Implementation

Reducing Low Back Pain Imaging
Statewide Workgroup October 29, 2015

Parag Agnihotri, MD
Medical Director, Continuum of Care
Sharp Rees-Stealy Medical Group
San Diego, California
What are we trying to achieve?
Implementing **Choosing Wisely**

Reduce Inappropriate care

- Appropriate imaging for low back pain
- Appropriate antibiotic usage

Achieve reduction in cardiac stress testing
How do we achieve this as part of the ABIM/RWJF Challenge?
### Goal Setting

<table>
<thead>
<tr>
<th>Avoidance of antibiotics for Acute Bronchitis</th>
<th>Baseline rate Commercial HMO</th>
<th>Improvement by 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75%</td>
<td>20% fewer antibiotics</td>
</tr>
<tr>
<td></td>
<td>25%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reduce inappropriate imaging for low back pain</th>
<th>Baseline rate Commercial HMO</th>
<th>Improvement by 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>83%</td>
<td>20% Fewer images</td>
</tr>
<tr>
<td></td>
<td>17%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reduce pre-operative cardiac stress testing</th>
<th>Baseline rate Commercial HMO</th>
<th>Improvement by 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>/? 8.75/1000 rate</td>
<td>20% fewer cardiac stress tests</td>
</tr>
<tr>
<td></td>
<td>Need to improve</td>
<td></td>
</tr>
</tbody>
</table>
Our Steps

1. Align Stakeholders
2. Education
3. Practice Variation
4. Resources
5. Technology
6. Patient Engagement
7. Measure Effectiveness
How do you address this in a large multispecialty medical group with...

- 250,000 assigned patients
- 1.4 million visits
- 500 Physicians
- 60 NP/PA
- 2000 Clinic staff
- 21 Clinic locations
Aligning Stakeholders

- **Antibiotic Use**
  - Urgent Care
  - Primary Care

- **Back Imaging**
  - MSK/PM&R
  - Neurology
  - Primary Care

- **Stress Test**
  - Primary Care
  - Cardiology
Clinical Guidelines
Low Back pain Management Guidelines

Title: SPINE GUIDELINE

Acute spine symptoms in back or neck (Less than 6-8 weeks)

Non-Radicular
Conservative treatment
Education
Home exercise

Radicular
Conservative treatment
Education
Home Exercise

3rd Week
Resolved
Improving and patient satisfied
Not improved

2nd Week
Improved
Physical Therapy
(Acute/ASAP referral)

Not improved
Physiatry (PM&R) or Neurology

6th Week
Not resolved and patient not satisfied
Resolved or patient satisfied

Red Flags (see table 1)
1. Major trauma
2. Persistent fever, immunosuppression, IV drug use, significant nocturnal pain
3. Paget's
4. Hyperparathyroidism
5. Neurologic deficits unexplained by spine etiology, e.g., trauma
6. Saclle anesthoxa, loss of bowel or bladder function, bilateral lower limb 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. Suspicion of autoimmune disorder, e.g., Ankylosing Spondylitis, Reiter's Syndrome, Psoriatic Arthritis
10. Prolonged use of steroids or estrogens
Clinicians should not routinely obtain imaging in patients with nonspecific low back pain

Avoid unnecessary imaging

If red flags are present and patients require diagnostic imaging within 28 days of diagnosis, please use the appropriate codes:

For patients aged 18-50, if ordering imaging study within 28 days (4 weeks) of initial evaluation...

...add appropriate ICD codes for LPB associated with:
- Trauma/injury 905.1, 907, 908, 952, 958.8-959
- Neurological Impairment 729.2, 344.60
- Cancer V10, 140-209, 230-239
- IV Drug abuse 304.0-304.2, 304.4, 305.4-305.7
Choosing Wisely

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 $5.8 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 benefit.

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.
Who is ordering the routine Low back pain imaging studies?

- My patients are sicker
- Must be the new Doctors or the NP
- It is the Urgent Care
- The PCPs are the ones who are ordering
- Patients expect X-ray otherwise I will be dinged on sat scores.
Practice Variation Reports - Site

Monthly Low Back Pain Imaging for Commercial Members 18 - 50 yrs - August 2015

LBP Rate Baseline 2014 SRS Goal: 90% SRS Overall: 82.69%
Practice variation PCP vs Specialist

2014: LBP Imaging by Ordering Provider

Number of Patients

Specialist
Peer to Peer Consult Process Established with MSK
Web Portal Links Education to Appointments

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?
Shared Decision Making: Engage the Patient

Form personal connection
Face to face interaction
Step by step wellness plan
Coordination of care
Patient specific education material
Shared care plans
Medication adherence reporting
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.
This site provides information for patients and health care providers to facilitate well-informed discussions about the increased risk of cancer from radiation exposure as a result of medical imaging.

CALCULATE YOUR RISK
Print an Individual Report
<table>
<thead>
<tr>
<th>Study:</th>
<th>Lower Back x-rays</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender:</td>
<td>Male ☐ Female ☐</td>
</tr>
<tr>
<td>Age at Time of Study:</td>
<td>48 (years)</td>
</tr>
<tr>
<td>Number of Exams:</td>
<td>2</td>
</tr>
<tr>
<td>Average Dose:</td>
<td>1.500 (mSv)</td>
</tr>
<tr>
<td>DLP (Optional for CT):</td>
<td>Optional (mGy · cm)</td>
</tr>
</tbody>
</table>

![Calculate button](image)

<table>
<thead>
<tr>
<th>Total Effective Dose:</th>
<th>1.5 (mSv)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Cancer Risk:</td>
<td>0.008014 (%)</td>
</tr>
<tr>
<td>Baseline Cancer Risk:</td>
<td>44.9 (%)</td>
</tr>
<tr>
<td>Baseline + Additional Risk:</td>
<td>44.908014 (%)</td>
</tr>
</tbody>
</table>

To learn more about how these calculations are made, see the About page.
## Your X-ray Risk Report

<table>
<thead>
<tr>
<th>Study</th>
<th>Gender</th>
<th>Age</th>
<th># of exams</th>
<th>Dose (mSv)</th>
<th>Additional Cancer Risk(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Back x-rays</td>
<td>Female</td>
<td>48</td>
<td>1</td>
<td>1.5</td>
<td>0.010852%</td>
</tr>
<tr>
<td>Mammogram (unilateral)</td>
<td>Female</td>
<td>48</td>
<td>1</td>
<td>0.4</td>
<td>0.002894%</td>
</tr>
<tr>
<td>Dental x-rays (4 intraoral bitewings)</td>
<td>Female</td>
<td>48</td>
<td>1</td>
<td>0.005</td>
<td>0.000036%</td>
</tr>
<tr>
<td>Lumbar Spine CT</td>
<td>Female</td>
<td>48</td>
<td>1</td>
<td>5.6</td>
<td>0.040515%</td>
</tr>
</tbody>
</table>

**Totals:** 4 | 7.505 | 0.054297%**

An Additional Cancer Risk of 0.054297% is equal to **1 in 1842** chances.

Or said another way, a 99.945703% chance of having no effect of the above studies.
Our Steps

1. Align Stakeholders
2. Education
3. Practice Variation
4. Resources
5. Technology
6. Patient Engagement
7. Measure Effectiveness
Challenges and strategy towards reducing low back pain imaging

<table>
<thead>
<tr>
<th>Current state</th>
<th>Future State</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Primary care only</td>
<td>Vs. engage ‘All Clinicians’</td>
</tr>
<tr>
<td>2 No Imaging</td>
<td>Vs. OK to image for ‘red’ flags</td>
</tr>
<tr>
<td>3 Performance report</td>
<td>Vs. Actionable report</td>
</tr>
<tr>
<td>4</td>
<td>Vs. Consumer engagement &amp; Tools</td>
</tr>
<tr>
<td></td>
<td>(e.g. Choosing Wisely)</td>
</tr>
</tbody>
</table>
Implementation at Sharp Rees-Stealy

Parag Agnihotri MD
parag.agnihotri@sharp.com
Sharp Rees-Stealy Medical Group
San Diego, California