease Inhibitor: Final 24-Week Results From C-SALVAGE. *Clin Infect Dis*. 2016 Jan 1;62(1):32-6.
19. Lawitz E, Gane E, Pearlman B, Tam E, Ghesquiere W, Guyader D, et al. Efficacy and safety of 12 weeks versus 18 weeks of treatment with grazoprevir (MK-5172) and elbasvir (MK-8742) with or without ribavirin for hepatitis C virus genotype 1 infection in previously untreated patients with cirrhosis and patients with previous null response with or without cirrhosis (C-WORTHY): a randomised, open-label phase 2 trial. *Lancet*. 2015 Mar 21;385(9973):1075-86.
20. Sulkowski M, Hezode C, Gerstoft J, Vierling JM, Mallolas J, Pol S, et al. Efficacy and safety of 8 weeks versus 12 weeks of treatment with grazoprevir (MK-5172) and elbasvir (MK-8742) with or without ribavirin in patients with hepatitis C virus genotype 1 mono-infection and HIV/hepatitis C virus co-infection (C-WORTHY): a randomised, open-label phase 2 trial. *Lancet*. 2015 Mar 21;385(9973):1087-97.
21. Afdhal N, Zeuzem S, Kwo P, Chojkier M, Gitlin N, Puoti M, et al. Ledipasvir and sofosbuvir for untreated HCV genotype 1 infection. *N Engl J Med*. 2014 May 15;370(20):1889-98.
22. Kowdley KV, Gordon SC, Reddy KR, Rossaro L, Bernstein DE, Lawitz E, et al. Ledipasvir and sofosbuvir for 8 or 12 weeks for chronic HCV without cirrhosis. *N Engl J Med*. 2014 May 15;370(20):1879-88.
23. Feld JJ, Kowdley KV, Coakley E, Sigal S, Nelson DR, Crawford D, et al. Treatment of HCV with ABT-450/r-ombitasvir and dasabuvir with ribavirin. *N Engl J Med*. 2014 Apr 24;370(17):1594-603.
24. Ferenci P, Bernstein D, Lalezari J, Cohen D, Luo Y, Cooper C, et al. ABT-450/r-ombitasvir and dasabuvir with or without ribavirin for HCV. *N Engl J Med*. 2014 May 22;370(21):1983-92.
25. Poordad F, Hezode C, Trinh R, Kowdley KV, Zeuzem S, Agarwal K, et al. ABT-450/r-ombitasvir and dasabuvir with ribavirin for hepatitis C with cirrhosis. *N Engl J Med*. 2014 May 22;370(21):1973-82.
26. Afdhal N, Reddy KR, Nelson DR, Lawitz E, Gordon SC, Schiff E, et al. Ledipasvir and sofosbuvir for previously treated HCV genotype 1 infection. *N Engl J Med*. 2014 Apr 17;370(16):1483-93.
27. Lawitz E, Sulkowski MS, Ghalib R, Rodriguez-Torres M, Younossi ZM, Corregidor A, et al. Simeprevir plus sofosbuvir, with or without ribavirin, to treat chronic infection with hepatitis C virus genotype 1 in non-responders to pegylated interferon and ribavirin and treatment-naive patients: the COSMOS randomised study. *Lancet*. 2014 Jul 26. pii: S0140-6736(14)61036-9.
28. Zeuzem S, Jacobson IM, Baykal T, Marinho RT, Poordad F, Bourlière M, et al. Retreatment of HCV with ABT-450/r-ombitasvir and dasabuvir with ribavirin. *N Engl J Med*. 2014 Apr 24;370(17):1604-14.
29. Andreone P, Colombo MG, Enejsa JV, Koksai I, Ferenci P, Maieron A, et al. ABT-450, Ritonavir, Ombitasvir, and Dasabuvir Achieves 97% and 100% Sustained Virologic Response With or Without Ribavirin in Treatment-Experienced Patients With HCV Genotype 1b Infection. *Gastroenterology*. 2014 May 9.
30. Kwo PY, Mantry PS, Coakley E, Te HS, Vargas HE, Brown R Jr, et al. An interferon-free antiviral regimen for HCV after liver transplantation. *N Engl J Med*. 2014 Dec 18;371(25):2375-82.
31. Jacobson IM, Gordon SC, Kowdley KV, Yoshida EM, Rodriguez-Torres M, Sulkowski MS, et al. Sofosbuvir for hepatitis C genotype 2 or 3 in patients without treatment options. *N Engl J Med*. 2013 May 16;368(20):1867-77.
32. Zeuzem S, Dusheiko GM, Salupere R, Mangia A, Flisiak R, Hyland RH, et al. Sofosbuvir and ribavirin in HCV genotypes
33. Nelson DR, Cooper JN, Lalezari JP, Lawitz E, Pockros PJ, Gitlin N, et al. All-oral 12-week treatment with daclatasvir plus sofosbuvir in patients with hepatitis C virus genotype 3 infection: ALLY-3 phase III study. *Hepatology*. 2015 Apr;61(4):1127-35.
34. Bristol-Myers Squibb. Safety and Efficacy Study of Daclatasvir 60mg, Sofosbuvir 400mg, and Ribavirin (Dosed Based Upon Weight) in Subjects With Chronic Genotype 3 Hepatitis C Infection With or Without Prior Treatment Experience and

- Compensated Advanced Cirrhosis for 12 or 16 Weeks. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2015 Aug 5]. Available <https://clinicaltrials.gov/ct2/show/NCT02319031> NLM Identifier: NCT02319031.
35. Hézode C, Asselah T, Reddy KR, Hassanein T, Berenguer M, Fleischer-Stepniowska K, et al. Ombitasvir plus paritaprevir plus ritonavir with or without ribavirin in treatment-naïve and treatment-experienced patients with genotype 4 chronic hepatitis C virus infection (PEARL-I): a randomised, open-label trial. *Lancet*. 2015 Jun 20;385(9986):2502-9.
  36. AbbVie. A Randomized, Open-Label Study to Evaluate the Safety and Efficacy of Ombitasvir/ABT-450/Ritonavir Co-administered With Ribavirin (RBV) in Adults With Genotype 4 Chronic Hepatitis C Virus (HCV) Infection and Cirrhosis (AGATE-1). In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2015 Aug 5]. Available <https://clinicaltrials.gov/ct2/show/NCT02265237> NLM Identifier: NCT02265237.
  37. AbbVie. A Study to Evaluate the Safety and Efficacy of Ombitasvir/Paritaprevir/Ritonavir and Dasabuvir with Ribavirin in Adults with Genotype 1 and Ombitasvir/Paritaprevir/Ritonavir with Ribavirin in Adults with Genotype 4 Chronic Hepatitis C Virus Infection and Decompensated Cirrhosis (TURQUOISE-CPB). In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2015 Aug 5]. Available <https://clinicaltrials.gov/ct2/show/NCT02219477> NLM Identifier: NCT02219477.
  38. AbbVie. Ombitasvir/Paritaprevir/Ritonavir with or without Dasabuvir in Adults with Genotype 1a or Genotype 4 Chronic Hepatitis C Virus (HCV) Infection, with Severe Kidney Impairment or End Stage Kidney Disease. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2015 Aug 5]. Available <https://clinicaltrials.gov/ct2/show/NCT02487199> NLM Identifier: NCT02487199.
  39. AbbVie. Ombitasvir/Paritaprevir/Ritonavir with or without Dasabuvir in Adults with Genotype 1a or Genotype 4 Chronic Hepatitis C Virus (HCV) Infection, With Severe Kidney Impairment or End Stage Kidney Disease. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2015 Aug 5]. Available <https://clinicaltrials.gov/ct2/show/NCT02487199> NLM Identifier: NCT02487199.
  40. AbbVie. A Study to Evaluate Treatment of Hepatitis C Virus Infection in Pediatric Subjects (Zircon). In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2015 Aug 5]. Available <https://clinicaltrials.gov/ct2/show/NCT02486406> NLM Identifier: NCT02486406.
  41. AbbVie. A Study to Evaluate the Safety and Efficacy of Ombitasvir/Paritaprevir/r with or without Dasabuvir and with Ribavirin in Chronic Hepatitis C Virus Genotype 1 or 4 Infected Adults with Successfully Treated Early Stage Hepatocellular Carcinoma. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2015 Aug 5]. Available <https://clinicaltrials.gov/ct2/show/NCT02504099> NLM Identifier: NCT02504099.
  42. Feld JJ, Jacobson IM, Hézode C, Asselah T, Ruane PJ, Gruener N, et al. Sofosbuvir and Velpatasvir for HCV Genotype 1, 2, 4, 5, and 6 Infection. *N Engl J Med*. 2015 Dec 31;373(27):2599-607.
  43. Foster GR, Afdhal N, Roberts SK, Bräu N, Gane EJ, Pianko S, et al. Sofosbuvir and Velpatasvir for HCV Genotype 2 and 3 Infection. *N Engl J Med*. 2015 Dec 31;373(27):2608-17.
  44. Curry MP, O'Leary JG, Bzowej N, Muir AJ, Korenblat KM, Fenkel JM, et al. Sofosbuvir and Velpatasvir for HCV in Patients with Decompensated Cirrhosis. *N Engl J Med*. 2015 Dec 31;373(27):2618-28.
  45. Sofosbuvir/velpatasvir cures HCV in 95% of people with HCV and HIV co-infection [press release on the Internet]. London (England): NAM Aidsmap; 2016 Apr 19 [cited 2016 May 12]. Available from: <http://www.aidsmap.com/Sofosbuvirvelpatasvir-cures-HCV-in-95-of-people-with-HCV-and-HIV-co-infection/page/3051334/>.
  46. Gane EJ, Shiffman ML, Etzkorn K, Morelli G, Stedman C, Davis MN, et al. Sofosbuvir/Velpatasvir in Combination with Ribavirin for 24 weeks Is effective retreatment for patients who failed prior NS5A-containing DAA regimens: results of the retreatment study. Presented at: European Association for the Study of the Liver; 2016 Apr 13-17; Barcelona, Spain. Available from: [http://www.natap.org/2016/EASL/EASL\\_11.htm](http://www.natap.org/2016/EASL/EASL_11.htm).
  47. ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2016 July 1]. Available from: <http://clinicaltrials.gov>.
  48. American Association for the Study of Liver Diseases (AASLD) and the Infectious Diseases Society of America (IDSA). Recommendations for testing, managing, and treating hepatitis C [guideline on the Internet]. Alexandria and Arlington (VA): AASLD/IDSA 2016 Jul [cited 2016 July 12]. Available at: <http://www.hcvguidelines.org>.
  49. Department of Veteran Affairs National Hepatitis C Resource Center Program and the Office of Public Health. Chronic hepatitis C Virus (HCV) infection: Treatment considerations [guideline on the Internet]. Washington (DC): VA 2016 Mar [cited 2016 May 20]. Available at: <http://www.hepatitis.va.gov/pdf/treatment-considerations-2015-12-15.pdf>.
  50. European Association for the Study of the Liver. EASL Recommendations on Treatment of Hepatitis C 2015. *J Hepatol*. 2015 Jul;63(1):199-236.
  51. Pegasys® [package insert]. South San Francisco (CA): Genentech USA, Inc.; 2013 Jul.
  52. PegIntron® [package insert]. Whitehouse Station (NJ): Merck & Co., Inc.; 2015 Jan.
  53. Sylatron® [package insert]. Whitehouse Station (NJ): Merck & Co., Inc.; 2014 Nov.
  54. Copegus® [package insert]. South San Francisco (CA): Genentech, Inc.; 2013 Feb.
  55. Moderiba® [package insert]. North Chicago (IL): AbbVie Inc.; 2014 Nov.
  56. Moderiba Pak® [package insert]. North Chicago (IL): AbbVie Inc.; 2014 Nov.
  57. Rebetol® [package insert]. Whitehouse Station (NJ): Schering-Plough Corporation; 2014 Jun.
  58. Ribasphere® [package insert]. Warrendale (PA): Kadmon Pharmaceuticals, LLC; 2014 Dec.
  59. Ribasphere RibaPak® [package insert]. Warrendale (PA): Kadmon Pharmaceuticals, LLC; 2014 Dec.
  - 60.

**Opioid Induced Constipation Treatments**

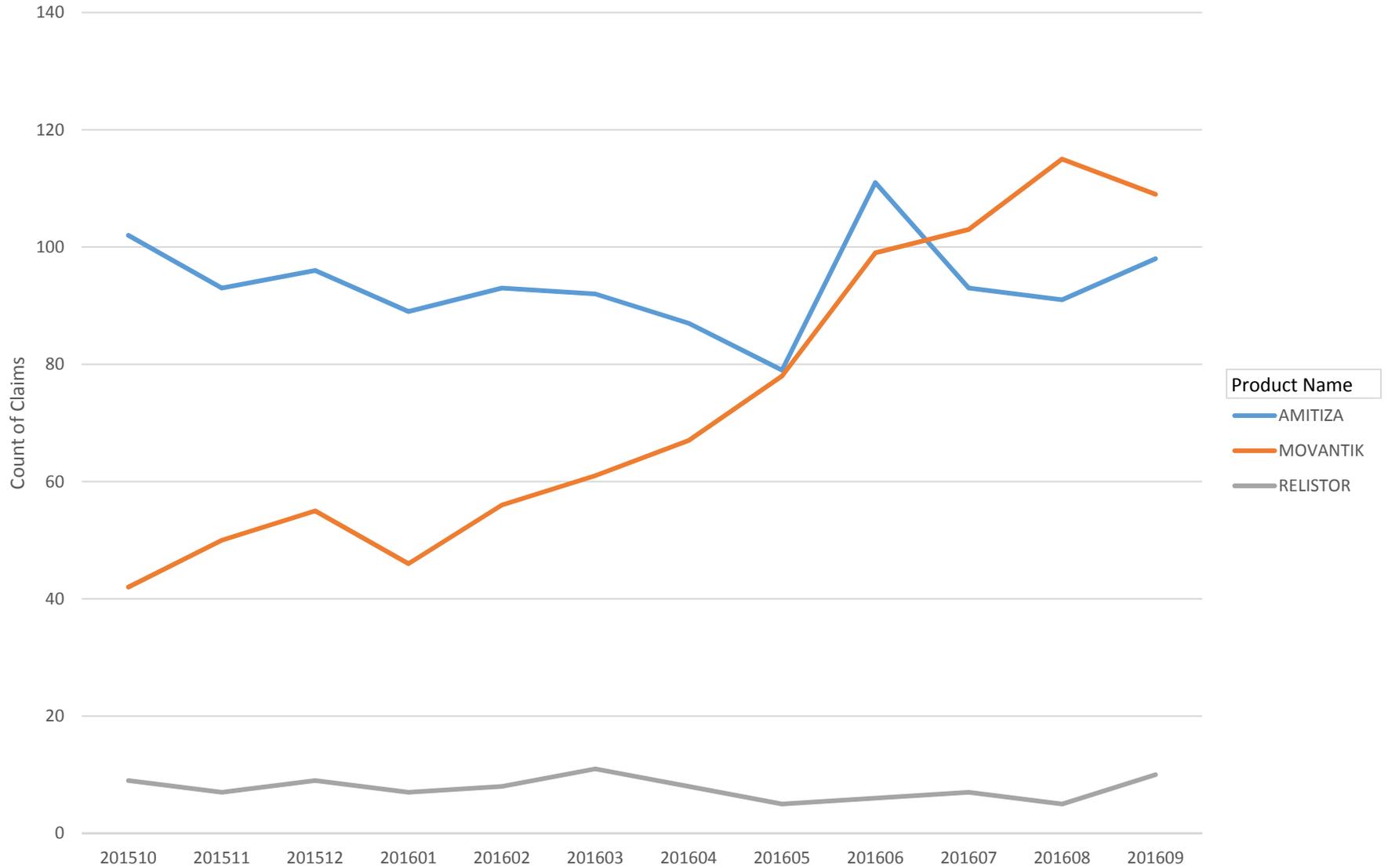
**October 1, 2015 - September 30, 2016**

<b>Product Name</b>	<b>Year Month Filled</b>	<b>Sum of Mbr Cnt</b>	<b>Sum of Claim Cnt</b>	<b>Sum of Qty</b>	<b>Sum of Days Supply</b>	<b>Sum of Amt Paid</b>
<b>AMITIZA</b>		<b>1,066</b>	<b>1,124</b>	<b>61,709</b>	<b>33,449</b>	<b>\$ 337,979</b>
	201510	96	102	5,540	3,025	\$ 30,101
	201511	89	93	5,162	2,761	\$ 27,276
	201512	88	96	5,248	2,849	\$ 27,739
	201601	84	89	4,886	2,638	\$ 26,486
	201602	88	93	5,094	2,757	\$ 28,219
	201603	89	92	5,010	2,745	\$ 27,752
	201604	84	87	4,804	2,612	\$ 26,603
	201605	76	79	4,364	2,347	\$ 24,162
	201606	105	111	6,094	3,287	\$ 33,758
	201607	88	93	5,063	2,771	\$ 28,054
	201608	87	91	5,040	2,730	\$ 27,903
	201609	92	98	5,404	2,927	\$ 29,927
<b>MOVANTIK</b>		<b>840</b>	<b>881</b>	<b>26,725</b>	<b>26,050</b>	<b>\$ 244,870</b>
	201510	40	42	1,240	1,180	\$ 10,723
	201511	48	50	1,545	1,455	\$ 13,011
	201512	52	55	1,710	1,650	\$ 14,297
	201601	46	46	1,430	1,370	\$ 12,575
	201602	53	56	1,770	1,650	\$ 16,196
	201603	56	61	1,875	1,785	\$ 17,174
	201604	66	67	2,020	1,990	\$ 18,516
	201605	76	78	2,370	2,340	\$ 21,717
	201606	90	99	2,925	2,895	\$ 26,831
	201607	100	103	3,120	3,075	\$ 29,255
	201608	109	115	3,465	3,420	\$ 33,291
	201609	104	109	3,255	3,240	\$ 31,284
<b>RELISTOR</b>		<b>89</b>	<b>92</b>	<b>852</b>	<b>2,410</b>	<b>\$ 138,450</b>
	201510	9	9	83	244	\$ 14,221
	201511	7	7	45	168	\$ 7,388
	201512	7	9	73	243	\$ 11,971
	201601	7	7	59	158	\$ 9,758
	201602	8	8	77	218	\$ 12,006

RELISTOR	201603	11	11	130	301	\$	21,291
	201604	7	8	91	215	\$	14,960
	201605	5	5	50	148	\$	8,230
	201606	6	6	68	176	\$	11,161
	201607	7	7	59	160	\$	8,951
	201608	5	5	38	125	\$	6,071
	201609	10	10	77	254	\$	12,442
<b>Grand Total</b>		<b>1,995</b>	<b>2,097</b>	<b>89,286</b>	<b>61,909</b>	<b>\$</b>	<b>721,299</b>

Sum of Claim Cnt

### Opiate Induced Constipation



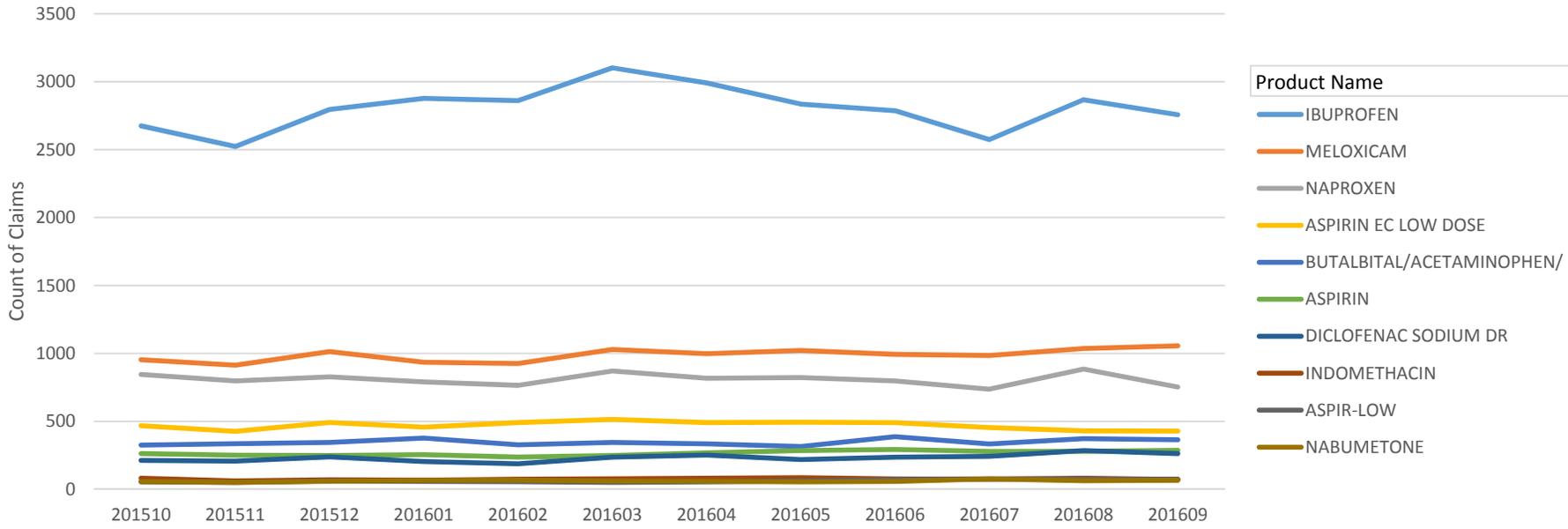
Year Month Filled

**Top 20 Non-Opioids**  
**October 1, 2015 - September 30, 2016**

Row Labels	Sum of Mbr Cnt	Sum of Claim Cnt	Sum of Qty	Sum of Days Supply	Sum of Amt Paid	Qty/Clm
IBUPROFEN	31,751	33,644	2,238,616	615,367	\$ 373,578	66.5
MELOXICAM	11,262	11,860	397,339	347,980	\$ 108,249	33.5
NAPROXEN	9,326	9,707	497,189	241,683	\$ 105,934	51.2
ASPIRIN EC LOW DOSE	5,387	5,636	171,765	168,777	\$ 28,876	30.5
BUTALBITAL/ACETAMINOPHEN/	3,719	4,162	246,902	71,448	\$ 279,224	59.3
ASPIRIN	3,048	3,196	97,393	95,262	\$ 9,373	30.5
DICLOFENAC SODIUM DR	2,679	2,789	156,267	76,220	\$ 54,395	56.0
INDOMETHACIN	853	902	46,211	17,108	\$ 13,415	51.2
ASPIR-LOW	693	747	22,476	22,410	\$ 5,964	30.1
NABUMETONE	699	737	41,920	20,606	\$ 15,682	56.9
DICLOFENAC POTASSIUM	539	559	30,052	12,806	\$ 19,947	53.8
ETODOLAC	502	523	29,794	14,087	\$ 26,165	57.0
CELECOXIB	485	522	22,785	15,134	\$ 34,706	43.6
ASPIRIN EC	452	468	14,513	13,935	\$ 1,850	31.0
Q-PAP	441	452	79,502	3,406	\$ 3,403	175.9
HUMIRA PEN	407	446	910	12,498	\$ 1,678,327	2.0
ENTERIC COATED ASPIRIN	413	431	15,377	12,851	\$ 2,562	35.7
NAPROXEN SODIUM	416	430	15,355	7,633	\$ 25,909	35.7
ENBREL SURECLICK	393	422	1,682	11,878	\$ 1,578,181	4.0
PAIN & FEVER CHILDRENS	398	404	68,862	4,001	\$ 2,761	170.5
<b>Grand Total</b>	<b>73,863</b>	<b>78,037</b>	<b>4,194,910</b>	<b>1,785,090</b>	<b>\$ 4,368,499</b>	<b>53.8</b>

Sum of Claim Cnt

### Top 10 Non-Opioids



Year Month Filled

**All Medication User - Regardless of ER Visits  
October 1, 2015 - September 30, 2016**

<b>Row Labels</b>	<b>Count of ID</b>	<b>Sum of Clm Cn</b>	<b>Sum of Pd Amt</b>
<b>BETA ADRENERGICS***</b>	<b>7,915</b>	<b>18,938</b>	<b>\$ 1,150,641</b>
PROAIR HFA	4,201	10,537	\$ 686,279
ALBUTEROL SULFATE	2,301	4,383	\$ 87,283
PROVENTIL HFA	1,321	3,746	\$ 302,983
PROAIR RESPICLICK	26	44	\$ 2,603
XOPENEX HFA	23	59	\$ 4,019
XOPENEX	14	56	\$ 42,461
VENTOLIN HFA	8	30	\$ 1,712
SEREVENT DISKUS	8	14	\$ 4,374
FORADIL AEROLIZER	4	19	\$ 4,688
ALBUTEROL SULFATE ER	3	25	\$ 2,374
LEVALBUTEROL HCL	3	13	\$ 2,624
PERFOROMIST	2	11	\$ 8,412
XOPENEX CONCENTRATE	1	1	\$ 830
<b>LEUKOTRIENE RECEPTOR ANTAGONISTS***</b>	<b>1,824</b>	<b>6,988</b>	<b>\$ 141,315</b>
MONTELUKAST SODIUM	1,811	6,918	\$ 135,489
ZAFIRLUKAST	13	70	\$ 5,826
<b>ADRENERGIC COMBINATIONS***</b>	<b>1,821</b>	<b>6,911</b>	<b>\$ 1,933,585</b>
ADVAIR DISKUS	624	2,811	\$ 970,932
SYMBICORT	533	2,066	\$ 571,271
IPRATROPIUM BROMIDE/ALBUT	297	825	\$ 24,921
COMBIVENT RESPIMAT	119	441	\$ 134,943
DULERA	114	371	\$ 98,743
ADVAIR HFA	56	170	\$ 61,512
ANORO ELLIPTA	55	174	\$ 54,827
STIOLTO RESPIMAT	16	40	\$ 12,608
BREO ELLIPTA	7	13	\$ 3,828
<b>STEROID INHALANTS***</b>	<b>1,083</b>	<b>3,009</b>	<b>\$ 657,418</b>
QVAR	447	1,142	\$ 207,194
FLOVENT HFA	251	767	\$ 155,775
BUDESONIDE	213	646	\$ 201,959
ASMANEX TWISTHALER 30 MET	56	191	\$ 41,124
PULMICORT FLEXHALER	46	104	\$ 18,781
FLOVENT DISKUS	22	66	\$ 12,301
ASMANEX TWISTHALER 60 MET	20	49	\$ 9,295
ASMANEX HFA	17	28	\$ 4,950
ASMANEX TWISTHALER 120 ME	6	10	\$ 2,847
AEROSPAN	4	4	\$ 800
PULMICORT	1	2	\$ 2,394
<b>BRONCHODILATORS - ANTICHOLINERGICS***</b>	<b>619</b>	<b>2,915</b>	<b>\$ 846,697</b>
SPIRIVA HANDIHALER	416	2,276	\$ 728,586
IPRATROPIUM BROMIDE	105	266	\$ 5,057
ATROVENT HFA	76	303	\$ 88,646
SPIRIVA RESPIMAT	16	45	\$ 16,802
TUDORZA PRESSAIR	5	24	\$ 7,353
INCRUSE ELLIPTA	1	1	\$ 254
<b>XANTHINES***</b>	<b>33</b>	<b>118</b>	<b>\$ 3,846</b>
THEOPHYLLINE CR	15	40	\$ 770
THEOPHYLLINE ER	13	63	\$ 1,781

THEO-24	5	15	\$	1,295
<b>ANTI-IGE MONOCLONAL ANTIBODIES***</b>	<b>12</b>	<b>79</b>	<b>\$</b>	<b>230,875</b>
XOLAIR	12	79	\$	230,875
<b>SELECTIVE PHOSPHODIESTERASE 4 (PDE4) INHIBITORS**</b>	<b>11</b>	<b>84</b>	<b>\$</b>	<b>23,708</b>
DALIRESP	11	84	\$	23,708
<b>ANTI-INFLAMMATORY AGENTS***</b>	<b>1</b>	<b>10</b>	<b>\$</b>	<b>4,088</b>
CROMOLYN SODIUM	1	10	\$	4,088
<b>Grand Total</b>	<b>13,319</b>	<b>39,052</b>	<b>\$</b>	<b>4,992,172</b>

**ER Visits for Asthma/COPD**  
**October 1, 2015 - September 30, 2016**

<b>Row Labels</b>	<b>Count of ID's</b>
Chronic obstructive pulmonary disease with (acute) exacerbation	1387
Unspecified asthma with (acute) exacerbation	1311
Unspecified asthma, uncomplicated	870
Chronic obstructive pulmonary disease, unspecified	595
Chronic obstructive pulmonary disease w acute low respiratory infection	246
Mild intermittent asthma with (acute) exacerbation	106
Unspecified asthma with status asthmaticus	95
Moderate persistent asthma with (acute) exacerbation	94
Mild persistent asthma with (acute) exacerbation	61
Other asthma	56
Severe persistent asthma with (acute) exacerbation	28
Mild intermittent asthma, uncomplicated	27
Moderate persistent asthma with status asthmaticus	19
Severe persistent asthma with status asthmaticus	16
Mild intermittent asthma with status asthmaticus	11
Mild persistent asthma with status asthmaticus	9
Mild persistent asthma, uncomplicated	9
Cough variant asthma	8
Moderate persistent asthma, uncomplicated	7
Exercise induced bronchospasm	5
Severe persistent asthma, uncomplicated	3
(blank)	
<b>Grand Total</b>	<b>4963</b>

**Medication Use for Asthma/COPD ER Visits  
October 1, 2015 - September 30, 2016**

Prod Class	Prod	Total Of Med List_Clm Cnt	Chronic obstructive pulmonary disease w acute low respiratory in	Chronic obstructive pulmonary disease with (acute) exacerbation	Chronic obstructive pulmonary disease, unspecified	Cough variant asthma	Exercise induced bronchospasm	Mild intermittent asthma with (acute) exacerbation	Mild intermittent asthma with status asthmaticus	Mild intermittent asthma, uncomplicated	Mild persistent asthma with (acute) exacerbation	Mild persistent asthma with status asthmaticus	Mild persistent asthma, uncomplicated	Moderate persistent asthma with (acute) exacerbation	Moderate persistent asthma with status asthmaticus	Moderate persistent asthma, uncomplicated	Other asthma	Severe persistent asthma with (acute) exacerbation	Severe persistent asthma with status asthmaticus	Unspecified asthma with (acute) exacerbation	Unspecified asthma with status asthmaticus	Unspecified asthma, uncomplicated
BETA ADRENERGICS***	PROAIR HFA	587	20	127	48	2	3	14	1	2	10	2	1	13	4		5	5	2	196	16	116
BETA ADRENERGICS***	ALBUTEROL SULFATE	468	14	73	25	1		15	1	4	4	1	2	14	2		8	5	2	170	23	104
LEUKOTRIENE RECEPTOR ANTAGONISTS***	MONTELUKAST SODIUM	257	4	34	12	1		9	1	2	4	3	1	7	4	1	4		4	104	11	51
BETA ADRENERGICS***	PROVENTIL HFA	234	17	58	22			8		2	1			7				1	2	66	10	40
ADRENERGIC COMBINATIONS***	ADVAIR DISKUS	169	9	49	21			4			2			2	2		2	1	2	50	6	19
ADRENERGIC COMBINATIONS***	IPRATROPIUM BROMIDE/ALBUT	153	9	57	20			3	1		4		1	7		1	1	2	3	26	3	15
ADRENERGIC COMBINATIONS***	SYMBICORT	139	11	50	10			3		1	2			5			3	2	2	34	3	13

BRONCHODILATORS - ANTICHOLINERGICS***	SPIRIVA HANDIHALER	116	12	60	24				1			1			1		1	2	1	9	1	3	
STEROID INHALANTS***	QVAR	69	4	9	1						1	1			2			2		33	2	14	
STEROID INHALANTS***	FLOVENT HFA	59	2	6					3		1				4	1		1	1		24	3	13
BRONCHODILATORS - ANTICHOLINERGICS***	IPRATROPIUM BROMIDE	55	1	13	5				3	1							1				19	4	8
ADRENERGIC COMBINATIONS***	COMBIVENT RESPIMAT	40	4	18	8							1					1				6	1	1
ADRENERGIC COMBINATIONS***	DULERA	32	1	7	2				1	1	1	1		1		2					6	2	7
STEROID INHALANTS***	BUDESONIDE	30	1	2	1				1											1	12	1	11
BRONCHODILATORS - ANTICHOLINERGICS***	ATROVENT HFA	26		11	6				2			1			1					1	1	1	1
ADRENERGIC COMBINATIONS***	ANORO ELLIPTA	15	2	8	2																2		1
STEROID INHALANTS***	PULMICORT FLEXHALER	11		3	2																5		1
ADRENERGIC COMBINATIONS***	ADVAIR HFA	9		1					1												3	1	3
BRONCHODILATORS - ANTICHOLINERGICS***	SPIRIVA RESPIMAT	9		3	1																2		3
STEROID INHALANTS***	ASMANEX TWISTHALER 30 MET	9		1											2						3	1	2
XANTHINES***	THEOPHYLLINE CR	7	2	3	2																		
XANTHINES***	THEOPHYLLINE ER	7		4	1														1		1		
ADRENERGIC COMBINATIONS***	STIOLTO RESPIMAT	6	1	4	1																		
BETA ADRENERGICS***	VENTOLIN HFA	6			1										1						2		2
STEROID INHALANTS***	FLOVENT DISKUS	6	1	2																	2		1
BETA ADRENERGICS***	XOPENEX	5		1	1																2		1
ADRENERGIC COMBINATIONS***	BREO ELLIPTA	4	2	1																			1
ANTI-IGE MONOCLONAL ANTIBODIES***	XOLAIR	4													1						2		1



**Count of Members with Esophageal Cancer Diagnosis**  
**October 1, 2015 - September 30, 2016**

<b>Row Labels</b>	<b>Count of Person ID Unencrypted</b>
Malignant neoplasm of esophagus, unspecified	53
Malignant neoplasm of lower third of esophagus	23
Malignant neoplasm of middle third of esophagus	7
Malignant neoplasm of overlapping sites of esophagus	3
Malignant neoplasm of upper third of esophagus	6
<b>Grand Total</b>	<b>92</b>

**Claim Information for Members with Diagnosis of Esophageal Cancer  
October 1, 2015 - September 30, 2016**

<b>Row Labels</b>	<b>Count of Med list_ID</b>	<b>Sum of Clm Cn</b>	<b>Sum of Qty</b>	<b>Sum of Days</b>	<b>Sum of Pd Amt</b>
<b>Malignant neoplasm of esophagus, unspecified</b>	<b>4</b>	<b>6</b>	<b>2,420</b>	<b>137</b>	<b>\$ 868</b>
CARAFATE	3	4	2,360	77	\$ 843
PANTOPRAZOLE SODIUM	1	2	60	60	\$ 25
<b>Malignant neoplasm of lower third of esophagus</b>	<b>2</b>	<b>3</b>	<b>1,940</b>	<b>67</b>	<b>\$ 690</b>
CARAFATE	2	3	1,940	67	\$ 690
<b>Malignant neoplasm of upper third of esophagus</b>	<b>2</b>	<b>3</b>	<b>90</b>	<b>90</b>	<b>\$ 35</b>
PANTOPRAZOLE SODIUM	2	3	90	90	\$ 35
<b>Grand Total</b>	<b>8</b>	<b>12</b>	<b>4,450</b>	<b>294</b>	<b>\$ 1,592</b>

**All GI Related Medication Utilization  
October 1, 2015 - September 30, 2016**

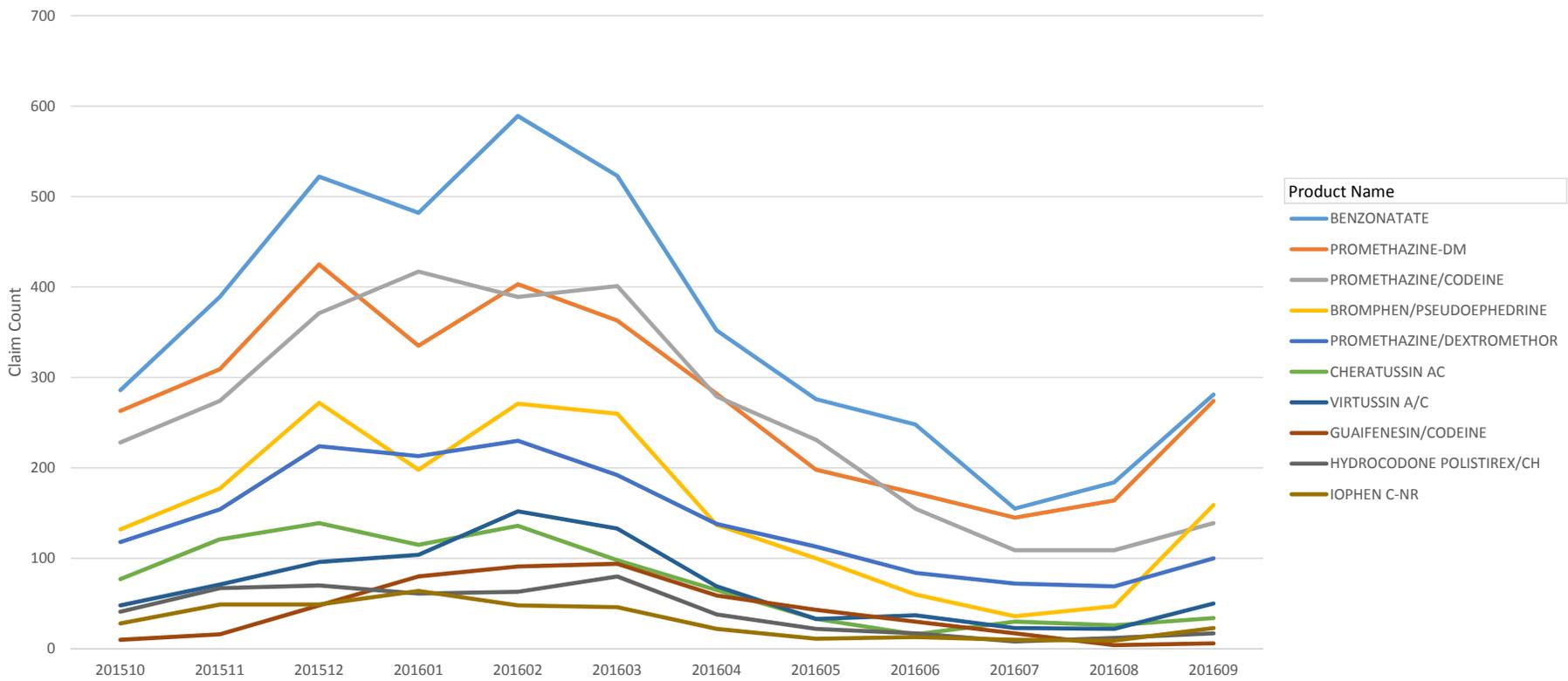
<b>Row Labels</b>	<b>Count of ID</b>	<b>Sum of Clm Cnt</b>	<b>Sum of Qty</b>	<b>Sum of Days</b>	<b>Sum of Pd Amt</b>
RANITIDINE HCL	1,301	4,873	293,463	143,062	\$ 72,109
PANTOPRAZOLE SODIUM	1,062	3,743	114,119	111,227	\$ 46,538
NEXIUM	697	3,567	109,966	106,513	\$ 917,925
FAMOTIDINE	750	2,418	110,573	68,812	\$ 32,399
DICYCLOMINE HCL	420	763	53,275	15,093	\$ 8,980
SUCRALFATE	169	322	25,423	7,922	\$ 7,704
OMEPRAZOLE	43	180	5,796	5,376	\$ 2,463
CARAFATE	96	159	94,807	3,235	\$ 34,494
GLYCOPYRROLATE	26	155	19,671	4,473	\$ 11,027
DEXILANT	14	82	2,442	2,442	\$ 19,001
HYOSCYAMINE SULFATE	40	81	5,229	1,384	\$ 1,849
MISOPROSTOL	19	39	2,320	751	\$ 1,958
RANITIDINE 75	22	31	1,539	837	\$ 331
RABEPRAZOLE SODIUM	3	29	1,170	870	\$ 1,084
LANSOPRAZOLE	5	29	869	869	\$ 764
PREVACID SOLUTAB	5	26	930	780	\$ 11,936
CUVPOSA	5	22	6,146	582	\$ 5,728
LANSOPRAZOLE/AMOXICILLIN/	19	20	2,240	324	\$ 10,426
HYOSCYAMINE SULFATE ODT	1	3	270	90	\$ 91
PROPANTHELINE BROMIDE	1	3	450	90	\$ 298
FIRST-OMEPRAZOLE	1	2	600	60	\$ 159
CHLORDIAZEPOXIDE HCL/CLID	1	2	120	60	\$ 254
ESOMEPRAZOLE MAGNESIUM	1	2	60	60	\$ 293
HYOSYNE	1	1	120	30	\$ 166
ACID REDUCER	1	1	60	30	\$ 5
QC ACID CONTROLLER	1	1	60	30	\$ 15
OMEPRAZOLE/SODIUM BICARBO	1	1	30	30	\$ 386
<b>Grand Total</b>	<b>4,705</b>	<b>16,555</b>	<b>851,748</b>	<b>475,032</b>	<b>\$ 1,188,386</b>

**Top 20 Cough Suppressants**  
**October 1, 2015 - September 30, 2016**

Row Labels	Sum of Mbr Cnt	Sum of Claim Cnt	Sum of Qty	Sum of Days Supply	Sum of Amt Paid	Qty/Clm
BENZONATATE	4,134	4,287	148,338	49,770	\$ 67,003	34.6
PROMETHAZINE-DM	3,131	3,333	639,437	31,387	\$ 36,711	191.9
PROMETHAZINE/CODEINE	2,757	3,102	344,808	20,080	\$ 34,708	111.2
BROMPHEN/PSEUDOEPHEDRINE	1,816	1,849	259,453	15,612	\$ 60,080	140.3
PROMETHAZINE/DEXTROMETHOR	1,636	1,707	299,342	15,810	\$ 17,464	175.4
CHERATUSSIN AC	866	890	159,680	7,414	\$ 15,061	179.4
VIRTUSSIN A/C	825	838	146,142	6,313	\$ 14,205	174.4
GUAIFENESIN/CODEINE	478	498	86,812	4,095	\$ 8,013	174.3
HYDROCODONE POLISTIREX/CH	474	496	51,310	5,680	\$ 27,761	103.4
IOPHEN C-NR	362	372	71,328	2,802	\$ 6,619	191.7
Q-TUSSIN DM	247	260	53,311	1,971	\$ 1,822	205.0
PROMETHAZINE VC/CODEINE	231	256	27,872	1,806	\$ 11,039	108.9
GUAIFENESIN ER	230	238	11,052	4,288	\$ 5,189	46.4
CETIRIZINE HCL/PSEUDOEPHE	144	155	6,374	3,552	\$ 5,101	41.1
HYDROMET	145	151	27,338	1,224	\$ 4,504	181.0
PROMETHAZINE VC PLAIN	141	150	27,627	1,524	\$ 7,178	184.2
COUGH SYRUP	134	134	27,423	1,093	\$ 996	204.6
Q-TUSSIN	125	128	29,958	1,208	\$ 893	234.0
LORATADINE-D 24HR	87	91	2,458	2,434	\$ 1,811	27.0
SODIUM CHLORIDE	78	82	30,900	2,306	\$ 2,860	376.8
<b>Grand Total</b>	<b>18,041</b>	<b>19,017</b>	<b>2,450,962</b>	<b>180,369</b>	<b>\$ 329,019</b>	

Sum of Claim Cnt

Cough Suppressants by Claim Count



- Product Name
- BENZONATATE
  - PROMETHAZINE-DM
  - PROMETHAZINE/CODEINE
  - BROMPHEN/PSEUDOEPHEDRINE
  - PROMETHAZINE/DEXTROMETHOR
  - CHERATUSSIN AC
  - VIRTUSSIN A/C
  - GUAIFENESIN/CODEINE
  - HYDROCODONE POLISTIREX/CH
  - IOPHEN C-NR

Year Month Filled

**Liquid Combination Cough Suppressants**

**October 1, 2015 - September 30, 2016**

<b>Row Labels</b>	<b>Sum of Mbr Cnt</b>	<b>Sum of Claim Cnt</b>	<b>Sum of Qty</b>	<b>Sum of Days Supply</b>	<b>Sum of Amt Paid</b>	<b>Qty Per Clm</b>
IOPHEN C-NR	362	372	71,328	2,802	\$ 6,619	192
IOPHEN DM-NR	24	24	5,586	249	\$ 280	233
TUSSIN DM	11	12	3,201	112	\$ 126	267
TUSSIN DM CLEAR	6	7	1,607	40	\$ 82	230
TUSSIN CF	5	5	945	31	\$ 62	189
MUCINEX COUGH CHILDRENS	3	3	429	17	\$ 32	143
DIABETIC SILTUSSIN-DM	2	2	480	24	\$ 26	240
SM MUCUS RELIEF COUGH CHI	2	2	258	11	\$ 24	129
NOHIST-DM	2	2	480	48	\$ 38	240
GNP TUSSIN DM	2	2	954	16	\$ 21	477
HM TUSSIN ADULT COUGH & C	2	2	477	18	\$ 25	239
DELSYM COUGH + CHEST CONG	2	2	360	35	\$ 22	180
GNP TUSSIN DM COUGH	2	2	268	18	\$ 16	134
MUCUS RELIEF COUGH CHILDR	2	2	236	18	\$ 19	118
MUCINEX FAST-MAX DM MAX	2	2	540	38	\$ 29	270
TUSSIN DM MAX ADULT	1	1	118	4	\$ 8	118
LOHIST-PEB-DM	1	1	180	12	\$ 19	180
PEDIA RELIEF COUGH/COLD	1	1	240	6	\$ 12	240
QC TUSSIN CF	1	1	60	30	\$ 11	60
<b>Grand Total</b>	<b>433</b>	<b>445</b>	<b>87,747</b>	<b>3,529</b>	<b>\$ 7,472</b>	<b>197</b>

## Top 10 Drug Group by Paid Amt

### Q1 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
59	ANTIPSYCHOTICS/ANTIMANIC AGENTS*	30,674	\$ 8,547,529.77
12	ANTIVIRALS*	5,953	\$ 7,908,302.65
85	HEMATOLOGICAL AGENTS - MISC.*	3,884	\$ 6,076,059.01
44	ANTIASTHMATIC AND BRONCHODILATOR AGENTS*	47,005	\$ 4,644,538.82
27	ANTIDIABETICS*	29,459	\$ 4,390,716.80
21	ANTINEOPLASTICS AND ADJUNCTIVE THERAPIES	3,926	\$ 3,420,878.79
72	ANTICONVULSANTS*	45,563	\$ 3,352,827.10
65	ANALGESICS - OPIOID*	65,228	\$ 2,318,478.19
30	ENDOCRINE AND METABOLIC AGENTS - MISC.*	4,070	\$ 2,245,267.23
61	ADHD/ANTI-NARCOLEPSY/ANTI-OBESITY/ANOREX	10,669	\$ 2,231,944.62

### Q2 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
85	HEMATOLOGICAL AGENTS - MISC.*	3,970	\$ 9,497,316.28
59	ANTIPSYCHOTICS/ANTIMANIC AGENTS*	30,573	\$ 8,642,955.08
12	ANTIVIRALS*	4,621	\$ 8,447,604.50
27	ANTIDIABETICS*	29,216	\$ 4,509,734.45
44	ANTIASTHMATIC AND BRONCHODILATOR AGENTS*	42,939	\$ 4,448,011.15
72	ANTICONVULSANTS*	45,833	\$ 3,494,343.07
21	ANTINEOPLASTICS AND ADJUNCTIVE THERAPIES	3,908	\$ 3,471,390.82
30	ENDOCRINE AND METABOLIC AGENTS - MISC.*	4,096	\$ 2,518,757.46
65	ANALGESICS - OPIOID*	63,977	\$ 2,340,525.75
61	ADHD/ANTI-NARCOLEPSY/ANTI-OBESITY/ANOREX	10,463	\$ 2,191,365.76

### Q3 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
59	ANTIPSYCHOTICS/ANTIMANIC AGENTS*	30,552	\$ 8,866,116.41
85	HEMATOLOGICAL AGENTS - MISC.*	3,702	\$ 8,454,118.82
12	ANTIVIRALS*	4,164	\$ 7,812,360.33
27	ANTIDIABETICS*	28,313	\$ 4,664,093.33
21	ANTINEOPLASTICS AND ADJUNCTIVE THERAPIES	4,271	\$ 4,243,474.24
44	ANTIASTHMATIC AND BRONCHODILATOR AGENTS*	40,411	\$ 4,218,066.23
72	ANTICONVULSANTS*	45,497	\$ 3,680,634.15
30	ENDOCRINE AND METABOLIC AGENTS - MISC.*	3,996	\$ 2,671,373.75
62	PSYCHOTHERAPEUTIC AND NEUROLOGICAL AGENT	4,990	\$ 2,272,638.36
65	ANALGESICS - OPIOID*	62,601	\$ 2,234,328.62

## Top 10 Drug Group by Claim Count

### Q1 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
65	ANALGESICS - OPIOID*	65,228	\$ 2,318,478.19
44	ANTIASTHMATIC AND BRONCHODILATOR AGENTS*	47,005	\$ 4,644,538.82
72	ANTICONVULSANTS*	45,563	\$ 3,352,827.10
58	ANTIDEPRESSANTS*	44,597	\$ 811,842.98
36	ANTIHYPERTENSIVES*	36,373	\$ 395,972.40
59	ANTIPSYCHOTICS/ANTIMANIC AGENTS*	30,674	\$ 8,547,529.77
27	ANTIDIABETICS*	29,459	\$ 4,390,716.80
39	ANTIHYPERLIPIDEMICS*	28,268	\$ 920,798.52
57	ANTIAXIETY AGENTS*	26,426	\$ 292,794.40
49	ULCER DRUGS*	25,554	\$ 1,228,607.26

### Q2 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
65	ANALGESICS - OPIOID*	63,977	\$ 2,340,525.75
72	ANTICONVULSANTS*	45,833	\$ 3,494,343.07
58	ANTIDEPRESSANTS*	44,834	\$ 865,277.92
44	ANTIASTHMATIC AND BRONCHODILATOR AGENTS*	42,939	\$ 4,448,011.15
36	ANTIHYPERTENSIVES*	36,743	\$ 462,472.16
59	ANTIPSYCHOTICS/ANTIMANIC AGENTS*	30,573	\$ 8,642,955.08
27	ANTIDIABETICS*	29,216	\$ 4,509,734.45
39	ANTIHYPERLIPIDEMICS*	28,413	\$ 846,948.15
57	ANTIAXIETY AGENTS*	26,447	\$ 291,807.39
66	ANALGESICS - ANTI-INFLAMMATORY*	25,907	\$ 1,645,980.08

### Q3 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
65	ANALGESICS - OPIOID*	62,601	\$ 2,234,328.62
72	ANTICONVULSANTS*	45,497	\$ 3,680,634.15
58	ANTIDEPRESSANTS*	45,076	\$ 868,175.76
44	ANTIASTHMATIC AND BRONCHODILATOR AGENTS*	40,411	\$ 4,218,066.23
36	ANTIHYPERTENSIVES*	36,018	\$ 482,511.34
59	ANTIPSYCHOTICS/ANTIMANIC AGENTS*	30,552	\$ 8,866,116.41
27	ANTIDIABETICS*	28,313	\$ 4,664,093.33
39	ANTIHYPERLIPIDEMICS*	27,580	\$ 815,346.12
57	ANTIAXIETY AGENTS*	26,407	\$ 295,554.55
49	ULCER DRUGS*	25,729	\$ 1,248,026.99

## Top 10 Drug Classes by Paid Amt

### Q1 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
8510	ANTIHEMOPHILIC PRODUCTS**	74	\$ 5,475,106.43
1235	HEPATITIS AGENTS**	322	\$ 4,572,228.22
5925	QUINOLINONE DERIVATIVES**	4,528	\$ 3,961,801.73
2710	INSULIN**	9,395	\$ 3,055,847.55
1210	ANTIRETROVIRALS**	2,863	\$ 3,052,764.94
4420	SYMPATHOMIMETICS**	32,133	\$ 2,895,178.76
7260	ANTICONVULSANTS - MISC.**	32,718	\$ 2,272,715.37
5907	BENZISOXAZOLES**	7,418	\$ 1,834,626.45
6240	MULTIPLE SCLEROSIS AGENTS**	321	\$ 1,564,217.26
1950	MONOCLONAL ANTIBODIES**	542	\$ 1,418,671.43

### Q2 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
8510	ANTIHEMOPHILIC PRODUCTS**	99	\$ 9,008,974.49
1235	HEPATITIS AGENTS**	342	\$ 5,084,281.21
5925	QUINOLINONE DERIVATIVES**	4,573	\$ 4,001,103.93
1210	ANTIRETROVIRALS**	2,497	\$ 3,227,888.06
2710	INSULIN**	9,234	\$ 3,056,550.88
4420	SYMPATHOMIMETICS**	28,418	\$ 2,787,047.21
7260	ANTICONVULSANTS - MISC.**	33,351	\$ 2,383,324.38
5907	BENZISOXAZOLES**	7,411	\$ 1,918,837.07
6240	MULTIPLE SCLEROSIS AGENTS**	330	\$ 1,616,694.40
5940	ANTIPSYCHOTICS - MISC.**	3,027	\$ 1,335,640.83

### Q3 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
8510	ANTIHEMOPHILIC PRODUCTS**	88	\$ 8,076,744.35
1235	HEPATITIS AGENTS**	308	\$ 4,568,255.48
5925	QUINOLINONE DERIVATIVES**	4,406	\$ 3,992,993.36
1210	ANTIRETROVIRALS**	2,328	\$ 3,174,676.62
2710	INSULIN**	8,858	\$ 3,144,114.67
4420	SYMPATHOMIMETICS**	26,952	\$ 2,698,618.41
7260	ANTICONVULSANTS - MISC.**	33,362	\$ 2,492,868.96
5907	BENZISOXAZOLES**	7,324	\$ 2,134,646.60
6240	MULTIPLE SCLEROSIS AGENTS**	373	\$ 1,799,241.23
5940	ANTIPSYCHOTICS - MISC.**	3,044	\$ 1,419,696.63

## Top 10 Drug Classes by Claim Count

### Q1 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
6599	OPIOID COMBINATIONS**	37,390	\$ 985,741.99
7260	ANTICONVULSANTS - MISC.**	32,718	\$ 2,272,715.37
4420	SYMPATHOMIMETICS**	32,133	\$ 2,895,178.76
6510	OPIOID AGONISTS**	27,049	\$ 1,186,411.51
6610	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS (NSAIDS)*	24,954	\$ 309,221.51
3940	HMG COA REDUCTASE INHIBITORS**	23,051	\$ 463,760.83
5816	SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)**	21,955	\$ 249,389.83
5710	BENZODIAZEPINES**	19,959	\$ 200,155.97
7510	CENTRAL MUSCLE RELAXANTS**	16,521	\$ 281,338.19
3610	ACE INHIBITORS**	16,246	\$ 139,454.49

### Q2 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
6599	OPIOID COMBINATIONS**	36,031	\$ 998,619.78
7260	ANTICONVULSANTS - MISC.**	33,351	\$ 2,383,324.38
4420	SYMPATHOMIMETICS**	28,418	\$ 2,787,047.21
6510	OPIOID AGONISTS**	27,084	\$ 1,189,543.00
6610	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS (NSAIDS)*	25,434	\$ 324,302.91
3940	HMG COA REDUCTASE INHIBITORS**	23,247	\$ 451,276.52
5816	SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)**	22,291	\$ 270,261.54
5710	BENZODIAZEPINES**	19,589	\$ 194,569.28
7510	CENTRAL MUSCLE RELAXANTS**	16,282	\$ 313,046.01
3610	ACE INHIBITORS**	16,266	\$ 144,716.12

### Q3 2016

Class	Drug Class Name	Count of Claims	Pharmacy Paid
6599	OPIOID COMBINATIONS**	35,062	\$ 941,484.91
7260	ANTICONVULSANTS - MISC.**	33,362	\$ 2,492,868.96
4420	SYMPATHOMIMETICS**	26,952	\$ 2,698,618.41
6510	OPIOID AGONISTS**	26,555	\$ 1,132,091.18
6610	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS (NSAIDS)*	24,658	\$ 267,791.59
3940	HMG COA REDUCTASE INHIBITORS**	22,704	\$ 436,188.00
5816	SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)**	22,223	\$ 275,751.75
5710	BENZODIAZEPINES**	19,312	\$ 193,330.77
7510	CENTRAL MUSCLE RELAXANTS**	16,436	\$ 311,663.31
3610	ACE INHIBITORS**	15,687	\$ 148,005.42

Top 50 Drugs by Amount - Q1 2016

Drug Code	Drug Name	Claim Count	Pharmacy Paid	Avg Qty/Rx	Avg Day Supply
5925001500	ARIPIPRAZOLE	4,405.00	\$ 3,852,937.00	16	14
8510001025	ANTIHEMOPHILIC FACTOR RAHF-PFM	21.00	\$ 3,622,683.07	61,108	12
1235990240	LEDIPASVIR-SOFOSBUVIR	166.00	\$ 3,009,536.99	11	11
1950206000	PALIVIZUMAB	542.00	\$ 1,418,671.43	1	23
5940002310	LURASIDONE HCL	1,489.00	\$ 1,286,669.28	18	15
8510001020	ANTIHEMOPHILIC FACTOR (RECOMBINANT)	16.00	\$ 1,185,398.20	25,202	12
2710400300	INSULIN GLARGINE	3,793.00	\$ 1,170,681.26	13	26
1235308000	SOFOSBUVIR	45.00	\$ 1,143,425.94	11	11
5907005010	PALIPERIDONE PALMITATE	736.00	\$ 1,113,590.75	1	21
4420101010	ALBUTEROL SULFATE	22,212.00	\$ 1,046,449.01	39	15
4420990270	FLUTICASON- SAlMETEROL	3,364.00	\$ 951,085.87	43	22
4927002510	ESOMEPRAZOLE MAGNESIUM	4,227.00	\$ 911,697.72	21	21
5915307010	QUETIAPINE FUMARATE	7,960.00	\$ 880,748.27	30	20
9410003000	GLUCOSE BLOOD	6,659.00	\$ 852,605.25	73	22
7260005700	PREGABALIN	2,759.00	\$ 787,891.79	51	22
6627001500	ADALIMUMAB	171.00	\$ 615,796.47	1	10
2710400500	INSULIN LISPRO (HUMAN)	1,567.00	\$ 602,978.70	11	19
4410008010	TIOTROPIUM BROMIDE MONOHYDRATE	2,643.00	\$ 584,694.74	23	24
1210990230	EMTRICITABINE-TENOFOVIR DISOPROXIL FUMARATE	516.00	\$ 584,273.89	18	18
3010002000	SOMATROPIN	177.00	\$ 560,191.64	2	10
6240552500	DIMETHYL FUMARATE	91.00	\$ 536,158.33	16	8
2710400200	INSULIN ASPART	1,507.00	\$ 528,552.94	12	22
6135303010	GUANFACINE HCL (ADHD)	1,776.00	\$ 520,769.95	21	18
4420990241	BUDESONIDE-FORMOTEROL FUMARATE DIHYDRATE	2,713.00	\$ 510,708.49	8	24
4530402000	DORNASE ALFA	163.00	\$ 507,218.18	35	12
6510007510	OXYCODONE HCL	9,172.00	\$ 502,934.38	75	18
6629003000	ETANERCEPT	148.00	\$ 489,584.23	2	16
8580005000	ECULIZUMAB	24.00	\$ 488,061.00	99	1
6599000220	OXYCODONE W/ ACETAMINOPHEN	11,281.00	\$ 469,731.39	55	14
6599170210	HYDROCODONE-ACETAMINOPHEN	23,683.00	\$ 454,257.48	61	15
6140002010	METHYLPHENIDATE HCL	2,522.00	\$ 419,548.14	35	19
6110002510	LISDEXAMFETAMINE DIMESYLATE	1,762.00	\$ 417,516.20	22	22
8510001510	ANTIHEMOPHILIC FACTOR/VON WILLEBRAND FACTOR COMPLEX (HUMAN)	23.00	\$ 397,224.88	6,873	10
8240157000	PEGFILGRASTIM	85.00	\$ 394,614.55	1	4
2710400600	INSULIN DETEMIR	1,323.00	\$ 390,902.73	12	24
7260003600	LACOSAMIDE	810.00	\$ 383,958.69	52	14
6110990210	AMPHETAMINE-DEXTROAMPHETAMINE	2,865.00	\$ 380,568.64	26	19
3090685000	IDURSULFASE	17.00	\$ 367,917.86	19	9
9085006000	LIDOCAINE	1,262.00	\$ 358,800.33	45	14
0700007000	TOBRAMYCIN	94.00	\$ 351,977.31	104	11
5907005000	PALIPERIDONE	440.00	\$ 350,497.01	22	17
1210990429	ELVITEGRAVIR-COBICISTAT-EMTRICITABINE-TENOFOVIR ALAFENAMIDE	157.00	\$ 349,135.56	19	19
3030001000	CORTICOTROPIN	9.00	\$ 340,431.53	2	7
7210000700	CLOBAZAM	322.00	\$ 336,061.13	65	14
2153253000	EVEROLIMUS	27.00	\$ 334,854.46	13	11
4530990230	LUMACAFTOR-IVACAFTOR	19.00	\$ 319,007.96	28	7
1210990330	EFAVIRENZ-EMTRICITABINE-TENOFOVIR DISOPROXIL FUMARATE	188.00	\$ 308,601.09	18	18
3090404500	NITISINONE	6.00	\$ 300,025.77	90	18
1210990430	ELVITEGRAVIR-COBICISTAT-EMTRICITABINE-TENOFOVIR	143.00	\$ 297,544.08	19	19
2755007010	SITAGLIPTIN PHOSPHATE	1,242.00	\$ 290,035.32	26	25

Top 50 Drugs by Amount - Q2 2016

Drug Code	Drug Name	Claim Count	Pharmacy Paid	Avg Qty/Rx	Avg Day Supply
5925001500	ARIPIPRAZOLE	4417	\$ 3,854,833.09	16	14
1235990240	LEDIPASVIR-SOFOSBUVIR	186	\$ 3,404,424.58	12	12
8510002620	COAGULATION FACTOR VIIA (RECOMBINANT)	8	\$ 3,360,081.36	84,000	12
8510001025	ANTIHEMOPHILIC FACTOR RAHF-PFM	19	\$ 3,284,427.56	51,151	8
8510001020	ANTIHEMOPHILIC FACTOR (RECOMBINANT)	18	\$ 1,456,732.86	26,116	11
5907005010	PALIPERIDONE PALMITATE	689	\$ 1,236,613.21	1	23
5940002310	LURASIDONE HCL	1335	\$ 1,208,399.22	17	15
2710400300	INSULIN GLARGINE	3645	\$ 1,148,802.37	12	25
1235308000	SOFOSBUVIR	42	\$ 1,065,448.17	16	16
4420101010	ALBUTEROL SULFATE	18843	\$ 936,892.60	39	16
4420990270	FLUTICASON-SALMETEROL	3231	\$ 923,339.19	43	23
9410003000	GLUCOSE BLOOD	6801	\$ 889,235.77	73	22
5915307010	QUETIAPINE FUMARATE	8077	\$ 887,795.66	30	20
4927002510	ESOMEPRAZOLE MAGNESIUM	4106	\$ 887,238.62	22	21
7260005700	PREGABALIN	2706	\$ 821,939.73	50	21
6627001500	ADALIMUMAB	172	\$ 687,474.44	1	11
3010002000	SOMATROPIN	199	\$ 655,153.30	2	10
2710400500	INSULIN LISPRO (HUMAN)	1582	\$ 608,629.11	12	21
4410008010	TIOTROPIUM BROMIDE MONOHYDRATE	2505	\$ 582,110.41	22	24
1210990230	EMTRICITABINE-TENOFOVIR DISOPROXIL FUMARATE	441	\$ 562,451.65	19	19
1210990429	ELVITEGRAVIR-COBICISTAT-EMTRICITABINE-TENOFOVIR ALAFENAMIDE	237	\$ 560,798.67	21	21
6135303010	GUANFACINE HCL (ADHD)	1795	\$ 515,554.36	19	17
8240157000	PEGFILGRASTIM	107	\$ 513,767.22	0	2
3030001000	CORTICOTROPIN	14	\$ 510,652.38	2	4
2710400200	INSULIN ASPART	1425	\$ 506,495.12	13	23
6599000220	OXYCODONE W/ ACETAMINOPHEN	10990	\$ 505,528.33	57	15
6240552500	DIMETHYL FUMARATE	82	\$ 504,215.94	18	9
4420990241	BUDESONIDE-FORMOTEROL FUMARATE DIHYDRATE	2621	\$ 501,408.20	8	24
4530402000	DORNASE ALFA	151	\$ 468,673.93	50	16
6510007510	OXYCODONE HCL	8937	\$ 466,578.08	75	18
6629003000	ETANERCEPT	125	\$ 435,921.20	2	14
6599170210	HYDROCODONE-ACETAMINOPHEN	22754	\$ 431,734.80	61	15
9085006000	LIDOCAINE	1442	\$ 431,439.52	52	15
6110002510	LISDEXAMFETAMINE DIMESYLATE	1764	\$ 419,650.59	23	22
6140002010	METHYLPHENIDATE HCL	2432	\$ 414,104.32	35	19
2710400600	INSULIN DETEMIR	1312	\$ 402,484.48	12	23
7260003600	LACOSAMIDE	860	\$ 401,287.06	55	15
1235302510	DACLATASVIR DIHYDROCHLORIDE	19	\$ 399,193.23	21	21
8580005000	ECULIZUMAB	19	\$ 381,738.00	96	1
6110990210	AMPHETAMINE-DEXTROAMPHETAMINE	2788	\$ 370,641.92	28	19
3090685000	IDURSULFASE	19	\$ 367,917.86	19	10
7210000700	CLOBAZAM	309	\$ 349,134.39	57	13
6240306045	INTERFERON BETA-1A	69	\$ 343,222.89	2	12
2153253000	EVEROLIMUS	24	\$ 342,388.05	17	13
8510001510	ANTIHEMOPHILIC FACTOR/VON WILLEBRAND FACTOR COMPLEX (HUMAN)	31	\$ 337,045.09	4,085	8
5907005000	PALIPERIDONE	401	\$ 331,055.84	22	17
1910002010	IMMUNE GLOBULIN (HUMAN) IV	85	\$ 330,297.64	426	2
9340002010	NALOXONE HCL	129	\$ 313,349.90	1	6
9310002500	DEFERASIROX	57	\$ 310,015.52	19	10
2755007010	SITAGLIPTIN PHOSPHATE	1288	\$ 307,716.67	27	26

Top 50 Drugs by Amount - Q3 2016

Drug Code	Drug Name	Claim Count	Pharmacy Paid	Avg Qty/Rx	Avg Day Supply
5925001500	ARIPIPIRAZOLE	4,240	\$ 3,829,892.30	16	15
8510001025	ANTIHEMOPHILIC FACTOR RAHF-PFM	13	\$ 3,138,689.01	137,656	20
1235990240	LEDIPASVIR-SOFOSBUVIR	158	\$ 2,799,494.79	12	12
8510002620	COAGULATION FACTOR VIIA (RECOMBINANT)	6	\$ 2,520,061.02	210,000	30
5907005010	PALIPERIDONE PALMITATE	665	\$ 1,479,314.85	1	19
8510001020	ANTIHEMOPHILIC FACTOR (RECOMBINANT)	13	\$ 1,446,033.00	75,789	25
5940002310	LURASIDONE HCL	1,296	\$ 1,199,171.74	17	15
2710400300	INSULIN GLARGINE	3,451	\$ 1,143,189.92	11	24
9410003000	GLUCOSE BLOOD	7,102	\$ 939,242.88	73	22
1235308000	SOFOSBUVIR	39	\$ 915,208.32	12	12
4420101010	ALBUTEROL SULFATE	17,945	\$ 910,766.86	38	16
4420990270	FLUTICASONE-SALMETEROL	3,002	\$ 879,853.11	42	22
5915307010	QUETIAPINE FUMARATE	8,153	\$ 873,329.19	29	20
7260005700	PREGABALIN	2,789	\$ 868,815.25	48	20
4927002510	ESOMEPRAZOLE MAGNESIUM	3,942	\$ 861,984.55	21	21
3010002000	SOMATROPIN	217	\$ 754,623.04	2	11
6627001500	ADALIMUMAB	160	\$ 674,087.40	1	11
2710400500	INSULIN LISPRO	1,577	\$ 664,388.76	11	20
1210990429	ELVITEGRAVIR-COBICISTAT-EMTRICITABINE-TENOFOVIR ALAFENAMIDE	253	\$ 582,218.92	19	19
3030001000	CORTICOTROPIN	11	\$ 544,655.87	3	5
6240552500	DIMETHYL FUMARATE	87	\$ 540,600.22	15	7
4410008010	TIOTROPIUM BROMIDE MONOHYDRATE	2,181	\$ 534,592.70	23	24
2710400200	INSULIN ASPART	1,321	\$ 529,981.68	11	21
8240157000	PEGFILGRASTIM	105	\$ 527,518.52	1	2
6629003000	ETANERCEPT	136	\$ 515,580.21	2	13
4530402000	DORNASE ALFA	158	\$ 510,810.10	53	18
1210990230	EMTRICITABINE-TENOFOVIR DISOPROXIL FUMARATE	390	\$ 503,832.40	20	20
6135303010	GUANFACINE HCL (ADHD)	1,796	\$ 490,174.46	20	18
4420990241	BUDESONIDE-FORMOTEROL FUMARATE DIHYDRATE	2,424	\$ 477,340.83	8	24
6599000220	OXYCODONE W/ ACETAMINOPHEN	10,855	\$ 474,787.07	57	15
2153253000	EVEROLIMUS	26	\$ 448,196.63	13	9
6510007510	OXYCODONE HCL	8,706	\$ 443,106.22	75	18
7260003600	LACOSAMIDE	882	\$ 428,883.48	52	14
6110002510	LISDEXAMFETAMINE DIMESYLATE	1,732	\$ 409,027.49	23	22
6140002010	METHYLPHENIDATE HCL	2,345	\$ 406,508.57	36	19
6599170210	HYDROCODONE-ACETAMINOPHEN	22,071	\$ 404,677.94	59	15
7210000700	CLOBAZAM	336	\$ 399,786.53	62	14
2710400600	INSULIN DETEMIR	1,297	\$ 397,732.41	11	22
3890004000	EPINEPHRINE	636	\$ 387,638.38	1	5
9085006000	LIDOCAINE	1,537	\$ 387,257.59	59	16
9310002500	DEFERASIROX	70	\$ 386,255.32	20	11
8510001510	ANTIHEMOPHILIC FACTOR/VON WILLEBRAND FACTOR COMPLEX (HUMAN)	29	\$ 381,564.45	5,657	9
3090404500	NITISINONE	6	\$ 375,016.98	77	13
700007000	TOBRAMYCIN	116	\$ 364,743.49	107	11
6110990210	AMPHETAMINE-DEXTROAMPHETAMINE	2,801	\$ 361,665.71	29	20
6240306045	INTERFERON BETA-1A	71	\$ 356,733.76	1	10
1235302510	DACLATASVIR DIHYDROCHLORIDE	20	\$ 320,151.51	12	12
1910002010	IMMUNE GLOBULIN (HUMAN) IV	88	\$ 318,451.39	444	3
2135307000	TRASTUZUMAB	88	\$ 303,659.65	1	2
2133502000	BEVACIZUMAB	302	\$ 301,701.60	5	1

Top 50 Drugs by Claim Count - Q1 2016

Drug Code	Drug Name	Claim Count	Pharmacy Paid	Avg Qty/Rx	Avg Day Supply
6599170210	HYDROCODONE-ACETAMINOPHEN	23683	\$ 454,257.48	61	15
4420101010	ALBUTEROL SULFATE	22212	\$ 1,046,449.01	39	15
3610003000	LISINAPRIL	14523	\$ 109,858.33	31	28
7260003000	GABAPENTIN	13329	\$ 196,123.31	72	23
6610002000	IBUPROFEN	12403	\$ 112,002.83	45	12
6599000220	OXYCODONE W/ ACETAMINOPHEN	11281	\$ 469,731.39	55	14
5710001000	ALPRAZOLAM	11174	\$ 116,293.90	52	22
3400000310	AMLODIPINE BESYLATE	10924	\$ 82,987.16	28	27
2725005000	METFORMIN HCL	10663	\$ 133,577.21	56	28
2810001010	LEVOTHYROXINE SODIUM	10584	\$ 136,665.47	29	29
3940001010	ATORVASTATIN CALCIUM	10212	\$ 106,651.31	25	25
6510007510	OXYCODONE HCL	9172	\$ 502,934.38	75	18
0120001010	AMOXICILLIN	9166	\$ 94,787.59	61	6
5812008010	TRAZODONE HCL	8002	\$ 78,287.90	32	23
5915307010	QUETIAPINE FUMARATE	7960	\$ 880,748.27	30	20
0340001000	AZITHROMYCIN	7725	\$ 110,858.13	8	4
4220003230	FLUTICASON PROPRIONATE (NASAL)	7701	\$ 93,007.64	12	23
4450505010	MONTELUKAST SODIUM	7128	\$ 130,210.12	24	24
6510005510	MORPHINE SULFATE	6904	\$ 236,726.68	28	12
3320003010	METOPROLOL TARTRATE	6848	\$ 50,288.41	43	23
3940007500	SIMVASTATIN	6800	\$ 52,085.48	29	29
5816007010	SERTRALINE HCL	6703	\$ 71,254.33	29	23
9410003000	GLUCOSE BLOOD	6659	\$ 852,605.25	73	22
6410001000	ASPIRIN	5946	\$ 32,355.33	23	23
2210004500	PREDNISONE	5940	\$ 46,262.17	17	9
6510009510	TRAMADOL HCL	5871	\$ 57,977.32	60	16
5907007000	RISPERIDONE	5849	\$ 95,908.74	34	20
5025006505	ONDANSETRON HCL	5793	\$ 43,309.71	6	2
4920002010	RANITIDINE HCL	5747	\$ 69,533.43	44	22
6020408010	ZOLPIDEM TARTRATE	5702	\$ 55,141.49	23	23
7210001000	CLONAZEPAM	5635	\$ 56,129.73	45	22
7510005010	CYCLOBENZAPRINE HCL	5601	\$ 58,548.15	45	20
3720003000	FUROSEMIDE	5541	\$ 36,941.48	31	25
4927007010	PANTOPRAZOLE SODIUM	5442	\$ 53,656.04	18	18
4155003000	LORATADINE	5401	\$ 56,125.54	35	21
5816004000	FLUOXETINE HCL	5315	\$ 74,945.66	31	24
5816002010	CITALOPRAM HYDROBROMIDE	5165	\$ 43,890.76	25	23
7720203200	CHOLECALCIFEROL	5054	\$ 36,410.94	25	22
3615004020	LOSARTAN POTASSIUM	4905	\$ 40,552.37	29	28
7250001010	DIVALPROEX SODIUM	4858	\$ 269,202.22	58	20
3620101010	CLONIDINE HCL	4737	\$ 62,477.77	38	21
3330000700	CARVEDILOL	4538	\$ 33,406.92	47	24
5925001500	ARIPIRAZOLE	4405	\$ 3,852,937.00	16	14
5710006000	LORAZEPAM	4336	\$ 44,327.56	27	12
5025006500	ONDANSETRON	4303	\$ 60,454.42	11	4
4927002510	ESOMEPRAZOLE MAGNESIUM	4227	\$ 911,697.72	21	21
3760004000	HYDROCHLOROTHIAZIDE	4218	\$ 28,194.28	28	28
7260004000	LAMOTRIGINE	4198	\$ 253,297.19	45	21
0199000220	AMOXICILLIN & POT CLAVULANATE	4188	\$ 89,886.40	34	7
5710004000	DIAZEPAM	4187	\$ 36,241.54	41	19

Top 50 Drugs by Claim Count - Q2 2016

Drug Code	Drug Name	Claim Count	Pharmacy Paid	Avg Qty/Rx	Avg Day Supply
6599170210	HYDROCODONE-ACETAMINOPHEN	22754	\$ 431,734.80	61	15
4420101010	ALBUTEROL SULFATE	18843	\$ 936,892.60	39	16
3610003000	LISINAPRIL	14561	\$ 112,101.83	29	26
7260003000	GABAPENTIN	13819	\$ 198,000.62	73	23
6610002000	IBUPROFEN	12078	\$ 109,340.87	46	14
3400000310	AMLODIPINE BESYLATE	11096	\$ 84,518.70	28	27
6599000220	OXYCODONE W/ ACETAMINOPHEN	10990	\$ 505,528.33	57	15
3940001010	ATORVASTATIN CALCIUM	10885	\$ 114,367.32	26	25
5710001000	ALPRAZOLAM	10873	\$ 113,655.57	51	22
2725005000	METFORMIN HCL	10552	\$ 154,378.99	52	25
2810001010	LEVOTHYROXINE SODIUM	10520	\$ 151,985.98	29	29
6510007510	OXYCODONE HCL	8937	\$ 466,578.08	75	18
5915307010	QUETIAPINE FUMARATE	8077	\$ 887,795.66	30	20
5812008010	TRAZODONE HCL	8024	\$ 81,416.15	29	21
4220003230	FLUTICASON PROPRIONATE (NASAL)	7427	\$ 89,313.11	12	23
4450505010	MONTELUKAST SODIUM	7395	\$ 129,844.81	23	22
5025006505	ONDANSETRON HCL	7143	\$ 41,494.87	4	2
3320003010	METOPROLOL TARTRATE	7098	\$ 51,804.42	43	23
6510005510	MORPHINE SULFATE	7034	\$ 223,738.82	26	11
5816007010	SERTRALINE HCL	6896	\$ 75,840.60	29	24
9410003000	GLUCOSE BLOOD	6801	\$ 889,235.77	73	22
0120001010	AMOXICILLIN	6788	\$ 69,996.82	55	6
3940007500	SIMVASTATIN	6556	\$ 51,184.29	27	27
6410001000	ASPIRIN	6344	\$ 34,488.04	23	22
5907007000	RISPERIDONE	6000	\$ 96,284.57	35	21
6510009510	TRAMADOL HCL	5921	\$ 57,772.67	56	16
3720003000	FUROSEMIDE	5803	\$ 38,981.34	32	25
4920002010	RANITIDINE HCL	5752	\$ 71,757.86	45	22
4155003000	LORATADINE	5652	\$ 59,469.52	34	21
4927007010	PANTOPRAZOLE SODIUM	5625	\$ 58,969.63	21	20
7720203200	CHOLECALCIFEROL	5440	\$ 39,744.33	25	22
7210001000	CLONAZEPAM	5429	\$ 55,461.22	45	22
5816004000	FLUOXETINE HCL	5382	\$ 88,036.05	30	23
7510005010	CYCLOBENZAPRINE HCL	5372	\$ 60,912.33	46	20
5816002010	CITALOPRAM HYDROBROMIDE	5088	\$ 45,052.54	26	24
3615004020	LOSARTAN POTASSIUM	5034	\$ 42,280.31	30	28
2210004500	PREDNISONE	5027	\$ 45,841.60	18	9
3620101010	CLONIDINE HCL	4811	\$ 62,298.47	38	22
7250001010	DIVALPROEX SODIUM	4746	\$ 253,211.27	57	20
7720203000	ERGOCALCIFEROL	4503	\$ 48,029.08	4	22
5710006000	LORAZEPAM	4501	\$ 42,800.81	23	10
3330000700	CARVEDILOL	4477	\$ 32,648.88	49	25
4155002010	CETIRIZINE HCL	4445	\$ 46,247.02	43	20
0340001000	AZITHROMYCIN	4418	\$ 60,953.03	7	4
5925001500	ARIPIPRAZOLE	4417	\$ 3,854,833.09	16	14
3760004000	HYDROCHLOROTHIAZIDE	4335	\$ 30,314.72	28	28
6020408010	ZOLPIDEM TARTRATE	4304	\$ 41,894.72	23	23
7260004000	LAMOTRIGINE	4235	\$ 237,991.43	44	21
7975001000	SODIUM CHLORIDE	4118	\$ 11,397.59	445	1
6610005200	MELOXICAM	4106	\$ 36,800.19	27	24

Top 50 Drugs by Claim Count - Q3 2016

Drug Code	Drug Name	Claim Count	Pharmacy Paid	Avg Qty/Rx	Avg Day Supply
6599170210	HYDROCODONE-ACETAMINOPHEN	22071	\$ 404,677.94	59	15
4420101010	ALBUTEROL SULFATE	17945	\$ 910,766.86	38	16
3610003000	LISINAPRIL	14035	\$ 109,463.82	29	26
7260003000	GABAPENTIN	13628	\$ 200,210.61	69	22
6610002000	IBUPROFEN	11458	\$ 106,920.49	44	13
3940001010	ATORVASTATIN CALCIUM	11136	\$ 116,059.67	25	25
3400000310	AMLODIPINE BESYLATE	10870	\$ 83,105.53	27	26
6599000220	OXYCODONE W/ ACETAMINOPHEN	10855	\$ 474,787.07	57	15
5710001000	ALPRAZOLAM	10812	\$ 111,011.95	50	21
2725005000	METFORMIN HCL	10388	\$ 167,045.72	55	27
2810001010	LEVOTHYROXINE SODIUM	10388	\$ 155,233.35	28	28
6510007510	OXYCODONE HCL	8706	\$ 443,106.22	75	18
5812008010	TRAZODONE HCL	8182	\$ 85,754.47	28	21
5915307010	QUETIAPINE FUMARATE	8153	\$ 873,329.19	29	20
6510005510	MORPHINE SULFATE	7214	\$ 200,630.22	24	10
9410003000	GLUCOSE BLOOD	7102	\$ 939,242.88	73	22
4450505010	MONTELUKAST SODIUM	7060	\$ 118,862.53	21	21
5025006505	ONDANSETRON HCL	7049	\$ 35,408.12	4	2
5816007010	SERTRALINE HCL	6972	\$ 75,363.93	28	23
3320003010	METOPROLOL TARTRATE	6913	\$ 51,970.35	43	23
4220003230	FLUTICASONE PROPIONATE (NASAL)	6673	\$ 78,794.42	12	23
6410001000	ASPIRIN	6360	\$ 33,676.08	23	22
3940007500	SIMVASTATIN	6143	\$ 48,302.55	28	28
4927007010	PANTOPRAZOLE SODIUM	5979	\$ 60,757.81	19	18
5907007000	RISPERIDONE	5962	\$ 100,813.82	35	20
6510009510	TRAMADOL HCL	5814	\$ 56,996.48	57	16
7720203200	CHOLECALCIFEROL	5801	\$ 41,555.10	24	22
4920002010	RANITIDINE HCL	5700	\$ 71,645.03	45	22
3720003000	FUROSEMIDE	5638	\$ 38,320.15	29	23
120001010	AMOXICILLIN	5531	\$ 57,202.63	52	6
5816004000	FLUOXETINE HCL	5419	\$ 93,989.71	29	22
7510005010	CYCLOBENZAPRINE HCL	5357	\$ 59,732.07	43	19
4155003000	LORATADINE	5275	\$ 55,475.89	31	21
7210001000	CLONAZEPAM	5190	\$ 55,058.03	44	21
7975001000	SODIUM CHLORIDE	5020	\$ 13,745.22	460	1
3615004020	LOSARTAN POTASSIUM	4970	\$ 41,428.88	25	23
3620101010	CLONIDINE HCL	4904	\$ 64,594.37	37	21
5816002010	CITALOPRAM HYDROBROMIDE	4875	\$ 43,344.16	24	23
2210004500	PREDNISONE	4609	\$ 40,034.49	18	9
5025006500	ONDANSETRON	4606	\$ 52,421.36	6	3
7250001010	DIVALPROEX SODIUM	4560	\$ 232,343.82	55	19
5710006000	LORAZEPAM	4497	\$ 43,287.66	22	10
7720203000	ERGOCALCIFEROL	4487	\$ 47,766.96	4	22
3330000700	CARVEDILOL	4403	\$ 33,303.87	47	24
5925001500	ARIPIPRAZOLE	4240	\$ 3,829,892.30	16	15
7510009010	TIZANIDINE HCL	4231	\$ 115,116.00	53	21
6610005200	MELOXICAM	4220	\$ 36,965.32	27	24
7260004000	LAMOTRIGINE	4200	\$ 247,172.82	43	21
3760004000	HYDROCHLOROTHIAZIDE	4181	\$ 29,687.05	29	28
4155002010	CETIRIZINE HCL	4170	\$ 45,142.77	40	20



Powered by RxTRACK®

**CONFIDENTIAL**  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**Claims Summary:**

RxCLAIM Status	Total Rxs	% of Total Rxs	Total Plan Paid	Total Member Paid
Paid	788,252	61.3%	\$71,987,212.63	\$0.00
Rejected	402,093	31.3%	\$57,052,700.28	\$0.00
Reversed	94,747	7.4%	-\$17,976,944.80	\$0.00
<b>Totals</b>	<b>1,285,092</b>	<b>100%</b>	<b>\$111,062,968.11</b>	<b>\$0.00</b>

**DUR Information Summary:**

DUR Type	Clinical Level	Total DURs		DURs on Paid Rxs		DURs on Rejected Rxs		DURs on Reversed Rxs	
		Count	% of All DURs	Count	% of DUR Type	Count	% of DUR Type	Count	% of DUR Type
LR - Underuse Precaution	0 - NS	63,841	22.8%	57,667	90.3%	0	0.0%	6,174	9.7%
TD - Therapeutic Duplication	0 - NS	60,506	21.6%	44,395	73.4%	7,775	12.8%	8,336	13.8%
ID - Ingredient Duplication	2 - Mod	50,063	17.9%	13,624	27.2%	32,745	65.4%	3,694	7.4%
DD - Drug-Drug Interaction	1 - Maj	40,153	14.3%	32,767	81.6%	3,742	9.3%	3,644	9.1%
LD - Low Dose Alert	0 - NS	28,546	10.2%	24,050	84.2%	0	0.0%	4,496	15.8%
HD - High Dose Alert	0 - NS	19,809	7.1%	17,342	87.5%	170	0.9%	2,297	11.6%
MN - Insufficnt Duration Alert	0 - NS	11,358	4.1%	8,100	71.3%	0	0.0%	3,258	28.7%
MX - Excessive Duration Alert	0 - NS	5,691	2.0%	5,278	92.7%	0	0.0%	413	7.3%
PA - Drug-Age Precaution	1 - Maj	79	0.0%	73	92.4%	0	0.0%	6	7.6%
<b>Total All DURs</b>		<b>280,046</b>	<b>100.0%</b>	<b>203,296</b>	<b>72.6%</b>	<b>44,432</b>	<b>15.9%</b>	<b>32,318</b>	<b>11.5%</b>

\* DUR Information Summary results are sorted by Total DUR count in descending order

\* Some Rx claims could have multiple DUR messages. And there could be multiple instances of the same DUR message on a Rx claim

\* The Count and % of DUR Type for Paid, Rejected and Reversed Rxs are based on DUR Type totals for each row



Powered by RxTRACK®

**CONFIDENTIAL**  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**DD - Drug-Drug Interaction**

Rank	Top Drug Drug Interaction	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	CARISOPRODOL - ALPRAZOLAM	Message Only	587	\$5,888.20	\$10.03	\$0.00	28.3	78.5	64	30	\$147.53
2	TRAZODONE HCL - QUETIAPINE	Message Only	467	\$4,764.48	\$10.20	\$0.00	28.5	41.7	41	53	\$228.41
3	SIMVASTATIN - FENOFIBRATE	Message Only	441	\$6,960.96	\$15.78	\$0.00	32.1	32.2	48	17	\$273.67
4	TRAZODONE - QUETIAPINE FUMARATE	Message Only	396	\$6,176.60	\$15.60	\$0.00	28.2	45.6	39	57	\$380.02
5	TRAZODONE HCL - CITALOPRAM	Message Only	387	\$3,668.48	\$9.48	\$0.00	29.7	39.6	42	16	\$161.98
6	SPIRONOLACTONE - LISINOPRIL	Message Only	353	\$3,665.70	\$10.38	\$0.00	35.8	38.9	55	26	\$179.71
7	SPIRONOLACT - LISINOPRIL	Message Only	369	\$3,044.07	\$8.25	\$0.00	36.2	43.7	30	31	\$141.85
8	TRAZODONE - CITALOPRAM HYDROBROMIDE	Message Only	330	\$2,637.86	\$7.99	\$0.00	30.2	33.4	30	18	\$145.69
9	DIVALPROEX - CLONAZEPAM	Message Only	327	\$3,096.65	\$9.47	\$0.00	26.7	56.6	26	15	\$104.83
10	VOLTAREN - METFORMIN	Message Only	303	\$24,070.17	\$79.44	\$0.00	24.6	224.4	43	14	\$1,080.93
All Others			28,807	\$2,877,658.69	\$99.89	\$0.00	25.4	46.0	3,324	3,367	\$604,370.99
DD - Drug-Drug Interaction			32,767	\$2,941,631.86	\$89.77	\$0.00	25.9	47.8	3,742	3,644	\$607,215.61

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

**CONFIDENTIAL**  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**HD - High Dose Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	HYDROCODONE/ACETAMINOPHEN	ADULT MAX DLY = 6.00 UN	Message Only	494	\$15,784.93	\$31.95	\$0.00	16.2	126.2	0	19	\$670.21
2	ZOLPIDEM TARTRATE	GERIATRIC MAX DLY = .50UN	Message Only	426	\$1,746.78	\$4.10	\$0.00	30.0	30.0	0	21	\$103.43
3	KETOROLAC TROMETHAMINE	GERIATRIC MAX DLY = 2.00UN	Message Only	424	\$2,680.57	\$6.32	\$0.00	1.0	4.7	0	21	\$142.79
4	DEXAMETHASONE SODIUM PHOS	GERIATRIC MAX DLY = 2.60UN	Message Only	241	\$4,216.38	\$17.50	\$0.00	1.0	12.7	0	9	\$107.83
5	KENALOG-40	GERIATRIC MAX DLY = 2.00UN	Message Only	227	\$7,569.76	\$33.35	\$0.00	1.0	5.8	0	15	\$315.91
6	PROMETHAZINE/CODEINE	ADULT MAX DLY = 30.00 UN	Message Only	223	\$2,660.16	\$11.93	\$0.00	2.9	130.6	0	8	\$91.21
7	GRANISETRON HCL	GERIATRIC MAX DLY = .85UN	Message Only	215	\$5,416.43	\$25.19	\$0.00	1.0	1.6	0	6	\$389.50
8	MIDAZOLAM HCL	GERIATRIC MAX DLY = 3.50UN	Message Only	158	\$295.42	\$1.87	\$0.00	1.0	5.3	0	52	\$98.19
9	VITAMIN D3	ADULT MAX DLY = 1.00 UN	Message Only	195	\$1,702.04	\$8.73	\$0.00	28.8	65.8	0	11	\$82.75
10	INVEGA SUSTENNA	ADULT MAX DLY = .05 UN	Message Only	198	\$320,493.71	\$1,618.66	\$0.00	26.4	1.5	0	6	\$10,311.90
All Others				14,541	\$3,788,680.16	\$260.55	\$0.00	15.0	117.1	170	2,129	\$883,394.62
<b>HD - High Dose Alert</b>				<b>17,342</b>	<b>\$4,151,246.34</b>	<b>\$239.38</b>	<b>\$0.00</b>	<b>14.5</b>	<b>105.4</b>	<b>170</b>	<b>2,297</b>	<b>\$895,708.34</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

**CONFIDENTIAL**  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**ID - Ingredient Duplication**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	HYDROCODONE/ACETAMINOPHEN	HYDROCO/APAP TAB 10-325MG	Hard Reject	1	\$14.62	\$14.62	\$0.00	7.0	21.0	891	0	\$0.00
2	SODIUM CHLORIDE	SOD CHLORIDE INJ 0.9%	Soft Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	588	0	\$0.00
3	OXYCODONE/ACETAMINOPHEN	OXYCOD/APAP TAB 10-325MG	Hard Reject	2	\$46.81	\$23.40	\$0.00	7.0	21.0	489	0	\$0.00
4	PROAIR HFA	PROAIR HFA AER	Soft Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	419	0	\$0.00
5	ALPRAZOLAM	ALPRAZOLAM TAB 1MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	411	0	\$0.00
6	ZOLPIDEM TARTRATE	ZOLPIDEM TAB 10MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	404	0	\$0.00
7	GABAPENTIN	GABAPENTIN CAP 300MG	Soft Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	371	0	\$0.00
8	ALPRAZOLAM	ALPRAZOLAM TAB 2MG	Hard Reject	1	\$13.43	\$13.43	\$0.00	30.0	60.0	368	0	\$0.00
9	TRAMADOL HCL	TRAMADOL HCL TAB 50MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	311	0	\$0.00
10	CLONAZEPAM	CLONAZEPAM TAB 1MG	Hard Reject	2	\$22.23	\$11.12	\$0.00	20.0	30.0	276	0	\$0.00
All Others				13,618	\$2,077,676.07	\$152.57	\$0.00	27.4	99.1	28,217	3,694	\$612,675.71
<b>ID - Ingredient Duplication</b>				<b>13,624</b>	<b>\$2,077,773.16</b>	<b>\$152.51</b>	<b>\$0.00</b>	<b>27.4</b>	<b>99.1</b>	<b>32,745</b>	<b>3,694</b>	<b>\$612,675.71</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**LD - Low Dose Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	ONDANSETRON HCL	GERIATRIC MIN DLY = 2.00UN	Message Only	723	\$281.80	\$0.39	\$0.00	1.5	1.5	0	461	\$120.14
2	ONDANSETRON ODT	GERIATRIC MIN DLY = 2.00UN	Message Only	659	\$333.89	\$0.51	\$0.00	1.3	1.3	0	275	\$114.45
3	IPRATROPIUM BROMIDE/ALBUT	GERIATRIC MIN DLY = 12.00UN	Message Only	590	\$854.34	\$1.45	\$0.00	2.7	15.9	0	273	\$216.15
4	METFORMIN HCL	ADULT MIN DLY = 1.70 UN	Message Only	575	\$4,633.08	\$8.06	\$0.00	34.8	34.5	0	46	\$401.21
5	VITAMIN D	ADULT MIN DLY = .14 UN	Message Only	499	\$4,703.60	\$9.43	\$0.00	30.2	3.0	0	22	\$188.82
6	ALBUTEROL SULFATE	GERIATRIC MIN DLY = 9.00UN	Message Only	386	\$525.74	\$1.36	\$0.00	3.5	18.0	0	111	\$104.10
7	GABAPENTIN	ADULT MIN DLY = 3.00 UN	Message Only	441	\$4,710.65	\$10.68	\$0.00	32.0	51.8	0	29	\$296.81
8	CITALOPRAM HYDROBROMIDE	ADULT MIN DLY = 2.00 UN	Message Only	323	\$3,335.64	\$10.33	\$0.00	29.1	29.2	0	38	\$406.20
9	PROPRANOLOL HCL	ADULT MIN DLY = 3.00 UN	Message Only	312	\$3,666.21	\$11.75	\$0.00	30.2	53.6	0	43	\$522.31
10	ONDANSETRON HCL	ADULT MIN DLY = 2.00 UN	Message Only	323	\$3,760.19	\$11.64	\$0.00	19.0	12.0	0	22	\$266.04
All Others				19,219	\$2,039,169.61	\$106.10	\$0.00	24.2	52.7	0	3,176	\$440,680.45
LD - Low Dose Alert				24,050	\$2,065,974.75	\$85.90	\$0.00	22.6	46.0	0	4,496	\$443,316.68

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**LR - Underuse Precaution**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	LISINOPRIL	7 DAYS LATE REFILLING	Message Only	79	\$589.32	\$7.46	\$0.00	30.0	32.3	0	9	\$66.00
2	LEVOTHYROXINE SODIUM	7 DAYS LATE REFILLING	Message Only	75	\$734.08	\$9.79	\$0.00	29.8	29.4	0	0	\$0.00
3	AMLODIPINE BESYLATE	7 DAYS LATE REFILLING	Message Only	72	\$630.06	\$8.75	\$0.00	29.7	30.1	0	1	\$10.93
4	ATORVASTATIN CALCIUM	8 DAYS LATE REFILLING	Message Only	67	\$773.67	\$11.55	\$0.00	29.5	29.8	0	3	\$27.25
5	ATORVASTATIN CALCIUM	7 DAYS LATE REFILLING	Message Only	64	\$724.27	\$11.32	\$0.00	30.0	30.5	0	4	\$43.98
6	PROAIR HFA	11 DAYS LATE REFILLING	Message Only	63	\$3,192.04	\$50.67	\$0.00	19.9	8.9	0	2	\$120.07
6	LISINOPRIL	8 DAYS LATE REFILLING	Message Only	62	\$450.39	\$7.26	\$0.00	29.4	31.6	0	3	\$25.54
8	AMLODIPINE BESYLATE	8 DAYS LATE REFILLING	Message Only	57	\$447.59	\$7.85	\$0.00	30.0	31.6	0	4	\$33.76
8	GABAPENTIN	8 DAYS LATE REFILLING	Message Only	53	\$691.73	\$13.05	\$0.00	28.2	97.3	0	8	\$125.08
10	LISINOPRIL	9 DAYS LATE REFILLING	Message Only	53	\$406.83	\$7.68	\$0.00	29.6	33.0	0	3	\$18.91
All Others				57,022	\$5,520,860.25	\$96.82	\$0.00	28.8	49.1	0	6,137	\$1,037,297.01
LR - Underuse Precaution				57,667	\$5,529,500.23	\$95.89	\$0.00	28.8	48.9	0	6,174	\$1,037,768.53

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**MN - Insufficnt Duration Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	IPRATROPIUM BROMIDE/ALBUT	MIN. DAYS THERAPY = 30	Message Only	542	\$9,551.67	\$17.62	\$0.00	9.3	145.2	0	105	\$1,176.72
2	LISINOPRIL	MIN. DAYS THERAPY = 7	Message Only	338	\$252.28	\$0.75	\$0.00	1.3	1.6	0	223	\$11.51
3	PANTOPRAZOLE SODIUM	MIN. DAYS THERAPY = 7	Message Only	292	\$155.96	\$0.53	\$0.00	1.2	1.3	0	200	\$30.07
4	METOPROLOL TARTRATE	MIN. DAYS THERAPY = 7	Message Only	228	\$69.38	\$0.30	\$0.00	1.1	1.6	0	162	\$5.68
5	CLONIDINE HCL	MIN. DAYS THERAPY = 7	Message Only	240	\$393.66	\$1.64	\$0.00	1.6	5.5	0	110	\$44.30
6	LEVETIRACETAM	MIN. DAYS THERAPY = 14	Message Only	313	\$3,390.76	\$10.83	\$0.00	5.8	49.0	0	35	\$177.76
7	LIPITOR	MIN. DAYS THERAPY = 7	Message Only	170	\$2,399.45	\$14.11	\$0.00	1.0	1.5	0	135	\$1,836.53
8	SULFAMETHOXAZOLE/TRIMETHO	MIN. DAYS THERAPY = 5	Message Only	210	\$1,020.72	\$4.86	\$0.00	2.0	8.8	0	42	\$112.96
9	FERROUS SULFATE	MIN. DAYS THERAPY = 30	Message Only	179	\$998.08	\$5.58	\$0.00	12.3	22.9	0	60	\$41.37
10	BROMPHEN/PSEUDOEPHEDRINE	MIN. DAYS THERAPY = 7	Message Only	221	\$6,006.92	\$27.18	\$0.00	4.7	112.2	0	16	\$435.52
All Others				5,367	\$238,319.39	\$44.40	\$0.00	2.5	17.4	0	2,170	\$70,638.97
<b>MN - Insufficnt Duration Alert</b>				<b>8,100</b>	<b>\$262,558.27</b>	<b>\$32.41</b>	<b>\$0.00</b>	<b>3.2</b>	<b>27.3</b>	<b>0</b>	<b>3,258</b>	<b>\$74,511.39</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**MX - Excessive Duration Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	CYCLOBENZAPRINE HCL	MAX DAYS THERAPY = 21	Message Only	2,519	\$25,673.52	\$10.19	\$0.00	30.1	65.3	0	140	\$2,164.02
2	AZITHROMYCIN	MAX DAYS THERAPY = 5	Message Only	321	\$7,211.59	\$22.47	\$0.00	11.0	20.7	0	15	\$314.35
3	FLUCONAZOLE	MAX DAYS THERAPY = 1	Message Only	204	\$2,843.12	\$13.94	\$0.00	3.1	3.3	0	13	\$304.86
4	EPIPEN 2-PAK	MAX DAYS THERAPY = 1	Message Only	152	\$82,423.18	\$542.26	\$0.00	2.2	2.2	0	20	\$9,956.65
5	MAPAP	MAX DAYS THERAPY = 10	Message Only	161	\$1,522.89	\$9.46	\$0.00	26.9	101.1	0	9	\$88.57
6	DIPHENOXYLATE/ ATROPINE	MAX DAYS THERAPY = 14	Message Only	146	\$3,267.95	\$22.38	\$0.00	26.9	104.7	0	16	\$320.58
7	POLYETHYLENE GLYCOL 3350	MAX DAYS THERAPY = 14	Message Only	111	\$3,378.78	\$30.44	\$0.00	29.5	29.5	0	19	\$505.14
8	SENEXON-S	MAX DAYS THERAPY = 14	Message Only	112	\$1,085.73	\$9.69	\$0.00	29.5	58.3	0	6	\$51.01
9	TRAMADOL HYDROCHLORIDE/AC	MAX DAYS THERAPY = 5	Message Only	106	\$1,710.22	\$16.13	\$0.00	21.1	73.5	0	9	\$153.59
10	CEFDINIR	MAX DAYS THERAPY = 10	Message Only	104	\$4,459.59	\$42.88	\$0.00	15.7	70.1	0	2	\$75.27
All Others				1,342	\$201,446.32	\$150.11	\$0.00	26.3	74.4	0	164	\$44,849.12
<b>MX - Excessive Duration Alert</b>				<b>5,278</b>	<b>\$335,022.89</b>	<b>\$63.48</b>	<b>\$0.00</b>	<b>25.5</b>	<b>62.2</b>	<b>0</b>	<b>413</b>	<b>\$58,783.16</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**PA - Drug-Age Precaution**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	PROMETHAZINE-DM	AGE LESS THAN 4	Message Only	29	\$218.50	\$7.53	\$0.00	10.1	86.4	0	1	\$7.05
2	PROMETHAZINE/ DEXTROMETHOR	AGE LESS THAN 4	Message Only	19	\$149.23	\$7.85	\$0.00	9.5	96.3	0	0	\$0.00
3	PROMETHAZINE HCL PLAIN	AGE LESS THAN 4	Message Only	12	\$87.77	\$7.31	\$0.00	9.3	114.4	0	1	\$11.99
4	PROMETHAZINE HCL	AGE LESS THAN 4	Message Only	6	\$62.68	\$10.45	\$0.00	10.0	114.2	0	2	\$22.16
5	PROMETHAZINE/CODEINE	AGE LESS THAN 4	Message Only	4	\$38.97	\$9.74	\$0.00	13.8	82.5	0	1	\$12.41
6	PROMETHAZINE VC/CODEINE	AGE LESS THAN 4	Message Only	2	\$80.35	\$40.18	\$0.00	20.0	102.5	0	0	\$0.00
6	PROMETHEGAN	AGE LESS THAN 4	Message Only	1	\$19.78	\$19.78	\$0.00	2.0	10.0	0	1	\$19.78
PA - Drug-Age Precaution				73	\$657.28	\$9.00	\$0.00	10.2	95.0	0	6	\$73.39

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jan 1, 2016 and Mar 31, 2016

Apr 19, 2016  
 11:39:49 AM

**TD - Therapeutic Duplication**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	MORPHINE SULFATE	SHORT ACTING NARCOTIC ANALGESI	Message Only	969	\$4,815.23	\$4.97	\$0.00	3.8	12.6	0	656	\$1,778.56
2	HYDROCODONE/ ACETAMINOPHEN	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,262	\$21,591.36	\$17.11	\$0.00	16.4	66.0	0	188	\$1,097.22
3	QUETIAPINE FUMARATE	ORAL ANTIPSYCHOTICS	Message Only	1,318	\$19,845.33	\$15.06	\$0.00	26.8	38.8	0	101	\$939.53
4	HYDROMORPHONE HCL	SHORT ACTING NARCOTIC ANALGESI	Message Only	876	\$4,680.25	\$5.34	\$0.00	4.7	16.3	0	458	\$1,328.77
5	OXYCODONE/ ACETAMINOPHEN	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,074	\$32,960.98	\$30.69	\$0.00	13.4	54.0	0	229	\$2,095.21
6	RISPERIDONE	ORAL ANTIPSYCHOTICS	Message Only	963	\$11,541.98	\$11.99	\$0.00	27.6	46.7	0	99	\$997.04
7	OXYCODONE HCL	SHORT ACTING NARCOTIC ANALGESI	Message Only	959	\$29,472.73	\$30.73	\$0.00	22.6	103.4	0	87	\$1,132.45
8	TRAMADOL HCL	SHORT ACTING NARCOTIC ANALGESI	Message Only	750	\$7,348.00	\$9.80	\$0.00	21.2	85.3	0	48	\$338.60
9	LISINOPRIL	ANGIOTENSIN BLOCKERS	Message Only	646	\$4,007.48	\$6.20	\$0.00	32.6	35.8	0	141	\$391.82
10	ALPRAZOLAM	BENZODIAZEPINES	Message Only	707	\$6,704.52	\$9.48	\$0.00	24.9	62.1	0	62	\$314.85
All Others				34,871	\$4,233,948.17	\$121.42	\$0.00	24.4	52.8	7,775	6,267	\$809,768.65
<b>TD - Therapeutic Duplication</b>				<b>44,395</b>	<b>\$4,376,916.03</b>	<b>\$98.59</b>	<b>\$0.00</b>	<b>23.2</b>	<b>52.6</b>	<b>7,775</b>	<b>8,336</b>	<b>\$820,182.70</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



CONFIDENTIAL

# RXT6050D - Summarized DUR Activity Report

Between Jan 1, 2016 and Mar 31, 2016

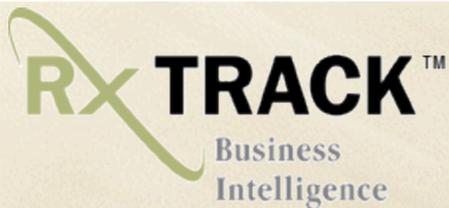
Apr 19, 2016  
11:39:49 AM

Powered by RxTRACK®

## Selected Filters

**Client(s):** Nevada Medicaid - HPES  
**Carrier(s):** NVM-NEVADA MEDICAID  
**Account(s):** ALL  
**Group(s):** ALL

**Date Type:** Date Filled Submitted  
**Primary Start Date:** Jan 1, 2016  
**Primary End Date:** Mar 31, 2016  
**Relative Date Description:** N/A  
**Select Report Group By:** Product  
**Top Values Displayed:** 10  
**Display Report Description:** No



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**Claims Summary:**

RxCLAIM Status	Total Rxs	% of Total Rxs	Total Plan Paid	Total Member Paid
Paid	770,262	61.0%	\$75,375,612.97	\$0.00
Rejected	394,885	31.3%	\$52,173,684.05	\$0.00
Reversed	97,038	7.7%	-\$18,841,737.47	\$0.00
<b>Totals</b>	<b>1,262,185</b>	<b>100%</b>	<b>\$108,707,559.55</b>	<b>\$0.00</b>

**DUR Information Summary:**

DUR Type	Clinical Level	Total DURs		DURs on Paid Rxs		DURs on Rejected Rxs		DURs on Reversed Rxs	
		Count	% of All DURs	Count	% of DUR Type	Count	% of DUR Type	Count	% of DUR Type
LR - Underuse Precaution	0 - NS	64,269	23.2%	57,951	90.2%	0	0.0%	6,318	9.8%
TD - Therapeutic Duplication	0 - NS	60,772	22.0%	43,711	71.9%	8,259	13.6%	8,802	14.5%
ID - Ingredient Duplication	2 - Mod	49,689	18.0%	13,782	27.7%	32,115	64.6%	3,792	7.6%
DD - Drug-Drug Interaction	1 - Maj	39,572	14.3%	32,013	80.9%	3,864	9.8%	3,695	9.3%
LD - Low Dose Alert	0 - NS	28,464	10.3%	23,623	83.0%	0	0.0%	4,841	17.0%
HD - High Dose Alert	0 - NS	17,638	6.4%	15,482	87.8%	194	1.1%	1,962	11.1%
MN - Insufficnt Duration Alert	0 - NS	10,871	3.9%	7,876	72.4%	0	0.0%	2,995	27.6%
MX - Excessive Duration Alert	0 - NS	5,382	1.9%	4,978	92.5%	0	0.0%	404	7.5%
PA - Drug-Age Precaution	1 - Maj	26	0.0%	24	92.3%	0	0.0%	2	7.7%
<b>Total All DURs</b>		<b>276,683</b>	<b>100.0%</b>	<b>199,440</b>	<b>72.1%</b>	<b>44,432</b>	<b>16.1%</b>	<b>32,811</b>	<b>11.9%</b>

\* DUR Information Summary results are sorted by Total DUR count in descending order

\* Some Rx claims could have multiple DUR messages. And there could be multiple instances of the same DUR message on a Rx claim

\* The Count and % of DUR Type for Paid, Rejected and Reversed Rxs are based on DUR Type totals for each row



Powered by RxTRACK®

**CONFIDENTIAL**  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**DD - Drug-Drug Interaction**

Rank	Top Drug Drug Interaction	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	CARISOPRODOL - ALPRAZOLAM	Message Only	461	\$5,103.26	\$11.07	\$0.00	28.6	80.7	57	31	\$227.09
2	TRAZODONE HCL - QUETIAPINE	Message Only	442	\$5,081.38	\$11.50	\$0.00	28.7	40.9	37	38	\$579.19
3	SIMVASTATIN - FENOFIBRATE	Message Only	407	\$6,202.83	\$15.24	\$0.00	32.9	33.1	56	31	\$542.55
4	TRAZODONE HCL - CITALOPRAM	Message Only	404	\$3,904.07	\$9.66	\$0.00	29.8	40.0	34	25	\$238.02
5	TRAZODONE - QUETIAPINE FUMARATE	Message Only	377	\$6,190.00	\$16.42	\$0.00	28.0	43.8	49	22	\$290.24
6	SPIRONOLACT - LISINOPRIL	Message Only	360	\$3,017.86	\$8.38	\$0.00	36.2	43.2	37	35	\$222.29
7	SPIRONOLACTONE - LISINOPRIL	Message Only	364	\$3,674.34	\$10.09	\$0.00	36.3	40.5	47	15	\$125.62
8	TRAZODONE - CITALOPRAM HYDROBROMIDE	Message Only	354	\$2,760.09	\$7.80	\$0.00	29.4	30.4	37	18	\$90.96
9	DIVALPROEX - CLONAZEPAM	Message Only	364	\$3,378.64	\$9.28	\$0.00	25.5	52.6	29	15	\$122.93
10	FENOFIBRATE - ATORVASTATIN CALCIUM	Message Only	333	\$3,795.01	\$11.40	\$0.00	32.1	32.1	49	15	\$108.58
All Others			28,147	\$2,943,661.42	\$104.58	\$0.00	25.2	49.2	3,432	3,450	\$511,681.12
DD - Drug-Drug Interaction			32,013	\$2,986,768.90	\$93.30	\$0.00	25.8	48.6	3,864	3,695	\$514,228.59

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**HD - High Dose Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	HYDROCODONE/ACETAMINOPHEN	ADULT MAX DLY = 6.00 UN	Message Only	473	\$14,603.13	\$30.87	\$0.00	15.8	122.3	0	21	\$511.14
2	KETOROLAC TROMETHAMINE	GERIATRIC MAX DLY = 2.00UN	Message Only	385	\$3,037.50	\$7.89	\$0.00	1.0	5.2	0	28	\$176.18
3	ZOLPIDEM TARTRATE	GERIATRIC MAX DLY = .50UN	Message Only	333	\$1,625.92	\$4.88	\$0.00	29.6	29.6	0	18	\$46.09
4	DEXAMETHASONE SODIUM PHOS	GERIATRIC MAX DLY = 2.60UN	Message Only	266	\$4,467.86	\$16.80	\$0.00	1.0	12.8	0	18	\$234.00
5	MIDAZOLAM HCL	GERIATRIC MAX DLY = 3.50UN	Message Only	199	\$335.06	\$1.68	\$0.00	1.0	5.1	0	52	\$92.27
6	GRANISETRON HCL	GERIATRIC MAX DLY = .85UN	Message Only	222	\$5,858.81	\$26.39	\$0.00	1.0	1.8	0	9	\$67.50
7	IBUPROFEN	ADULT MAX DLY = 4.00 UN	Message Only	202	\$2,047.97	\$10.14	\$0.00	6.9	32.4	0	8	\$94.60
8	KENALOG-40	GERIATRIC MAX DLY = 2.00UN	Message Only	200	\$7,083.10	\$35.42	\$0.00	1.0	6.0	0	3	\$127.18
9	INVEGA SUSTENNA	ADULT MAX DLY = .05 UN	Message Only	188	\$344,373.93	\$1,831.78	\$0.00	26.0	1.5	0	6	\$12,369.96
10	BETAMETHASONE SODIUM PHOS	GERIATRIC MAX DLY = 1.50UN	Message Only	183	\$4,482.35	\$24.49	\$0.00	1.0	5.2	0	10	\$236.49
All Others				12,831	\$3,772,254.27	\$294.00	\$0.00	16.0	363.3	194	1,789	\$695,810.92
<b>HD - High Dose Alert</b>				<b>15,482</b>	<b>\$4,160,169.90</b>	<b>\$268.71</b>	<b>\$0.00</b>	<b>14.9</b>	<b>306.5</b>	<b>194</b>	<b>1,962</b>	<b>\$709,766.33</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.

CONFIDENTIAL  
RXT6050D - Summarized DUR Activity Report  
Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
12:52:37 PM

### ID - Ingredient Duplication

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	HYDROCODONE/ ACETAMINOPHEN	HYDROCO/APAP TAB 10-325MG	Hard Reject	2	\$32.03	\$16.02	\$0.00	9.0	30.0	734	0	\$0.00
2	SODIUM CHLORIDE	SOD CHLORIDE INJ 0.9%	Soft Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	678	0	\$0.00
3	OXYCODONE/ ACETAMINOPHEN	OXYCOD/APAP TAB 10-325MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	470	0	\$0.00
4	PROAIR HFA	PROAIR HFA AER	Soft Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	392	0	\$0.00
5	GABAPENTIN	GABAPENTIN CAP 300MG	Soft Reject	1	\$10.46	\$10.46	\$0.00	7.0	7.0	385	0	\$0.00
6	ALPRAZOLAM	ALPRAZOLAM TAB 2MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	367	0	\$0.00
7	ALPRAZOLAM	ALPRAZOLAM TAB 1MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	363	0	\$0.00
8	GABAPENTIN	GABAPENTIN CAP 300MG	Message Only	271	\$3,495.96	\$12.90	\$0.00	30.6	98.7	0	43	\$519.73
9	ZOLPIDEM TARTRATE	ZOLPIDEM TAB 10MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	272	0	\$0.00
10	TRAMADOL HCL	TRAMADOL HCL TAB 50MG	Hard Reject	1	\$12.72	\$12.72	\$0.00	30.0	120.0	268	0	\$0.00
All Others				13,507	\$1,909,203.87	\$141.35	\$0.00	27.4	90.7	28,186	3,749	\$779,869.93
ID - Ingredient Duplication				13,782	\$1,912,755.04	\$138.79	\$0.00	27.5	90.8	32,115	3,792	\$780,389.66

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**LD - Low Dose Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	ONDANSETRON HCL	GERIATRIC MIN DLY = 2.00UN	Message Only	1,339	\$486.63	\$0.36	\$0.00	1.3	1.3	0	951	\$223.87
2	ONDANSETRON ODT	GERIATRIC MIN DLY = 2.00UN	Message Only	680	\$398.04	\$0.59	\$0.00	1.6	1.5	0	271	\$133.88
3	IPRATROPIUM BROMIDE/ALBUT	GERIATRIC MIN DLY = 12.00UN	Message Only	468	\$832.63	\$1.78	\$0.00	2.9	18.7	0	179	\$161.49
4	METFORMIN HCL	ADULT MIN DLY = 1.70 UN	Message Only	498	\$3,996.69	\$8.03	\$0.00	35.1	34.8	0	63	\$577.16
5	VITAMIN D	ADULT MIN DLY = .14 UN	Message Only	510	\$4,961.75	\$9.73	\$0.00	30.4	3.0	0	35	\$357.37
6	HEPARIN SODIUM	GERIATRIC MIN DLY = 4.00UN	Message Only	332	\$1,225.32	\$3.69	\$0.00	1.5	3.0	0	203	\$480.93
7	GABAPENTIN	ADULT MIN DLY = 3.00 UN	Message Only	447	\$4,672.94	\$10.45	\$0.00	32.8	53.7	0	30	\$319.61
8	ALBUTEROL SULFATE	GERIATRIC MIN DLY = 9.00UN	Message Only	320	\$516.23	\$1.61	\$0.00	3.7	19.0	0	84	\$74.84
9	METFORMIN HCL	GERIATRIC MIN DLY = 1.70UN	Message Only	307	\$1,065.72	\$3.47	\$0.00	36.9	36.4	0	42	\$101.88
10	ONDANSETRON HCL	ADULT MIN DLY = 2.00 UN	Message Only	300	\$3,366.38	\$11.22	\$0.00	18.6	11.5	0	34	\$378.92
All Others				18,422	\$1,614,904.12	\$87.66	\$0.00	24.5	54.3	0	2,949	\$371,959.91
LD - Low Dose Alert				23,623	\$1,636,426.45	\$69.27	\$0.00	22.1	45.6	0	4,841	\$374,769.86

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**LR - Underuse Precaution**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	LISINOPRIL	7 DAYS LATE REFILLING	Message Only	98	\$756.93	\$7.72	\$0.00	30.0	34.3	0	6	\$59.07
2	ATORVASTATIN CALCIUM	7 DAYS LATE REFILLING	Message Only	79	\$868.13	\$10.99	\$0.00	29.4	29.6	0	2	\$27.40
3	ATORVASTATIN CALCIUM	8 DAYS LATE REFILLING	Message Only	73	\$797.42	\$10.92	\$0.00	29.7	29.7	0	1	\$1.20
4	AMLODIPINE BESYLATE	7 DAYS LATE REFILLING	Message Only	66	\$580.34	\$8.79	\$0.00	30.4	31.5	0	3	\$22.78
4	GABAPENTIN	7 DAYS LATE REFILLING	Message Only	62	\$856.27	\$13.81	\$0.00	29.6	92.7	0	7	\$102.00
6	LISINOPRIL	8 DAYS LATE REFILLING	Message Only	63	\$437.19	\$6.94	\$0.00	29.8	33.6	0	4	\$14.53
7	MONTELUKAST SODIUM	7 DAYS LATE REFILLING	Message Only	56	\$1,071.47	\$19.13	\$0.00	30.0	30.0	0	8	\$111.05
7	METFORMIN HCL	8 DAYS LATE REFILLING	Message Only	54	\$416.10	\$7.71	\$0.00	30.8	67.8	0	10	\$86.63
9	LISINOPRIL	9 DAYS LATE REFILLING	Message Only	57	\$435.19	\$7.63	\$0.00	30.0	32.6	0	6	\$37.17
10	LEVOTHYROXINE SODIUM	8 DAYS LATE REFILLING	Message Only	55	\$660.29	\$12.01	\$0.00	29.6	30.1	0	5	\$70.58
All Others				57,288	\$5,698,666.21	\$99.47	\$0.00	28.6	49.7	0	6,266	\$982,731.40
LR - Underuse Precaution				57,951	\$5,705,545.54	\$98.45	\$0.00	28.6	49.5	0	6,318	\$983,263.81

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**MN - Insufficnt Duration Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	LISINOPRIL	MIN. DAYS THERAPY = 7	Message Only	343	\$73.88	\$0.22	\$0.00	1.1	1.5	0	205	\$28.22
2	IPRATROPIUM BROMIDE/ALBUT	MIN. DAYS THERAPY = 30	Message Only	475	\$9,278.23	\$19.53	\$0.00	9.0	139.7	0	57	\$821.12
3	METOPROLOL TARTRATE	MIN. DAYS THERAPY = 7	Message Only	305	\$102.53	\$0.34	\$0.00	1.2	1.6	0	187	\$6.33
4	CLONIDINE HCL	MIN. DAYS THERAPY = 7	Message Only	290	\$644.47	\$2.22	\$0.00	1.6	3.7	0	111	\$10.44
5	LEVETIRACETAM	MIN. DAYS THERAPY = 14	Message Only	289	\$3,422.14	\$11.84	\$0.00	6.1	56.4	0	41	\$268.00
6	ATORVASTATIN CALCIUM	MIN. DAYS THERAPY = 7	Message Only	202	\$164.47	\$0.81	\$0.00	1.3	1.4	0	111	\$38.48
7	AMLODIPINE BESYLATE	MIN. DAYS THERAPY = 7	Message Only	189	\$72.30	\$0.38	\$0.00	1.2	1.3	0	100	\$2.32
8	NICOTINE TRANSDERMAL SYST	MIN. DAYS THERAPY = 7	Message Only	135	\$220.39	\$1.63	\$0.00	1.0	1.0	0	103	\$231.48
9	FERROUS SULFATE	MIN. DAYS THERAPY = 30	Message Only	180	\$953.98	\$5.30	\$0.00	13.0	26.2	0	56	\$41.97
10	SULFAMETHOXAZOLE/ TRIMETHO	MIN. DAYS THERAPY = 5	Message Only	198	\$1,008.81	\$5.10	\$0.00	2.2	6.4	0	33	\$135.52
All Others				5,270	\$288,879.37	\$54.82	\$0.00	2.4	19.5	0	1,991	\$146,425.59
MN - Insufficnt Duration Alert				7,876	\$304,820.57	\$38.70	\$0.00	2.9	24.6	0	2,995	\$148,009.47

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**MX - Excessive Duration Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	CYCLOBENZAPRINE HCL	MAX DAYS THERAPY = 21	Message Only	2,460	\$25,841.79	\$10.50	\$0.00	30.2	65.3	0	112	\$1,131.07
2	EPIPEN 2-PAK	MAX DAYS THERAPY = 1	Message Only	186	\$103,507.30	\$556.49	\$0.00	2.3	2.3	0	33	\$20,954.80
2	AZITHROMYCIN	MAX DAYS THERAPY = 5	Message Only	203	\$4,575.14	\$22.54	\$0.00	12.6	21.3	0	16	\$322.28
4	FLUCONAZOLE	MAX DAYS THERAPY = 1	Message Only	190	\$2,699.96	\$14.21	\$0.00	3.4	3.5	0	13	\$142.06
5	MAPAP	MAX DAYS THERAPY = 10	Message Only	174	\$1,647.00	\$9.47	\$0.00	26.7	107.3	0	2	\$15.72
6	DIPHENOXYLATE/ ATROPINE	MAX DAYS THERAPY = 14	Message Only	160	\$5,103.63	\$31.90	\$0.00	26.8	108.2	0	9	\$330.32
7	SENEXON-S	MAX DAYS THERAPY = 14	Message Only	122	\$1,219.82	\$10.00	\$0.00	30.4	60.2	0	6	\$46.35
8	POLYETHYLENE GLYCOL 3350	MAX DAYS THERAPY = 14	Message Only	93	\$2,624.90	\$28.22	\$0.00	29.3	29.3	0	20	\$672.85
9	LOPERAMIDE HCL	MAX DAYS THERAPY = 14	Message Only	87	\$2,684.72	\$30.86	\$0.00	26.5	108.0	0	4	\$108.37
10	TRAMADOL HYDROCHLORIDE/AC	MAX DAYS THERAPY = 5	Message Only	68	\$896.71	\$13.19	\$0.00	22.3	74.7	0	10	\$216.38
All Others				1,235	\$238,312.71	\$192.97	\$0.00	25.5	65.9	0	179	\$99,166.16
<b>MX - Excessive Duration Alert</b>				<b>4,978</b>	<b>\$389,113.68</b>	<b>\$78.17</b>	<b>\$0.00</b>	<b>25.8</b>	<b>61.9</b>	<b>0</b>	<b>404</b>	<b>\$123,106.36</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
 12:52:37 PM

**PA - Drug-Age Precaution**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	PROMETHAZINE HCL	AGE LESS THAN 4	Message Only	9	\$86.79	\$9.64	\$0.00	5.7	133.3	0	0	\$0.00
2	PROMETHAZINE/ DEXTROMETHOR	AGE LESS THAN 4	Message Only	7	\$70.07	\$10.01	\$0.00	9.1	75.0	0	0	\$0.00
3	PROMETHAZINE-DM	AGE LESS THAN 4	Message Only	6	\$42.49	\$7.08	\$0.00	12.5	93.3	0	0	\$0.00
4	PROMETHAZINE HCL PLAIN	AGE LESS THAN 4	Message Only	0	\$0.00	\$0.00	\$0.00	0.00	0.00	0	2	\$9.63
4	PROMETHEGAN	AGE LESS THAN 4	Message Only	2	\$194.10	\$97.05	\$0.00	3.5	11.0	0	0	\$0.00
PA - Drug-Age Precaution				24	\$393.45	\$16.39	\$0.00	8.2	96.1	0	2	\$9.63

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.

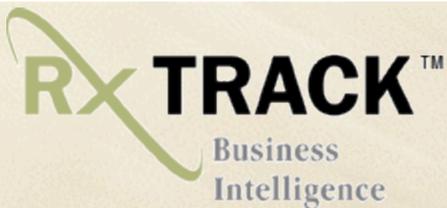
CONFIDENTIAL  
RXT6050D - Summarized DUR Activity Report  
Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
12:52:37 PM

**TD - Therapeutic Duplication**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	MORPHINE SULFATE	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,026	\$6,077.85	\$5.92	\$0.00	4.4	15.4	0	710	\$2,007.12
2	QUETIAPINE FUMARATE	ORAL ANTIPSYCHOTICS	Message Only	1,272	\$19,598.69	\$15.41	\$0.00	27.0	39.4	0	120	\$1,145.82
3	HYDROMORPHONE HCL	SHORT ACTING NARCOTIC ANALGESI	Message Only	911	\$4,915.59	\$5.40	\$0.00	4.1	14.8	0	478	\$1,319.01
4	HYDROCODONE/ ACETAMINOPHEN	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,178	\$18,196.97	\$15.45	\$0.00	15.1	58.5	0	176	\$898.60
5	OXYCODONE/ ACETAMINOPHEN	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,011	\$29,309.53	\$28.99	\$0.00	13.1	51.9	0	210	\$1,375.90
6	OXYCODONE HCL	SHORT ACTING NARCOTIC ANALGESI	Message Only	950	\$27,394.33	\$28.84	\$0.00	21.8	96.6	0	82	\$958.37
7	RISPERIDONE	ORAL ANTIPSYCHOTICS	Message Only	913	\$10,765.56	\$11.79	\$0.00	26.6	43.5	0	67	\$656.98
8	KETOROLAC TROMETHAMINE	NON-STEROIDAL ANTI-INFLAMMATOR	Message Only	705	\$2,543.45	\$3.61	\$0.00	1.1	2.3	0	139	\$356.45
9	LISINOPRIL	ANGIOTENSIN BLOCKERS	Message Only	671	\$4,108.02	\$6.12	\$0.00	30.5	34.1	0	161	\$475.54
10	LORAZEPAM	BENZODIAZEPINES	Message Only	559	\$2,580.78	\$4.62	\$0.00	9.6	22.1	0	200	\$237.88
All Others				34,515	\$5,678,446.90	\$164.52	\$0.00	24.8	79.0	8,259	6,459	\$1,308,356.81
TD - Therapeutic Duplication				43,711	\$5,803,937.67	\$132.78	\$0.00	22.9	70.8	8,259	8,802	\$1,317,788.48

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
RXT6050D - Summarized DUR Activity Report  
Between Apr 1, 2016 and Jun 30, 2016

Jul 19, 2016  
12:52:37 PM

**Selected Filters**

**Client(s):** Nevada Medicaid - HPES  
**Carrier(s):** NVM-NEVADA MEDICAID  
**Account(s):** ALL  
**Group(s):** ALL

**Date Type:** Date Filled Submitted  
**Primary Start Date:** Apr 1, 2016  
**Primary End Date:** Jun 30, 2016  
**Relative Date Description:** N/A  
**Select Report Group By:** Product  
**Top Values Displayed:** 10  
**Display Report Description:** No



CONFIDENTIAL

## RXT6050D - Summarized DUR Activity Report

Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
12:18:00 PM

Powered by RxTRACK®

### Claims Summary:

RxCLAIM Status	Total Rxs	% of Total Rxs	Total Plan Paid	Total Member Paid
Paid	782,464	59.2%	\$76,251,767.84	\$0.00
Rejected	424,627	32.1%	\$55,295,209.60	\$0.00
Reversed	114,825	8.7%	-\$17,767,834.21	\$0.00
<b>Totals</b>	<b>1,321,916</b>	<b>100%</b>	<b>\$113,779,143.23</b>	<b>\$0.00</b>

### DUR Information Summary:

DUR Type	Clinical Level	Total DURs		DURs on Paid Rxs		DURs on Rejected Rxs		DURs on Reversed Rxs	
		Count	% of All DURs	Count	% of DUR Type	Count	% of DUR Type	Count	% of DUR Type
LR - Underuse Precaution	0 - NS	64,813	22.2%	58,229	89.8%	0	0.0%	6,584	10.2%
TD - Therapeutic Duplication	0 - NS	63,634	21.8%	44,262	69.6%	8,167	12.8%	11,205	17.6%
ID - Ingredient Duplication	2 - Mod	52,124	17.9%	14,018	26.9%	34,060	65.3%	4,046	7.8%
DD - Drug-Drug Interaction	1 - Maj	39,944	13.7%	31,181	78.1%	3,828	9.6%	4,935	12.4%
LD - Low Dose Alert	0 - NS	30,830	10.6%	24,807	80.5%	0	0.0%	6,023	19.5%
HD - High Dose Alert	0 - NS	18,048	6.2%	15,441	85.6%	158	0.9%	2,449	13.6%
MN - Insufficient Duration Alert	0 - NS	16,287	5.6%	10,737	65.9%	0	0.0%	5,550	34.1%
MX - Excessive Duration Alert	0 - NS	5,664	1.9%	5,081	89.7%	0	0.0%	583	10.3%
PA - Drug-Age Precaution	1 - Maj	34	0.0%	31	91.2%	0	0.0%	3	8.8%
SX - Drug Gender Alert	1 - Maj	6	0.0%	6	100.0%	0	0.0%	0	0.0%
<b>Total All DURs</b>		<b>291,384</b>	<b>100.0%</b>	<b>203,793</b>	<b>69.9%</b>	<b>46,213</b>	<b>15.9%</b>	<b>41,378</b>	<b>14.2%</b>

\* DUR Information Summary results are sorted by Total DUR count in descending order

\* Some Rx claims could have multiple DUR messages. And there could be multiple instances of the same DUR message on a Rx claim

\* The Count and % of DUR Type for Paid, Rejected and Reversed Rxs are based on DUR Type totals for each row



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
12:18:00 PM

**DD - Drug-Drug Interaction**

Rank	Top Drug Drug Interaction	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	TRAZODONE HCL - QUETIAPINE	Message Only	497	\$5,512.52	\$11.09	\$0.00	27.8	38.5	56	51	\$512.93
2	TRAZODONE - QUETIAPINE FUMARATE	Message Only	434	\$6,889.56	\$15.87	\$0.00	27.7	44.0	51	42	\$442.30
3	SIMVASTATIN - FENOFIBRATE	Message Only	415	\$6,208.06	\$14.96	\$0.00	31.9	32.2	64	20	\$272.46
4	CARISOPRODOL - ALPRAZOLAM	Message Only	385	\$4,207.68	\$10.93	\$0.00	26.9	76.4	61	41	\$272.84
5	SPIRONOLACT - LISINOPRIL	Message Only	362	\$3,206.49	\$8.86	\$0.00	38.1	44.6	59	45	\$265.92
6	SPIRONOLACTONE - LISINOPRIL	Message Only	353	\$3,831.90	\$10.86	\$0.00	37.5	39.9	56	39	\$341.74
7	TRAZODONE HCL - CITALOPRAM	Message Only	352	\$3,251.03	\$9.24	\$0.00	28.7	36.7	38	51	\$273.84
8	TRAZODONE - ONDANSETRON HCL	Message Only	234	\$133.52	\$0.57	\$0.00	1.0	1.9	0	171	\$83.91
9	FENOFIBRATE - ATORVASTATIN	Message Only	312	\$8,893.78	\$28.51	\$0.00	29.1	29.1	41	37	\$1,328.48
10	TRAZODONE - CITALOPRAM HYDROBROMIDE	Message Only	320	\$2,324.22	\$7.26	\$0.00	28.2	29.1	27	37	\$203.69
All Others			27,517	\$2,610,257.86	\$94.86	\$0.00	24.3	45.8	3,375	4,401	\$392,482.89
<b>DD - Drug-Drug Interaction</b>			<b>31,181</b>	<b>\$2,654,716.62</b>	<b>\$85.14</b>	<b>\$0.00</b>	<b>24.8</b>	<b>45.0</b>	<b>3,828</b>	<b>4,935</b>	<b>\$396,481.00</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**HD - High Dose Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	KETOROLAC TROMETHAMINE	GERIATRIC MAX DLY = 2.00UN	Message Only	421	\$4,673.68	\$11.10	\$0.00	1.0	5.9	0	36	\$460.95
2	HYDROCODONE/ ACETAMINOPHEN	ADULT MAX DLY = 6.00 UN	Message Only	395	\$11,792.93	\$29.86	\$0.00	14.9	115.4	0	15	\$381.69
3	DEXAMETHASONE SODIUM PHOS	GERIATRIC MAX DLY = 2.60UN	Message Only	325	\$4,941.96	\$15.21	\$0.00	1.0	16.1	0	14	\$327.00
4	ZOLPIDEM TARTRATE	GERIATRIC MAX DLY = .50UN	Message Only	290	\$964.72	\$3.33	\$0.00	29.7	29.7	0	20	\$69.60
5	GRANISETRON HCL	GERIATRIC MAX DLY = .85UN	Message Only	240	\$6,275.23	\$26.15	\$0.00	1.0	1.8	0	15	\$118.75
6	CEFTRIAXONE SODIUM	GERIATRIC MAX DLY = 2.00UN	Message Only	241	\$49,888.44	\$207.01	\$0.00	1.0	231.0	0	13	\$387.20
7	KENALOG-40	GERIATRIC MAX DLY = 2.00UN	Message Only	239	\$7,457.53	\$31.20	\$0.00	1.0	5.6	0	6	\$291.27
8	MIDAZOLAM HCL	GERIATRIC MAX DLY = 3.50UN	Message Only	184	\$437.96	\$2.38	\$0.00	1.0	6.7	0	55	\$130.77
9	ENGERIX-B	GERIATRIC MAX DLY = 1.00UN	Message Only	163	\$17,598.62	\$107.97	\$0.00	1.0	2.0	0	39	\$4,201.06
10	VITAMIN D3	ADULT MAX DLY = 1.00 UN	Message Only	173	\$1,454.05	\$8.40	\$0.00	29.2	62.7	0	27	\$174.40
All Others				12,770	\$4,340,180.96	\$339.87	\$0.00	15.3	124.1	158	2,209	\$900,955.09
<b>HD - High Dose Alert</b>				<b>15,441</b>	<b>\$4,445,666.08</b>	<b>\$287.91</b>	<b>\$0.00</b>	<b>14.0</b>	<b>111.2</b>	<b>158</b>	<b>2,449</b>	<b>\$907,497.78</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

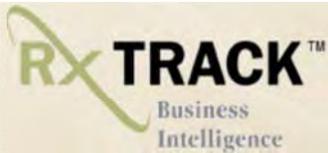
CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**ID - Ingredient Duplication**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	SODIUM CHLORIDE	SOD CHLORIDE INJ 0.9%	Soft Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	1,133	0	\$0.00
2	HYDROCODONE/ ACETAMINOPHEN	HYDROCO/APAP TAB 10-325MG	Hard Reject	3	\$37.91	\$12.64	\$0.00	14.7	68.0	682	0	\$0.00
3	OXYCODONE/ ACETAMINOPHEN	OXYCOD/APAP TAB 10-325MG	Hard Reject	1	\$63.80	\$63.80	\$0.00	15.0	89.0	447	0	\$0.00
4	GABAPENTIN	GABAPENTIN CAP 300MG	Soft Reject	1	\$22.43	\$22.43	\$0.00	30.0	270.0	417	0	\$0.00
5	ALPRAZOLAM	ALPRAZOLAM TAB 1MG	Hard Reject	1	\$10.40	\$10.40	\$0.00	20.0	10.0	398	0	\$0.00
6	PROAIR HFA	PROAIR HFA AER	Soft Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	396	0	\$0.00
7	TRAMADOL HCL	TRAMADOL HCL TAB 50MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	329	0	\$0.00
8	ALPRAZOLAM	ALPRAZOLAM TAB 2MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	321	0	\$0.00
9	GABAPENTIN	GABAPENTIN CAP 300MG	Message Only	259	\$3,284.30	\$12.68	\$0.00	31.8	93.6	0	58	\$622.14
10	ZOLPIDEM TARTRATE	ZOLPIDEM TAB 10MG	Hard Reject	0	\$0.00	\$0.00	\$0.00	0.00	0.00	305	0	\$0.00
All Others				13,753	\$1,999,313.34	\$145.37	\$0.00	27.1	90.8	29,632	3,988	\$672,636.03
<b>ID - Ingredient Duplication</b>				<b>14,018</b>	<b>\$2,002,732.18</b>	<b>\$142.87</b>	<b>\$0.00</b>	<b>27.1</b>	<b>90.9</b>	<b>34,060</b>	<b>4,046</b>	<b>\$673,258.17</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**LD - Low Dose Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	ONDANSETRON HCL	GERIATRIC MIN DLY = 2.00UN	Message Only	1,469	\$462.67	\$0.31	\$0.00	1.2	1.1	0	1,005	\$243.22
2	ONDANSETRON ODT	GERIATRIC MIN DLY = 2.00UN	Message Only	789	\$408.17	\$0.52	\$0.00	1.4	1.3	0	316	\$149.38
3	HEPARIN SODIUM	GERIATRIC MIN DLY = 4.00UN	Message Only	421	\$904.92	\$2.15	\$0.00	1.3	2.6	0	254	\$663.43
4	METFORMIN HCL	ADULT MIN DLY = 1.70 UN	Message Only	502	\$4,296.80	\$8.56	\$0.00	35.7	35.4	0	34	\$305.87
5	IPRATROPIUM BROMIDE/ALBUT	GERIATRIC MIN DLY = 12.00UN	Message Only	239	\$513.85	\$2.15	\$0.00	3.2	22.1	0	296	\$250.33
6	VITAMIN D	ADULT MIN DLY = .14 UN	Message Only	494	\$4,735.50	\$9.59	\$0.00	30.7	3.1	0	30	\$302.88
7	ALBUTEROL SULFATE	GERIATRIC MIN DLY = 9.00UN	Message Only	363	\$455.18	\$1.25	\$0.00	3.4	16.4	0	141	\$48.32
8	GABAPENTIN	ADULT MIN DLY = 3.00 UN	Message Only	424	\$4,426.46	\$10.44	\$0.00	31.5	52.5	0	35	\$317.83
9	IPRATROPIUM BROMIDE/ALBUT	GERIATRIC MIN DLY = 9.00UN	Message Only	312	\$210.54	\$0.67	\$0.00	1.9	9.0	0	141	\$38.65
10	METFORMIN HCL	GERIATRIC MIN DLY = 1.70UN	Message Only	339	\$999.45	\$2.95	\$0.00	35.1	35.0	0	77	\$101.63
All Others				19,455	\$1,781,116.47	\$91.55	\$0.00	23.1	51.3	0	3,694	\$497,568.71
<b>LD - Low Dose Alert</b>				<b>24,807</b>	<b>\$1,798,530.01</b>	<b>\$72.50</b>	<b>\$0.00</b>	<b>20.7</b>	<b>43.1</b>	<b>0</b>	<b>6,023</b>	<b>\$499,990.25</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**LR - Underuse Precaution**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	LISINOPRIL	7 DAYS LATE REFILLING	Message Only	87	\$654.24	\$7.52	\$0.00	29.2	31.3	0	7	\$70.10
2	AMLODIPINE BESYLATE	7 DAYS LATE REFILLING	Message Only	74	\$628.88	\$8.50	\$0.00	27.8	28.7	0	4	\$33.87
2	LISINOPRIL	8 DAYS LATE REFILLING	Message Only	73	\$628.72	\$8.61	\$0.00	29.6	32.6	0	5	\$36.62
4	LEVOTHYROXINE SODIUM	7 DAYS LATE REFILLING	Message Only	69	\$722.31	\$10.47	\$0.00	28.4	28.2	0	5	\$52.76
5	ATORVASTATIN CALCIUM	8 DAYS LATE REFILLING	Message Only	66	\$769.29	\$11.66	\$0.00	29.4	29.2	0	5	\$30.73
6	ATORVASTATIN CALCIUM	7 DAYS LATE REFILLING	Message Only	65	\$737.80	\$11.35	\$0.00	29.3	29.8	0	4	\$44.87
6	AMLODIPINE BESYLATE	8 DAYS LATE REFILLING	Message Only	64	\$570.49	\$8.91	\$0.00	29.1	29.1	0	5	\$54.03
8	MONTELUKAST SODIUM	7 DAYS LATE REFILLING	Message Only	56	\$1,077.84	\$19.25	\$0.00	29.6	29.6	0	9	\$133.43
9	GABAPENTIN	7 DAYS LATE REFILLING	Message Only	56	\$898.24	\$16.04	\$0.00	29.5	98.5	0	4	\$62.52
9	ATORVASTATIN CALCIUM	9 DAYS LATE REFILLING	Message Only	54	\$572.27	\$10.60	\$0.00	30.0	30.3	0	6	\$58.57
All Others				57,565	\$5,823,287.82	\$101.16	\$0.00	28.7	49.7	0	6,530	\$920,116.92
<b>LR - Underuse Precaution</b>				<b>58,229</b>	<b>\$5,830,547.90</b>	<b>\$100.13</b>	<b>\$0.00</b>	<b>28.7</b>	<b>49.6</b>	<b>0</b>	<b>6,584</b>	<b>\$920,694.42</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**MN - Insufficnt Duration Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	LISINOPRIL	MIN, DAYS THERAPY = 7	Message Only	597	\$266.37	\$0.45	\$0.00	1.3	1.6	0	408	\$75.20
2	PANTOPRAZOLE SODIUM	MIN, DAYS THERAPY = 7	Message Only	401	\$94.00	\$0.23	\$0.00	1.1	1.1	0	350	\$42.18
3	IPRATROPIUM BROMIDE/ALBUT	MIN, DAYS THERAPY = 30	Message Only	553	\$7,979.66	\$14.43	\$0.00	8.5	120.4	0	127	\$598.77
4	ATORVASTATIN CALCIUM	MIN, DAYS THERAPY = 7	Message Only	387	\$351.02	\$0.91	\$0.00	1.3	1.5	0	288	\$45.24
5	METOPROLOL TARTRATE	MIN, DAYS THERAPY = 7	Message Only	411	\$199.27	\$0.48	\$0.00	1.2	1.8	0	256	\$23.88
6	AMLODIPINE BESYLATE	MIN, DAYS THERAPY = 7	Message Only	318	\$151.84	\$0.48	\$0.00	1.2	1.3	0	185	\$26.03
7	CLONIDINE HCL	MIN, DAYS THERAPY = 7	Message Only	321	\$542.33	\$1.69	\$0.00	1.4	4.3	0	159	\$20.22
8	LIPITOR	MIN, DAYS THERAPY = 7	Message Only	218	\$3,639.64	\$16.70	\$0.00	1.0	1.6	0	144	\$2,236.51
9	LEVETIRACETAM	MIN, DAYS THERAPY = 14	Message Only	288	\$3,335.63	\$11.58	\$0.00	5.4	61.3	0	61	\$273.97
10	SERTRALINE HCL	MIN, DAYS THERAPY = 7	Message Only	178	\$213.38	\$1.20	\$0.00	1.5	1.9	0	168	\$14.71
All Others				7,065	\$492,624.95	\$69.73	\$0.00	2.2	11.7	0	3,404	\$244,873.61
<b>MN - Insufficnt Duration Alert</b>				<b>10,737</b>	<b>\$509,398.09</b>	<b>\$47.44</b>	<b>\$0.00</b>	<b>2.4</b>	<b>16.0</b>	<b>0</b>	<b>5,550</b>	<b>\$248,230.32</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**MX - Excessive Duration Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	CYCLOBENZAPRINE HCL	MAX DAYS THERAPY = 21	Message Only	2,428	\$25,748.91	\$10.60	\$0.00	30.1	65.5	0	206	\$2,240.48
2	EPIPEN 2-PAK	MAX DAYS THERAPY = 1	Message Only	228	\$141,720.63	\$621.58	\$0.00	2.3	2.3	0	44	\$29,857.56
3	FLUCONAZOLE	MAX DAYS THERAPY = 1	Message Only	236	\$3,297.65	\$13.97	\$0.00	3.2	3.2	0	17	\$279.52
4	MAPAP	MAX DAYS THERAPY = 10	Message Only	196	\$1,859.70	\$9.49	\$0.00	26.7	119.8	0	10	\$89.57
5	AZITHROMYCIN	MAX DAYS THERAPY = 5	Message Only	175	\$3,461.06	\$19.78	\$0.00	12.9	17.5	0	14	\$388.74
6	DIPHENOXYLATE/ ATROPINE	MAX DAYS THERAPY = 14	Message Only	130	\$4,881.92	\$37.55	\$0.00	27.4	119.1	0	21	\$974.85
7	SENXON-S	MAX DAYS THERAPY = 14	Message Only	131	\$1,220.11	\$9.31	\$0.00	30.6	58.2	0	6	\$53.32
8	EPIPEN-JR 2-PAK	MAX DAYS THERAPY = 1	Message Only	95	\$61,740.17	\$649.90	\$0.00	2.4	2.4	0	23	\$16,172.60
9	POLYETHYLENE GLYCOL 3350	MAX DAYS THERAPY = 14	Message Only	101	\$3,096.66	\$30.66	\$0.00	29.1	29.1	0	11	\$290.94
10	LOPERAMIDE HCL	MAX DAYS THERAPY = 14	Message Only	75	\$2,388.44	\$31.85	\$0.00	27.6	107.2	0	8	\$283.29
All Others				1,286	\$218,473.96	\$169.89	\$0.00	25.6	70.2	0	223	\$112,444.71
<b>MX - Excessive Duration Alert</b>				<b>5,081</b>	<b>\$467,889.21</b>	<b>\$92.09</b>	<b>\$0.00</b>	<b>25.1</b>	<b>61.3</b>	<b>0</b>	<b>583</b>	<b>\$163,075.58</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**PA - Drug-Age Precaution**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	PROMETHAZINE-DM	AGE LESS THAN 4	Message Only	9	\$66.88	\$7.43	\$0.00	7.2	64.2	0	1	\$4.00
1	PROMETHAZINE/ DEXTROMETHOR	AGE LESS THAN 4	Message Only	9	\$88.27	\$9.81	\$0.00	6.2	59.3	0	1	\$11.24
3	PROMETHAZINE HCL	AGE LESS THAN 4	Message Only	7	\$52.63	\$7.52	\$0.00	6.7	137.1	0	0	\$0.00
4	PROMETHEGAN	AGE LESS THAN 4	Message Only	3	\$145.59	\$48.53	\$0.00	1.7	4.7	0	1	\$26.90
5	PROMETHAZINE HCL PLAIN	AGE LESS THAN 4	Message Only	2	\$25.01	\$12.50	\$0.00	5.0	150.0	0	0	\$0.00
6	PROMETHAZINE/ PHENYLEPHRIN	AGE LESS THAN 4	Message Only	1	\$33.33	\$33.33	\$0.00	34.0	85.0	0	0	\$0.00
<b>PA - Drug-Age Precaution</b>				<b>31</b>	<b>\$411.71</b>	<b>\$13.28</b>	<b>\$0.00</b>	<b>7.0</b>	<b>79.7</b>	<b>0</b>	<b>3</b>	<b>\$42.14</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**SX - Drug Gender Alert**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	BICALUTAMIDE	GENERAL CONTRAINDICATION	Message Only	6	\$72.54	\$12.09	\$0.00	7.0	7.0	0	0	\$0.00
<b>SX - Drug Gender Alert</b>				<b>6</b>	<b>\$72.54</b>	<b>\$12.09</b>	<b>\$0.00</b>	<b>7.0</b>	<b>7.0</b>	<b>0</b>	<b>0</b>	<b>\$0.00</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL  
**RXT6050D - Summarized DUR Activity Report**  
 Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
 12:18:00 PM

**TD - Therapeutic Duplication**

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
1	MORPHINE SULFATE	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,194	\$6,442.13	\$5.40	\$0.00	3.3	13.8	0	814	\$2,368.70
2	HYDROMORPHONE HCL	SHORT ACTING NARCOTIC ANALGESI	Message Only	987	\$6,452.91	\$6.54	\$0.00	3.4	12.2	0	592	\$2,909.27
3	QUETIAPINE FUMARATE	ORAL ANTIPSYCHOTICS	Message Only	1,318	\$19,877.08	\$15.08	\$0.00	26.6	39.2	0	119	\$1,083.55
4	HYDROCODONE/ ACETAMINOPHEN	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,218	\$18,051.13	\$14.82	\$0.00	14.8	55.7	0	200	\$886.01
5	OXYCODONE/ ACETAMINOPHEN	SHORT ACTING NARCOTIC ANALGESI	Message Only	1,014	\$24,235.23	\$23.90	\$0.00	12.3	48.3	0	305	\$1,399.16
6	OXYCODONE HCL	SHORT ACTING NARCOTIC ANALGESI	Message Only	943	\$25,276.61	\$26.80	\$0.00	20.0	88.9	0	128	\$1,171.71
7	RISPERIDONE	ORAL ANTIPSYCHOTICS	Message Only	885	\$10,554.39	\$11.93	\$0.00	27.2	45.6	0	117	\$1,052.33
8	KETOROLAC TROMETHAMINE	NON-STEROIDAL ANTI-INFLAMMATOR	Message Only	765	\$3,345.95	\$4.37	\$0.00	1.1	2.4	0	131	\$388.17
9	LISINAPRIL	ANGIOTENSIN BLOCKERS	Message Only	643	\$3,981.69	\$6.19	\$0.00	31.1	34.3	0	233	\$507.16
10	GABAPENTIN	GABAPENTIN AND RELATED	Message Only	708	\$9,235.64	\$13.04	\$0.00	26.5	82.0	0	166	\$718.08
All Others				34,587	\$5,002,321.75	\$144.63	\$0.00	23.3	67.4	8,167	8,400	\$813,767.00
<b>TD - Therapeutic</b>				<b>44,262</b>	<b>\$5,129,774.51</b>	<b>\$115.90</b>	<b>\$0.00</b>	<b>21.7</b>	<b>61.8</b>	<b>8,167</b>	<b>11,205</b>	<b>\$826,251.14</b>

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



Powered by RxTRACK®

CONFIDENTIAL

# RXT6050D - Summarized DUR Activity Report

Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
12:18:00 PM

Rank	Top Drug	Therapy / Reason	DUR Response	Total Paid Rxs	Total Plan Paid	Plan Paid Per Rx	Member Paid Per Rx	Days Supply Per Rx	Quantity Per Rx	Total Rejected Rxs	Total Reversed Rxs	Total Reversed Amount
<b>Duplication</b>												

\* Rankings are based on the following order: Total Rxs (Paid + Rejected + Reversed) descending, total Rejected Rxs descending and Top Drug/Client Rider ascending.



CONFIDENTIAL

## RXT6050D - Summarized DUR Activity Report

Between Jul 1, 2016 and Sep 30, 2016

Oct 19, 2016  
12:18:00 PM

Powered by RxTRACK®

### Selected Filters

Client(s): Nevada Medicaid - HPES

Carrier(s): ALL

Account(s): ALL

Group(s): ALL

Date Type:	Date Submitted
Primary Start Date:	Jul 1, 2016
Primary End Date:	Sep 30, 2016
Relative Date Description:	N/A
Select Report Group By:	Product
Top Values Displayed:	10
Display Report Description:	No