Pension & Health Benefits Committee

California Public Employees' Retirement System

Agenda Item 12

August 14, 2012

ITEM NAME: Preliminary Analysis of Potential Savings to CalPERS by Evidence-Based Prescription Drug Substitutions

PROGRAM: Health Benefits

ITEM TYPE: Information

EXECUTIVE SUMMARY

This agenda item is a preliminary report of potential savings through evidence-based prescription drug substitutions. The National Resource Center for Academic Detailing (NaRCAD) analyzed de-identified aggregate California Public Employees' Retirement System (CalPERS) expenditure data in nine selected prescription drug categories for which increased substitution of proven cost-effective medications could reduce costs. The analysis identified possible savings of $56 million in total medication costs per year. Dr. Michael Fischer of NaRCAD and Harvard Medical School will present the findings from this analysis.

BACKGROUND

The implementation of evidence-based prescribing can change provider behavior and reduce the cost of healthcare.[1][2][3]Academic detailing uses educational outreach to doctors and other clinicians to increase the use of evidence-based prescribing and evidence-based medicine.[4][5]NaRCAD, based at Brigham and Women's Hospital and Harvard Medical School, is funded by the federal Agency for Healthcare Research and Quality to work with health care organizations to identify opportunities for academic detailing to improve health care outcomes, for example, by better use of prescription medications.

In the summer of 2011 NaRCAD and CalPERS staff discussed the potential for improved medication use for CalPERS beneficiaries. A data use agreement was

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[1] Fischer MA, Avorn J. Economic implications of evidence-based prescribing for hypertension: can better care cost less?JAMA. 2004 Apr 21;291(15):1850-6.

[2]Dormuth CR, Maclure M, Bassett K, Jauca C, Whiteside C, Wright JM. Effect of periodic letters on evidence-based drug therapy on prescribing behaviour: a randomized trial.CMAJ. 2004 Oct 26;171(9):1057-61.

[3]Stowell KR, Ghinassi FA, Fabian TJ, Nash KC, Haskett RF. Best practices: an intervention to promote evidence-based prescribing at a large psychiatric hospital.Psychiatr Serv. 2009 Mar;60(3):294-6.

[4]Simon SR, Rodriguez HP, Majumdar SR, Kleinman K, Warner C, Salem-Schatz S, Miroshnik I, Soumerai SB, Prosser LA.Economic analysis of a randomized trial of academic detailing interventions to improve use of antihypertensive medications.J ClinHypertens (Greenwich). 2007 Jan;9(1):15-20.

[5]Sheffer MA, Baker TB, Fraser DL, AdsitRT, McAfee TA, Fiore MC. Fax referrals, academic detailing, and tobacco quitline use: a randomized trial. Am J Prev Med. 2012 Jan;42(1):21-8.

signed to permit the analysis of aggregate prescription drug use patterns to identify potential targets for academic detailing interventions focused on therapeutically equivalent and cost effective drug substitutions. The aggregate data provided for these initial analyses could help identify areas of opportunity for evidence-based prescribing changes that could reduce costs without compromising clinical effectiveness.

ANALYSIS

NaRCAD analyzed 2011 data for CalPERS Basic members in Blue Shield of California, Kaiser Permanente, and Medco (the Pharmacy Benefit Manager for the self-funded Preferred Provider Organization plans in 2011). All data were aggregated to reflect total annual prescriptions filled and spending for individual medications in nine classes of drugs:

- Statins (lipid-lowering drugs)
- Vytorin (lipid-lowering drug)
- Other lipid-lowering drugs
- Angiotensin Receptor Blockers (ARBs, for hypertension)
- ARB combinations
- Glitazones (for diabetes)
- Proton Pump Inhibitors (PPIs, for peptic ulcer disease etc.)
- Selective Serotonin Reuptake Inhibitors (SSRIs, for depression)
- Quinolones (antibiotics)

No patient-level data or demographic data were provided.

Within each drug class NaRCAD identified medication choices that were likely to be more costly and those that were likely to be less costly, yet all equally effective. Based on NaRCAD's evaluation of Medicaid drug use in other states, NaRCAD identified benchmark levels for use of the less costly but equally effective medications within each drug class. These benchmarks were chosen as representing achievable levels of use for public programs. NaRCAD then reviewed the proportion of drug use in each class, and for each health plan, accounted for by the more and less costly medications. NaRCAD applied the actual prices paid by CalPERS health plans to calculate the cost impact for each of the CalPERS health plans if the benchmark prescribing patterns were achieved; in cases where the benchmark was already being achieved, the cost impact was set to zero.

In 2011, CalPERS and its Basic plan members, together, spent a total of $957.1 million on prescription drugs; out of this total, NaRCAD identified that $128 million was spent on the nine aforementioned classes of drugs, which focuses on six therapeutic areas. Results of the analyses showed that in several of the medication classes large savings could be achieved without a compromise in clinical quality. For some medication classes, the benchmark levels were already being achieved in

some plans, while in several medication classes, potential savings of 80 percent or more of total spending was possible if benchmark prescribing patterns were achieved. Out of the total spending of $128 million, overall potential savings of $56 million (44 percent) were identified.

It is important to note that these analyses were performed on aggregate data and therefore could not consider individual patient factors. Accordingly, NaRCAD cannot make any comment on the clinical appropriateness of the observed drug use patterns. It is possible that variations in population demographics or comorbidities may exist and may explain some of the observed variation.

The next steps in this project include analysis of more detailed data to verify currently identified opportunities and to investigate variations (e.g., across regions and across providers). After the detailed analysis, NaRCAD will make recommendations to address the gaps identified, such as policy changes, dissemination of guidelines, and academic detailing interventions. CalPERS staff plans to present the results of the detailed analysis by NaRCAD to the Pension and Health Benefits Committee in early 2013.

ATTACHMENT
Preliminary Analysis of Potential Savings to CalPERS by Evidence-Based Substitutions within Selected Prescription Drug Categories

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