

Implementing *Choosing Wisely* SCL Health

Using technology to create a platform for change



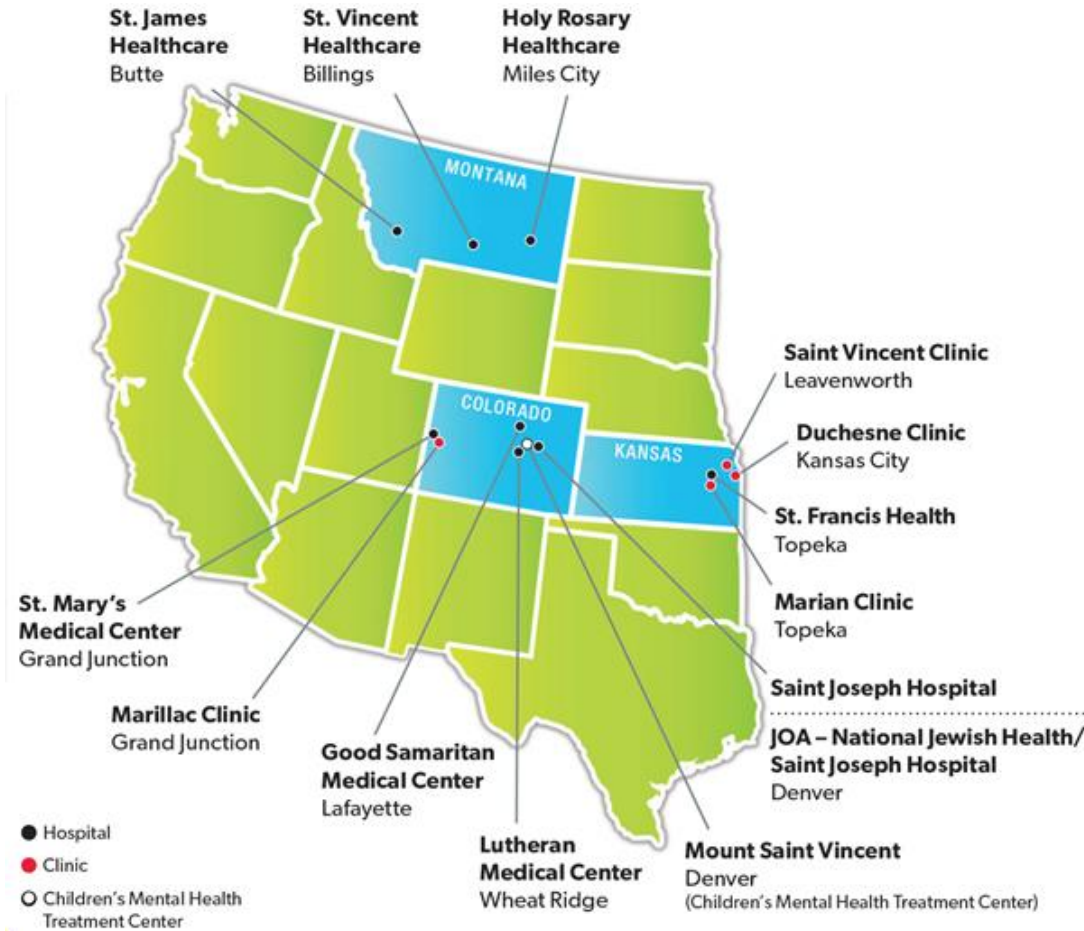


Value Based Purchasing





SCL Health



SIZE AND SCOPE

Hospitals	8
Safety-net clinics	4
Mental health treatment center for children	1
Ambulatory practices	210+
Employed providers	600+
2014 net patient service revenue	\$2.3 Billion



- Why
 - Safety, quality, and stewardship alignment locally and globally, no reason to think we are different
- How
 - Guideline content from Choosing Wisely
 - Technical
 - Extracts from our EMR master files
 - Alerts built outside and reimported into our EMR
 - Testing and validation
 - Analytics tools show behavior with alerts firing silently



- Why part 2
 - data show focused opportunities
 - makes it real-patients and costs
 - valid or necessary variation needs to be managed
 - business case drives clinical leadership attention
- How part 2
 - pick subset of alerts to begin with based upon clinical and financial business case and move to visible alerts
- PDSA cycles ongoing



Choosing Wisely[®]

An initiative of the ABIM Foundation

- Formed in 2012 by the American Board of Internal Medicine (ABIM) Foundation
- Originally 9 medical societies, now over 70
- Over 300 recommendations
- Potent partnerships – Consumer Reports

Approach Taken by Medical Societies

Choosing Wisely[®]

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American College of Preventive Medicine
physicians dedicated to prevention

Five Things Physicians and Patients Should Question

- 1 **Don't take a multi-vitamin, vitamin E or beta carotene to prevent cardiovascular disease or cancer.**
Vitamin supplementation is a multi-billion dollar industry (\$28.1 billion in 2010) in the United States, much of which is taken with the intention to prevent cardiovascular disease or cancer. However, there is insufficient evidence to demonstrate benefit from multivitamin supplementation to prevent cardiovascular disease or cancer. Adequate evidence demonstrates that supplementation with vitamin E and beta carotene in healthy populations specifically have no benefit on cardiovascular disease or cancer. Beta carotene is also associated with increased risks of lung cancer in smokers and people who have been exposed to asbestos.
- 2 **Don't routinely perform PSA-based screening for prostate cancer.**
More than 1,000 symptom-free men need to be screened for prostate cancer in order to save one additional life. As a result, increased harms and medical costs due to widespread screening of asymptomatic men are believed to outweigh the benefits of routine screening. There is a high likelihood of having a false positive result leading to worry, decreased quality of life and unnecessary biopsies when many of these elevated PSA's are caused by enlarged prostates and infection instead of cancer. This recommendation pertains to the routine screening of most men. In rare circumstances, such as a strong family history of prostate and related cancers, screening may be appropriate.
- 3 **Don't use whole-body scans for early tumor detection in asymptomatic patients.**
Whole-body scanning with a variety of techniques (MRI, SPECT, PET, CT) is marketed by some to screen for a wide range of undiagnosed cancers. However, there is no data suggesting that these imaging studies will improve survival or improve the likelihood of finding a tumor (estimated tumor detection is less than 2% in asymptomatic patients screened). Whole-body scanning has a risk of false positive findings that can result in unnecessary testing and procedures with additional risks; including considerable exposure to radiation with PET and CT, a very small increase in the possibility of developing cancer later in life, and accruing additional medical costs as a result of these procedures. Whole-body scanning is not recommended by medical professional societies for individuals without symptoms, nor is it a routinely practiced screening procedure in healthy populations.
- 4 **Don't use expensive medications when an equally effective and lower-cost medication is available.**
On average, the cost of a generic drug is 80–85% lower than the name-brand product, although generic drugs are required to have the same active ingredients, strength and similar effectiveness as brand-name drugs. Studies estimate that for every 10% increase in the use of generic cholesterol drugs, Medicare costs could be reduced by \$1 billion annually.
- 5 **Don't perform screening for cervical cancer in low-risk women aged 65 years or older and in women who have had a total hysterectomy for benign disease.**
Health care professionals should not perform cervical cancer screening in women who have had a hysterectomy that removed their cervix and do not have a history of high-grade precancerous lesions or cervical cancer. Screening provides no benefits to these patients and may subject them to potential risks from false-positive results; including physical (e.g., vaginal bleeding from biopsy) or psychological (e.g., anxiety).
In addition, cervical cancer screening should not be performed on women over the age of 65 that are at low risk for cervical cancer and have had negative results from prior screenings. Health care professionals should make this decision on a case-by-case basis, but once a patient stops receiving screenings, in general, they should not re-start screenings. Screening for women in this population provides little to no benefit as the incidence and prevalence of cervical disease declines for women starting at age 40–50 years.

These items are provided solely for informational purposes and are not intended as a substitute for consultation with a medical professional. Patients with any specific questions about the items on this list or their individual situation should consult their physician.

February 25, 2015

Choosing Wisely[®]

An initiative of the ABIM Foundation

The American College of Obstetricians and Gynecologists



The American College of
Obstetricians and Gynecologists
www.acog.org | 800.462.6262


Five Things Physicians and Patients Should Question

- 1 **Don't schedule elective, non-medically indicated inductions of labor or Cesarean deliveries before 39 weeks 0 days gestational age.**
Delivery prior to 39 weeks 0 days has been shown to be associated with an increased risk of learning disabilities and a potential increase in morbidity and mortality. There are clear medical indications for delivery prior to 39 weeks 0 days based on maternal and/or fetal conditions. A mature fetal lung test, in the absence of appropriate clinical criteria, is not an indication for delivery.
- 2 **Don't schedule elective, non-medically indicated inductions of labor between 39 weeks 0 days and 41 weeks 0 days unless the cervix is deemed favorable.**
Ideally, labor should start on its own initiative whenever possible. Higher Cesarean delivery rates result from inductions of labor when the cervix is unfavorable. Health care practitioners should discuss the risks and benefits with their patients before considering inductions of labor without medical indications.
- 3 **Don't perform routine annual cervical cytology screening (Pap tests) in women 30–65 years of age.**
In average risk women, annual cervical cytology screening has been shown to offer no advantage over screening performed at 3-year intervals. However, a well-woman visit should occur annually for patients with their health care practitioner to discuss concerns and problems, and have appropriate screening with consideration of a pelvic examination.
- 4 **Don't treat patients who have mild dysplasia of less than two years in duration.**
Mild dysplasia (Cervical Intraepithelial Neoplasia [CIN I]) is associated with the presence of the human papillomavirus (HPV), which does not require treatment in average risk women. Most women with CIN I on biopsy have a transient HPV infection that will usually clear in less than 12 months and, therefore, does not require treatment.
- 5 **Don't screen for ovarian cancer in asymptomatic women at average risk.**
In population studies, there is only fair evidence that screening of asymptomatic women with serum CA-125 level and/or transvaginal ultrasound can detect ovarian cancer at an earlier stage than it can be detected in the absence of screening. Because of the low prevalence of ovarian cancer and the invasive nature of the interventions required after a positive screening test, the potential harms of screening outweigh the potential benefits.


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Released February 21, 2013

Patient-Friendly Resources from Specialty Societies and Consumer Reports




Choosing Wisely
An initiative of the ABIM Foundation



ConsumerReportsHealth

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN




Antibiotics for a sore throat, cough, or runny nose

When children need them—and when they don't

If your child has a sore throat, cough, or runny nose, you might expect the doctor to prescribe antibiotics. But most of the time, children don't need antibiotics to treat a respiratory illness. In fact, antibiotics can do more harm than good. Here's why:

Antibiotics fight bacteria, not viruses. If your child has a bacterial infection, antibiotics may help. But if your child has a virus, antibiotics will not help your child feel better or keep others from getting sick.

- Most colds and flus are viruses.
- Chest colds, such as bronchitis, are also usually caused by viruses. Bronchitis is a cough with a lot of thick, sticky phlegm or mucus. Cigarette smoke and particles in the air can also cause bronchitis. But bacteria are not usually the cause.
- Most sinus infections (sinusitis) are also from viruses. The symptoms are a lot of mucus in the nose and post-nasal drip. Mucus that is colored does not necessarily mean your child has a bacterial infection.



In most cases, antibiotics will not help your child. Usually, antibiotics do not work against colds, flu, bronchitis, or sinus infections because these are viruses. Sometimes bacteria cause sinus infections, but even then the infection usually clears up on its own in a week or so. Many common ear infections also clear up on their own without antibiotics.

Some sore throats, like strep throat, are bacterial infections. Symptoms include fever, redness, and trouble swallowing. However, most children who have these symptoms do not have strep throat. Your child should have a strep test to confirm that it's strep, and then, if they're needed, the doctor will prescribe antibiotics.



Cómo Elegir Sabiamente
Una iniciativa de la Fundación ABIM



ConsumerReportsHealth

AMERICAN ACADEMY OF
FAMILY PHYSICIANS



Pruebas de Papanicolaou

Cuándo las necesita—y cuándo no las necesita

La Prueba de Papanicolaou, también conocida como la Prueba de Pap, es un análisis de células en el cérvix. El cérvix es la abertura entre la vagina y el útero. La prueba de Papanicolaou busca células que no son normales y que pueden causar cáncer del cérvix. También se le llama **cáncer cervical**.

La mayoría de las mujeres entre los 21 y 65 años de edad necesitan pruebas de Papanicolaou regulares. Pero, las adolescentes y las mujeres mayores normalmente no las necesitan. A continuación se da la razón:

Las pruebas de Papanicolaou normalmente no ayudan a las mujeres con bajo riesgo. Muchas mujeres tienen un riesgo muy bajo de tener cáncer cervical.

- El cáncer cervical es raro en mujeres menores de 21 años, incluso si son sexualmente activas. Las células anormales en las mujeres más jóvenes normalmente regresan a la normalidad sin ningún tratamiento.
- El cáncer cervical es raro en mujeres mayores de 65 años que se han hecho pruebas de Papanicolaou regulares con resultados normales.
- Las pruebas de Papanicolaou no son útiles para las mujeres a las que se les haya extraído el cérvix durante una histerectomía (operación para sacar el útero), a menos que la histerectomía se haya realizado porque había células cancerosas o precancerosas en el cérvix.

Las pruebas de Papanicolaou pueden tener riesgos. Una prueba de Papanicolaou puede ser incómoda y causar un poco de sangrado.



Es posible que la prueba muestre algo que no parezca normal, pero que desaparecería por sí solo. Los resultados anormales causan ansiedad. Y pueden causar que se repita una prueba de Papanicolaou y tratamiento de seguimiento que no necesite.

- Antipsy...
- A bette...
- head...
- When...
- ther...
- k p...
- behavior in people with demen...
- Antibiotics: When children need them for respiratory illness



Make the opportunity real.



Society for Cardiovascular Angiography and Interventions

Avoid coronary angiography to assess risk in asymptomatic patients with no evidence of ischemia or other abnormalities on adequate non-invasive testing.

Society for Cardiovascular Angiography and Interventions

Avoid PCI in asymptomatic patients with stable SIHD without the demonstration of ischemia on adequate stress testing or with normal fractional flow reserve (FFR) testing.



	# CDS alerts	annual savings
inpatient	41	\$ 1,719,201
ambulatory	102	\$ 4,212,145
total	143	\$ 5,931,346

Assumes perspective of 100% at-risk contract and uses national Medicare reimbursement rates for cost estimates

savings estimates
april 2014 – march 2015



Focusing on a subset of alerts

March 4, 2015 through June 4, 2015 for the following

1. Imaging for Lower Back Pain;
2. Benzodiazapine for Patients over 65;
3. Carotid Artery Stenosis screening;
4. Carotid Imaging for Syncope; and
5. Antibiotics for Sinusitis

3,192 alerts fired silently representing an estimated opportunity savings of \$343,102. These five measures account for 39% of all ambulatory alerts and 35% of the total opportunity savings.

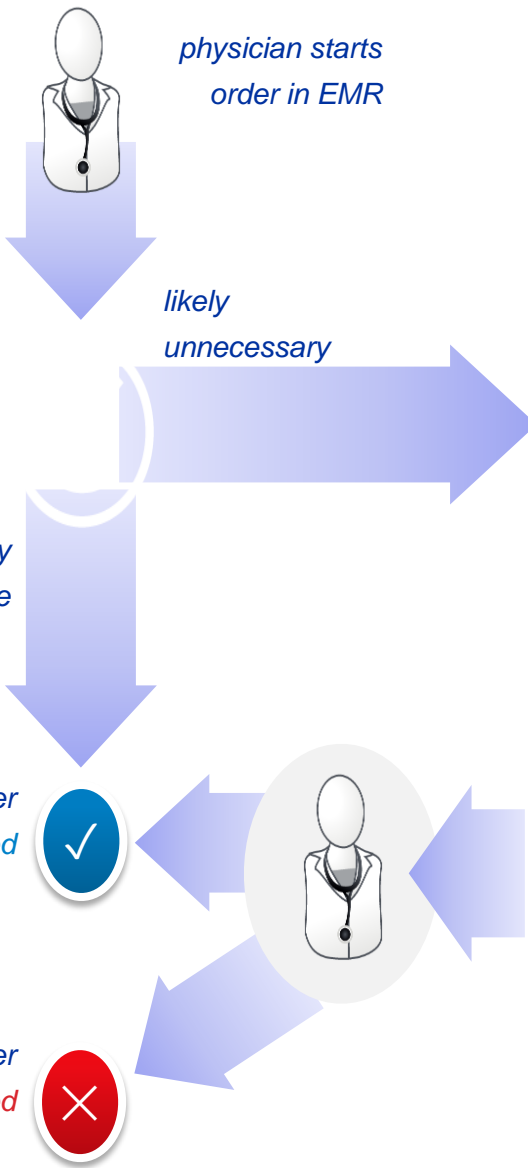
American Geriatrics Society



Leading Change. Improving Care for Older Adults.

Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium.

VALUE



Choosing Wisely: Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium. (American Geriatrics Society)^{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	

note: CDS alert displays using Epic's native best practice alerts; Epic does not allow use of actual screenshots

targeted alerts integrated into workflow



CDS to reduce
one inpatient
blood test:
51 distinct
decision points
required for the
logic tree

trigger

IF any inpatient order signed when below criteria is met

inclusion criteria

Patient Age \geq 17 years

AND active order = (CBC **OR** CBC no differential, no platelets LAB **OR** CBC w/auto diff **OR** CBC w/auto diff/plt **OR** CBC with manual differential **OR** CBC w/ manual diff/plt **OR** CBC with diff **OR** CBC with differential **OR** CBC with differential, no platelets)

AND order frequency = (Daily **OR** Every 24 hours **OR** Now then every 12 hours **OR** Every 12 hours **OR** 2 times daily)

AND order type = Inpatient

AND logged in provider is resident **OR** ((physician **OR** fellow **OR** physician assistant) **AND** is (specialty = (general medicine **OR** general surgery) **OR** patient attending provider))

AND time since admitted to inpatient \geq 3 days in hospital or rehab

AND \geq 3 Hgb results within past 4 days **AND** \geq 1 Hgb resulted within past 1 day

AND \geq 3 WBC results within past 4 days **AND** \geq 1 WBC results within past 1 day

exclusion criteria

NOT lab order status = completed **OR** pending

NOT (Heart Rate \geq 100 bpm in past 12 hours **OR** Respiratory Rate \geq 24/min in past 12 hours **OR** Systolic Blood Pressure $<$ 90 mmHg in past 12 hours)

NOT (Temperature $<$ 96.8 0F in past 48 hours **OR** Temperature \geq 100.4 0F in past 48 hours)

NOT (NPO after midnight **OR** discharge order **OR** discharge planning order **OR** transfuse RBC order **OR** transfuse uncrossmatched RBC **OR** transfuse platelet order **OR** crossmatch order)

NOT (any WBC $<$ 4,000/ml in past 3 days **OR** WBC $>$ 11,000/ml in past 3 days)

NOT (any Hgb result $<$ 7.5 g/dL in past 3 days **OR** Hgb decrease $>$ 4% in 72 hours **OR** Hgb decrease $>$ 4% in 48 hours)

NOT (Hgb increase $>$ 8% in 72 hours **OR** Hgb increase $>$ 8% in 48 hours)


NOT (any Platelet result $<$ 50,000/ml in last 3 days **OR** platelet decrease \geq 20% in 72 hours **OR** platelet decrease \geq 20% in 48 hours)

recommendation

Fire Best Practice Advisory with override reasons developed from Choosing Wisely® references




Benzodiazepines in elderly patients

▼ Choosing Wisely (1 Advisory)

 A Choosing Wisely® recommendation from the [American Geriatrics Society](#) states:

Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium.^{1,2,3}

Acknowledge reason:

Failed non-drug options and first-line d... Withdrawal / delirium tremens Seizure disorder
Severe / refractory GAD Periprocedural anesthesia End-of-life care
Rapid eye movement sleep disorders Other indication (please specify)

Accept & Stay Accept Cancel

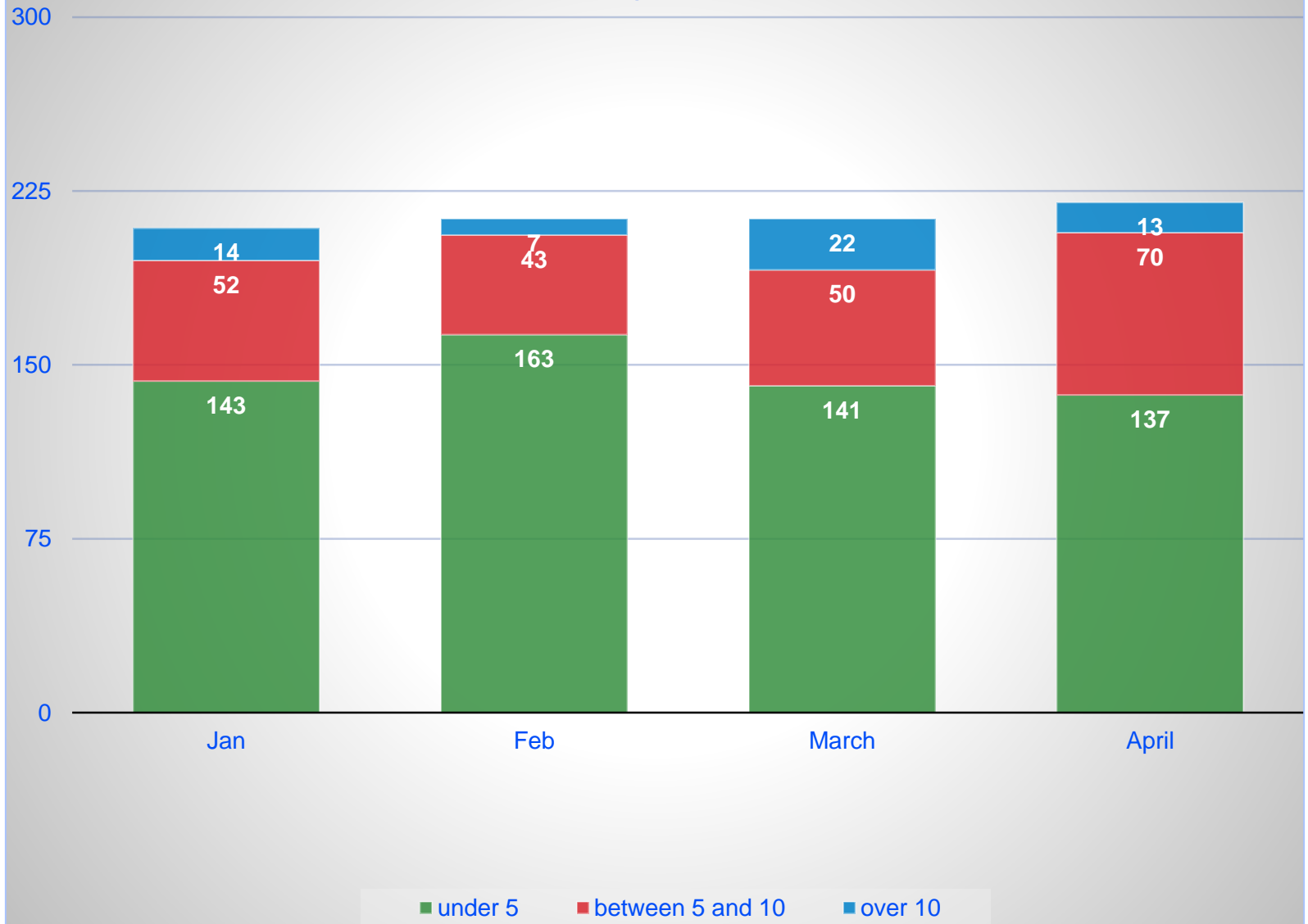


Alert Activity per Month





of alerts caused by providers per month



Top 5 providers with most alerts

Provider Type- Specialty	Alerts/day	Alerts/month
<i>Physician Assistant - Family Medicine</i>	<i>0.97</i>	<i>29</i>
<i>Physician - Internal Medicine</i>	<i>0.73</i>	<i>22</i>
<i>Nurse Practitioner - Family Medicine</i>	<i>0.63</i>	<i>19</i>
<i>Physician - Family Medicine</i>	<i>0.6</i>	<i>18</i>
<i>Physician - Internal Medicine</i>	<i>0.58</i>	<i>17</i>

- Median Alerts per Provider/month - 4.4
- Median Alerts per day - 46.60

*Based on Jan. thru April data



Dashboards

opportunity dashboard ?

last 7 days | last 30 days | 03.04.2015 - 06.04.2015 ↻

since 08.06.2014: \$ - \$ 1,038,476 10,388,798 117,538
total savings total opportunity alerts fired alerts followed

view by ? initiative impact area department

[+ create initiative](#)

	alerts ?	followed ?	overridden ?	ignored ?	unknown ?	savings ? (est)	opportunity ? (est)
Choosing Wisely - Ambulatory ✎ <small>alerts</small>	8,216	-	-	-	-	\$ -	\$ 987,983
Ambulatory Pilot Alerts ✎ <small>alerts</small>	3,192	-	-	-	-	\$ -	\$ 343,102
Choosing Wisely - Inpatient ✎ <small>alerts</small>	343	-	-	-	-	\$ -	\$ 50,493



Stratified by alert, Imaging for Low Back Pain and Carotid Artery Stenosis Screening account for 83% of the opportunity savings (\$283,995).

Benzodiazapine for Patients Over 65 fired the most frequently (1,798) and accounts for 56% of all alerts

alert	cost(est)	alerts	followed	overridden	ignored	unknown	savings (est)	opportunity (est) ▼
IMAGING FOR LOW BACK PAIN <small>(amb)</small>	\$ 300	505	-	-	-	-	\$ -	\$ 151,500
CAROTID ARTERY STENOSIS SCREENING <small>(amb)</small>	\$ 363	365	-	-	-	-	\$ -	\$ 132,495
BENZODIAZAPINE FOR PATIENTS OVER 65 <small>(amb)</small>	\$ 22	1,798	-	-	-	-	\$ -	\$ 39,556
CAROTID IMAGING FOR SYNCOPE <small>(amb)</small>	\$ 363	35	-	-	-	-	\$ -	\$ 12,705
ANTIBIOTICS FOR SINUSITIS <small>(amb)</small>	\$ 14	489	-	-	-	-	\$ -	\$ 6,846



Imaging for Low Back Pain: A total of 138 providers produced 505 silent alerts over the 3-month period. The top 10 providers in frequency account for only 17% of the alerts with 93% of providers having 5 alerts or less (see table).

imaging for low back pain amb

last 7 days | last 30 days | 03.04.2015 - 06.04.2015



Don't do imaging for low back pain within the first six weeks, unless red flags are present. *(American Academy of Family Physicians)*

505 alerts - followed (-) - overridden (-) - ignored (-) - unknown (-) 505 silent (100%)

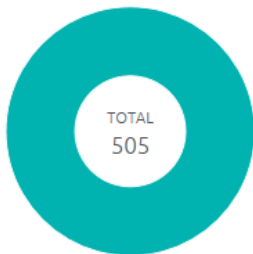
overrides (0 total)

none

comments (0 total)

none

triggers



Enter order

details by provider | by department

138 providers found

include followed alerts ⓘ include silent alerts ⓘ view by: % count

provider	totals	overridden	ignored	unknown	silent
Gregory, Joe Kesler [4080248]	18	-	-	-	18 (100%)
Nichols, Robert James [4060406]	11	-	-	-	11 (100%)
Kirkland, Brenda Gay [4060292]	10	-	-	-	10 (100%)
Huber, Joy [4060240]	10	-	-	-	10 (100%)
Bach, Ian S. [4001250]	7	-	-	-	7 (100%)
Antonelli, Lara Michelle [4130003]	7	-	-	-	7 (100%)
Banks, Heather Susann [4167548]	6	-	-	-	6 (100%)
Ogrodnick, John P. [4007682]	6	-	-	-	6 (100%)
Lovett Fournier, Erica Dawn [4170423]	6	-	-	-	6 (100%)
Ellis, Clarence V [4010141]	5	-	-	-	5 (100%)



activity dashboard

provides an operational overview of alert and provider activity

activity dashboard

last 7 days | last 30 days | 01.19.2014 - 01.26.2014

1,449 total alerts 7 total days 207.00 alerts/day 57 total followed 272 total overridden 1,120 total ignored 0.30 alerts/provider

most frequently fired alerts

alert	fired
inp	690
inp	134
amb	103
amb	72
inp	60

most followed alerts

alert	followed
inp	
inp	
inp	
inp	
inp	

providers with most alerts

provider	alerts

alerts with largest increase in firings

alert	change
inp	333%
amb	100%
amb	67%
inp	50%
amb	43%

most overriden alerts

alert	overridden
inp	
inp	
inp	
inp	
inp	

alerts with largest increase in firings

alert	change
inp	333%
amb	100%
amb	67%
inp	50%
amb	43%

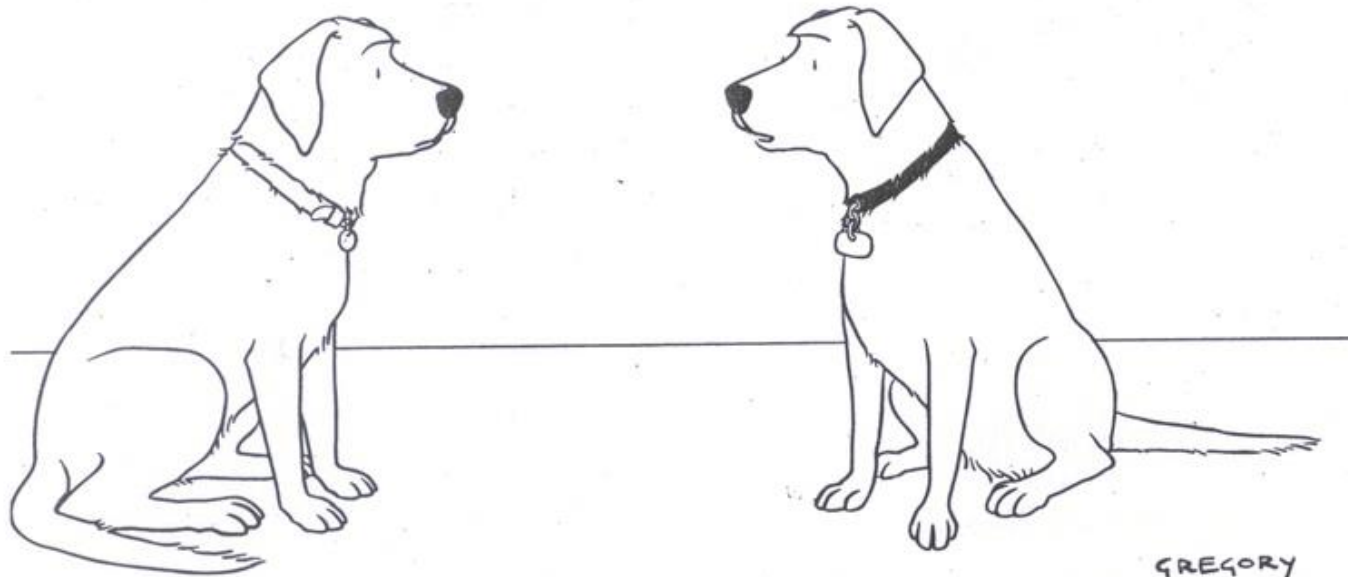
alerts with largest decrease in firings

alert	change
amb	-67%
inp	-67%
amb	-56%
amb	-50%
inp	-43%

range	alerts
none	1534
under 5	266
between 5 and 10	8
over 10	2



Communication Plan



“I had my own blog for a while, but I decided to go back to just pointless, incessant barking.”



St. James Choosing Wisely Interventions

- Six pronged intervention
- Engaging the community, medical staff and individuals
- Monitoring and sharing success of interventional approaches

Interventions	Target Audience	Frequency	Goals
Step 1: Provider led community sharing of specific CW recommendations	Patients and Providers	Approximately every other month	<input type="checkbox"/> Community awareness <input type="checkbox"/> Provider awareness <input type="checkbox"/> Choosing Wisely Exposure
Step 2: Brown Bag Lunch series	Providers and nurses	Prior to each community forum	<input type="checkbox"/> Provider awareness <input type="checkbox"/> Nursing awareness
Step 3: Consumer Report Handouts	Patients and Providers	Shared at each presentation and in waiting rooms	<input type="checkbox"/> Community and provider sustainable awareness
Step 4: Sharing of geographically focused claims data	Providers	<input type="checkbox"/> Semiannual newsletter <input type="checkbox"/> Provider group conversations with dashboards	<input type="checkbox"/> Provider awareness <input type="checkbox"/> Identification for intervention opportunities <input type="checkbox"/> Creating a competitive nature
Step 5: Stanson Health monitoring of Choosing Wisely recommendation adherence	Provider Community	Monthly reports	<input type="checkbox"/> Share group adherence behavior monthly times 3 months after presentation then quarterly
Step 6: Stanson Health Alerts	Individual Provider	Each time a CW opportunity is noted in the three areas of focus	<input type="checkbox"/> Educate <input type="checkbox"/> Make provider aware of CW opportunity



Lessons Learned

- Most providers don't have a big problem but the impact of the opportunity is more than I would have speculated
- Currently available communication and education tools and processes for us have been rate limiting
- Change management challenges
 - patients perception more is better
 - providers perception it takes more time to educate non necessity than to execute an order
 - cloud of liability/defensive medicine
- Management is protective of alert prioritization
- projects that move fast (EMR implementation, MU, Ebola) vs projects that move more slowly (Is safety and stewardship optional?)