



Kaiser Permanente medication management for CalPERS

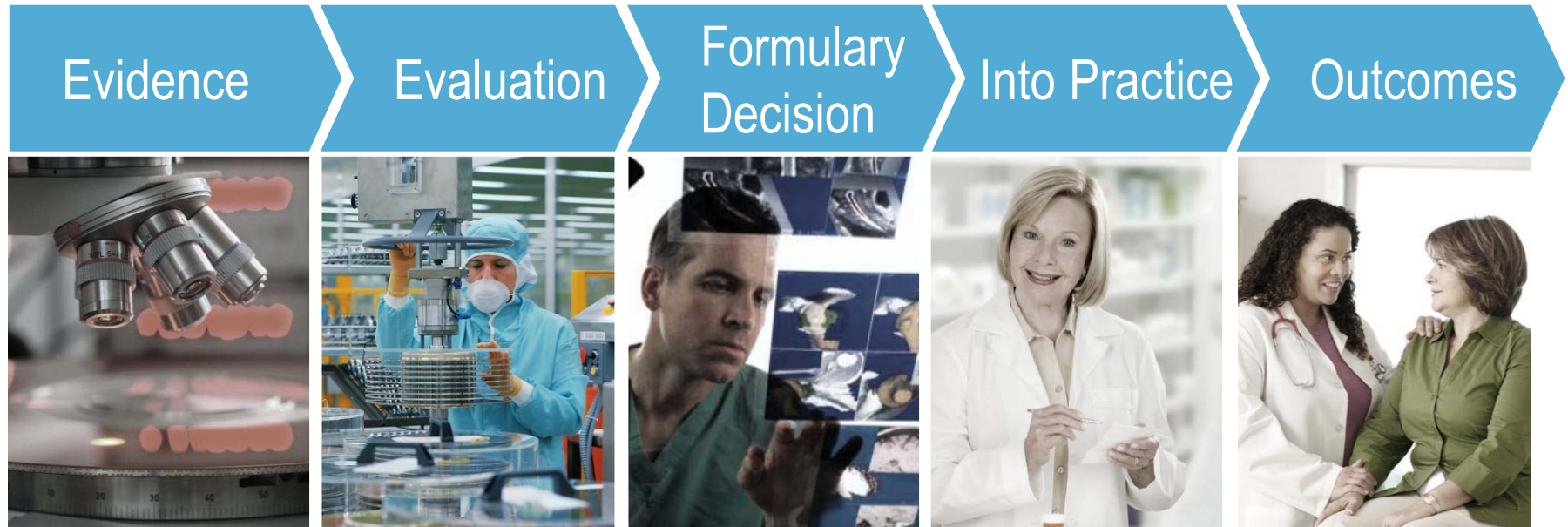
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Southern California Permanente Medical Group
Kaiser Permanente

August 14, 2012

Agenda

- Medication and pharmacy management overview
- Better care with Kaiser Permanente HealthConnect[®]
- Better value and clinical quality

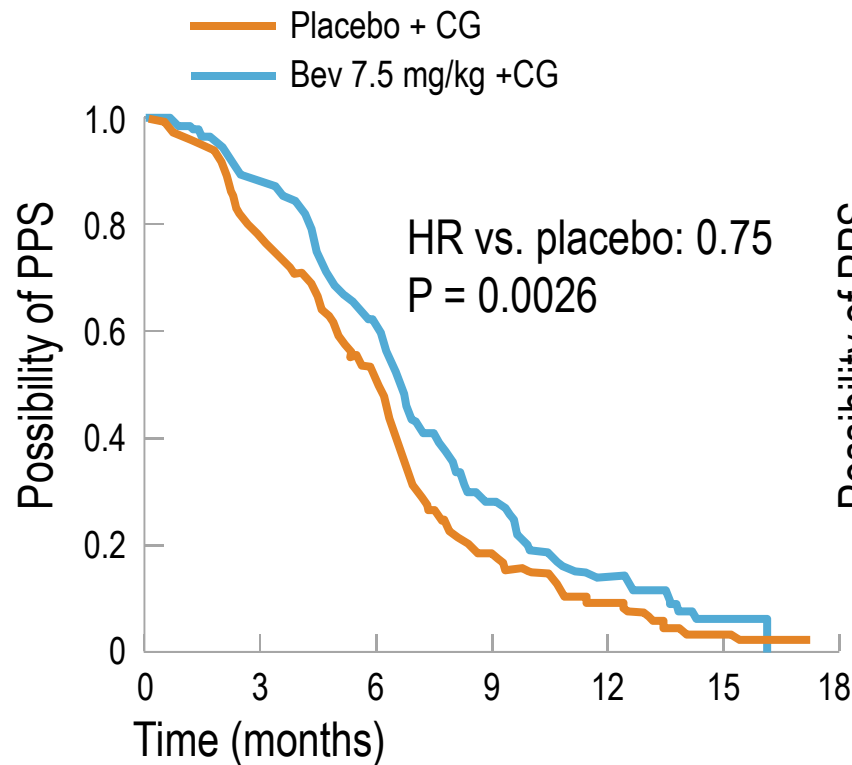
Medication management continuum



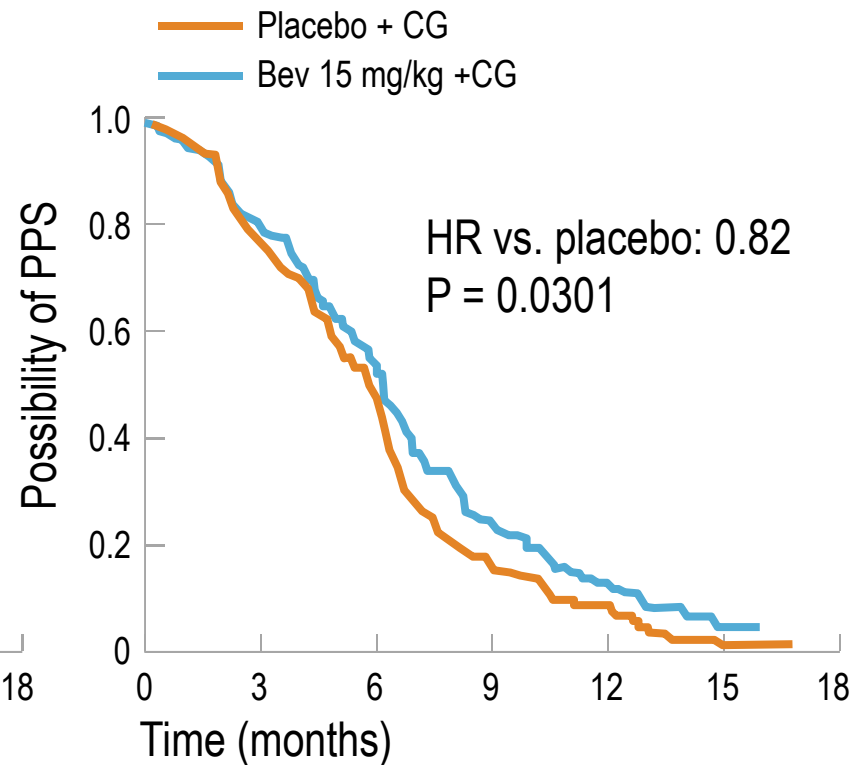
Case study: Avastin for lung cancer—evidence shows lower dose is just as effective

AVAIL trial: PFS curves with bevacizumab at 7.5 mg/kg and 15 mg/kg

Chemo + bevacizumab 7.5 mg/kg vs. placebo



Chemo + bevacizumab 15 mg/kg vs. placebo



Manegold, Proc ASCO 2007, #7514



KP HealthConnect: Beacon oncology protocols

Embedding evidence-based protocols into practice

The screenshot displays the Epic MyChartMdbeacon interface for a patient named Hbtwoca, Stmsdfive W. The patient's MRN is 110012882137, age is 32 Y, and sex is M. The interface includes a navigation menu with options like Back, Forward, Home, Schedule, In Basket, Chart, Enc, Tel Enc, Refill Enc, Ancil Ord Enc, Patient Lists, and Secure. A 'Protocol Selection' window is open, showing a list of protocols with columns for ID, Template, and Description. The first protocol listed is ID 288, Template ONCA ANAGRELIDE, and Description Anagrelide (AGRYLIN). Other protocols include various ONCA bladder and breast cancer treatments. At the bottom of the window, there are buttons for Database Lookup, Preview, Blank Treatment Plan, Back, Next, and Cancel. The 'Next' button is highlighted with a red box.

ID	Template	Description
288	ONCA ANAGRELIDE	Anagrelide (AGRYLIN)
151	ONCA BLADDER CISPLATIN BEFORE AND WITH RT	CDDP(100)q21d x 2, then 3rd dose with XRT, M
141	ONCA BLADDER CISPLATIN GEMCITABINE	CDDP(70)d1; GEMC(1000)d1,8,15;q28d
140	ONCA BLADDER MVAC - NEOADJUVANT	Methotrexate(30)d1,15,22; CDDP(70) d2; DOX(
235	ONCA BLANK PROTOCOL TEMPLATE: TRIAL - CHEMOTHERAPY	Blank template for end user to build protocol. C
142	ONCA BREAST AC - ADJUVANT	DOXO(60) CTX(600), q21d x4 cycles
155	ONCA BREAST AC - DOCETAXEL Q1WEEK - ADJUVANT	DOXO(60)CTX(600) q21d x 4; docetaxel(35)d1
161	ONCA BREAST AC - DOCETAXEL Q3WEEK TRAZ (Q1WEEK X 12, THE	DOXO(60) CTX(600) q21d x4, docetaxel(100)q
160	ONCA BREAST AC - DOCETAXEL Q3WEEK TRAZ Q1WEEK X 1 YR - A	DOXO(60) CTX(600) q21d x4, docetaxel(100)q
44	ONCA BREAST AC - PACLITAXEL (DOSE DENSE) Q2WEEK - ADJUVAI	DOXO(60) CTX(600) q14d x4; paclitaxel(175) q
159	ONCA BREAST AC - PACLITAXEL Q1WEEK - ADJUVANT	DOXO(60)CTX(600) q21d x 4; paclitaxel(80)d1,
162	ONCA BREAST AC - PACLITAXEL Q1WEEK X 12 TRAZ Q1WEEK X 1 Y	DOXO(60) CTX(600)q21d x4; paclitaxel(80)d1,!
164	ONCA BREAST AC - PACLITAXEL Q1WEEK X12 TRAZ (Q1WEEK X 12,	DOXO(60) CTX(600) q21dx4, paclitaxel(80)d1,!
158	ONCA BREAST AC - PACLITAXEL Q3WEEK - ADJUVANT	A(60) CTX(600) q21dx4, Paclitaxel(175) q21dx<
163	ONCA BREAST AC - PACLITAXEL Q3WEEK TRAZ (Q1WEEK X 12, THE	DOXO(60) CTX(600) q21d x4, paclitaxel(175)q:
165	ONCA BREAST AC - PACLITAXEL Q3WEEK TRAZ Q1WEEK X 1 YR - A	DOXO(60) CTX(600) q21dx4, paclitaxel(175)q2
156	ONCA BREAST AC DOCETAXEL Q3WEEK - ADJUVANT	DOXO(60)CTX(600) q21d x 4; docetaxel(100) c
145	ONCA BREAST CMF IV Q3WEEK	CTX(600) MTX(40) 5FU(600) IV q21d, metastat
146	ONCA BREAST CMF PO Q4WEEK - ADJUVANT	CTX(100 PO)d1-14; Methotrexate(40)d1,d8; 5F
147	ONCA BREAST DOCETAXEL CAPECITABINE	Docetaxel(75) Xeloda(1000 bid d1-4); q21d
152	ONCA BREAST DOCETAXEL Q1WEEK	Docetaxel(30) d1,8,15; q28d

Kaiser Permanente rapidly adopted the practice

Avastin efforts for lung cancer moved to 2.5 mg/kg/week* dosing (demonstrating increased use of the lower dose)

Avastin usage for lung cancer

■ </-2.5 mg/kg/wk ■ Total lung — </-2.5 mg/kg/wk — Total lung new starts

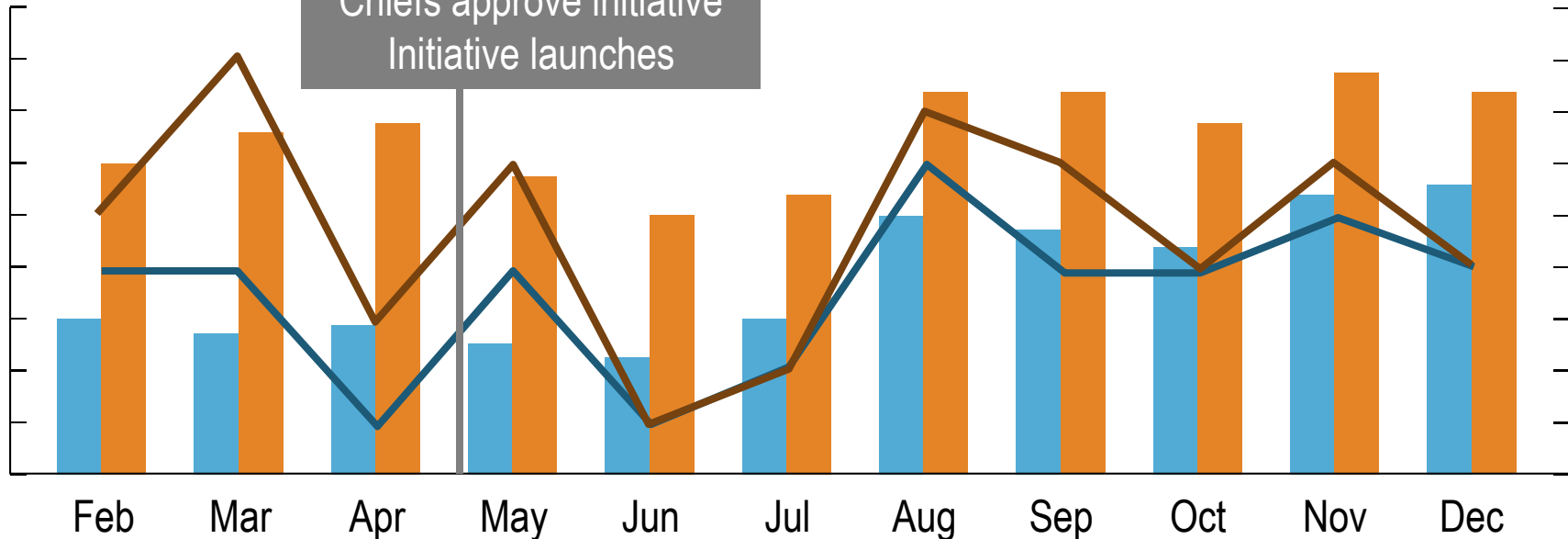
All Avastin patients

Bars

Chiefs approve initiative
Initiative launches

All Avastin new starts

Lines



*2.5mg/kg/week x 3 week treatment period = 7.5mg/kg

Doctors are the decision makers

Formulary decided by doctors based on analysis, clinical research, and pharmacist recommendations and expertise (Drug Information Services)

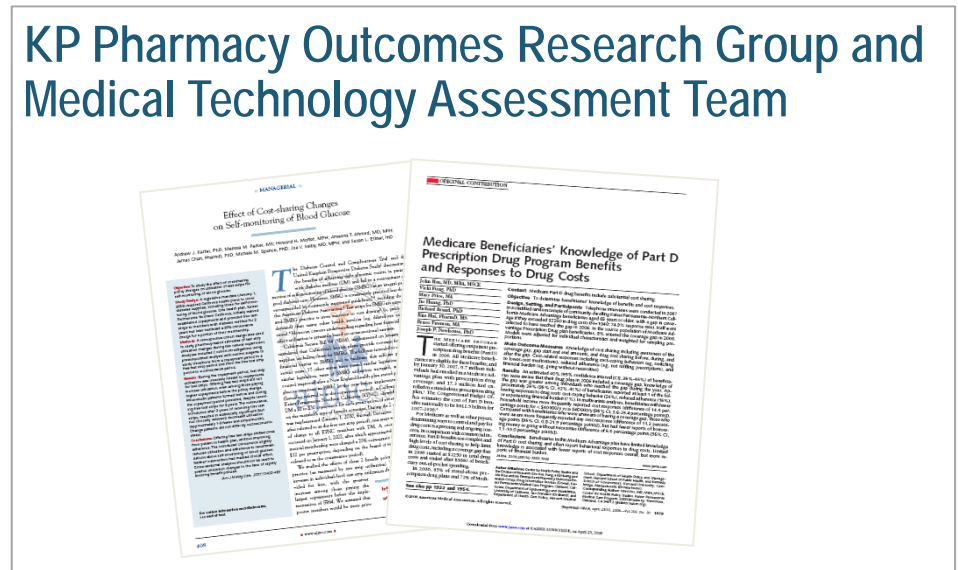
- Track new drug approvals by the Food and Drug Administration
- Analyze published drug literature, unpublished studies, and comparative prices of existing therapies
- Study drugs and patient outcomes using KP HealthConnect



FDA U.S. Food and Drug Administration
Protecting and Promoting Your Health

News & Events

- ▶ October 01, 2009 - FDA Approves Additional Use for IUD Mirena to Treat Heavy Menstrual Bleeding in IUD Users
- ▶ October 01, 2009 - FDA Alert: New USP Standards for Heparin Products Will Result in Decreased Potency
- ▶ September 30, 2009 - FDA Consumer Health Information Updates: New Web Videos Educate Consumers about Food and Medical Product Safety
- ▶ September 30, 2009 - FDA Issues Draft Guidance on Risk Evaluation and Mitigation Strategies
- ▶ September 30, 2009 - FDA Issues Strategic Plan for Risk Communication



KP Pharmacy Outcomes Research Group and Medical Technology Assessment Team

Handwritten notes on a document titled "Effect of Cost-sharing Changes on Self-monitoring of Blood Glucose". The notes include:

- Handwritten: "The Diabetes Control and Complications Trial and all 7 randomized controlled trials showed that intensive treatment of diabetes with insulin pumps and continuous glucose monitoring (CGM) was more effective than standard treatment with multiple daily injections (MDI) in terms of glycemic control and complications." (This text is partially obscured by a blue highlight)
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Another document titled "Medicare Beneficiaries' Knowledge of Part D Prescription Drug Program Benefits and Responses to Drug Costs" is also visible, with handwritten notes:

- Handwritten: "Medicare beneficiaries' knowledge of Part D prescription drug program benefits and responses to drug costs." (This text is partially obscured by a blue highlight)
- Handwritten: "Medicare beneficiaries' knowledge of Part D prescription drug program benefits and responses to drug costs." (This text is partially obscured by a blue highlight)

KP HealthConnect: Best practice alerts

The screenshot displays the Epic Hyperspace interface for a patient named 'Test, Peds Ip' (MRN <E1504>). The patient is 37 years old, male, and has allergies to Peanuts (Dietary, Sulfa Class). The interface shows a 'Visit Navigator' for a visit on 2/12/2007. A 'BestPractice' alert is highlighted in yellow, indicating a 'DISEASE MANAGEMENT REMINDER' for a patient in the diabetes registry with poor glycemic control. The alert text reads: 'ACTION: Adjust treatment plan to achieve home glucose measurements: pre-prandial blood sugars of 80-120 and postprandial blood sugars <160 or lab FBS 90-130. Re-measure A1c in 8 weeks. Last HGA1C=11.0 on 4/30/2007 (No related orders found in patient record)'. Below the alert, there is a checkbox labeled 'Open SmartSet: DIABETES TREAT TO TARGET TTT PCM SCAL' which is checked. An orange callout box with an arrow points to this checkbox, containing the text: 'Click checkbox for SmartSet— includes preferred medications'. The interface also shows vital signs (BP, Pulse, Resp, Temp, SpO2, Wt, Height, Peak Flow) and a table of additional vitals (BMI, BSA, LMP, Extended Vitals, Tobacco). The bottom right corner shows the time as 3:07 PM.

KP HealthConnect: Alternative medication alerts

Alternative Selection

Pioglitazone (ACTOS) 15 mg Oral Tab: 1 TAB PO DAILY. CHECK FBS BEFORE BREAKFAST DAILY. IF FBS ABOVE 120 AFTER 4 WEEKS, INCREASE TO 2 TABS PO DAILY. IF FBS STILL ABOVE 120 AFTER ANOTHER WEEKS, INCREASE TO 3 TABS PO DAILY. CALL MD IF FBS FALLS BELOW 80 OR STAYS ABOVE 120, Disp-100, R-3, Oral, starting 7/26/2012 until 7/25/2016, Fill Later

- * Non-Formulary (30 mg and 45 mg strengths only) with Guidelines
- * **BOXED WARNING:** Pioglitazone is contraindicated in patients with NYHA Class III or IV heart failure. Not recommended in patients with symptomatic heart failure. May cause symptoms of congestive heart failure. Monitor patients carefully for signs and symptoms. See prescribing information for complete **BOXED WARNING**
- * Pioglitazone is not recommended in patients with bladder cancer (active or prior history)
- * Combinations including metFORMIN plus glipiZIDE plus insulin are preferred over any use of pioglitazone due to potential side effects. Consider initiating (or titrating) NPH insulin instead of pioglitazone if the patient is not at their goal A1C despite treatment with optimal doses of metFORMIN and a sulfonylurea
- * See link to Guidelines for use of pioglitazone for additional warnings and precautions

Web Links

- [PIOGLITAZONE \(ACTOS\) GUIDELINES](#)
- [PIOGLITAZONE \(ACTOS\) MED GUIDE](#)
- [PIOGLITAZONE \(ACTOS\) FDA DRUG LABEL](#)

KP HealthConnect: Safety alerts

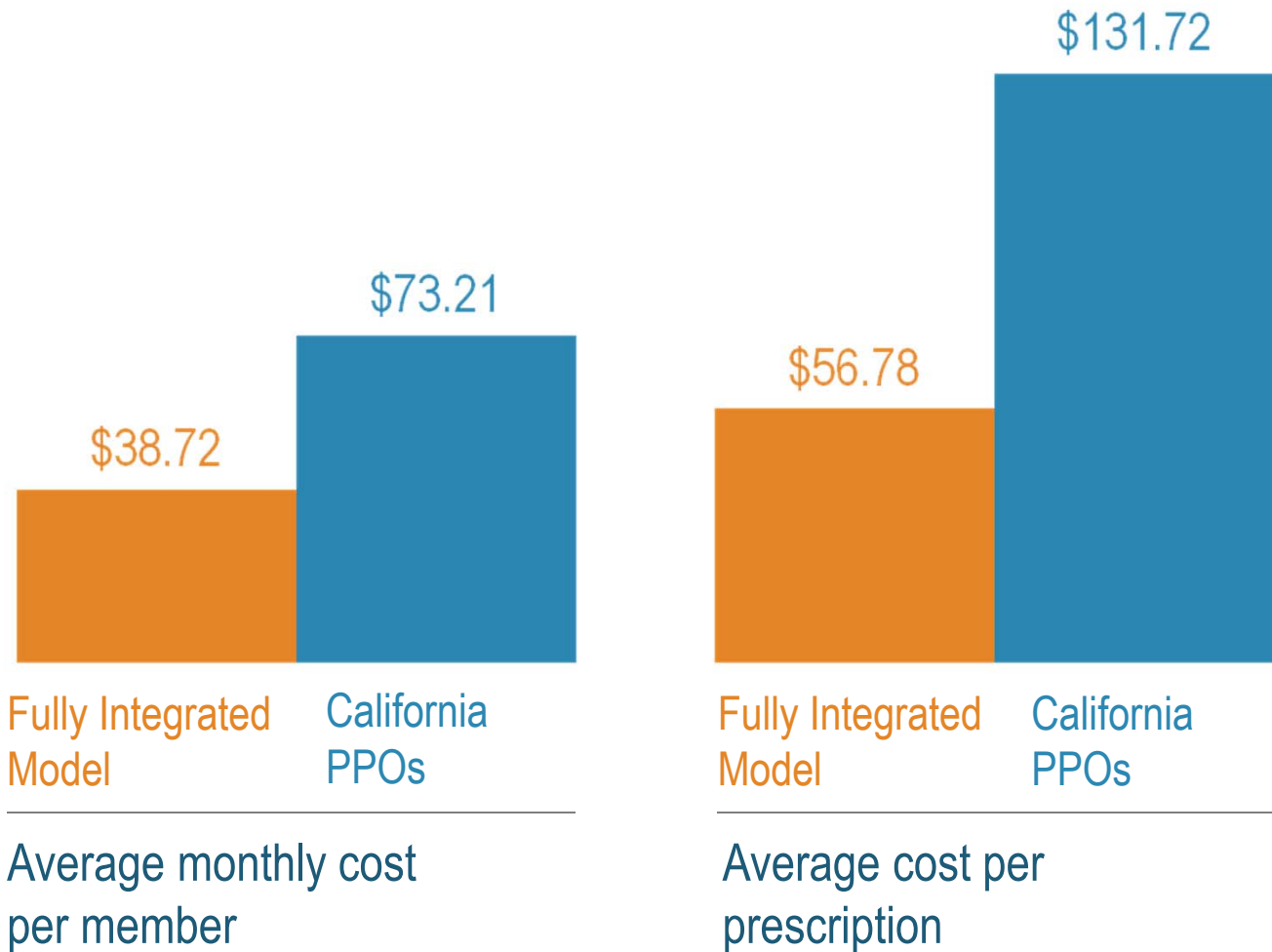
Example #1

The screenshot shows a web application interface for a patient named 'Kphc, Fivesdzztest'. A 'BestPractice Alert' window is open, displaying a safety alert. The alert text is: 'SAFETY ALERT! Promethazine should always be avoided in people age 60+. Promethazine has potent anticholinergic and sedative effects which are not well tolerated by older adults. It is used in elderly members primarily for the treatment of cough/cold and allergy symptoms and there are many suitable OTC and Rx alternatives available. ACTION: Change to an alternative drug. See SmartSet for alternatives. (No related orders found in patient record)'. Below the text is a checkbox labeled 'Open SmartSet: ELDERLY AND PROMETHAZINE (DSSC - SCAL)' which is checked. The interface includes a left-hand navigation menu with options like 'Home', 'Snapshot', 'Chart Review', 'Results Review', 'Flowsheets', 'Problem List', 'History', 'Letters', 'Demographics', 'Order Entry', 'Imm/Injections', 'Allergies', 'Medications', 'Forms', and 'Visit Navigator'. The top right corner has 'Print' and 'Log' buttons. The bottom right corner shows a 'Full Detail' button and some date-related information.

Example #2

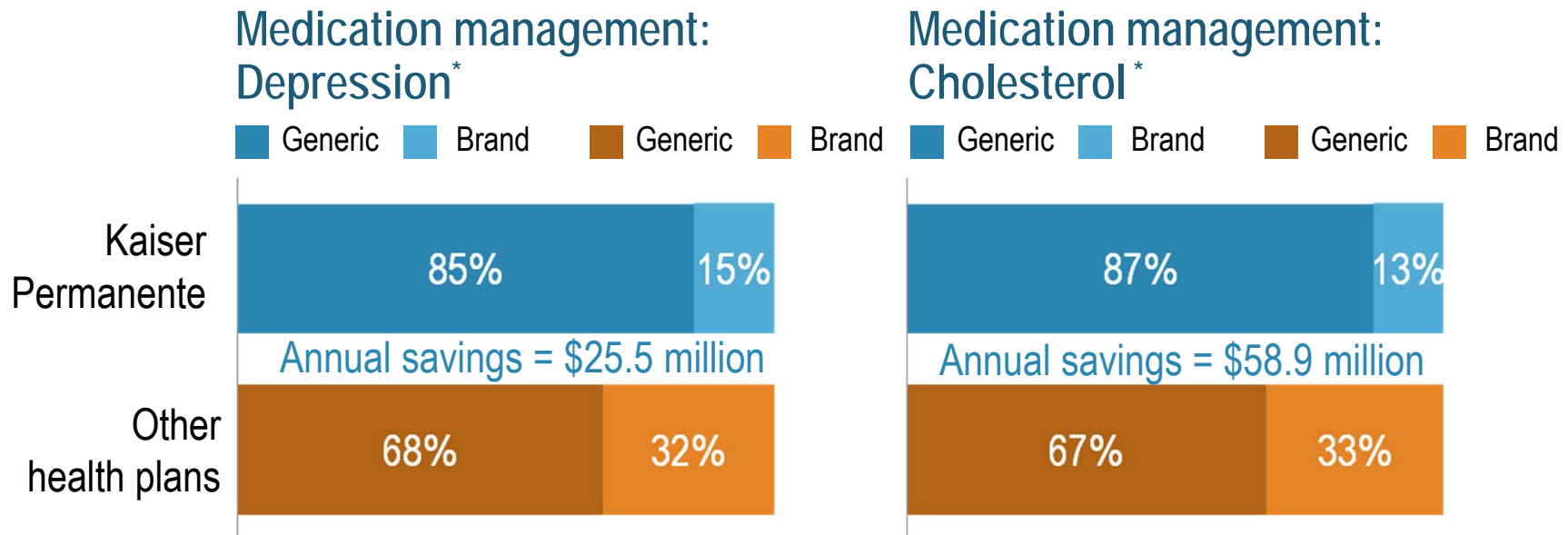
The screenshot shows a web application interface for a patient named 'Kphc, Fivesdzztest'. A 'BestPractice Alert' window is open, displaying a safety alert. The alert text is: 'SAFETY ALERT: If a beta-blocker is indicated for patients with asthma, use a cardioselective beta-blocker at the lowest effective dose. ACTION: Open the SmartSet below for ordering.'. Below the text is a checkbox labeled 'Open SmartSet: ASTHMA AND BETA BLOCKER DSSC SCAL' which is checked. The interface includes a left-hand navigation menu with options like 'Home', 'Snapshot', 'Chart Review', 'Results Review', 'Flowsheets', 'Problem List', 'History', 'Letters', 'Demographics', 'Order Entry', 'Imm/Injections', 'Allergies', 'Medications', 'Forms', and 'Visit Navigator'. The top right corner has 'Print' and 'Log' buttons. The bottom right corner shows a 'Full Detail' button and some date-related information.

Better value for medication management



Source: PPO data from MarketScan, a service of Thomson/Reuters. As of June 2010..

Highest generic prescribing and highest clinical results

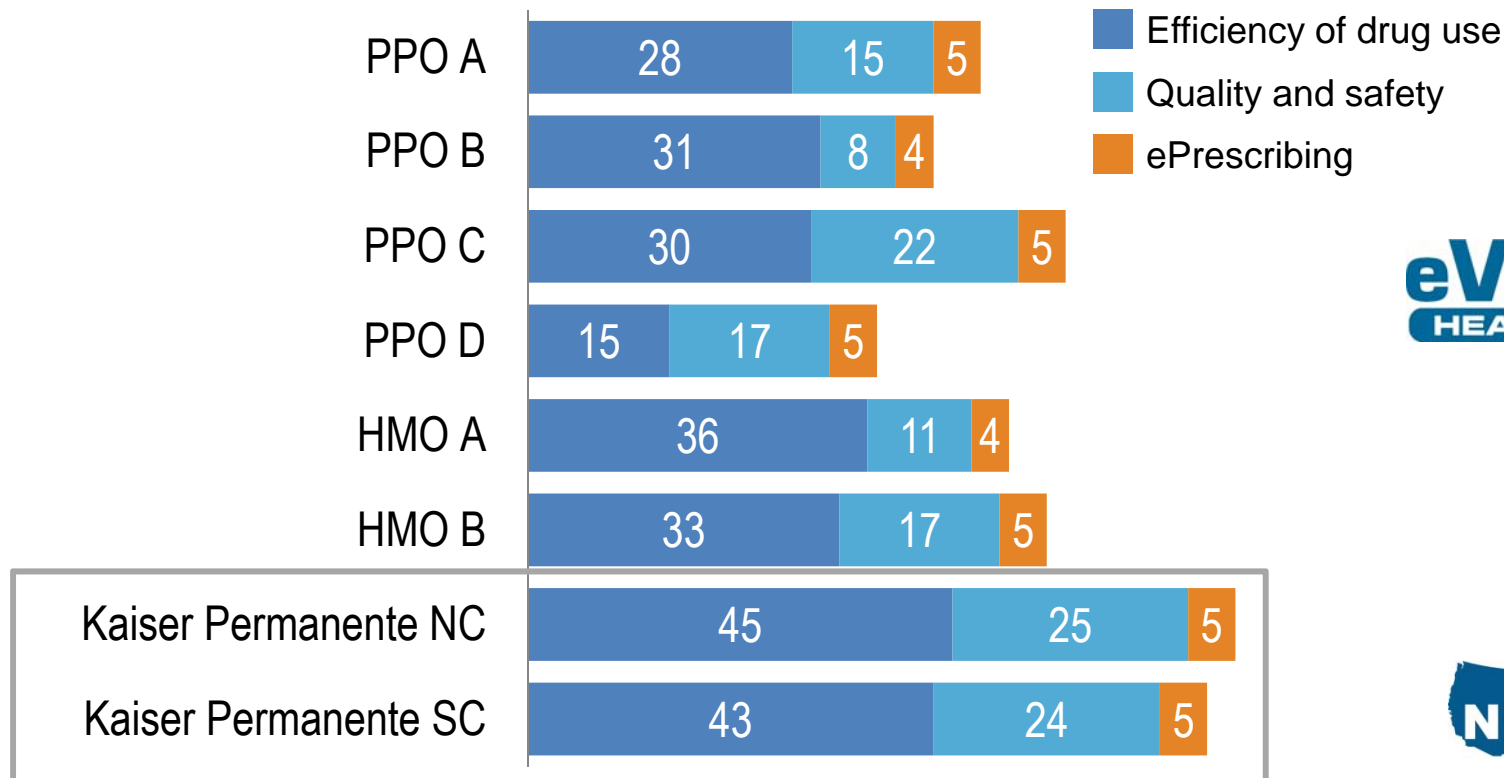


“ Rated #1 in California and top 10th percentile nationally Antidepressant medication management and cholesterol control for patients with diabetes and cardiovascular disease ”

* Source: MedImpact

Setting the benchmark for medication and pharmacy management

HMO comparative performance: pharmaceutical management



Source: eValue8™, a health plan performance tracking tool created by the National Business Coalition on Health, a nonprofit organization that represents more than 10,000 employers across the United States.

Questions?