Drug Use Research & Management Program
Oregon State University, 2611 SW 3rd Ave. Marquam II, Suite 280Z, Portland, Oregon 97201-4952
Phone 503-494-9954 **| Fax** 503-494-1082

Evaluation of a Pilot PDL Conversion Program

Executive Summary

- The Oregon State University Drug Use Review and Management Program piloted a prescriber profiling program that educates prescribers about the Oregon Health Plan Drug List (PDL) and makes specific recommendations to convert patients to preferred agents.

- 1510 profiles were faxed to prescribers in three therapeutic areas; urinary incontinence drugs (UI), nonsteroidal anti-inflammatory drugs (NSAID), and proton pump inhibitors (PPI).

- The aggregate conversion rate was approximately 35%. The highest conversion rate was observed for the UI agents (53%) and the lowest was the NSAID class (18%). Approximately 13% of converted patients eventually switched back to the original drug or another non-preferred agent.

- It was estimated the cumulative costs avoided (excluding rebate) over the six month follow-up of this program were approximately $197,000. This represents about 5% of total expenditures for these classes in the six months prior to the program.

- Improvements in technology, particularly automated faxing capabilities, will allow the program to expand its target base and increase the financial impact.

Background

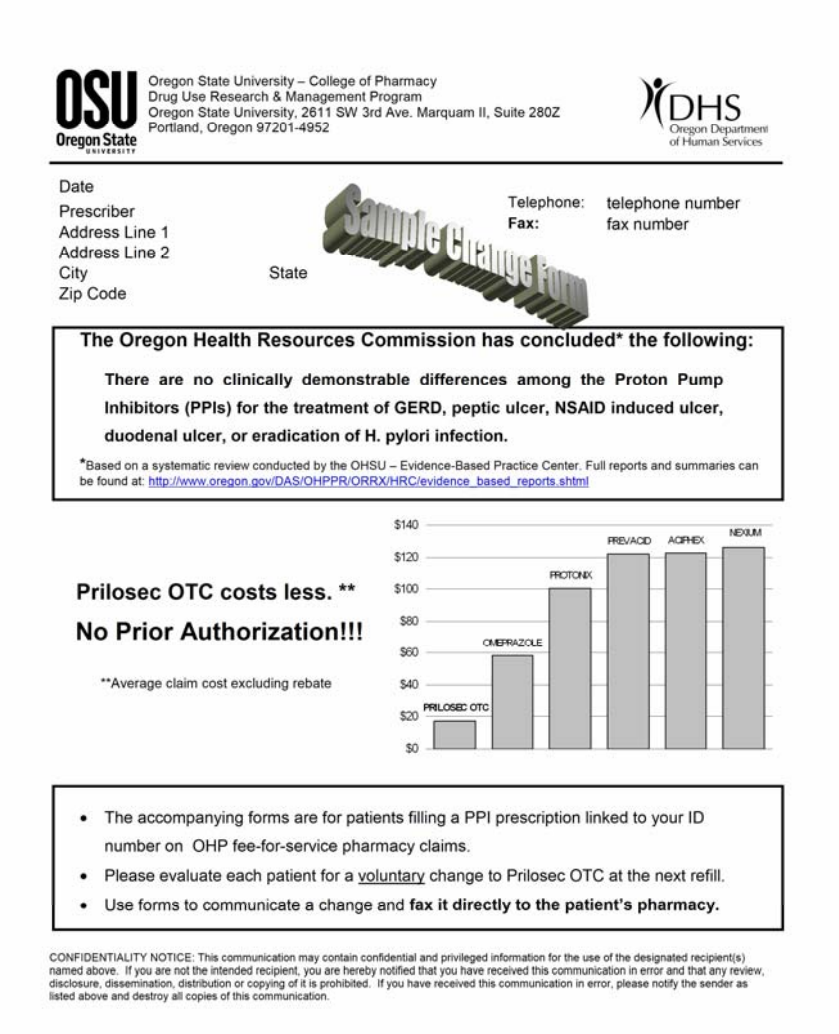
The OSU College of Pharmacy Drug Use Research and Management Program (DURM) operates several programs aimed at increasing compliance with Oregon Health Plan (OHP) Plan Drug List (PDL). The PDL was created to provide OHP fee-for-service prescribers a list of the most cost-effective drugs within specific therapeutic areas. Oregon law prohibits traditional methods of PDL enforcement, such as prior authorization. Thus, the PDL is strictly voluntary. DURM is responsible for educating fee-for-service OHP prescribers and patients about the PDL. DURM maintains PDL information in the ePocrates formulary hosting service and created and distributed a "Pocket Drug Guide". Additionally, DURM operates a program that contacts prescribers by fax with recommendations to convert specific patients identified on "non-preferred" agents to the "preferred" drug. The goals of this report are to describe the general operation of this fax-based pilot PDL conversion program and present some preliminary results.

Program Description

The aim of the program was to convert patients on non-preferred agents to the preferred drug using forms that were faxed to their prescriber. Targets chosen were based on the price spread between the preferred and non-preferred drugs, the interchangeability of the drugs within the class and the extent of utilization of the class. The first drug classes to be selected were the proton pump inhibitors (PPI), urinary incontinence drugs (UI), and non-steroidal anti-inflammatory drugs (NSAID). For each intervention, an educational cover sheet was created that summarized the information from the evidence-based reviews conducted through the Drug Effectiveness Review Project. Preprinted forms that facilitated the change from a non-preferred agent to a preferred drug were generated from pharmacy claims data and included with the cover sheet. The forms were produced in batches and sent to prescribers with more than two patients on the targeted agent for more than 60 days. The forms were structured as a standard prescription blank and approved by the Board of Pharmacy. A sample of these documents is shown in Figure 1.

Initially, prescribers were asked to send forms back to the DURM for data collection and routing to the pharmacy. This allowed the DURM to track the overall acceptance and to mail patients notification. This process was later modified to a process where approved forms are sent directly to the pharmacy. Pharmacists are instructed to start the approved conversion, discontinue the non-preferred drug, and counsel the patient about the change. A generic notification mailer about the program is also sent to the patient.

Figure 1: Sample Prescription Change Form



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Oregon Department of Human Services

Date
Prescriber
Address Line 1
Address Line 2
City
Zip Code
State

Telephone: telephone number
Fax: fax number

Sample Change Form

The Oregon Health Resources Commission has concluded* the following:

There are no clinically demonstrable differences among the Proton Pump Inhibitors (PPIs) for the treatment of GERD, peptic ulcer, NSAID induced ulcer, duodenal ulcer, or eradication of H. pylori infection.

*Based on a systematic review conducted by the OHSU – Evidence-Based Practice Center. Full reports and summaries can be found at: http://www.oregon.gov/DAS/OHPPR/ORRX/HRC/evidence_based_reports.shtml

Prilosec OTC costs less. **

No Prior Authorization!!!

**Average claim cost excluding rebate

- The accompanying forms are for patients filling a PPI prescription linked to your ID number on OHP fee-for-service pharmacy claims.
- Please evaluate each patient for a voluntary change to Prilosec OTC at the next refill.
- Use forms to communicate a change and **fax it directly to the patient's pharmacy.**

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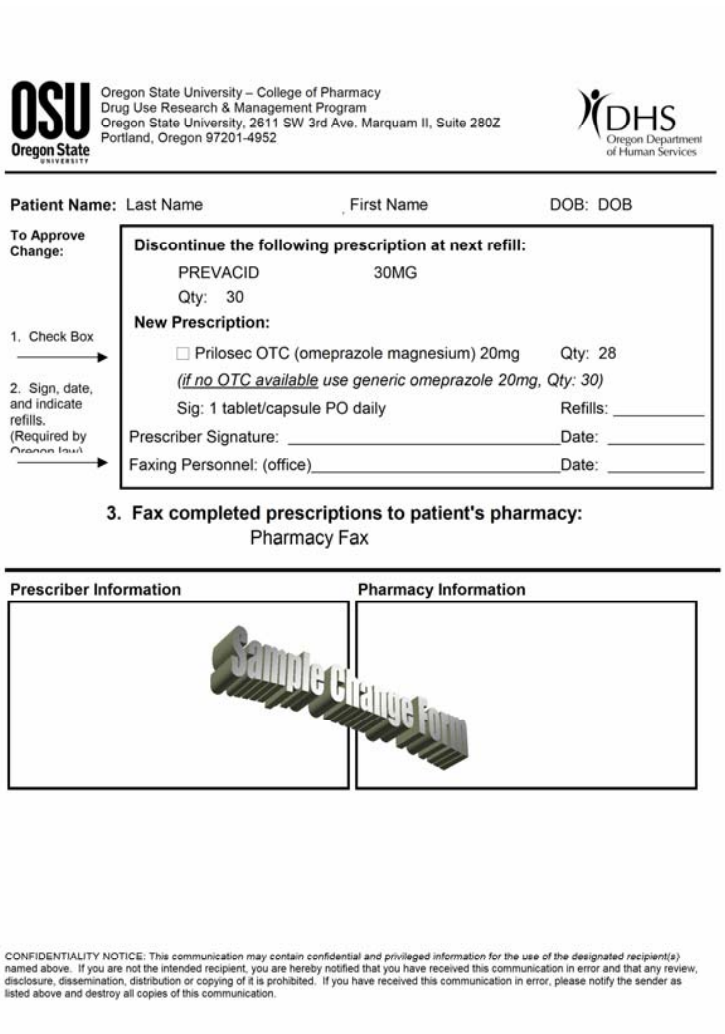

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Oregon Department of Human Services

Patient Name: Last Name , First Name DOB: DOB

To Approve Change:

Discontinue the following prescription at next refill:
PREVACID 30MG
Qty: 30

New Prescription:

1. Check Box → ☐ Prilosec OTC (omeprazole magnesium) 20mg Qty: 28
(if no OTC available use generic omeprazole 20mg, Qty: 30)
Sig: 1 tablet/capsule PO daily Refills: _____

2. Sign, date, and indicate refills. (Required by Oregon law) → Prescriber Signature: _____ Date: _____
Faxing Personnel: (office)_____ Date: _____

3. Fax completed prescriptions to patient's pharmacy:
Pharmacy Fax

Prescriber Information | **Pharmacy Information**

Sample Change Form

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Evaluation Methods and Assumptions

This is a descriptive analysis that evaluates the rate of change to recommended drugs among targeted patients. Pharmacy claims for each patient in the study were reviewed to determine if the recommendation was accepted, and if so, for how long. Claims were manually reviewed longitudinally for 6 months after the intervention. For each intervention, it was determined if the client started the preferred drug, discontinued the non-preferred drug, had sustained therapy with the new drug, and restarted the original or another non-preferred agent. Sustained therapy was defined as greater than or equal to 56 days of continuous therapy after change. In cases where the non-preferred agent was not discontinued, dual therapy was defined if more than two agents in the class were maintained for greater than or equal to 56 days. To evaluate the economic impact of this program, a trend analysis of utilization six months before each intervention was extrapolated using a linear model and compared with observed utilization. Utilization was expressed as drug costs per utilizing member per month (PUMPM). The cumulative difference between the observed and expected trends after the intervention was considered an estimate of the monthly costs avoided if the program had not been implemented. Costs should be interpreted as total fund dollars and do not consider the effects of rebate which are confidential and cannot be reported.

Results

Between 7/1/04 and 8/1/05, 1510 recommendations were faxed to OHP fee-for-service prescribers regarding patients who could be switched to a preferred agent. Table 1 below shows the number of recommendations sent for each intervention and specific drug.

Table 1: Summary of conversion forms sent

	Forms sent
UI	**407**
Detrol	47
Detrol LA	198
Ditropan XL	1
Flavoxate/Urispas	3
NSAID	**593**
Bextra	100
Celebrex	252
Mobic	56
Vioxx	185
PPI	**510**
Aciphex	52
Nexium	119
Prevacid	138
Protonix	201
TOTAL	**1510**

Table 2 and 3 show the results of the longitudinal pharmacy claims review. Within the UI class the non-preferred agents targeted were Detrol, Detrol LA, Ditropan, Ditropan XL, flavoxate, and Urispas. Forms were faxed to prescribers who were linked to a claim for a patient with a 60-day history of a non-preferred UI drug the third week of July 2004. A total of 407 forms were faxed to 156 unique prescribers. While the self reported acceptance rate was 59% (239/407), upon review of submitted claims, only 218 profiles (54%) were deemed to actually initiate the preferred agent. Of those profiles starting the preferred, oxybutynin, 195 (89%) appropriately discontinued the non-preferred agent. Additionally, of those who started the preferred agent, 4% maintained the old prescription concomitantly for more than 56 days, and 12% eventually restarted the original or another non-preferred agent.

The NSAID were the second class targeted. Forms were faxed to prescribers who were linked to a claim for a patient with a 60-day history of Bextra, Mobic, Celebrex, or Vioxx. In August of 2004, 593 forms were faxed to 209 unique prescribers. A total of 386 forms were returned (65 %) and 119 (20 %) indicated the prescriber authorized a change to a preferred agent. After reviewing the claims data, only 105 profiles (18%) showed evidence of change to one of the preferred agents. Of those patients who started a preferred agent, 77 (73%) discontinued the non-preferred agent. Only 58 (55%) converted patients continued on their new drug for more than 56 days, 10 (10%) had evidence of dual therapy, and 12 patients (11%) eventually switched back to a non-preferred drug. The

results of this initiative are somewhat difficult to interpret as one of the profiled agents, rofecoxib, was removed from the market September 30, 2004 for safety issues.

PPIs were the third targeted class. Non-preferred agents targeted were Aciphex, Nexium, Prevacid, and Protonix. The preferred agent was Prilosec OTC or generic omeprazole, if Prilosec OTC was not available at the pharmacy. Overall, 176 prescribers were faxed 510 forms for patients with a 60 day history of PPI during the first week of July 2005. The PPI initiative was launched after the program was restructured so self-reported data from providers is not available. Only patients with an approved PPI prior authorization (i.e. approved for long-term use) were eligible for a conversion recommendation. A prior authorization is required for more than 8 weeks of therapy for any PPI except Prilosec OTC. Pharmacy claims data indicated that 206 of 510 patients (54%) profiled on were started on Prilosec OTC or generic omeprazole, and of those, 150 (73%) also discontinued their non-preferred PPI. It was found that 133 of converted patients (65%) exhibited sustained therapy with the preferred agent. Over six months of follow-up, 11 of those converted (5%) maintained dual therapy with a second PPI, and 33 (16%) switched back to the original or another non-preferred PPI.

Table 2: Change Form Pharmacy Claim Disposition

Profile Type	N (forms Sent)	PDL Drug Started	(%)	Non-PDL discontinued	(% of PDL started)
NSAID	593	105	17.7%	77	73.3%
PPI	510	206	40.4%	150	72.8%
UI	407	218	52.9%	195	89.4%
aggregate	1510	529	35.0%	422	79.8%

Table 3: Change Form Pharmacy Claims Disposition – Longitudinal

Profile Type	N (Preferred Agent Started)	Therapy Sustained	(%)	Dual Therapy	(%)	Non-PDL switch back	(%)
NSAID	105	58	55.2%	10	9.5%	12	11.4%
PPI	206	133	64.6%	11	5.3%	33	16.0%
UI	218	177	81.2%	8	3.7%	25	11.5%
aggregate	529	368	69.6%	29	5.5%	70	13.2%

Financial Impact Analysis

Figures 2-4 show the observed and expected expenditures for the pilot classes 6 months before and 6 months after the forms were disseminated. Utilization is expressed as drug costs per utilizing member per month (PUMPM). To control for rofecoxib being withdrawn at roughly the same time as this program, we excluded patients targeted for rofecoxib from the analysis.

Figure 2: Observed and expected monthly costs PUMPM for targeted UI patients

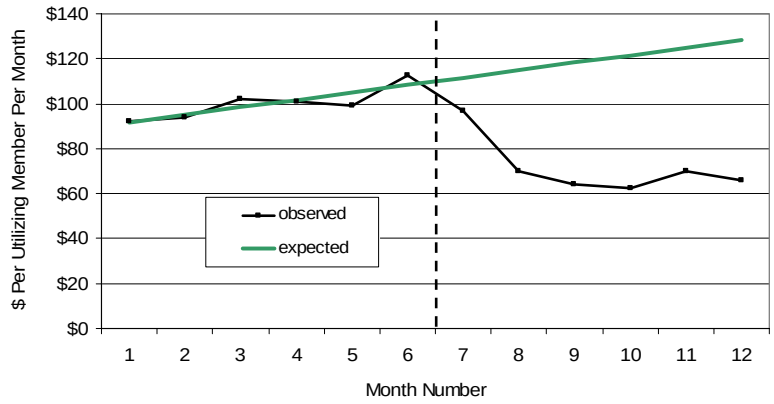


Figure 3: Observed and expected monthly costs PUPMPM for targeted NSAID patients

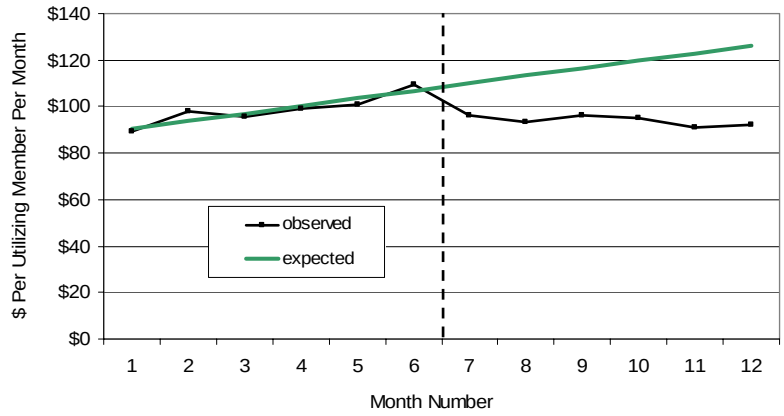
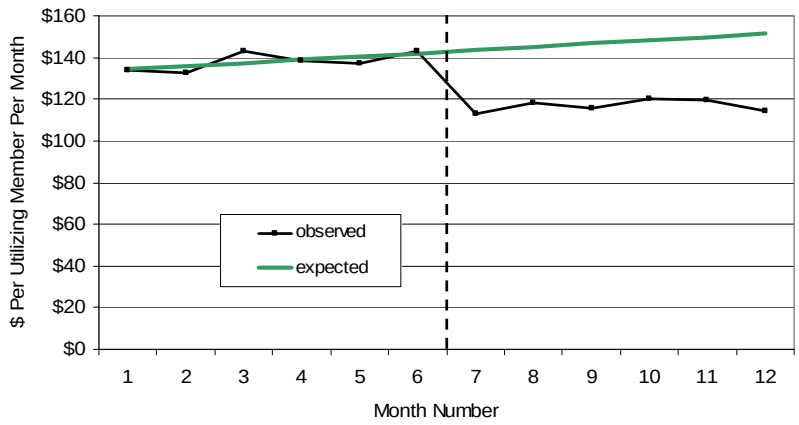


Figure 4: Observed and expected monthly costs PUPMPM for targeted PPI patients



Overall, each profiling area yielded significant cost avoidance that appeared to be sustained over time. The cost avoidance was estimated to be greatest within the UI drug class, where $81,750 were avoided over a six-month period. Standardized by patient month, we estimate the total saved per profile sent in the UI class to be $33. The PPIs garnered the second highest return per profile at $22, followed by the NSAID class at $13. In aggregate, we estimate the total costs avoided for these pilot classes to be approximately $197,000. Table 4 summarizes these data.

Table 4: Program Cost Avoidance Summary

Class	6 month cumulative savings	Patients profiled	Costs avoided / Patient over 6 months	Costs avoided / patient / month	Total Class Costs in previous six months	Estimated % reduction in costs for class
UI	$81,750	407	$200.86	$33.48	$778,772	10.5%
NSAID	$48,010	593	$80.96	$13.49	$1,007,811	4.8%
PPIs	$67,185	510	$131.74	$21.96	$2,577,798	2.6%
aggregate	$196,945	1510	$130.43	$21.74	$4,364,381	4.5%

Discussion and Implications

This report outlines the DURM experience with profiling prescribers with prescription change forms that convert specific patients to preferred agents. Profiling of prescribers to request a voluntary conversion to a health plan preferred agent is a poorly investigated policy because most plans use other techniques to manage pharmacy costs and utilization (e.g. prior authorization).

Data from this program indicated that prescribers are receptive and respond to this type of intervention about 35% of the time. However, the response rate varied depending on the type of conversion proposed. Conversions to a non-preferred NSAID was quite low at 18% and only about half of converted patients continued on the preferred agent for a sustained period. Although, the Oregon Health Resources Commission in their review of the NSAID class considered agents within class clinically equivalent with regard to effectiveness and safety, patients and prescribers may have pre-existing biases about the relative merits of individual NSAIDs. Additionally, NSAIDs, in most cases are taken on an intermittent basis, therefore the proportion of patients who continued on a preferred agent for long period of time is probably low to begin with. Finally, given the accepted interchangeability and equivalence of the various PPI agents, the finding that only 40% of profiled patients switched their PPI to Prilosec OTC (or omeprazole) was surprising.

This program achieved modest cost avoidance. In aggregate, it is estimated close to $197,000 in costs were avoided for these three classes over the six-month follow-up. This represents approximately 5% of the total cost for these agents in the six months previous to the intervention. We expect that this figure may increase as more technology and automation is built into the program. During the pilot, all faxed transmissions were printed as a physical copy and faxed by hand to the prescriber. Thus, the program was limited to less than half of the available pool of potential targets by virtue of the physical labor and time required to disseminate the forms. Substantial improvements to the process have been made through technology and now essentially all available targets are intervened on monthly.

DURM has received little negative feedback from prescribers, pharmacies, or patients. This is attributed to both the clarity of the forms and efforts to make sure every party in the process is informed of the change and reason for it. There has been some confusion on the part of prescribers with regard to the voluntary nature of the program. Pharmacies are given a several day advance notice of which patients will be targeted for a conversion so they may contact DURM with concerns they feel the prescriber may not be aware of.

As part of the continuing evaluation of this program, an examination of the impact of these educational forms on future prescribing is planned. This will evaluate if continually reminding prescribers about the PDL will change prescribing behavior for future patients not directly profiled (i.e. program spillover effect). There are also plans to evaluate these findings to determine what patient and provider characteristics are associated with the highest response rate.