



Patient Safety At Kaiser Permanente

OPM/FEHB Program

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Kaiser Permanente



High Points

- **Executive Commitment**
 - No greater priority
- **System wide practices**
- **Regional Best Practices**
- **Innovations and Research**
 - Substantial investment
- **Future Directions**

From the Top

"When the Institute of Medicine challenged every health care system to reduce the rates of deaths and injuries by 50 percent in five years, I felt we were in the best position of any health care system in the country to respond. We've had a long history of work to reduce errors and improve outcomes. We are a system, notwithstanding all the glitches that occur. We're far ahead of the rest of health care because we're integrated, organized. We have a lot to build on."

—David M. Lawrence, MD, KFHP CEO

"Patient safety must always be among the first principles of the practice of medicine -- a core aspect of Permanente Medicine"

—Francis J. Crosson, MD
Exec. Dir., The Permanente Federation

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Quality = Safety



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KP System-wide Patient Safety

- **Pharmacy**
 - Drug/drug drug/allergy interactions and individual patient counseling
 - Clinical pharmacy services
- **High volume hospitals for complex procedures (Centers of Excellence)**
- **Hospital based specialists**
- **KP-online web-based information/counseling for patients**
- **Use of member complaints/suggestions as source of problem identification**
- **Environmental safety**
- **Patient safety oversight committees**

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Care Management Institute (CMI)

- **Comprehensive chronic disease management**
 - **Prevention**
 - **Diagnostic aids**
 - **Patient education/Self management**
 - **Provider education/ guidelines**
 - **Protocols/Tools**
 - **Measurement/Evaluation**

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Care Management Institute

- **Evidence-Based medicine**
 - Asthma
 - Coronary artery disease
 - Depression
 - Diabetes
 - Elder care
 - Cancer
 - Chronic pain
 - Heart failure

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Care Management Institute

- **Progressive improvement in measured parameters over 3 years**
- **Expanded menu of conditions covered**
- **Dissemination of best practices**
- **Improved health status**
- **Fewer complications (enhanced safety)**

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Medical Directors Quality Review Process

- **Annual internal accreditation/audit**
- **elements embracing patient safety**
 - **Credentiailling/competency of providers**
 - **Quality systems**
 - **Practitioner performance review**
 - **performance improvement**
 - **Continuity of care**
 - **Patient safety strategy**

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Kaiser Permanente The Incorporation of Patient Safety Principles Into MDQC's Quality Review Process

“Patient safety is integral to the Kaiser Permanente Quality Program. The Kaiser Permanente Medical Directors’ Quality Committee (MDQC) views patient safety and error reduction as central to improving the quality of care. Assuring and improving patient safety is a crucial aim of the organization and its practitioners, managers, employees, and affiliates.”

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KP Regional Best Practices

- **Northwest**
 - Patient Safety Oversight Committee
 - Integrated Computerized Patient Record (CPR)
- **Colorado**
 - Clinical Information System (CIS)
 - Crew Resource Management training
 - Clinical pharmacy services
- **Mid-Atlantic States**
 - E-Physician palm prescribing pilot project
- **Ohio**
 - Cardiac outcomes improvement
 - Diabetic amputations
- **California**
 - Surgical site identification
 - Significant Event (SE) root cause analysis
 - Adverse Drug Event (ADE) prevention/ research

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KP Northwest Patient Safety Oversight Committee

- **Patient safety culture**
- **Confidential, non-punitive near miss and adverse event reporting mechanisms**
- **Root cause analysis of all reported AE**
- **Active identification of close calls/error detection**
- **High risk patient Identification**
- **Benchmarking, alerts and systems design**
- **Community-wide collaborative efforts**
- **Research**

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KP Northwest

Integrated Computerized Patient Record

- **Real time Pharmacy alerts and suggested medications**
 - Improved guideline and formulary compliance
- **Drug-allergy and drug-drug interactions**
- **Outreach remediation to patients on specific meds or for drug recalls and adverse effects**
- **Flags and alerts at patient visits**
- **Registries**

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KP Colorado

- **Clinical Information System (CIS)**
- **Crew Resource Management training in OR/other units**
- **Projects**
 - **90% of post-operative cardiac complications can be prevented by pre-op administration of beta blockers in high risk patients**
 - ID at risk surgical patients/Beta blocker administration pre-op
 - Anticipate the prevention of 60-80 myocardial infarcts/ year
 - **Team training on use of automated defibrillators in clinic setting**
 - Each second delay = 10% worse survival prognosis

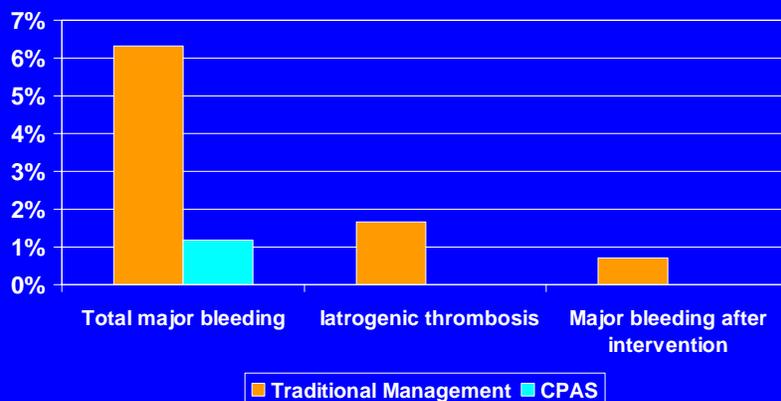
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KP Colorado Clinical Pharmacy Services

- **Anticoagulation — most common cause of ADE hospitalization-Clinical Pharmacy Anticoagulation Service**
 - 4200 patients (?largest in US)/ 11 FTEs
 - 24/7/365 availability
 - 82% reduction in major bleeding complications
 - 30% reduction in hospitalization
 - 77% reduction in mortality

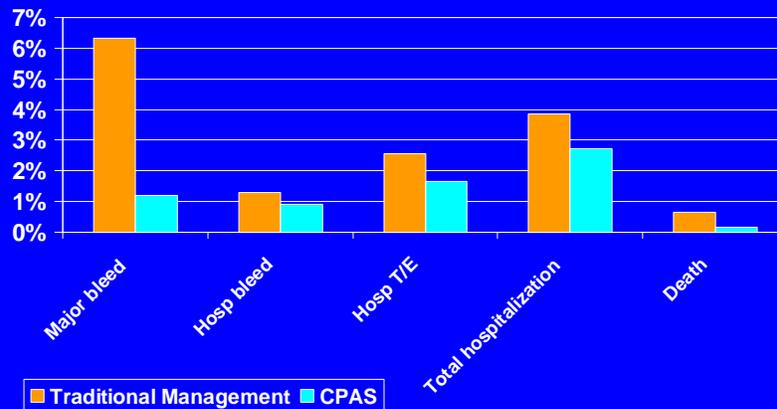
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Bleeding Complications: Clinical Pharmacy Anticoagulation Service vs. Traditional Management



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Hospitalization: Clinical Pharmacy Anticoagulation Service vs. Traditional management



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KP Mid Atlantic

- ePhysician Palm prescribing pilot project
 - View allergy and formulary information
 - Secure internet connection for patient data
 - Lab work orders and medications prescription by email or fax
 - Audit trails
- Bee-ware Rx look/sound alike drugs

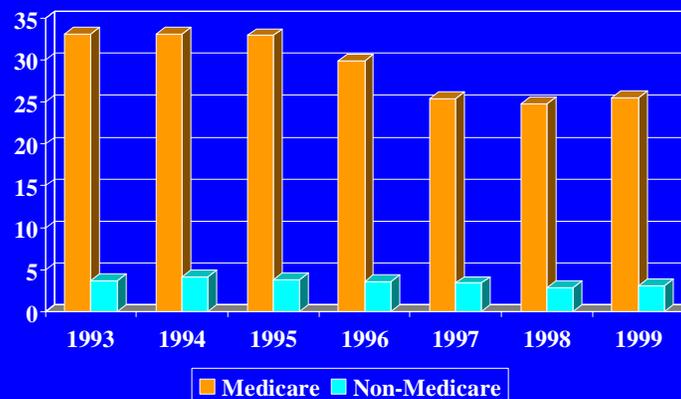
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KP Ohio Improved Cardiac Outcomes

- Improved guideline compliance using the Medical Automated Record System (MARS) 1994—reminders to:
 - Increase aspirin use
 - Increase use of cholesterol-lowering drugs
 - Encourage smoking cessation
 - Increase beta blocker use after heart attack
- Individual physician report cards

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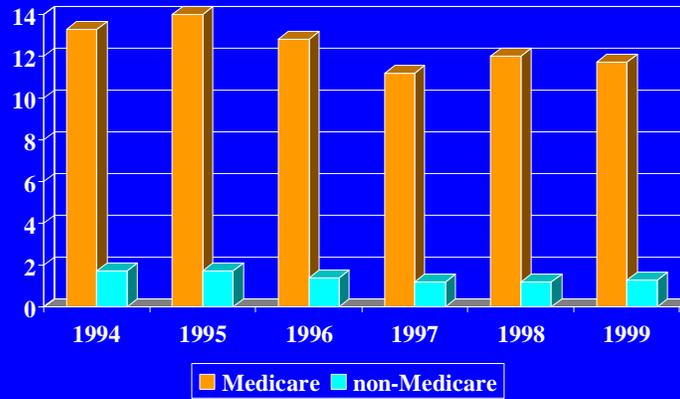
KP Ohio Ischemic Heart Disease Admissions Per 1000 Members/yr



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KP Ohio

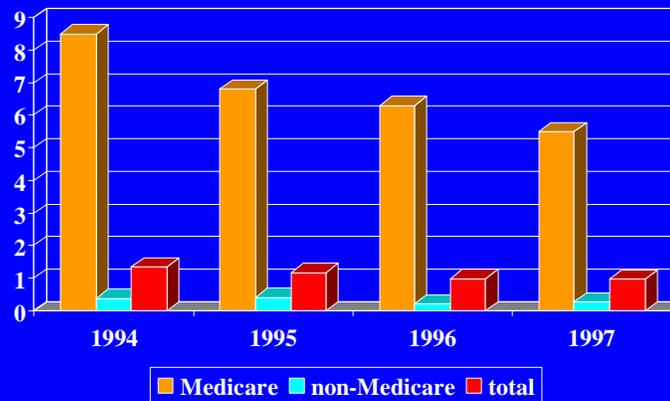
Heart Attack Admissions/1000/yr



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KP Ohio

Coronary Deaths/1000/yr



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Can Computers Cure Health Care?

- “Kaiser Permanente, the nation's largest HMO, is betting \$1 billion that information technology can help doctors practice better medicine”
- “Experts still debate whether computers really save time and money — but Dr. Neal Kaforey, emergency-room chief at a Kaiser Permanente clinic in Cleveland, says

There's no doubt they can save lives. As proof, he nods toward a smiling patient sitting up in bed. The man was wheeled in yesterday with a heart attack. One of Kaforey's colleagues was about to give him a heart drug called a beta blocker, but first the doctor checked the man's medical records on a computer terminal in the ER.

It revealed he was severely allergic to the drug. If that tidbit had been tucked away in a paper file at a doctor's office instead of instantly popping up on the screen, says Kaforey, “He'd be dead.”

—*Fortune* 3/30/98

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KP Ohio Diabetic Amputations

- Diabetic amputations among Kaiser patients in Cleveland have dropped by about 20%

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KP California

Surgical site identification

- **Routine inquiry: Name? Procedure? Site?**
 - Pre op evaluation
 - Admission
 - Pre-op holding (site marked by patient, checked by surgeon, nurse, anesthesiologist)
 - Operating room
- **Video training all patients/all personnel**

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KP California

Significant Event/Root Cause Analysis

- **Blaming individuals when an adverse event occurs hinders our ability to find the true root cause**
- **Stimulated by JCAHO sentinel event policy**
- **In-depth analysis**
 - Patient/family compassionate counseling
 - Implementation of barriers or safeguards to limit likelihood of recurrence
 - Dissemination of learnings

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KP California Adverse Drug Event Prevention

- High risk departments/populations
- Look alike/sound alike drugs (120 pairs identified)
- Safe handling high alert medications
- Standardization of critical iv medications conc.
- Safe prescribing practices
 - Always use a leading zero
 - Never use a trailing zero
 - Always write “units”; never use “u”
 - Never use “cc”, always use “ml” or write out

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KP California Adverse Drug Event Research

- In-depth assessment of the inpatient medication use system at study hospitals
- Comprehensive, hospital-specific information about high-risk, problem-prone processes provided to clinicians
- Compare two models:
 - Dedicated-staff model
 - Do-it-with-existing-staff model

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KP California

Adverse Drug Event Research Findings

- Medication use systems are at risk for serious failures (72+ steps)
- Under-reporting (fear of discipline, lack of time to report)
- Dedicated resource approach is superior
- Sharing of best practices across system
- “Culture eats strategy for lunch”

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Patient Safety Directions for KP

- Elaboration of guideline development/CMI process
- CIS roll out to improve guideline compliance
- New technology: e.g. bar coding, computer physician order entry, alerts, flags, barriers
- Innovations/ research: “Looking for trouble in all the right places”
- KP Health Policy Institute: safety in a larger context: can we define safety reporting in a way to improve safety?

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Patient Safety Directions for KP

- Education/training
 - Dedicated leadership team, formal program
 - KP-AFL/CIO labor management partnership: culture change underway/system focus
 - Simulation training
 - Human factors training
- How to involve the member as part of the patient safety team
 - Enhancement of *KP Online* web site with member interactive education
- Compendium of best practices

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At Kaiser Permanente
we take

ACCOUNTABILITY FOR SAFETY

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