Outpatient Procedure Adoption and Overutilization: Potential Implications

Jeffrey G. Carr, MD, FACC, FSCAI

Founding and Past President- Outpatient Endovascular and Interventional Society (OEIS) Medical Director- OEIS National Registry
Disclosures

No financial disclosures pertaining to this presentation
Rising Healthcare Expenditures

National Health Expenditures were 17.9% Gross Domestic Product (GDP) in 2016

Healthcare will rise to 19.7% of GDP by 2026
“Exploitation to the point of diminishing returns”

Testing or procedures which add little to no value in care

Unnecessary health care is when medical services are provided with a higher volume or cost than is appropriate. In the United States, where health care costs are the highest as a percentage of GDP, overutilization is the predominant factor in its expense. Factors that drive overutilization include paying health care providers more to do more and covering patients' costs by a third-party payer. These factors leave both doctors and patients with no incentive to restrain health care prices or use.
Overutilization-

- Occurring for decades—Stark I 1989
- Procedures and Testing-
  Appropriateness—Appropriate Use Criteria (AUC)

- All Sites of Service-
  - Offices and Office Lab Testing
  - Academic Hospitals-Training Facilities
  - Imaging Centers
  - Hospital Inpatient or Outpatient Procedure Suites
  - Ambulatory Surgery Centers
  - Office Interventional Suites

- Difficult to measure
AUC Guidelines
Ongoing Trials/Evidence
Performance Measures

Right Patient
Patient Preferences

Right Procedure Decision

Right Procedure Execution
Quality Metrics Public Reporting

Right Outcome

RIGHT PRICE
Examples of Overutilization for Peripheral Vascular Intervention:

- Interventions on asymptomatic patients without physiologic data
- Device use preferences regardless of lesion morphology
- Poor results and outcomes leading to restenosis and repetitive procedures
- Multiple planned staged procedures on same leg regardless of symptoms or clinical need
- Untrained or new operators with consistent suboptimal outcomes
Overutilization - Drivers

Physicians-
  - FFS-payment regardless of outcome
  - Lack of training, lack of peer review

Industry-
  - Sales force incentivized by volume

Hospitals and Corporate Systems-
  - Revenue needs and demands, employed-physician incentives
  - Subsidize losses of other services
Overutilization - Drivers (cont.)

Payers-
- Third parties cover majority of costs

Patients-
- Uninformed expectations
- Disconnect from payment

Organized Medicine-
- Vagaries and lack of concordance in appropriateness criteria and guidelines
- Self-policing challenges

WHO IS TO BLAME?  ALL OF US
Oversite and Review—Tools and Mechanisms

Outliers-
  Physician Open Payments
  Medicare Physician Payment Data

Investigations-
  DOJ- OIG
  MACs—Medicare Administrative Contractors

Standards-
  AUC
  Societal Guidelines
Justice Department Recovers Over $3.7 Billion From False Claims Act Cases (fraud and false claims) in Fiscal Year 2017

Recoveries since 1986, when Congress substantially strengthened the civil False Claims Act, now total more than $56 billion
Examples of Reimbursement Cuts for Perceived Overutilization

2010 Significant CMS Cuts in Cardiac Reimbursement
(In office)
36% CUT IN STRESS NUCLEAR
40% CUT IN ECHO

2011 New York DOH –
Proposed repayment for “Inappropriate” Coronary Stent Procedures on Medicaid pts
HEALTH INDUSTRY | JULY 6, 2011

Heart Treatment Overused

Study Finds Doctors Often Too Quick to Try Costly Procedures to Clear Arteries

By RON WINSLOW And JOHN CARREYROU

Outside of heart attacks, doctors are often too quick to use a common $20,000 procedure to treat patients suffering from coronary artery disease, a new study suggests.

About 600,000 angioplasty procedures, which almost always involve placement of a tiny metal tube called a stent, are done in the U.S. each year. Roughly 70% of these procedures are performed on patients suffering symptoms of a heart attack and aren't medically controversial. But the remainder are done on stable patients who are suffering mild symptoms or no symptoms at all. Of those, 50% are deemed appropriate, 38% uncertain and 12% inappropriate, the report says.

"One in eight is probably higher than we would like," said Paul Chan, a cardiologist at Saint Luke's Mid America Heart and Vascular Institute, Kansas City, Mo., and the study's lead author.

The results, published in the Journal of the American Medical Association Tuesday, come amid rising concern about the overuse of big ticket medical technology. Such concerns are rising not only in cardiology, but in other major specialties as state and federal governments and health insurers seek to contain health-care costs.
Are Doctors Exposing Heart Patients to Unnecessary Cardiac Procedures?

A U.S. News analysis finds some doctors may be putting patients at risk - and reaping the benefits in Medicare payments.

Dozens of cardiologists outside major metro areas are performing a far greater number of catheterization procedures than those working at big city hospitals.

By Steve Sterberg (topics/author/steve_sterberg) and Geoff Dougherty (topics/author/geoff_dougherty)

Feb. 11, 2015 | 12:01 a.m. EST

Dr. Gregory Sampognaro is one of the busiest interventional cardiologists in the United States, clearing out clogged coronary arteries in hundreds of patients every year. Sampognaro ranked 17th in the U.S. in 2012 in the number of these procedures, according to a U.S. News & World Report analysis of Medicare data.

What makes these numbers noteworthy is that Sampognaro works not in a medical mecca like New York or Chicago but in Monroe, Louisiana, a fading Mississippi-delta agricultural community of 54,000 in one of the poorest congressional districts in the U.S.

Sampognaro is one of dozens of cardiologists in communities outside major metro areas who are performing catheterization procedures - such as diagnostic angiograms and artery-clearing angioplasties (https://www.usnews.com/news/articles/2015/02/11/angioplasty-risks-and-benefits) - at higher rates than doctors working at big city hospitals that serve as major cardiac referral centers, the U.S. News analysis found.
Hawthorne Effect

Central Illustration: Stable Patients Rated Inappropriate for PCI

Annual Volume of Stable PCI Patients Rated as Inappropriate by AUC

Year of PCI

- 2010: 2,616 Other, 340 Medicaid Primary
- 2011: 2,234 Other, 295 Medicaid Primary
- 2012: 1,038 Other, 122 Medicaid Primary
- 2013: 890 Other, 76 Medicaid Primary
- 2014: 827 Other, 84 Medicaid Primary

MEDICARE BILLS RISE FOR STENTS PUT INTO LIMBS

UNPROVED MEDICAL NEED

In-Office Treatment Is Questioned by U.S. and Many Doctors

By JULIE CRESWELL and REED ABELSON

It is a time of increasing scrutiny of procedures to open blocked heart and artery. Cardiologists are turning to — and reaping huge payments from — controversial techniques that relieve blockages in the arms and legs.

Unlike heart procedures, which must be done in a hospital or outpatient facility, where oversight is typically more intense, the opening of the peripheral arteries and veins of the arms and legs can be done in a doctor's office.

Medical experts are questioning the necessity of some of these procedures.
Response from Payers- Consequences

**Individuals:**
- Exact penalties and/or repayment
- Exclude from insurance panels

**All providers:**
- Cut reimbursement—Revaluation of codes
  - Change access to care or patterns of care
- Restrict coverage through LCD policy changes
Florida- First Coast

Proposed:
Severely limit reimbursement--Arterial and venous PVI
  -Tibial interventions for IC
  -Off-label interventions
  -IVUS in PAD

Advocacy--
  -Strong letters from OEIS, CVC and specialty societies
  -Conference call with OEIS
OEIS Milestones and Successes:

OEIS Formed  Aug 2013
CVC Formed 2013
CVC PAC 2014

OEIS National Registry Launched 2017—CMS Certified QCDR

**National:**
2014 Proposed PFS Cuts to atherectomy averted
2019 Proposed PFS LE revascularization cuts averted
2019 Cardiac diagnostic procedure codes expanded in ASC

**State and Regional:**
Florida DOH
Pennsylvania DOH
Novitas
OEIS Quality Initiatives: SCOCAP in the OIS

- Safety - Accreditation
- Credentialing
- Outcomes Measures - Registry
- Compliance
- Appropriateness
- Peer Review

Visit OEISociety.com
Societal Guidelines and Appropriateness Criteria-AUC

- Cardiac procedures—ACC/AHA & SCAI/ACC, SCAI Tool Kit
- IR procedures—SIR/ACR
- Peripheral Vascular Interventions
  - SVS—2015 Asx and IC (JVS)
  - ACC/AHA—2016- AHA/ACC Guideline on the Management of Lower Extremity Peripheral Artery Disease
  - SCAI—2017 Update on AUC for PVI
  - ACC-AHA-SCAI-SIR-SVM JOINT CONSENSUS—JACC 2018
    - 1ST MULTISOCIETY AUC FOR PVI
    - A,M, OR R (RARELY APPROPRIATE)—
    - 45 CLINICAL SCENARIOS
### TABLE 2.1
**Intermittent Claudication; No Prior Guideline-Directed Medical Therapy**

<table>
<thead>
<tr>
<th>Indications</th>
<th>Initiate Medical Therapy</th>
<th>Endovascular Treatment</th>
<th>Surgical Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Any lower extremity disease</td>
<td>A (9)</td>
<td>R (2)</td>
<td>R (1)</td>
</tr>
</tbody>
</table>

A = Appropriate; AUC = Appropriate Use Criteria; R = Rarely Appropriate.

### TABLE 2.2
**Intermittent Claudication Despite Guideline-Directed Medical Therapy—Stenotic Lesions**

<table>
<thead>
<tr>
<th>Indications</th>
<th>Continue or Intensify Medical Therapy</th>
<th>Endovascular Treatment</th>
<th>Surgical Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Aortoiliac</td>
<td>A (9)</td>
<td>A (8)</td>
<td>M (4)</td>
</tr>
<tr>
<td>16. SFA and popliteal artery</td>
<td>A (9)</td>
<td>A (7)</td>
<td>M (6)</td>
</tr>
<tr>
<td>17. Below the knee</td>
<td>A (9)</td>
<td>M (5)</td>
<td>R (3)</td>
</tr>
</tbody>
</table>

A = Appropriate; AUC = Appropriate Use Criteria; M = May Be Appropriate; R = Rarely Appropriate; SFA = superficial femoral artery.

### TABLE 2.3
**Intermittent Claudication Despite Guideline-Directed Medical Therapy—Chronic Total Occlusion**

<table>
<thead>
<tr>
<th>Indications</th>
<th>Continue or Intensify Medical Therapy</th>
<th>Endovascular Treatment</th>
<th>Surgical Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Aortoiliac</td>
<td>A (9)</td>
<td>A (7)</td>
<td>M (6)</td>
</tr>
<tr>
<td>19. SFA and popliteal artery</td>
<td>A (9)</td>
<td>M (6)</td>
<td>M (6)</td>
</tr>
<tr>
<td>20. Below the knee</td>
<td>A (9)</td>
<td>M (4)</td>
<td>R (3)</td>
</tr>
</tbody>
</table>

A = Appropriate; AUC = Appropriate Use Criteria; M = May Be Appropriate; R = Rarely Appropriate; SFA = superficial femoral artery.
### TABLE 5.4 SFA and Popliteal Artery

<table>
<thead>
<tr>
<th>Indications</th>
<th>Atherectomy</th>
<th>Balloon Angioplasty</th>
<th>Drug-Coated Balloon</th>
<th>Bare Metal Stent</th>
<th>Drug-Eluting Stent</th>
<th>Covered Stent</th>
</tr>
</thead>
<tbody>
<tr>
<td>32. Length &lt;100 mm</td>
<td>M (6)</td>
<td>A (7)</td>
<td>A (7)</td>
<td>A (7)</td>
<td>A (7)</td>
<td>M (6)</td>
</tr>
<tr>
<td>33. Length ≥100 mm</td>
<td>M (5)</td>
<td>M (5)</td>
<td>A (7)</td>
<td>A (7)</td>
<td>A (7)</td>
<td>M (6)</td>
</tr>
</tbody>
</table>

A = Appropriate; AUC = Appropriate Use Criteria; M = May Be Appropriate; SFA = superficial femoral artery.

### TABLE 5.5 Below the Knee

<table>
<thead>
<tr>
<th>Indications</th>
<th>Atherectomy</th>
<th>Balloon Angioplasty</th>
<th>Drug-Coated Balloon</th>
<th>Bare Metal Stent</th>
<th>Drug-Eluting Stent</th>
<th>Covered Stent</th>
</tr>
</thead>
<tbody>
<tr>
<td>34. Length &lt;100 mm</td>
<td>M (4)</td>
<td>A (7)</td>
<td>M (4)</td>
<td>M (5)</td>
<td>A (7)</td>
<td>R (3)</td>
</tr>
<tr>
<td>35. Length ≥100 mm</td>
<td>M (4)</td>
<td>A (7)</td>
<td>M (4)</td>
<td>M (5)</td>
<td>M (6)</td>
<td>R (3)</td>
</tr>
</tbody>
</table>

A = Appropriate; AUC = Appropriate Use Criteria; M = May Be Appropriate; R = Rarely Appropriate.

**Section 5 Results and Discussion**

The clinical scenarios in Section 5 specifically address 3 broad treatment options for the disease states listed. Given the variability in the lesion lengths that span multiple vascular territories, the authors organized treatments above and below the inguinal ligament and below the knee. The literature review demonstrated several definitions of discrete and diffuse stenosis, with no consensus for a standardized measurement. After extensive calcification and undilatable lesions; however, other technologies had a better evidence base for routine revascularization in most settings (30). Given the expense and paucity of data regarding atherectomy, further comparative investigation is recommended into the risks and benefits of atherectomy in femoral popliteal lesions.

**Section 6 Secondary Treatment Options for Lower Extremity**
• How do outliers get called out?
• Do we self-police?
• What role should societies like OEIS play?
• How can you demonstrate what you’re doing?
Summary

• Overutilization occurs in all sites of service and subjects all to potential reimbursement cuts

• Value-based systems attempt to reduce disparities of care and reward quality outcomes

• Self-policing and transparency through registry and society work is preferred

• Providers should practice with best clinical judgment taking into account best level of evidence, guidelines, and value of procedures to the patient and systems paying for their care
VALUE = OUTCOMES + APPROPRIATENESS + PT. EXPERIENCE + COST