

CREATING INTEGRATED CARE AMIDST FRAGMENTATION

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Outline

- ◆ **What we do**
- ◆ **How that differs from others in the industry**
- ◆ **Why we do it**
- ◆ **How we approach doing it**



Kaiser Permanente: Background

- ◆ **Henry J. Kaiser & Dr. Sidney Garfield**
 - Grand Coulee Dam, LA Aqueducts

- ◆ **70+ years of integrated, prepaid care**
 - Now ~9 million members, ~15K physicians, 165K employees

- ◆ **Variation across regions and even within regions**
 - California regions with dense market penetration
 - Other non-hospital regions

Kaiser Permanente: Contrast to Current Healthcare Industry

◆ **Prepaid vs. Fee-for-service**

- Incentives driving provider behavior
- Quality issue in addition to efficiency (resource use) one
 - Avoidance of unnecessary utilization, focus instead on evidence-based, outcomes-based interventions
 - Properly encourages focus on prevention activities

◆ **Integrated/coordinated vs. Fragmented**

- Communication between physicians and other segments of delivery
- Across a common EHR
- Patient-centric convenience and service
- Quality issue in addition to efficiency (resource use) one
 - Coordinated care = higher quality care



Impact of Payment Design: Resource Use and Quality

◆ CMS data – FFS vs. Medicare Advantage

- 18% fewer hospital days in MA vs. FFS
- Lower surgical rates in MA

◆ Geographic variation → More ≠ Better

- Atul Gawande in New Yorker from June 2009
- Dartmouth studies #1:
 - For states, ↑\$ = ↓quality performance
 - 4 highest spending states (LA, TX, CA, FL) near bottom for quality
- Dartmouth study #2:
 - Million elderly Americans with colorectal cancer, heart attack, or hip fx
 - Higher spending areas received 60% more care (tests, procedures, admissions, visits)
 - Yet no better, and frequently worse, for survival, function, or satisfaction (surgical complications kill more than MVCs)
 - Less likely to receive cheaper preventive services or have a PCP

◆ Example of typical hospitalization → Bed days and LOS

- 5-10% incidence of HAI
- Single largest driver is time spent in hospital



KP Hospital Utilization as a Case Study

| | Days/1000 | % Core |
|------------------|------------------|---------------|
| Example A | 238 | 41% |
| Example B | 215 | 76% |
| Example C | 187 | 84% |

◆ Readmissions

- 18% of patients within 30 days (35% w/i 90 d)
- 20% of these return more than once
- 75% of these preventable
- Single most impactful intervention?
 - Primary Care follow-up within 3 days (easier if link b/w inpt and outpt)

◆ Hand-off errors

- 2009 NYT: Typical hospitalization = 15 hand-offs
- 2009 JGIM:
 - Only 16% of the time, pending test results mentioned in discharge summary
 - 2/3 of the time, discharge summaries included plan for f/u

◆ Fragmented vs. Co-location

- Power of co-location not achieved
- 2010 NYT:
 - 80% of the time, first-time patient Rx are filled (lower for chronic diseases like chol, HTN, DM)
 - KP study in 2009 JGIM shows KP rate is 95%

DOC003.PDF - Adobe Acrobat Professional

File Edit View Document Comments Forms Tools Advanced Window Help

Create PDF Combine Files Export Start Meeting Secure Sign Forms Review & Comment

1 / 1 100%

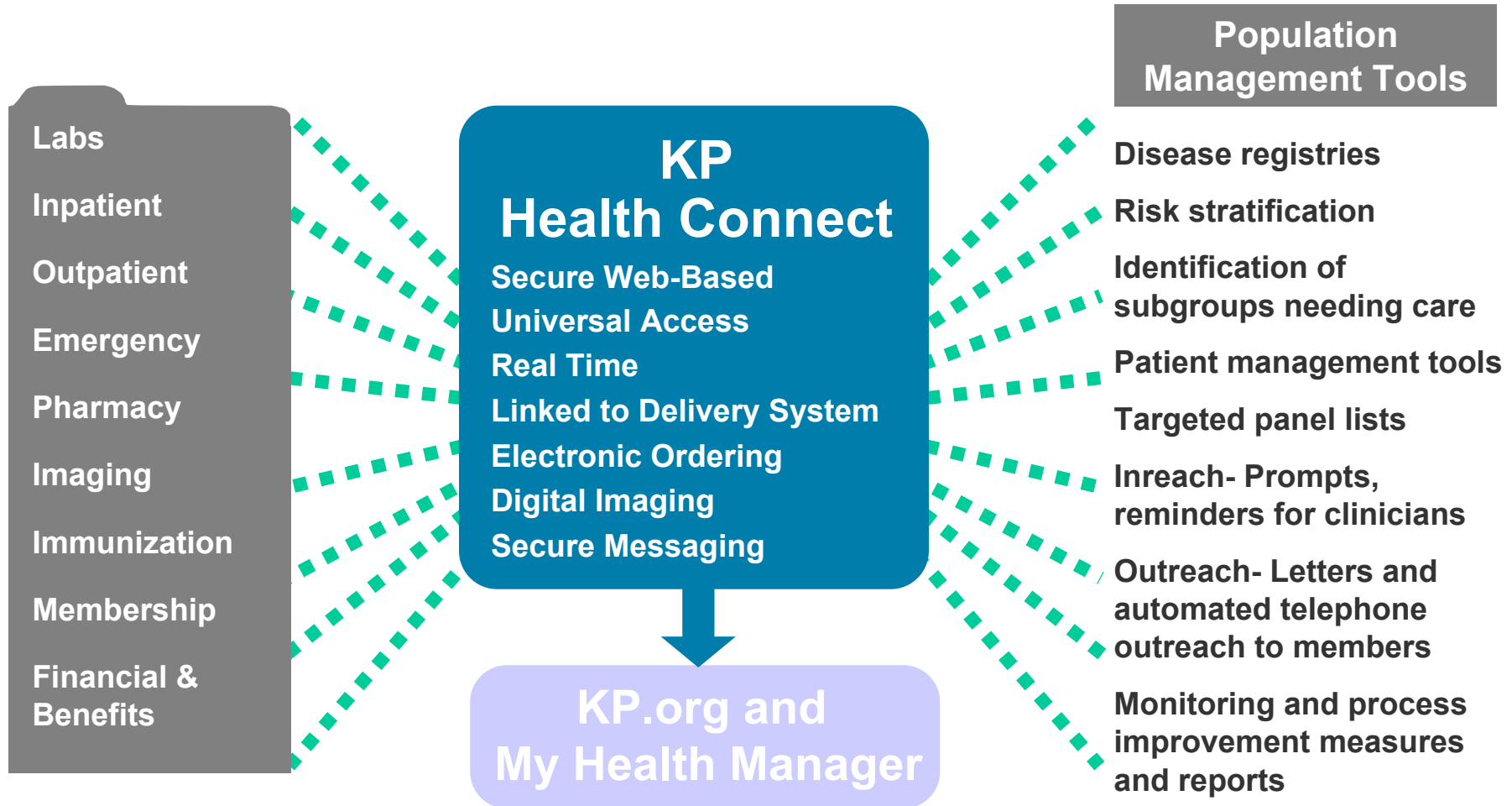
| | | |
|---------|--|--|
| 2-3-10 | Broken apt. | |
| 2-18-10 | <p>B.P. 151/93 P. 96</p> <p>Pt. referred to ENT trouble #9, 16, 17, 18</p> <p>c/o Med pain, bad odor #3</p> <p>Also c/o N/V for the past weeks since</p> <p>new Meds. Cozasa</p> <p>PMH: NKDA, ⊕ Meds. Metformin 1000mg BID</p> <p>Lasatan Betaminox 2 Sings (-Cozasa)</p> <p>Lisinopril/HCTZ 20/12.5</p> <p>Rx: HTN, NIDDM</p> <p>c/o lymphadenopathy</p> <p>c/o firm ntd, palpable base of 16, 17 and</p> <p>lingual #18. Teeth #3 ⊕ P2</p> <p>Palpable deep proximal buccal alveolar bone</p> <p>tenderness of tissues ⊕ Pericoronitis.</p> <p>Tongue, Fren, Uvula, Tonsils seem well</p> <p>Pl: 0 teeth 17 area. Teeth</p> <p>#3 ⊕ approx 1.5 x 1.5 cm. PARL</p> <p>(Radicula rupt c/o Maloquansign)</p> <p>bone loss</p> <p>IX: Pt. under review findings, Tx Optm. Not</p> <p>possible compare side 21. c/o 1100 x</p> <p>2 cm. Simple ext teeth #3, Surgical</p> <p>alveoloplasty, amputation + curettage of cystic</p> <p>lesion submitted to histopath. Tongue ntd</p> <p>3-cch in anterior Palatal c/o Venous</p> <p>DH16. Pain consult. Med consult for N/V</p> <p>Rx: Amoxicillin 500mg x 40 (7 qd finish)</p> <p>Rx: Tylenol #3x 20 (7 q 4h prn pain)</p> | |

RECORD OF SERVICE



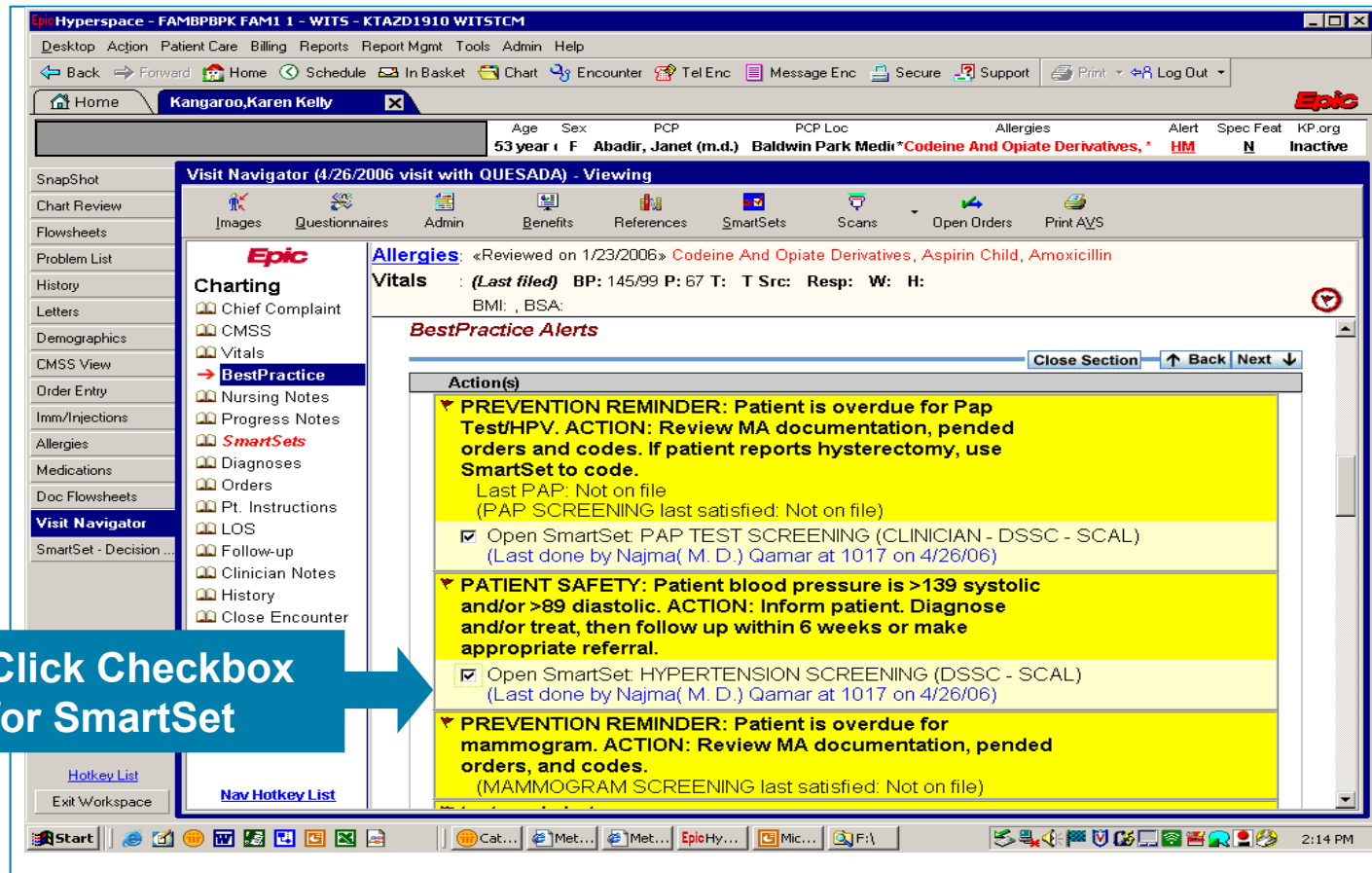
Integrated Clinical Information Systems

Linking across episodes, providers, and settings of care delivery.



KP HealthConnect: Best Practice Alerts Make Every Visit an Opportunity for Needed Care

Automatically alerts physicians when a patient is due for check-ups or preventive tests. Decision support tools prevent providers from practicing silo medicine and keep them up to date with the latest advances in medicine.



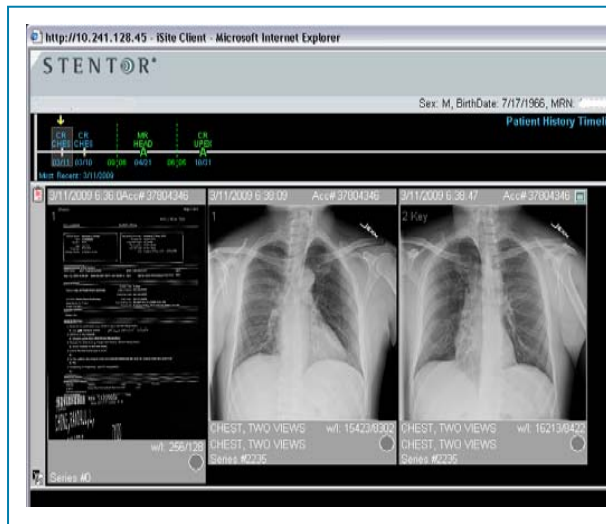
The screenshot displays the Epic Hyperspace interface for a patient named Karen Kelly. The patient's age is 53, sex is female, and her PCP is Janet Abadir. The interface shows a 'Visit Navigator' for a visit on 4/26/2006. A 'BestPractice Alerts' section is highlighted, containing three alerts:

- PREVENTION REMINDER: Patient is overdue for Pap Test/HPV.** ACTION: Review MA documentation, pended orders and codes. If patient reports hysterectomy, use SmartSet to code. Last PAP: Not on file (PAP SCREENING last satisfied: Not on file). A checkbox is checked next to the action: 'Open SmartSet PAP TEST SCREENING (CLINICIAN - DSSC - SCAL) (Last done by Najma(M. D.) Qamar at 1017 on 4/26/06)'. A blue callout box with an arrow points to this checkbox, containing the text 'Click Checkbox for SmartSet'.
- PATIENT SAFETY: Patient blood pressure is >139 systolic and/or >89 diastolic.** ACTION: Inform patient. Diagnose and/or treat, then follow up within 6 weeks or make appropriate referral. A checkbox is checked next to the action: 'Open SmartSet HYPERTENSION SCREENING (DSSC - SCAL) (Last done by Najma(M. D.) Qamar at 1017 on 4/26/06)'.
- PREVENTION REMINDER: Patient is overdue for mammogram.** ACTION: Review MA documentation, pended orders, and codes. (MAMMOGRAM SCREENING last satisfied: Not on file)



KP HealthConnect: Images Accessible Anywhere

From any computer with an internet connection, our physicians can securely view Kaiser Permanente member x-rays (or any other radiology image) moments after the film is taken.



Hyperspace - SCH-DRM1 ->MAIN CAMPUS - Production - HCNCPRODSBM PRODSBM

Desktop Action Patient Care Scheduling Reg/ADT CRM/CM Reports Report Mgmt Tools Admin Help

Back Forward Home Schedule In Basket Chart Enc Tel Enc Refill Enc Ancil Ord Enc Patient Lists Secure Print Log Out

Epic Home Ncalhctestaq,Testy

MRN Room/Bed Age Sex DOB Allergies Isolation Code Attending LOS kp.org
42 yrs M 7/17/1966 No Known Allergies None None N/A 1days Active

Snapshot
Chart Review
Results Review
Report Viewer
Allergies
Medications
Flowsheets
Problem List
History
Letters
Demographics
Scan
DIPS
Patient Report

Image Report Close X

Results XR CHEST, PA AND LATERAL.. (Order# 94862860) (Acc# 37804346)

Result Information Status: Final result (3/17/2009 4:18 PM) **Provider Status**: Reviewed

| Radiology Information | Exam Date | Exam Time |
|-----------------------|-----------|-----------|
| | 3/11/2009 | 7:21 AM |

Transcription

| Type | ID | Date | Author |
|----------------|-----------------------------|-----------|-------------------------|
| Procedure Note | 3/11/200907:21:34SCHX0101-1 | 3/13/2009 | RITA PATEL JOSH, (M.D.) |

This document replaces document 3/11/200907:21:34SCHX0101

Document Text
BILATERAL OBLIQUE VIEWS OF CHEST, 3/11/09

**** HISTORY ****
6 mm nodule left base.

Comparison: PA and lateral chest, 1/7/09.

**** FINDINGS ****
Bilateral shallow oblique views of the chest demonstrate a persistent tiny nodular density within the lateral left lung base which measures 4 mm in maximal diameter. This is nonspecific but likely corresponds to the small nodular density seen within the lateral left lung base from previous film of 3/10/09. Recommend followup chest x-ray in approximately 6 months to assess stability. No definite nodule seen within the right lung. No focal airspace consolidation noted. No pleural effusion or pneumothorax seen. Heart size and pulmonary vasculature are within normal limits.

**** IMPRESSION ****
Small 4 mm nodular density noted within the lateral left lung base. This is nonspecific. Recommend followup chest x-ray in 6 months to ensure stability.

RITA PATEL JOSHI, MD

Exit Workspace

TESTCHONG Pt: AACC - NOT PART OF PERMANENT MED RECORD, Results, Future/Standing Orders, Pt: OnlineMsg, 12:08 PM



Quality: Another Glimpse into the Value of Integrated Care

- ◆ **CABG Mortality and Major Morbidity**
- ◆ **Benchmark (STS): 16.0%**
- ◆ **Hospital A - Overall:**
 - 2006-2009 = ~13-14% risk adjusted
 - 2010 YTD = 16.8% risk adjusted
- ◆ **Hospital A - KP only:**
 - 2009 = 12.9% risk adjusted
 - 2010 YTD = 11.8% risk adjusted



Approach to Capitalizing on These Advantages

- ◆ **How to effectively maximize coordination and minimize impact of imperfect financial incentives?**
- ◆ **Challenge faced in greater or lesser degree across KP program**
 - Geography
 - Efficient use of resources while providing better access
- ◆ **KPMAS**
 - Non-hospital-based region
 - ER and inpatient care potentially outside the umbrella
 - Maximizing ability to supply outpt services
- ◆ **2 Key Strategies:**
 - Expand and redefine access
 - Identify and streamline essential “core” partners and steer volume



Re-defining Access

- ◆ **More physicians, more locations, more services**
- ◆ **Use of Technology → internal efficiencies, patient satisfaction, and directing care to the optimal settings**
 - P-Consult: Heart phone (Internal Efficiency)
 - Allows physicians to avoid unnecessary ER/hospitalization (~10%)
 - Need for referrals reduced (~20%) and subsequent reduction in care needing to go outside our integrated umbrella
 - E-Consult and decision support (Internal Efficiency and Patient Satisfaction)
 - Faster than external alternative = more attractive to members
 - More efficient use of internal resources
 - Kp.org, email your doctor, lab/record access for patient (Satisfaction)
 - V-Consult and Telederm (Overcome geographic barriers)
 - Overcomes challenges of geography
 - Call Center and “Warm Transfer” (Overcome geographic barriers and directing care to the best setting)
 - Identify best setting for care
 - Reduces unnecessary ER/hospitalization

Care Delivery Made Easy

- ◆ **Schedule routine appointments**
- ◆ **Refill Rx**
- ◆ **Check lab results, allergies**
- ◆ **E-mail Your Doctor and your Child's Doctor**
- ◆ **View recent immunization history**
- ◆ **Online Health Encyclopedia**
- ◆ **Check future appointments**
- ◆ **Online Physician Selection Tool**
- ◆ **Locate services**
- ◆ **24 hour RN advice lines**

Wellness and Engagement

- ◆ **Online Healthwise Handbook**
- ◆ **Online Drug Encyclopedia**
- ◆ **Online health calculators**
- ◆ **Message Boards**
- ◆ **Online health education and advice**
- ◆ **Online Health Assessments**
- ◆ **Healthy Living modules**
- ◆ **Records always up to date and secure**



E-Consult: More Efficient, Greater Satisfaction

Angioedema

Referral Guidelines:

- Please inform patient they should not take antihistamines for at least three days if possible prior to appt.
- Pt should be prepared to stay 90 min for allergy consultation.



Referral Workup:

1. Is patient on beta blockers, MAO inhibitors?

Yes

No

2. Antihistamines patient is currently taking (check all that apply):

None

Allegra (Fexofenadine)

Astelin Nasal

Benadryl (Diphenhydramine)

Clarinex (Desloratadine)

Claritin (Loratadine)

Dimetapp (Brompheniramine)

Trinalin (Azelastine)

Zyrtec (Cetirizine)

3. Patient History and Comments

Windows Internet Explorer



Patient needs to be off medication 5 DAYS PRIOR to initial consult, else SKIN TESTING may be done on secondary Consult visit.

OK



This Referral is direct bookable.



E-Consult: More Efficient, Greater Satisfaction

Hematuria

Diagnostic/Treatment Recommendations:

- **Please do not refer patients with less than 3 rbc/hpf or dip heme-positive only on UA** ←
- For U/A with > 3 rbc/hpf on microscopy (not dipstick), confirm with two additional U/A's. Refer only if 2 out of 3 show microhematuria (> 3 rbc/hpf)
- A single episode of gross hematuria is necessary for referral
- For women make sure the U/A is midstream and clean-catch (done with the labia parted) so it is not contaminated with vaginal (squamous) cells. If with >5 squamous cells/hpf then repeat U/A to eliminate vaginal contamination or obtain a catheterized urine specimen

Patient Handouts:

- [Cystoscopy Handout](#) ←

Referral Guidelines:

- Order a urine cytology ←
- Upper Tract Imaging is required before referral
 - If with painful hematuria (abdominal or flank pain) or an elevated Creatinine (>1.7) then order a Stone protocol CT (Non-contrast CT Scan of the Abdomen and Pelvis.)
 - If with painless gross hematuria, then order a CT Scan of Abdomen and Pelvis with and without IV contrast and delayed images
 - If with painless microscopic hematuria, then order a kidney ultrasound
 - Patients with an infectious cause that have negative U/A after treatment do not need referral
 - For patients with microhematuria and a negative work-up in the past, no further evaluation is necessary unless patients have a change in their symptoms. (e.g. patients with only history of microhematuria develop gross hematuria.)
 - Patients with gross hematuria and no signs of infection need evaluation even if they have had a negative workup in the past
- Patients with a history in Urology, who are coming in for any urological condition, do not need a new Consult visit- only a FU visit
- Please send staff message to same MD for continuity of care
- New referral can be placed if MD is no longer with Kaiser Permanente or patient specifically requests a second opinion

Referral Workup:

1. Did you order a urine cytology and upper tract imaging?

- YES NO ←

2. Other Comments (if symptomatic, please describe):

Windows Internet Explorer

Please order a urine cytology and upper tract imaging prior to referral.

OK

- ◆ **Again, to maintain benefits of internal care**
- ◆ **P-Consult (e.g. heart phone)**
 - Enabled by internal efficiencies that clear capacity
- ◆ **V-Consult (ortho, cardiac, neuro)**
 - Facilitated by common EHR with PACS
- ◆ **Telederm**



“Core” Hospital Approach

◆ Hospitals

- Almost 40 contracted hospitals in the Mid-Atlantic
- Of these, only ~5-7 “core” facilities
 - Own hospitalists, specialists, EHR, case managers
 - Pre-selected based on capabilities, quality, cooperation with our system, etc.
 - Joint operational leadership meetings and initiation of co-branded floors
 - Moving volume to the core (pre-/re-patriation system) enables closer, more collaborative relationship
- For ER visits, automated mechanism for PCP f/u telephone calls
- Bridge to outpt care

Bringing It All Together

- ◆ **Try to leverage our advantages (coordination, no FFS incentive)**

- ◆ **Re-define access**
 - Pt-centered
 - Focused on operational efficiencies
 - Use technology as the enabler to overcome geographic barriers

- ◆ **Work closely with smaller number of external partners**