Oregon Region Pharmacy and Therapeutic Committee (ORPTC)

Feb. 14, 2014

Key Decisions in Acute Care

2013 Utilization Review and 2014 Opportunities

Providence Health Plan (PHP) reviewed utilization data for 2013. The plan continued to have success in generic trend rates. The drug costs for generic products remain flat and the cost for brand name products continues to increase. Specialty medications continue to comprise a larger proportion of total plan paid costs.

2013 specialty drug class costs and dispensing volumes were reviewed and compared to the previous year. Key areas of significant change were noted. Areas of potential opportunity for improvement include antineoplastics agents, multiple sclerosis agents, and anti-inflammatory TNF inhibitor agents. When benchmarked against other health plans, PHP rated high in utilization of growth hormone and triptan use.

Providence Health and Service Pharmacy Delivery System reviewed utilization data for 2013. The top 20 medications by total costs were identified for all areas (acute care, home and long term care, Providence Specialty Pharmacy, and Providence Medical Group clinics. Similar to the PHP, specialty drugs made up a majority of the cost of medications.

Issues identified

Providence Health Plan: Identified areas of focus for 2014

- TNF inhibitors (working with rheumatology, gastroenterology and dermatology)
- Multiple sclerosis treatments (collaboration with neurology)
- Growth hormone medications
- Hepatitis C medications

Providence Health and Service Pharmacy Delivery System: 14 areas of focus were identified for 2014. The top areas of focus were:

- Centralized System Contracting Services (specialty medications)
- Factor VII and Feiba reduction in utilization
- PCI – reduce utilization of bivalirudin in CV patients
- Generic opportunities (zoledronic acid, Integrelin, lidocaine patch, etc.)

Pharmacy and Therapeutics Committee Decision

Information discussion concluded with general agreement that areas of opportunity should be further explored and recommendations brought back to committee.
Adverse Drug Reactions (ADR) Report (4th Quarter 2012 through 3rd Quarter 2013)

A summary of Home Services and Hospital ADR data was presented.

- Home Services reported 44 ADRs with 3 meeting Pharmacy and Therapeutics Committee (PTC) criteria for review (higher severity and/or avoidable and/or reported to outside agency).
- Acute Care (8 hospitals) reported 298 ADRs with 43 meeting PTC criteria for review.

Issues Identified

Home Services: 3 ADRs requiring PTC review

- None required further follow-up

Acute Care: 43 ADRs requiring PTC review

- IV potassium chloride and phlebitis/pain: Changes were made in Epic to adjust premixes and provider preference lists to address this issue.
- Incomplete admission medication histories leading to potential ADRs: A project to implement the use of pharmacy technicians to take medication history for the Emergency department inpatient admission at PSVMC, PPMC and PMMC has been approved and is in implementation phase.
- Nitroprusside cyanide toxicity due to drip administration in a patient with decrease renal function: Monitoring plan implemented to monitor reduced renal function in patients on nitroprusside.
- Deaths temporally related to ADRs:
  - Two complex patients on haloperidol and potassium. Causable relationship could not be identified.
- New anticoagulants: Four ADRs were reported with the newer anticoagulants (dabigatran, rivaroxaban and apixaban) due to bleed-related issues.
  - Dabigatran had three ADRs and rivaroxaban had one ADR
  - No issues were identified that required follow-up.

Other issues:

- Currently, there is not a process to inform retail pharmacies of the discontinuation of a medication. If Epic would develop a process to inform retail pharmacies of the discontinuation of a medication, it would eliminate some of the therapy duplication that occurs.
- Historical data in Epic from previous entries does not include dates. This causes problems when the information is old or when there have been changes in treatment.

Recommendations:

PTC ADR reports to continue to include voluntary ADR reporting data. In addition, report to include Global Trigger Tool data on toxicity of medications.
(present on admission and occurring in the hospital) and a focus on opiate adverse events. Opiate adverse events are one of the Oregon Quality Council medication safety initiatives.

The recommended frequency of ADR reporting to PTC will be every six months.

Pharmacy and Therapeutics Committee Decision

All recommendations with the addition of a recommendation to evaluate the ER/Tech project by early spring 2015 to allow time for other sites to make budget requests were approved.

Anticoagulation Reversal Recommendations

With the addition to the formulary of Kcentra® at the February ORPTC meeting, a revision of the anticoagulation reversal recommendations document was presented for approval. Changes to this document included:

- Addition of Kcentra for the treatment of warfarin reversal in situations of major bleeding as a first-line agent.
- Addition of fresh frozen plasma as second line and Feiba as third line for the treatment of warfarin reversal in situations of major bleeding.
- Addition of Kcentra as an alternative to Feiba for the reversal of Factor Xa inhibitor products.

Issues Identified

- None identified

Pharmacy and Therapeutics Committee Decision

All recommendations were approved.

TBO-filgrastim Therapeutic Interchange

TBO-filgrastem (Granix) was approved for formulary addition at the February ORPTC meeting. Although approved by the FDA as a new biologic agent, in Europe TBO-filgrastim is approved as a biosimilar product to filgrastim. The current FDA-approved indication for TBO-filgrastim is for the reduction of the duration/severity of neutropenia in patients with non-myeloid malignancies receiving myelosuppressive anti-cancer drugs. In Europe, TBO-filgrastim is utilized for all approved filgrastim indications.

After a comparison of pharmacokinetics, pharmacodynamics, and safety of TBO-filgrastim to filgrastim, no significant differences were identified. TBO-filgrastim’s cost is about 25% less than filgrastim.

The medical director of oncology for the Oregon Region also supports the equivalence of TBO-filgrastim to filgrastim for all indications except for the use of TBO-Filgrastim in stem cell mobilization.
**Recommended Proposed Interchange:**

All inpatient orders for filgrastim would be substituted with an order for TBO-filgrastim by the pharmacist at the verification level. Stem cell mobilization prior to bone marrow transplant would be an exception.

**Issues Identified**

- There is no pediatric data for TBO-filgrastim at this time.

**Pharmacy and Therapeutics Committee Decision**

**Acute Care:** Therapeutic Interchange of TBO-filgrastim for filgrastim was approved with the exception of stem cell mobilization prior to bone marrow transplant and pediatric use.

**Pulmonary Arterial Hypertension Class Review (oral agents)**

With the introduction of macitentan (Opsumit) and riociguat (Adempas) for the treatment of pulmonary arterial hypertension (PAH), a class review of oral PAH agents was conducted to review current agents and the recommend place in therapy of newer agents.

The medications [sildenafil (Revatio); tadalafil (Adcirca); bosentan (Tracleer); and ambrisentan (Letairis)] continue to be the standards of care in PAH, and are included in the ACCF/AHA consensus guidelines for disease management.

Macitentan is an A endothelin (ET-1) receptor antagonist that prevents the binding of ET-1 to both ET_A and ET_B receptors in the wall so the small pulmonary arteries causing vasodilation and reducing inflammation, fibrosis, proliferation of the smooth muscle cells and slowing vessel hypertrophy. In studies versus a placebo, macitentan showed less death and hospitalization.

Riociguat is a novel drug with a dual mode of action, sensitizing soluble guanylate cyclase (sGC) to endogenous nitric acid and also directly stimulating sGC independent of nitric oxide activity. In clinical trials, riociguat as added to standard of care treatments and dramatically improved walking distance and significantly improved key secondary endpoints: reduced pulmonary vascular resistance, lowered N-terminal pro-brain natriuretic peptide level, improved WHO functional class and increased time to clinical worsening.

**Recommendations**

For both riociguat and macitentan:

- **Health Plan:** formulation with prior authorization matching currently available oral PAH medications
  - A catheterization proven diagnosis of PAH [mean pulmonary artery pressure (mPAH) 25 mmHg at rest or > 30 mmHg with exercise AND a pulmonary capillary wedge pressure (PCWP) < 15 mmHg]
  - Prescribed by or in consultation with a cardiologist or pulmonologist
Ambulatory Clinics: Not on preference list

Acute Care: Not on preference lists, use patient’s own med if admitted.

**Issues Identified**
- Can these agents be used in combination with agents from different classes to achieve an additive effect?
- Should the prior authorization criteria be changed to approve treatment when prescribed by a cardiologist or pulmonologist?

**Pharmacy and Therapeutics Committee Decision**
Decision on formulary addition was deferred until the next meeting to address questions with prior authorization.

**Iloprost Medication Use Evaluation**
In December 2011, the ORPTC approved a pilot protocol for the use of inhaled iloprost in the treatment of acute pulmonary arterial hypertension (PAH) and/or right heart failure (RHF) at PPMC. The desired result would be a reduction in the use of nitric oxide while maintaining equivalent clinical outcomes.

The MUE reviewed the pilot protocol, where iloprost was used for the treatment of acute RHF with shock and/or low cardiac index refractory to standard therapy such as optimal ventilator setting, diuresis and vasopressors. Patient selection included individuals hospitalized for perioperative cardiopulmonary surgery, and the critically ill.

Results of MUE:
- A decrease in pulmonary artery pressure was seen in patients treated with iloprost, whether or not they were transitioned from nitric oxide. Urinary output increased and oxygen requirements decreased. No appreciable effect on mean aterial pressure was seen.
- Iloprost was well tolerated by most patients. Only one patient discontinued iloprost due to adverse effects and one patient transitioned back to iloprost after an inability to tolerate epoprostenol.
- The currently cost of nitric oxide is on a fixed-price contract. There is a potential to decrease the spend on nitric oxide by lowing the amount used and negotiating a new fixed-price contract.

**Recommendation:**
Expand the use of iloprost and the iloprost protocol to all of the Oregon Region

**Issues identified**
None

**Pharmacy and Therapeutics Committee Decision**
Recommendation approved.
Medication Comparison Trial Policy
The current acute care Formulary System Policy does not address situation in which a physician requests a medication comparison trial to be conducted within PH&S on an agent that the ORPTC has determined to be Formulary Restricted or Non-formulary. A revision to the Formulary System Policy and the development of a Medication Comparison Trial Policy have been completed to address this situation. Policy will give the investigator direction in order to produce meaningful result.

Recommendation
Approve the revision of the acute care Formulary System Policy and the new Medication Comparison Trial Policy.

Issues identified

- Policies do not address the issue of use of formulary agents for off-label use

Pharmacy and Therapeutics Committee Decision
Revision to the acute care Formulary System Policy and the new Medication Comparison Trial Policy were approved.