Tools for Targeting High Risk Patients in Your Practice

Joseph Vande Griend, PharmD, BCPS, CGP
Assistant Professor, University of Colorado
Departments of Clinical Pharmacy and Family Medicine
Skaggs School of Pharmacy and Pharmaceutical Sciences

Statement of Disclosure

I have no relevant financial relationships with commercial interests pertaining to the content presented in this program.
Background information about me

- Experience and current activity in pharmacy
- Current faculty position
  - Clinical practice – Seniors Clinic, Family Medicine
  - Research interests
  - Service

Learning Objectives

1. Describe the development and application of the "Clinical Pharmacy Priority (CP2) Score" tool to the practice of clinical pharmacy

2. Identify patients in your inpatient or outpatient pharmacy practice that would most benefit from more intensive pharmacist-provided medication review

3. Develop your own system of prioritizing patients in your pharmacy practice in order to most effectively and efficiently provide a high level of pharmacy care
Why is this important?

- Pharmacists are expensive!
  - $75 per hour considering salary + benefits

- We want to provide the best care we can for the most patients given the resources available

- The healthcare system cares about it and is moving towards evaluating it

- Patient-Centered Medical Home
- Accountable Care Organizations

  - A move in healthcare away from fee-for-service and towards improved outcomes and reduced cost.

  - A provider, clinic, or organization that is accountable for the care of a large group of patients, and outcomes related to optimal care are documented and tracked with the goal of improving.
CMS: Medicare Plan Evaluation

Star Ratings

- Annual rating of Medicare plans available on Medicare Plan Finder on CMS web site.
- Ratings displayed as 1-5 stars
  - ★ = poor performance
  - ★★ = below average performance
  - ★★★ = average performance
  - ★★★★ = above average performance
  - ★★★★★ = excellent performance

http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/index.html?redirect=/PrescriptionDrugCovGenIn/06_PerformanceData.asp

CMS: Medicare Plan Evaluation

Star Ratings

- Medicare Prescription Drug Plans are evaluated using a variety of different measures
- Example measures:
  - Medication adherence: statins, blood pressure, oral diabetes medications
  - High risk medication in the elderly
  - Appropriate treatment of blood pressure in a patient with diabetes

- Achievement of these measures can lead to enhanced payment from CMS for the Medicare drug plan
Pharmacy Quality Alliance

- **Mission Statement:**
  - "Improve the quality of medication management and use across health care settings with the goal of improving patients' health through a collaborative process to develop and implement performance measures and recognize examples of exceptional pharmacy quality."

- **Example measures:**
  1. **Type 2 diabetes mellitus**
     - Percent of patients age 18-75 years with A1c > 9%
     - Percent of patients age 18-75 years with LDL < 100 mg/dL
     - Percent of patients age 18-75 years with BP < 140/90
  2. **Adherence to non-warfarin anticoagulants**
     - Percent of patients aged > 18 years who had > 80% proportion of days covered for dabigatran, rivaroxaban, apixaban

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**CMS and Medication Therapy Management**

- **Targeted beneficiaries for an MTM program (2014)**
  1. **Chronic disease states**
     - Alzheimer's, chronic heart failure, diabetes, dyslipidemia, ESRD, HTN, Asthma, COPD, osteoporosis, osteoarthritis, mental health
  2. **Multiple medications**
     - Minimum requirement for MTM program is 2-8 medications
  3. **The cost of Part D covered drugs > $3,017**

Think, Pair, Share

- Individually come up with 3-5 patient-specific factors that you believe will help target high risk patients in your setting

- Then team up with someone who works in the same setting and discuss your factors

- We will then share lists with the entire audience

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CP2 Score Background

- “Offsite Clinical Pharmacy Service”
  - July 2011: CU Park Meadows Family Medicine
    - Prospective clinical pharmacy medication review
    - **1-year results**
      - 315 recommendations, ~70% accepted, 118 hours pharmacist time
      - 49 vaccinations administered, ~$50,000 estimated annual savings due to discontinuation of high-cost drugs
      - Accepted in *Family Medicine*

- August 2012: Expansion → CU Boulder Family Medicine
  - Efficiency needed to better identify patients who benefit
Objectives – “CP2 Score”

1. To develop a tool that would facilitate the prioritization of patients for comprehensive medication review (CMR) by a clinical pharmacist in family medicine.

2. To evaluate the tool to determine if those with a higher score are more likely to receive a medication recommendation than those with a low score after clinical pharmacist CMR.

Methods

- The “CP2 Score” was developed by the research team programmed into the EPIC electronic medical record using ICD-9 codes and patient-specific data.
- A cross-section of the upcoming week’s appointments with prioritized scores is generated each Friday.
- From 10/5/2012 through 12/18/2012 (11 weeks), 75% of patients with appointments received CMR.
  - For each given day of appointments, the clinical pharmacist either reviewed all patients, or did not provide any review.
  - There was no specific pattern when evaluating which appointment day of the week no medication reviews were performed.
Methods/Results

- A “CP2 Score” was calculated on all patients
  1. Those receiving a medication a recommendation from October 5, 2012 through December 18, 2012, and those who received a prior recommendation since July 2011.
  2. Those receiving no medication recommendation after CMR

- 1,107 charts were reviewed
  - 1,006 did not receive a medication recommendation
  - 101 patients were identified as having received a recommendation after CMR
    - N = 54 during the timeframe
    - N = 47 a prior recommendation after prospective CMR

**CP2 Score (range: 0-21 points)**

**Example Criteria**

- Chronic Disease Diagnosis
  - e.g., Diabetes, HTN, vascular disease

- Age (years)

- Objective patient data including lab values/vitals

- Number of items on the medication list

*Point allocation was developed based on several iterations by investigators. The process of validating this tool is ongoing.*
### Medication recommendation after CMR

<table>
<thead>
<tr>
<th>CP2 Score</th>
<th>Total reviewed</th>
<th>Recommendation</th>
<th>Yes</th>
<th>No</th>
<th>%</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>70</td>
<td>3</td>
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<td>91</td>
<td>8</td>
<td>83</td>
<td>8</td>
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<td>68</td>
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<td>11</td>
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<td>53</td>
<td>8</td>
<td>13.1</td>
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<td>56</td>
<td>16</td>
<td>40</td>
<td>16</td>
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<td>11</td>
<td>7</td>
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<td>7</td>
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<td>2</td>
<td>100</td>
</tr>
</tbody>
</table>

- There were no patients with a score of 16 or higher

*Chi-square = 236, DF = 3, p < 0.0001

### Sample of Drug Therapy Problems (DTPs) with recommendations

<table>
<thead>
<tr>
<th>DTPs (n)</th>
<th>Common recommendation (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs additional therapy (118)</td>
<td>Vaccine (62)</td>
</tr>
<tr>
<td></td>
<td>Statin (31)</td>
</tr>
<tr>
<td></td>
<td>BP agent (6)</td>
</tr>
<tr>
<td></td>
<td>Antidiabetic (4)</td>
</tr>
<tr>
<td>Unnecessary drug (31)</td>
<td>ER niacin, ezetimibe (10)</td>
</tr>
<tr>
<td></td>
<td>TG lowering agent (7)</td>
</tr>
<tr>
<td>Wrong dose (24)</td>
<td>BP drug dose too high/low (17)</td>
</tr>
<tr>
<td></td>
<td>DM drug dose to high/low (3)</td>
</tr>
<tr>
<td>Cost (13)</td>
<td>Brand to alternate generic (8)</td>
</tr>
<tr>
<td>Inappropriate drug (10)</td>
<td>Unsafe in elderly (10)</td>
</tr>
</tbody>
</table>

- 132 of 223 recommendations accepted (59.2%)
Conclusions

- Patients with higher CP2 scores were more likely to get a medication recommendation after CMR than patients with lower CP2 scores.

- The “CP2 Score” could be utilized in family medicine and other ambulatory care practices to help clinical pharmacists prospectively identify patients who are likely to benefit from CMR.

What are the limitations of using something like a CP2 Score in your practice?
Ideas to Consider
(Community Pharmacy)

- **Simvastatin interactions**
  - *Prospectively* identify all relevant interacting drugs (e.g. all simvastatin 40mg + amlodipine)
  - Contact providers
    - Choose method of communication
    - Be prepared to provide alternatives
      - May require laboratory data, formulary data
  - Case Example:
    - 58 yo male on simvastatin 40mg + dilt CD 240mg
    - Insurance covers Atorvastatin at same co-pay

Ideas to Consider
(Community Pharmacy)

- **Target all drugs with co-pay $50 or more**
  - Patients have a significant incentive to want your input
  - Savings impact can be substantial
  - Prescribers often willing to listen
  - Will require knowledge of drug formulary to provide the most effect
Ideas to Consider
(Community Pharmacy)

- **Adherence program**
  - Autofill
  - Generate report of patients who are 60 days past due
  - Incorporate students into the program

- **Intensive counseling**
  - All injectables, high risk drugs

Ideas to Consider
(Community Pharmacy)

- **Pneumonia vaccine**
  - A “CMS Star measure”
  - Pull all patients who filled a diabetes medication in the last 1-3 months and all those > 65 years
  - Contact each patient over the phone, screen for vaccine need, and set up app’t
Ideas to Consider
(Primary Care Clinic)

- **Unnecessary lipid-lowering agents**
  - Pull all patients with Niaspan, Lovaza, gemfibrozil, fenofibrate, Zetia
  - Review medical record for indication
  - Place note in medical record
  - Significant cost implications
    - Each stopped med can save $1000 per year

High Risk Drugs Based On ED Hospitalizations
(Any setting)

Emergency Hospitalizations for Adverse Drug Events in Older Americans

- 5,077 cases (99,628 emergency hospitalizations) for adverse drug events in adults ≥65 years yearly from 2007-2009
  - Nearly 2/3 were in patients 80 years or older

- 4 medications/classes implicated in 2/3 of events
  - Warfarin (33%)
  - Insulins (13.9%)
  - Oral antiplatelet agents (13.3%)
  - Oral hypoglycemic agents (10.7%)

*NEJM 2011; 365: 2002-12*
Ideas to Consider
*(Long-term Care)*

- **Monthly medication review**
  - Already required for all patients in long-term care
  - All patients in long-term care are complex, but some may be more complex
    - Focus more on those with a high risk medication, those on opioid therapy, or those with diabetes

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Ideas to Consider
*(Hospital setting)*

- What are those areas where you can save money or improve care?
  - Medication reconciliation
  - Any patient hospitalized due to an adverse drug event
  - Targeting high cost medication
Develop your own system

- It does not have to be complex

- "Minute paper"
  - Identify one or two strategies or ideas that you will put into practice starting next week.

What are you currently doing, what have you done to focus on a higher risk patient, or what are you planning to do?