Implementation

What is working and what is not?

Parag Agnihotri, MD
Medical Director, Continuum of Care
Sharp Rees-Stealy Medical Group
San Diego, California
How do you address this in a large multispecialty medical group with...

260,000 assigned patients
1.4 million visits
500+ Physicians
60+ NP/PA
2200 Clinic staff
22 Clinic locations
Implementing *Choosing Wisely*

Reduce Inappropriate Imaging

- Appropriate imaging for low back pain
- Imaging for Migraine

Achieve reduction in cardiac stress testing
LeBron James now comes with c/o Back Pain....

1. He is ‘King James’
   Order MRI and send to Neurosurgeon

2. Conservative t/t: OTC meds, Keep moving

3. X-ray of Lumbar spine to rule out trauma
   add icd-10 code for ‘Low back Pain’ due to trauma

4. Needs a Head CT for such dance moves
Implementing Choosing Wisely

- Physician/NP/PA engagement
- Patient/Consumer Engagement
- Clinical Decision Support in EHR
Physician/NP/PA engagement

- Choosing Wisely  Clinical Lists created by medical societies

*Things Physicians should question*

- Peer review of Data
- Lecture series
- Clinical Guidelines
- Peer to Peer consults (e consult)
Clinical Lists created by Medical Societies

American Academy of Family Physicians

Fifteen Things Physicians and Patients Should Question

1. Don’t do imaging for low back pain within the first six weeks, unless red flags are present.
   
   Red flags include, but are not limited to, severe or progressive neurological deficits or when serious underlying conditions such as osteomyelitis are suspected. Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs. Low back pain is the fifth most common reason for all physician visits.

2. Don’t routinely prescribe antibiotics for acute mild-to-moderate sinusitis unless symptoms last for seven or more days, or symptoms worsen after initial clinical improvement.
   
   Symptoms must include discolored nasal secretions and facial or dental tenderness when touched. Most sinusitis in the ambulatory setting is due to a viral infection that will resolve on its own. Despite consistent recommendations to the contrary, antibiotics are prescribed in more than 80 percent of outpatient visits for acute sinusitis. Sinusitis accounts for 16 million office visits and $5.5 billion in annual health care costs.

3. Don’t use dual-energy x-ray absorptiometry (DEXA) screening for osteoporosis in women younger than 65 or men younger than 70 with no risk factors.
   
   DEXA is not cost effective in younger, low-risk patients, but is cost effective in older patients.

4. Don’t order annual electrocardiograms (EKGs) or any other cardiac screening for low-risk patients without symptoms.
   
   There is little evidence that detection of coronary artery stenosis in asymptomatic patients at low risk for coronary heart disease improves health outcomes. False-positive tests are likely to lead to harm through unnecessary invasive procedures, overtreatment and misdiagnosis. Potential harms of this routine annual screening exceed the potential benefits.

5. Don’t perform Pap smears on women younger than 21 or who have had a hysterectomy for non-cancer disease.
   
   Most observed abnormalities in adolescents regress spontaneously, therefore Pap smears for this age group can lead to unnecessary anxiety, additional testing and cost. Pap smears are not helpful in women after hysterectomy (for non-cancer disease) and there is little evidence for improved outcomes.

Peer Review of Data

Sharp Rees-Stealy Medical Centers
Monthly Antibiotics for Acute Bronchitis
Commercial Members 18 - 64 yrs
August 2015

Current LBP Rate
Baseline 2014
SRS Goal: 95%
SRS Overall: 75.21%

<table>
<thead>
<tr>
<th>Site 1</th>
<th>Site 2</th>
<th>Site 3</th>
<th>Site 4</th>
<th>Site 5</th>
<th>Site 6</th>
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<td>[Bar]</td>
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<td>[Bar]</td>
</tr>
</tbody>
</table>

Site 8
Group wide Clinical Guidelines with CW recommendations

Title: SPINE GUIDELINE

Original Date: 03/2008
Revision Date: 02/2013

Decision: Many pain-felt clinical guidelines are designed to assist clinicians in the evaluation and treatment of the most common medical problems. They are not intended to replace clinical judgment or establish a protocol for all patients. The clinical approaches described by this ASAP guideline will not fit all patients and will rarely establish the only appropriate approach to a problem.

Not Flags (see table 1):
1. Major trauma
2. Persistent fever, immunosuppression, IV drug use, significant nocturnal pain
3. Paralytic
4. Hypothenar hyperesthesia
5. Neurologic deficits unexplained by spine etiology, e.g., stroke
6. Saddle anesthesia, loss of bowel or bladder function, bilateral lower extremity weakness
7. Progressive neurologic changes such as major muscle weakness and/or sensory loss
8. History of cancer with unexplained weight loss, significant nocturnal pain when lying flat
9. Signs of infection, e.g., Arthritis/Septic, Herpes Zoster
10. Progressive use of steroids or opioids

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Peer to Peer consult
Physician/NP/PA engagement

**Working**
- CW Clinical Lists created by medical societies
  
  *Things Physicians should question*
- Peer review of Data
- Lecture series
- Clinical Guidelines
- Peer to Peer consults (e consult)

**Not Working or Challenges**
- Data: sample size
- Urgent Care
- Timely access to Care
Access to Doctors’ Office

Rapid PT for Low Risk patients

Back pain is often over-treated. Try physical therapy.

www.MoveForwardPT.com
Patient/ Consumer engagement

- Organization support behind Choosing Wisely
- **Consumer Reports** Patient resources
- Newsletter Articles
- Community awareness
- 1:1 Shared Decision making
- Wallet size card
Choosing Wisely: Health Resources and Information

Together, we’ll make the best choices for your health care.

The right care at the right time — that’s what we all want and deserve. At Sharp Rees-Stealy, we want to help you by giving you the information you need to choose your care wisely. As the only medical group in Southern California to partner with the Integrated Healthcare Association in the Choosing Wisely® initiative, you can say good-bye to unneeded tests and treatments.
Medical group targets unnecessary medical treatments

By Paul Sisson - Contact Reporter

The Sharp Rees-Stealy Rancho Bernardo Urgent Care center.

Sharp Rees-Stealy Medical Group is among a handful of providers nationwide selected to participate in an ongoing effort to reduce the use of unnecessary and ineffective medical treatments.

Treating lower-back pain
How much bed rest is too much?

Back pain is one of the most common reasons why people visit the doctor. The good news is that the pain often goes away on its own, and people usually recover in a week or two. Many people want to stay in bed when their back hurts. For many years, getting bed rest was the normal advice. But studies show that staying in bed longer than 48 hours won’t help. Here’s why:

Staying in bed won’t help you get better faster. If you’re in terrible pain, lying down for a day or two can help ease pain and reduce the load on your spine. But research suggests that if you find comfortable positions and move around sometimes, you may not need bed rest at all.

Research shows that:
- Lying down longer than two days doesn’t help.
- Many people recover just as quickly without any bed rest.
- The sooner you start physical therapy or return to activities such as walking, the faster you are likely to recover.
The right care at the right time is the goal of a national initiative to reduce the use of unnecessary and ineffective medical treatments.

The Choosing Wisely® program is a joint effort of Consumer Reports, the American Board of Internal Medicine Foundation and 70 other national medical boards. Locally, Sharp Rees-Stealy Medical Group is the only group in Southern California participating in Choosing Wisely.

Sharp Rees-Stealy is targeting five tests and treatments shown to be overused or ineffective:

- Prescribing antibiotics for adults with bronchitis
- Diagnostic testing for lower-back pain
- Preoperative stress testing
- Imaging for uncomplicated headaches
- Repetitive complete-blood count and chemistry testing
Shared Decision Making
Patient/ Consumer engagement

**Working**
- Organization support behind CW
- **Consumer Reports**
- Patient resources
- Newsletter Articles
- Community awareness
- 1:1 Shared Decision making
- Wallet size card

**Not Working or Challenges**
- Web portal usage
- Patient Experience surveys
- Waiting room video
- Handouts in the waiting room
- Is it Rationing of care?
Web Portal

FollowMyHealth

Health Summary
Age
Gender
Height
Weight
Blood Pressure
Primary Insurance
Preferred Pharmacy

Appointments
Search:
Request
Export

Upcoming
Past
Other

You have no upcoming appointments.

REALITY
Association with Bad Patient Satisfaction Survey

Medicare Drops Pain Questions in payments related to HCAHPS survey

Is this Rationing?
What is in your wallet?

5 QUESTIONS to Ask Your Doctor Before You Get Any Test, Treatment, or Procedure

1. Do I really need this test or procedure?
2. What are the risks and side effects?
3. Are there simpler, safer options?
4. What happens if I don’t do anything?
5. How much does it cost, and will my insurance pay for it?

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## Internal Utilization

<table>
<thead>
<tr>
<th>Ancillary Services</th>
<th>V – 1 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Radiology</td>
<td>(11%)</td>
</tr>
<tr>
<td>All Laboratory</td>
<td>(10%)</td>
</tr>
</tbody>
</table>
She now comes with c/o Back Pain....

1. Order MRI and send to Neurosurgeon
2. Conservative t/t: OTC meds, Keep moving
3. X-ray of Lumbar spine to rule out trauma
   add icd-10 code for ‘Low back Pain’ due to trauma
4. Needs a ‘Head CT ‘ for such dance moves
Implementation
What works and what does not?

Parag Agnihotri MD
parag.agnihotri@sharp.com
Sharp Rees-Stealy Medical Group
San Diego, California
https://www.youtube.com/watch?v=eRZMKiZD
HdQ
- 0 to 0:25

https://www.youtube.com/watch?v=v9YiTIYO-
2A
- 0 to 45
Integrating Choosing Wisely®-based Clinical Decisions Support into the EMR
In an era of limited resources, eliminating unnecessary and in some cases, harmful procedures has never been more important.
ABIM Foundation 2012 launched Choosing Wisely® with the goal of advancing a national dialogue on avoiding wasteful or unnecessary medical tests, treatments and procedures. They have partnered with more than 70 specialty societies and consumer reports to create patient-friendly materials to help educate the public on what care is best for them.

Unnecessary use of advanced imaging is a major and expensive problem. To combat this Choosing Wisely® includes over 75 recommendations addressing over-utilization of imaging
Choosing Wisely®-based CDS integrated into the EMR

• Goal: Reduce overutilization of advanced imaging

• Objective: Create real-time, accurate, and effective CDS to assist providers without creating alert fatigue

• Purpose: Create a sustainable, scalable, and clinically relevant intervention to address a challenging medical issue
American College of Radiology

Five Things Physicians and Patients Should Question

Released April 4, 2012

1. Don’t do imaging for uncomplicated headache.
   Imaging headache patients absent specific risk factors for structural disease is not likely to change management or improve outcome. Those patients with a significant likelihood of structural disease requiring immediate attention are detected by clinical screens that have been validated in many settings. Many studies and clinical practice guidelines concur. Also, incidental findings lead to additional medical procedures and expense that do not improve patient well-being.

2. Don’t image for suspected pulmonary embolism (PE) without moderate or high pre-test probability of PE
   While deep vein thrombosis (DVT) and PE are relatively common clinically, they are rare in the absence of elevated blood d-Dimer levels and certain specific risk factors. Imaging, particularly computed tomography (CT) pulmonary angiography, is a rapid, accurate and widely available test, but has limited value in patients who are very unlikely, based on serum and clinical criteria, to have significant value. Imaging is helpful to confirm or exclude PE only for such patients, not for patients with low pre-test probability of PE.

3. Avoid admission or preoperative chest x-rays for ambulatory patients with unremarkable history and physical exam.
   Performing routine admission or preoperative chest x-rays is not recommended for ambulatory patients without specific reasons suggested by the history and/or physical examination findings. Only 2 percent of such images lead to a change in management. Obtaining a chest radiograph is reasonable if acute cardiopulmonary disease is suspected or there is a history of chronic stable cardiopulmonary disease in a patient older than age 70 who has not had chest radiography within six months.

4. Don’t do computed tomography (CT) for the evaluation of suspected appendicitis in children until after ultrasound has been considered as an option.
   Although CT is accurate in the evaluation of suspected appendicitis in the pediatric population, ultrasound is nearly as good in experienced hands. Since ultrasound will reduce radiation exposure, ultrasound is the preferred initial consideration for imaging examination in children. If the results of the ultrasound exam are equivocal, it may be followed by CT. This approach is cost-effective, reduces potential radiation risks and has excellent accuracy, with reported sensitivity and specificity of 94 percent.

5. Don’t recommend follow-up imaging for clinically inconsequential adnexal cysts.
   Simple cysts and hemorrhagic cysts in women of reproductive age are almost always physiologic. Small simple cysts in postmenopausal women are common, and clinically inconsequential. Ovarian cancer, while typically cystic, does not arise from these benign-appearing cysts. After a good quality ultrasound in women of reproductive age, don’t recommend follow-up for a classic corpus luteum or simple cyst <5 cm in greatest diameter. Use 1 cm as a threshold for simple cysts in postmenopausal women.
Avoid use of ultrasound for routine surveillance of carotid arteries in the asymptomatic healthy population.

Society for Vascular Surgery
Avoid routine ultrasound and fistulogram evaluations of well-functioning dialysis accesses.

Society for Vascular Surgery
Avoid routine venous ultrasound tests for patients with asymptomatic telangiectasia.

American College of Emergency Physicians
Avoid ordering CT of the abdomen and pelvis in young otherwise healthy emergency department (ED) patients (age <50) with known histories of kidney stones, or ureterolithiasis, presenting with symptoms consistent with uncomplicated renal colic.

American College of Emergency Physicians
Avoid lumbar spine imaging in the emergency department for adults with non-traumatic back pain unless the patient has severe or progressive neurologic deficits or is suspected of having a serious underlying condition (such as vertebral infection, cauda equina syndrome, or cancer with bony metastasis).

American College of Emergency Physicians
Avoid CT of the head in asymptomatic adult patients in the emergency department with syncope, insignificant trauma and a normal neurological evaluation.

American Orthopaedic Foot & Ankle Society
Avoid X-ray evaluation of the foot and ankle without standing (weightbearing) in the absence of injury.

American Society for Radiation Oncology
Don't routinely recommend follow-up mammograms more often than annually for women who have had radiotherapy following breast conserving surgery.

American Association of Neurological Surgeons and Congress of Neurological Surgeons
Don't routinely screen for brain aneurysms in asymptomatic patients without a family or personal history of brain aneurysms, subarachnoid hemorrhage (SAH) or genetic disorders that may predispose to aneurysm formation.

American Association of Neurological Surgeons and Congress of Neurological Surgeons
Don't routinely obtain CT scanning of children with mild head injuries.
Early Trends Among Seven Recommendations From the Choosing Wisely Campaign

Alan Rosenberg, MD; Aly Agnes, PhD; Marc Gottlieb, MPA; John Bassan, PharmD; Peter Brady, MBA; Ying Liu, MS; Cindy Li, MSc; Andrea Derhics, PhD

IMPORTANCE The Choosing Wisely campaign consists of more than 70 lists produced by specialty societies of medical practices or procedures of minimal clinical benefit to patients in most situations, with recommendations regarding judicious use.

OBJECTIVE To quantify the frequency and trends of some of the earliest Choosing Wisely recommendations using nationwide commercial health plan population-level data.

DESIGN, SETTING, AND PARTICIPANTS Retrospective analysis of claims data for members of Anthem-affiliated commercial health plans. The low-value services selected were (1) imaging tests for uncomplicated headache; (2) cardiac imaging without history of cardiac conditions; (3) low back pain imaging without red-flag conditions; (4) preoperative chest x-rays with unremarkable history and physical examination results; (5) human papillomavirus testing for women younger than 30 years; (6) use of antibiotics for acute sinusitis; and (7) use of prescription nonsteroidal anti-inflammatory drugs (NSAIDs) for members with hypertension, heart failure, or chronic kidney disease.

MAIN OUTCOMES AND MEASURES The number of members with medical and/or pharmacy claims for the included low-value services was assessed quarterly over a 2- to 3-year span through 2013. Trend changes in recommendations were evaluated across all quarters using Poisson regression with denominators as offsets.

RESULTS Two services had declines: Use of imaging for headache decreased from 14.9% to 13.4% (trend estimate, 0.99; 99% CI, 0.98-0.99; P < .001), and cardiac imaging decreased from 10.8% to 9.7% (trend estimate, 0.99 [99% CI, 0.99-0.99]; P < .001). Two services had increases: Use of NSAIDs in select conditions increased from 14.4% to 15.2% (trend estimate, 1.02 [99% CI, 1.01-1.02]; P < .001), and human papillomavirus testing in younger women increased from 6.1% to 6.5% (trend estimate, 1.01 [99% CI, 1.00-1.02]; P = .004).

CONCLUSIONS AND RELEVANCE For this population-level analysis of 7 low-value services analyzed, changes were modest but showed a desirable decrease for 2 recommendations (imaging for headache, cardiac imaging for low-risk patients). The effect sizes were marginal, however, and although 4 of the 7 lists had statistically significant changes—unsurprising given the large sample size—the clinical significance is uncertain. These results suggest that additional interventions are necessary for wider implementation of Choosing Wisely.
Implementation Options

Education
People can remember 200 MB
Can a physician remember >400 different Choosing Wisely guidelines?
Education alone for Choosing Wisely did not work (1)

Recommendation
Transition to “clinical decision support in electronic medical records” and “clinician scorecards” (1)

(1) Early Trends Among Seven Recommendations From the Choosing Wisely Campaign, JAMA Intern Med 10/12/15
Clinical and Cost Improvement for Population Health

Cedars-Sinai Alerts Its Docs to Choosing Wisely

June 5, 2014

With a focus on stimulating physician and patient conversations, there is perhaps no more appropriate environment in which the Choosing Wisely® campaign could take hold than the examining room. Cedars-Sinai Health System has taken an important step in ensuring these conversations happen by becoming the first system in the nation to incorporate dozens of specialty society campaign recommendations into its electronic medical records (EMR) system.
Choosing Wisely: Don’t use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium. 
(American Geriatrics Society)\textsuperscript{1, 2, 3}

Hyperlink: Choosing Wisely – American Geriatrics Society
Information for Patients: Use of Sedatives in Elderly Patients

Reasons for override:
- sleep disorder
- end of life care
- withdrawal / DT
- non-drug options failed
- peri-procedural anesthesia
- see comments

Comments: 

Unnecessary order cancelled

note: CDS alert displays using Epic’s native best practice alerts; Epic does not allow use of actual screenshots
among the 30 Elements

- diagnostic codes
- procedure codes
- visit type
- vital signs
- lab results

but no natural language processing
12 Choosing Wisely alerts significantly reduced targeted imaging tests.
Sample Choosing Wisely imaging acceptance rates

- Carotid imaging for syncope: 20%
- Cardiac imaging for chest pain: 18%
- DEXA scan male: 22%
- CT Angio for pulmonary...: 21%
- Thyroid scan: 20%
- Calcium scoring include pre-op visit...: 50%

Data for January 01, 2015 to December 31, 2015
Requiring user input significantly increases CDS impact.

- Chest x-ray Pre-op or admission (amb) -61%
- Imaging for pulmonary embolism (inp) -39%
- Imaging for low back pain (amb) -39%
- CT brain-uncomplicated headache (amb) -36%

change in alert volume
Choosing Wisely alerts demonstrated effectiveness in moderating the use of imaging in both inpatient and ambulatory setting.
2016 Q1-Q2
Cedars-Sinai
Choosing Wisely
Imaging Results

26 Choosing Wisely alerts (19 ambulatory, 7 inpatient):

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Total alerts seen</td>
<td>6,489</td>
</tr>
<tr>
<td>Total followed alerts</td>
<td>602</td>
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<tr>
<td>Average Followed Rate</td>
<td>10.6%</td>
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<tr>
<td>Total estimated savings</td>
<td>$200,754</td>
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# Imaging CDS Comparative Analysis

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Medicare Imaging Demonstration Participants (^1,^2)</th>
<th>Cedars-Sinai</th>
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<tbody>
<tr>
<td># Participating Physicians</td>
<td>3,340</td>
<td>992</td>
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<tr>
<td>Cancellation Rate</td>
<td>1.9%</td>
<td>6.3%</td>
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<tr>
<td>Switches</td>
<td>2.1% (inappropriate to appropriate)</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>2.7% (inappropriate to inappropriate)</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) JAMA 2015: 313:2181-2
\(^3\) Stanson data on file 2015
\(^4\) For more information on the procedures and allowed guideline sources in MID, please refer to page 18 of the [RAND report](http://www.rand.org/pubs/research_reports/RR706).
Lessons Learned

• multiple societies may give similar recommendations creating redundancy in Choosing Wisely® --for CDS, you have to pick one

• the reason for imaging orders is in text, making identifying cases of overutilization challenging

• ultimately complex logic was able to create rules with reasonable Positive Predictive Value (PPV), but each required chart review and multiple iterations, and significant time and effort
• even with the success of embedding Choosing Wisely® content into our EMR, it was clear that we still had opportunity to bring down our Advanced Radiology costs.

a) so much of the information needed is contained in free text, without natural language processing, false positive rates were as high as 40% after chart review

b) Choosing Wisely® doesn’t have content for many expensive procedures → added a pilot program with a Radiology benefit management company → reviewing all MRI, CT and PET Scans that Choosing Wisely® did not address
# Clinical Disapprovals by Exam Type

## Top 20 Most Requested Studies
For the Period May 2016 – July 2016

<table>
<thead>
<tr>
<th>Exam Type</th>
<th>Volume</th>
<th>Clinical Disapprovals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen and Pelvis CT</td>
<td>262</td>
<td>13.0%</td>
</tr>
<tr>
<td>Brain MRI</td>
<td>236</td>
<td>11.7%</td>
</tr>
<tr>
<td>Chest CT</td>
<td>209</td>
<td>10.3%</td>
</tr>
<tr>
<td>Lumbar Spine MRI</td>
<td>143</td>
<td>7.1%</td>
</tr>
<tr>
<td>Knee MRI</td>
<td>107</td>
<td>5.3%</td>
</tr>
<tr>
<td>Abdomen MRI</td>
<td>105</td>
<td>5.2%</td>
</tr>
<tr>
<td>Cervical Spine MRI</td>
<td>104</td>
<td>5.1%</td>
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<tr>
<td>Pelvis MRI</td>
<td>86</td>
<td>4.3%</td>
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<tr>
<td>Shoulder MRI</td>
<td>74</td>
<td>3.7%</td>
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<tr>
<td>Myocardial Perfusion Imaging</td>
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<tr>
<td>PET Scan with CT for Attenuation</td>
<td>49</td>
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<td>Breast MRI</td>
<td>44</td>
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<tr>
<td>Neck CT</td>
<td>42</td>
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<tr>
<td>Abdomen CT</td>
<td>39</td>
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<tr>
<td>Sinus CT</td>
<td>37</td>
<td>1.8%</td>
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<tr>
<td>Thoracic Spine MRI</td>
<td>34</td>
<td>1.7%</td>
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<tr>
<td>Brain CT</td>
<td>30</td>
<td>1.5%</td>
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<tr>
<td>Brain MRA</td>
<td>23</td>
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<tr>
<td>Ankle MRI</td>
<td>22</td>
<td>1.1%</td>
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<tr>
<td>Chest CT Angiography</td>
<td>21</td>
<td>1.0%</td>
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<tr>
<td>All Other</td>
<td>289</td>
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<tr>
<td>Total</td>
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**Clinical Disapproval Rate**

<table>
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<tr>
<th>Exam Type</th>
<th>Rate</th>
<th>Pct of Clinical Disapproval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen and Pelvis CT</td>
<td>12.2%</td>
<td>11%</td>
</tr>
<tr>
<td>Brain MRI</td>
<td>8.1%</td>
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<tr>
<td>Chest CT</td>
<td>11.0%</td>
<td>8%</td>
</tr>
<tr>
<td>Lumbar Spine MRI</td>
<td>24.5%</td>
<td>12%</td>
</tr>
<tr>
<td>Knee MRI</td>
<td>19.6%</td>
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<td>9.5%</td>
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<td>0%</td>
</tr>
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<td>20.6%</td>
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</tr>
<tr>
<td>Ankle MRI</td>
<td>22.7%</td>
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</tr>
<tr>
<td>Chest CT Angiography</td>
<td>4.8%</td>
<td>0%</td>
</tr>
<tr>
<td>All Other</td>
<td>15.9%</td>
<td>16%</td>
</tr>
</tbody>
</table>

**Total**

| Total                              | 14.2% | 100%                        |


### Detail on Top 20 Ordering Physicians

Twenty (20) Physicians Account for 28.2% of Volume

#### Ordering Physicians - Top 20
For the period May 2016 - July 2016

<table>
<thead>
<tr>
<th>Position</th>
<th>Physician ID</th>
<th>Specialty</th>
<th>% of Grand</th>
<th>% Web</th>
<th>Request Volume</th>
<th>Clinical Disapproval Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not Available</td>
<td>Hematologist/Oncologist</td>
<td>3.5%</td>
<td>0.0%</td>
<td>71</td>
<td>21.1%</td>
</tr>
<tr>
<td>2</td>
<td>P533383</td>
<td>Hematologist/Oncologist</td>
<td>1.8%</td>
<td>0.0%</td>
<td>37</td>
<td>27.0%</td>
</tr>
<tr>
<td>3</td>
<td>P297553</td>
<td>Neurological Surgery</td>
<td>1.7%</td>
<td>41.2%</td>
<td>34</td>
<td>32.4%</td>
</tr>
<tr>
<td>4</td>
<td>P538039</td>
<td>Cardiology</td>
<td>1.7%</td>
<td>0.0%</td>
<td>34</td>
<td>5.9%</td>
</tr>
<tr>
<td>5</td>
<td>Not Available</td>
<td>Gastroenterology</td>
<td>1.5%</td>
<td>0.0%</td>
<td>31</td>
<td>12.9%</td>
</tr>
<tr>
<td>6</td>
<td>Not Available</td>
<td>Neurology</td>
<td>1.5%</td>
<td>0.0%</td>
<td>31</td>
<td>6.5%</td>
</tr>
<tr>
<td>7</td>
<td>P547961</td>
<td>Otolaryngology</td>
<td>1.5%</td>
<td>0.0%</td>
<td>31</td>
<td>3.2%</td>
</tr>
<tr>
<td>8</td>
<td>Not Available</td>
<td>Hematologist/Oncologist</td>
<td>1.4%</td>
<td>0.0%</td>
<td>29</td>
<td>13.8%</td>
</tr>
<tr>
<td>9</td>
<td>P543396</td>
<td>Internal Medicine</td>
<td>1.3%</td>
<td>0.0%</td>
<td>26</td>
<td>26.9%</td>
</tr>
<tr>
<td>10</td>
<td>P516623</td>
<td>Internal Medicine</td>
<td>1.2%</td>
<td>0.0%</td>
<td>25</td>
<td>24.0%</td>
</tr>
<tr>
<td>11</td>
<td>Not Available</td>
<td>Orthopedics</td>
<td>1.2%</td>
<td>0.0%</td>
<td>25</td>
<td>4.0%</td>
</tr>
<tr>
<td>12</td>
<td>P547967</td>
<td>Neurology</td>
<td>1.2%</td>
<td>0.0%</td>
<td>24</td>
<td>16.7%</td>
</tr>
<tr>
<td>13</td>
<td>P544154</td>
<td>Otolaryngology</td>
<td>1.1%</td>
<td>0.0%</td>
<td>23</td>
<td>21.7%</td>
</tr>
<tr>
<td>14</td>
<td>Not Available</td>
<td>Gastroenterology</td>
<td>1.1%</td>
<td>0.0%</td>
<td>23</td>
<td>17.4%</td>
</tr>
<tr>
<td>15</td>
<td>Not Available</td>
<td>Internal Medicine</td>
<td>1.1%</td>
<td>0.0%</td>
<td>23</td>
<td>8.7%</td>
</tr>
<tr>
<td>16</td>
<td>Not Available</td>
<td>Surgery</td>
<td>1.1%</td>
<td>0.0%</td>
<td>23</td>
<td>4.3%</td>
</tr>
<tr>
<td>17</td>
<td>P516626</td>
<td>Orthopedics</td>
<td>1.1%</td>
<td>0.0%</td>
<td>22</td>
<td>27.3%</td>
</tr>
<tr>
<td>18</td>
<td>P541045</td>
<td>Orthopedics</td>
<td>1.0%</td>
<td>0.0%</td>
<td>20</td>
<td>15.0%</td>
</tr>
<tr>
<td>19</td>
<td>P553067</td>
<td>Internal Medicine</td>
<td>0.9%</td>
<td>0.0%</td>
<td>19</td>
<td>15.8%</td>
</tr>
<tr>
<td>20</td>
<td>Not Available</td>
<td>Internal Medicine</td>
<td>0.9%</td>
<td>0.0%</td>
<td>19</td>
<td>36.8%</td>
</tr>
</tbody>
</table>

| All Other Physicians | 1,452 | 71.8% | 5.7% | 13.0% |
| TOTAL                | 2,022 | 100.0%| 4.8% | 14.2% |
END
Tackling Overuse of Imaging – Improving Patient Outcomes, Reducing Cost

Jill Yegian, Ph.D.
IHA Stakeholder’s Conference
September 23, 2016
Choosing Wisely® Initiative

- Goal is to encourage conversations between clinicians and patients regarding what care is truly needed
- Launched in 2012
- Collaboration with Consumer Reports
- Specialty societies recommend “do not do” tests and treatments – more than 70 society partners

American Academy of Family Physicians

Fifteen Things Physicians and Patients Should Question

Don’t do imaging for low back pain within the first six weeks, unless red flags are present.

Red flags include, but are not limited to, severe or progressive neurological deficits or when serious underlying conditions such as osteomyelitis are suspected. Imaging of the lower spine before six weeks does not improve outcomes, but does increase costs. Low back pain is the fifth most common reason for all physician visits.
Credibility Among Clinicians

Agreed or somewhat agreed that Choosing Wisely was a legitimate source of guidance:
- 97.1% primary care
- 95% medical specialties
- 92.2% surgical specialties

75.1% of primary care physicians reported they agreed or somewhat agreed that Choosing Wisely empowered them to reduce use of unnecessary tests and procedures.

Medical-imaging technology plays an essential role in the timely diagnosis and management of many conditions. Lately, however, it’s become equally well known for its low-value uses and as the single largest source of per capita radiation exposure. Imaging is by far the most common service on the lists of unnecessary tests and procedures of the Choosing wisely campaign, and an estimated 20 to 50% of imaging is unnecessary. Medical imaging is thus a valuable resource in dire need of better stewardship.

Because of concerns about 2014, which mandates that, beginning in 2017, physicians reference appropriateness guidelines from provider organizations when ordering advanced imaging for Medicare beneficiaries. Although practical aspects of implementation of the law have yet to be clarified, in the context of the shift toward value-based care many health systems are implementing clinical decision support (CDS) systems to help providers select the most appropriate form of imaging while limiting overutilization.

We believe we’ve reached an inflection point for provider-led imaging stewardship nationwide. Encouraging health care leaders to commit themselves more deeply to imaging stewardship. Protecting time for physician champions to lead change-management efforts and investing in infrastructure to support them are necessary but not sufficient; leaders must also publicly signal a cultural transition away from easy imaging access and toward stewardship. This message will be most effective if it’s framed as an essential component of a larger quality improvement strategy. Public endorsement of specific Choosing Wisely recommendations related to imaging is an excellent first step.
Overuse of Imaging - Headache

Scans for headaches

To get a handle on how many people with severe headaches get CTs and MRIs, Michigan researchers scrutinized data from the National Ambulatory Medical Care Survey on physician office visits. They tallied more than 30 million headache visits made from 2007 to 2010, about half of them for migraine. Brain scans were done about 12% of the time. The cost of these scans to the healthcare system was $3.9 billion ($1.5 billion for migraine-related scans).

Excessive brain scanning costs more than just dollars. Repeated CT scans expose you to enough x-rays to raise the risk of cancer down the road. Scans also tend to lead to more scanning if the test turns up something strange, even though many of these incidental findings turn out to be nothing especially dangerous. Out of all the brains scans done for headache, perhaps 1% to 3% will reveal something abnormal. And most of these “abnormalities” aren't something to worry about, like a tumor or a bleeding artery in the brain.

VBP4P Data Shows Variation in Performance

Measure Rate (%)

Measure of Overuse:
- Avoidance of Antibiotic Treatment for Adults with Acute Bronchitis
- Evidence Based Cervical Cancer Screening (Appropriately Screened)
- Use of Imaging Studies for Low Back Pain

Max

75th percentile

Median

25th percentile

Min
ACR Resources – Providers, Patients, CDS

Imaging Modalities

Reducing radiation dose requires a team approach. Radiologists, medical physicists, and technologists work together to ensure imaging quality and radiation dose safety.

Radiologists, imaging technologists, and medical physicists provided the information for these pages. The information has been reviewed by Image Wisely for accuracy and pertinence. If you discover an error in any material presented here, please contact us at ImageWisely@acr.org.

Use the links below to find information and resources tailored to your specific needs as an imaging professional. And be sure to take the pledge to Image Wisely!

What is R-SCAN?

R-SCAN™ is a collaborative action plan that brings radiologists and referring clinicians together to improve imaging appropriateness and streamline image ordering. R-SCAN delivers immediate access to Web-based tools and clinical decision support (CDS) technology that help you optimize imaging care, reduce unnecessary imaging exams and lower the cost of care. There is no cost to participate.

The radiology information resource for patients
Decreasing Inappropriate Care in California

- IHA-led team is one of 7 Choosing Wisely projects across the country
- Funding from Robert Wood Johnson Foundation
- Partnership with Consumer Reports
- 3-year project (2015-18)
- Targeting 20% reductions in specific tests/treatments:
  - Antibiotics for acute bronchitis
  - Imaging for low back pain (SRS), headache (SH)
  - Preoperative stress testing (SRS), “repeating” orders for inpatient blood work (SH)
Cedars-Sinai Alerts Its Docs to Choosing Wisely

June 5, 2014

With a focus on stimulating physician and patient conversations, there is perhaps no more appropriate environment in which the Choosing Wisely® campaign could take hold than the examining room. Cedars-Sinai Health System has taken an important step in ensuring these conversations happen by becoming the first system in the nation to incorporate dozens of specialty society campaign recommendations into its electronic medical records (EMR) system.

Cedars-Sinai programmed its CS-Link EMR, which is made by Epic, to include 180 Choosing Wisely recommendations. A pilot, launched last summer in some of Cedars’ outpatient clinics, resulted in statistically significant reductions in the use of medications that had been questioned by specialty societies such as:

- the use of antipsychotics for elderly patients with dementia;
- butalbital for patients with migraine headaches; and,
- benzodiazepine as a first-line treatment for sleep in the elderly.
Today’s Presenters

• Ann Marie Giusto, R.N., Sutter Health
  • Tackling overuse of imaging for uncomplicated headache through comparative provider feedback

• Steven Deutsch, M.D., Cedars-Sinai Health System
  • Leveraging clinical decision support to address overuse of imaging

• Parag Agnihotri, M.D., Sharp Rees-Stealy Medical Group
  • Tackling overuse of imaging for low back pain with a patient engagement focus