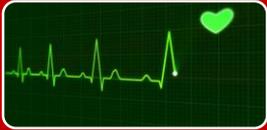


# 5 Commonly Overused Services Ready for Purchaser Action



1. Diagnostic Testing and Imaging Prior to Surgery



2. Vitamin D Screening



3. PSA Screening in Men 75+



4. Imaging in First 6 Weeks of Low Back Pain



5. Branded Drugs When Identical Generics Are Available

# 1. Unindicated Diagnostic Testing and Imaging in Low-Risk Patients Prior to Low-Risk Surgery



## WHAT

Low-risk patients undergoing low-risk surgery do not need many commonly provided blood tests, imaging services, and more.

## WHY

Unneeded tests and imaging services:

- Rarely change patient management
- Delay needed care
- Identify clinically insignificant abnormalities

## BURDEN

Nationwide in 2014:

- About **19 million** unneeded pre-surgery tests/images performed
- About **\$9.5 billion** in spending resulted

# 1. Unindicated Diagnostic Testing and Imaging in Low-Risk Patients Prior to Low-Risk Surgery



Absent specific indications, these pre-surgical tests and services should be avoided:

- Complete blood counts
- Cardiac testing prior to non-cardiac surgery
- Metabolic panels
- Chest x-rays
- Coagulation studies
- Pulmonary function testing

*Rationale:* Patients undergoing low-risk surgery often receive unindicated diagnostic testing and imaging. These services rarely change care in low-risk surgeries when performed in low-risk patients (professional guidelines define “low-risk”). In addition, unnecessary testing and imaging may detect clinically significant abnormalities that in turn lead to unnecessary follow-up. Anxiety, expense, and harm can result. And all unneeded testing can delay receipt of needed surgery.

*Burden:* Extrapolating from the patterns of one mid-sized US state, more than **19 million unneeded pre-surgery tests and imaging services** were performed in 2014 nationwide. These studies accounted for about **\$9.5 billion in avoidable spending**.

*Sources:* Relevant Choosing Wisely recommendations have been issued by the [American Society of Anesthesiologists](#), the [American College of Surgeons](#), the [Society of Thoracic Surgeons](#), the [Society for Vascular Medicine](#), and the [Society of General Internal Medicine](#).

## 2. Vitamin D Screening



### WHAT

Population-based screening for 25-OH-Vitamin D deficiency should be avoided.

### WHY

Vitamin D deficiency is rare. If deficiency suspected, patients should simply be advised to take an over-the-counter supplement and increase sun exposure.

### BURDEN

Nationwide in 2014:

- About **6.3 million** unneeded screening tests performed
- About **\$800 million** in spending resulted

## 2. Vitamin D Screening



Population-based screening for 25-OH-Vitamin D deficiency should not be performed. Testing is only appropriate for a subset of conditions where results might change treatment (e.g., chronic renal disease, metabolic bone disease, malabsorption syndrome).

*Rationale:* Relatively few people are Vitamin D deficient. Nevertheless, if a clinician suspects Vitamin D deficiency, patients should simply be advised to take an over-the-counter supplement and increase sun exposure. A 2016 study from Alberta, Canada suggests that about 90 percent of orders for Vitamin D laboratory tests may have been clinically useless.

*Burden:* Extrapolating from the patterns of one mid-sized US state, about **6.3 million unneeded Vitamin D tests** were performed in 2014 nationwide. These studies accounted for about **\$800 million in avoidable spending**.

*Sources:* Relevant Choosing Wisely recommendation has been issued by the [American Society for Clinical Pathology](#) and the [American Academy of Pediatrics Section on Endocrinology](#). See also Ferrari R, Prosser C. Testing Vitamin D Levels and Choosing Wisely. *JAMA Intern Med.* 2016;176(7):1019-1020. [doi:10.1001/jamainternmed.2016.1929](https://doi.org/10.1001/jamainternmed.2016.1929).

### 3. Prostate-specific antigen (PSA) screening in men 75 and older



#### WHAT

In men 75 and older, screening for prostate cancer through the PSA blood test should almost never be performed.

#### WHY

- Over-diagnosis associated with serious harm
- Harms of screening in men 75+ unambiguously outweigh benefit

#### BURDEN

Nationwide in 2014:

- At least **1 million** unneeded screenings in men 75+ performed
- Tests alone resulted in at least **\$44 million** in spending

### 3. Prostate-specific antigen (PSA) screening in men 75 and older



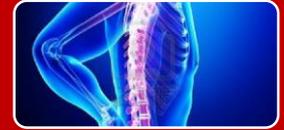
While recommendations for screening in younger men are changing, the most recent United States Preventive Services Task Force (USPSTF) draft recommendations continue to strongly recommend against screening in men age 70 and older. (Since 2008, the USPSTF has advised against screening for prostate cancer in men 75 and older.) This guidance is specific to screening in asymptomatic men, not testing in men with symptoms.

*Rationale:* Given the often-indolent nature of the disease, a man is increasingly likely to die *with* rather than *of* prostate cancer as he ages. Early detection therefore becomes less useful. In addition, over-diagnosis is associated with serious harm. High PSA levels – which often prove to be false positives – lead to biopsies, which in turn are associated with pain, ED visits, and hospitalizations. If treatment is pursued, certain therapies – including radical prostatectomy – may prove riskier in older men than younger men.

*Burden:* More than **one million** Medicare fee-for-service beneficiaries age 75 and older received a PSA test in 2014, at a cost of at least **\$44 million**. These costs likely pale in comparison with the harm and expense of unnecessary biopsy, surveillance, and treatment.

*Sources:* Relevant Choosing Wisely recommendations have been issued by the [American Academy of Family Physicians](#), the [American Society of Clinical Oncology](#), the [American Urological Association](#), and the [American College of Preventive Medicine](#). New [USPSTF recommendations](#) are under review as of September 2017. Figures are from [Medicare Payment Advisory Commission](#) and additional background is from [UpToDate](#).

## 4. Imaging for acute low-back pain for first six weeks after onset, unless clinical warning signs are present



### WHAT

X-rays, computed tomography (CT), and magnetic resonance imaging (MRI) should be avoided during first six weeks of low-back pain, unless a specific clinical warning sign is present.

### WHY

- Rarely changes patient management
- X-rays and CT expose patients to unneeded radiation
- Detects clinically insignificant abnormalities

### BURDEN

Nationwide in 2014:

- About **1.6 million** avoidable imaging services performed
- About **\$500 million** in spending resulted

## 4. Imaging for acute low-back pain for first six weeks after onset, unless clinical warning signs are present



Unless a specific warning sign (“red flag”) is present, patients should not receive x-rays, computed tomography (CT), or magnetic resonance imaging (MRI) within the first six weeks of an episode of low-back pain. There are some important exceptions – such as a history of trauma or cancer, osteoporosis, and signs of neurological deficits – where imaging may be appropriate.

*Rationale:* Imaging for acute low-back pain early in the course of an episode rarely changes management of a patient. X-rays and CT expose patients to radiation, and all imaging increases the risk of incidental findings that can lead to unnecessary and potentially harmful surgeries. Appropriate clinical care for pain management and rehabilitation can be provided irrespective of findings from imaging.

*Burden:* Extrapolating from the patterns of one mid-sized US state, about **1.6 million avoidable imaging services** were performed in 2014 nationwide. These studies accounted for about **\$500 million in avoidable spending**. The harm from medical radiation is associated with a small number of excess cancers each year.

*Sources:* Relevant Choosing Wisely recommendations have been issued by the [American Academy of Family Physicians](#), the [North American Spine Society](#), the [American College of Surgeons](#), and the [American College of Physicians](#), among others.

## 5. Use of more expensive branded drugs when generics with identical active ingredients are available



### WHAT

Branded medications should not be prescribed when less expensive, chemically identical generics are available. (This is distinct from therapeutic substitution, when non-equivalent medications are substituted for one another.)

### WHY

Prescribing of more expensive, chemically identical medications buys no extra health per dollar.

### BURDEN

Purchasers would have saved \$14.7 billion in 2016 had 100% of prescriptions with generics available been dispensed as generics

## 5. Use of more expensive branded drugs when generics with identical active ingredients are available



Prescribing of branded medications should be avoided when less expensive, chemically identical generics are available. (This situation is distinct from therapeutic substitution, when *chemically different*, i.e., non-equivalent, drugs in a pharmaceutical class are substituted for one another.)

*Rationale:* The use of more expensive branded drugs when chemically identical generic options are available buys no extra health per dollar. The practice persists despite near-universal use of benefit designs to promote generic use.

*Burden:* According to data from QuintilesIMS, purchasers would have saved **\$14.7 billion** in 2016 had 100% of prescriptions with generics available been dispensed as generics.