SMARTCare

Smarter Management And Resource Use for Today's Complex Care Delivery

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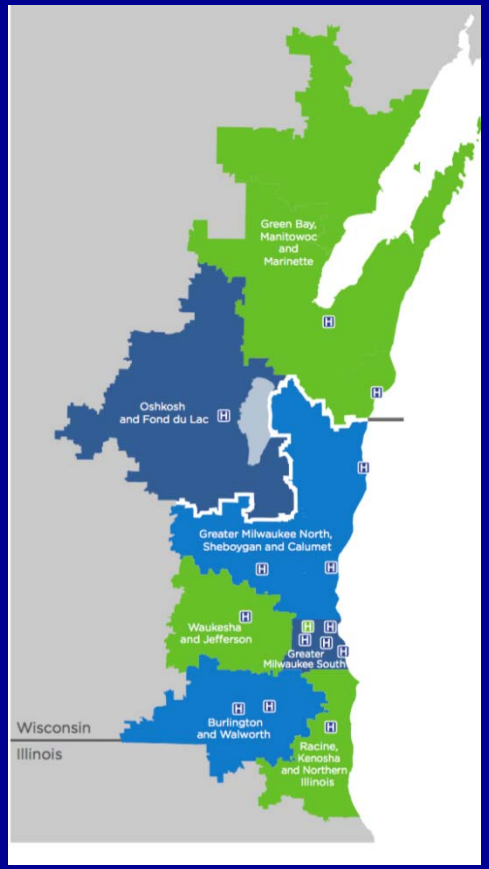


1,500 physicians
PCPs: ~ 580

PCPs in Grafton / Milwaukee South Region ~250
Stress labs: 12 = 12,000 tests -> 5,000 Caths -> > ~2500 Stent procedures
Interventional cardiologists: 25

SMARTCare

I. **Background:**

Definitions: Stress Tests, Appropriate Use Criteria

What Motivates Physician Behavior Change?

Concept: To Reduce Low-Value Stents, Reduce low value Stress Tests

II. Project Design

III. Lessons Learned (Thus Far) and Implications for Payers

IV. Conclusions

We Physicians Deal with Uncertainty:

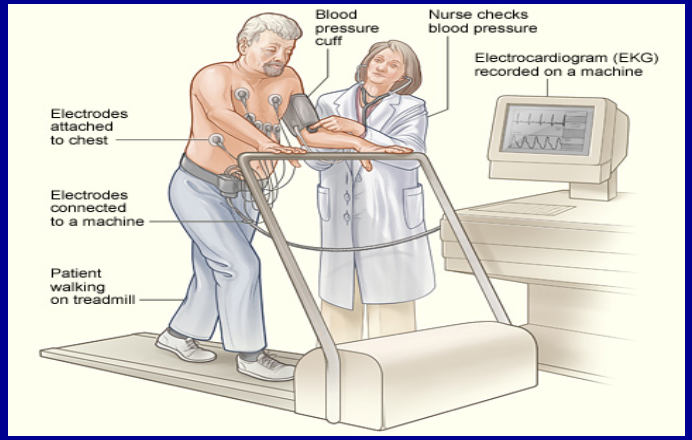
We Are Often Reluctant to Change Care Patterns Without Data To Prove Absence of Harm

> 50% of all cardiac imaging is ordered by Primary Care

- Is this heart related?

- Would stress test help?

Ordering and Interpreting a Stress Test is a Highly Complex Cognitive Task



Regadenoson Positron Emission Tomography?

Treadmill Only?

Treadmill MPI?

Regadenoson Treadmill MPI?

Regadenoson MPI?

Treadmill Echocardiography?

CardioPulmonary Stress with V02max?

Treadmill MPI?

Dobutamine Echocardiography?

Adenosine Treadmill MPI?

Adenosine MPI?

Dobutamine MPI?

Definition: Appropriate Use Criteria (AUC)

- Define “what to do,” “when to do,” and “how often to do” in the context of local care environments combined with patient and family preferences and values
- Connected to scientifically derived guidelines
- Imply a level of detail and complexity that extends beyond the current recommendations
- Address misuse, overuse - - ***and underuse***
- AUC are *not* Practice Guidelines

AUC are meant to be shared with other specialties.
How do we best get stress test AUCs into the hands of PCPs at the point of care, who order ~half of the tests??

Appropriate Use Criteria:
A Huge Investment by ACC to Improve Quality of Care

Clinical Scenarios
Scored by Technical Panel

- Develop list of indications, assumptions, definitions
- Literature review and guideline mapping
- Review Panel of 30 members provides feedback
- Writing Group revises indications

Independent 1st round ratings

Ratings tabulated – agreement determined

Face-to-face meeting – ratings discussed

Independent 2nd and final round ratings

...Retrospective comparison with clinical records

AUC: Rating of Diagnostic Test Indications

- Committee Score 7-9: ***Appropriate*** test for indication

  = Generally acceptable / a reasonable approach

- Committee Score 4-6: ***May be Appropriate***

  (Formerly “Uncertain”) for the specific indication

- Committee Score 1-3: ***Rarely Appropriate***

  (Formerly “Inappropriate”)

  = *Not* generally acceptable / *not* a reasonable approach

Appropriateness of Percutaneous Coronary Intervention

JAMA, July, 2011

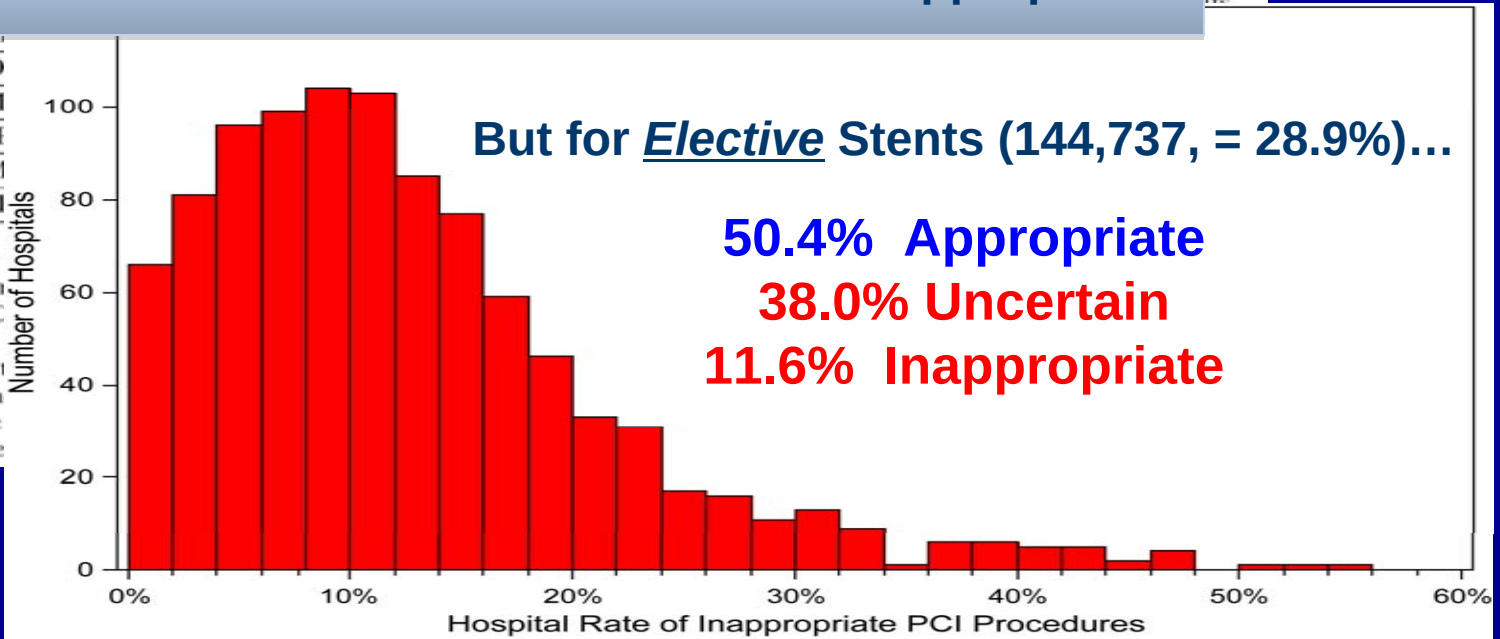
Paul S. Chan, MD, MSc
Manesh R. Patel, MD
Lloyd W. Klein, MD
Ronald J. Krone, MD
Gregory J. Dehmer, MD
Kevin Kennedy, MS
Brahmajee K. Nallamothu
W. Douglas Weaver, MD
Frederick A. Masoudi, MD
John S. Rumsfeld, MD, PhD
Ralph G. Brindis, MD, MSc
John A. Spertus, MD, MPH

Context Despite the widespread use of percutaneous coronary intervention (PCI), the appropriateness of these procedures in contemporary practice is unknown.

Objective To assess the appropriateness of PCI in the United States.

APPROXIMATELY cutaneous coronary interventions (PCI) formed in the each year,[1] at a cost that billion.[2] Patients who un exposed to risks of pe complications and longe

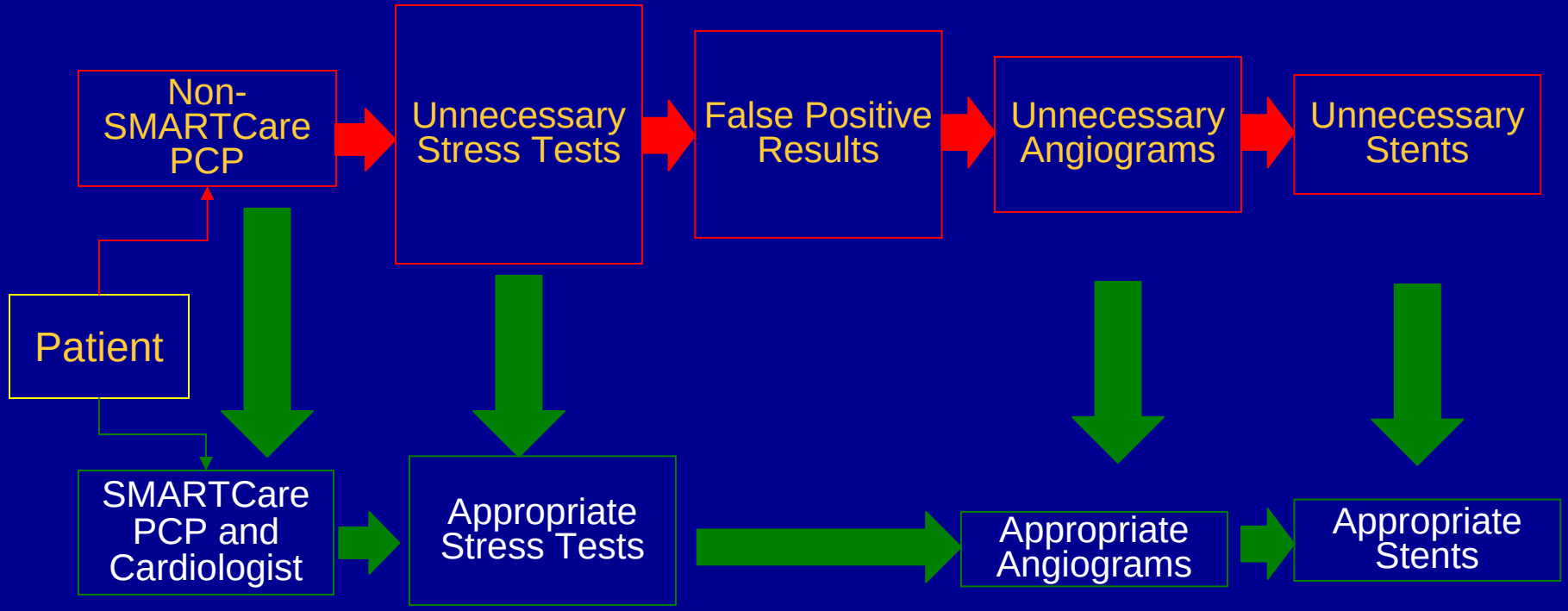
For Heart Attack related stents: > 95% Appropriate



But for *Elective* Stents (144,737, = 28.9%)…

50.4% Appropriate
38.0% Uncertain
11.6% Inappropriate

SMARTCare Goal: Reducing Unnecessary Stress Tests Reduces Downstream Procedures



Selected SMARTCare Goals

- Decrease the rate of “rarely appropriate” stress tests and other cardiac imaging from 12-15% to <8%
- Decrease the rate of “rarely appropriate” coronary stenting from 9-20% to <6%
- Achieve high levels of patient engagement as measured by patient decision quality surveys
- Maintain and Improve quality of life as measured by patient surveys

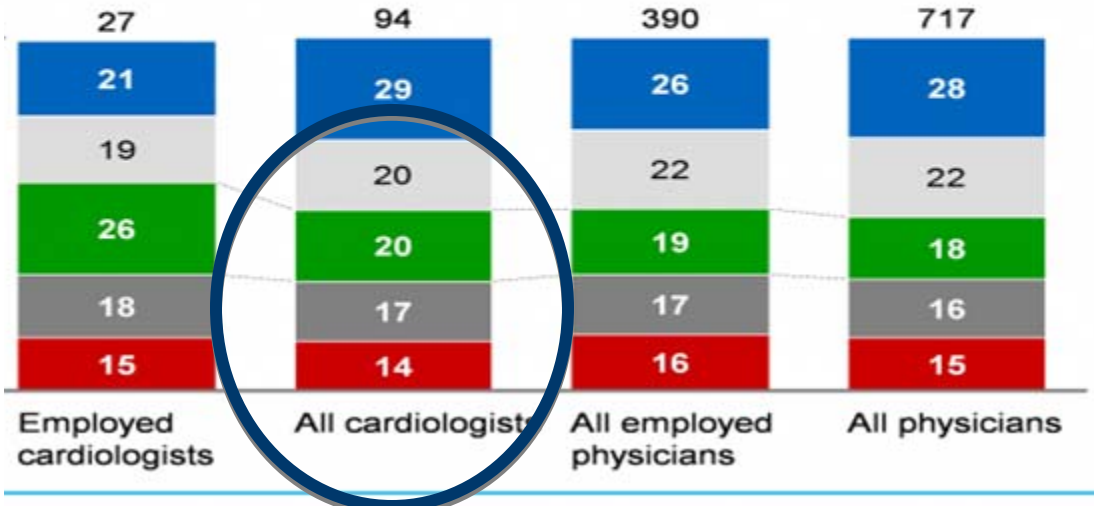
What Makes Physician's Change?

Payment is < 30%!

~70% = Training, Feedback, Communication Leadership

Don't Involve Penalty or Reward

- Compensation
- Training, Resources
- Physician Leaders
- Feedback
- Communication



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SMARTCare Components

Tools:

FOCUS

Shared Decision Making

ePrism

INDIGO

Registries:

FOCUS

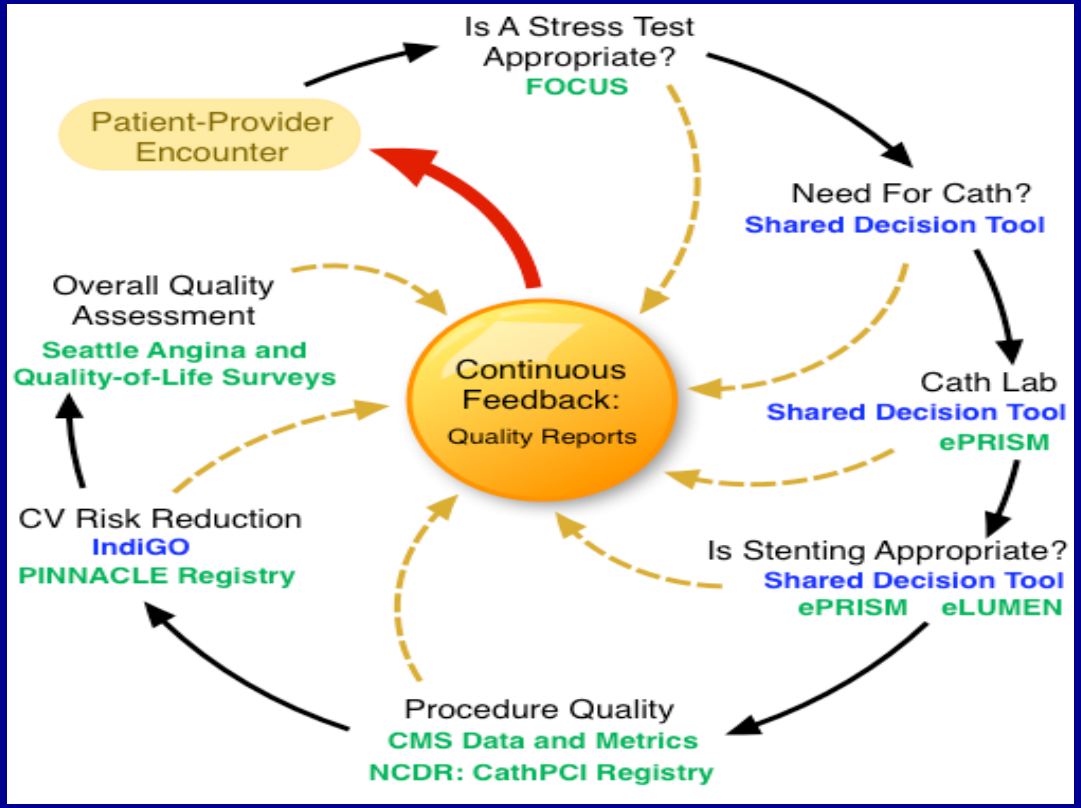
ePrism

NCDR

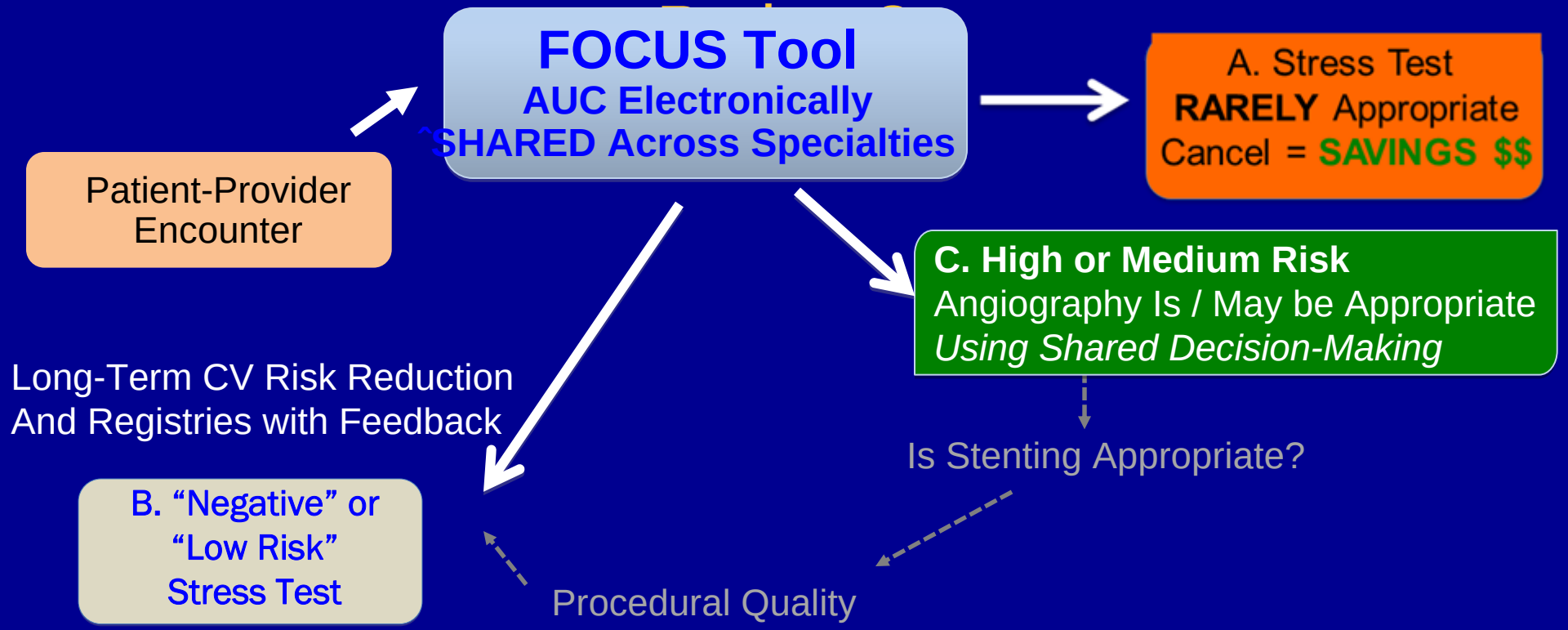
PINNACLE

- 3 year project; $15.8 million
- 5 sites in Wisconsin, 5 sites in Florida

SMARTCare: Overview



Will A Stress Test Provide Value and Help



Prior To Invasive Testing, *Shared Decision Making:* More Patients Choose Non-Invasive Treatment

HOS *Personalizing Evidence Improving Outcomes*

Patient Name: Dodson, Madge .
Date of Birth: 3/9/1933
Medical Record Number: 20729-36607-41011

We are asking you to sign this form. It is very important tha
care. It is important to understand the procedure, its risk, ben
with you about these. Be sure you get your questions answ
Please initial and date here to show that you understand.

Patient's initials or authorized individual

I hereby authorize Dr. _____
perform the following procedure(s):

Cardiac Catheterization with Possible Percutaneous Co

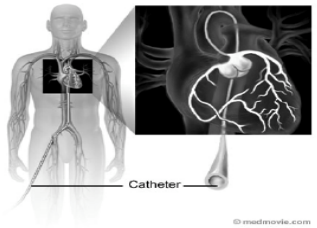


Figure 1

Cardiac cath
to diagnose
long, thin, fl
blood vessel
and threade
catheter, do
treatments o

During the p
catheter to
vessels sho
coronary a
can help you
that supply
be giving yo
risk for a hea

If a vessel is blocked, your doctor may decide to treat the bl
implant. (If your doctor decides that surgery is needed instead of a procedure, a coronary artery bypass graft (CABG) may be done at a later time.)

Angioplasty: In this procedure an expandable balloon on a catheter is used to help unblock arteries. The balloon expands and presses the plaque blockage against the artery wall (Figure 2). The procedure opens the artery and allows better blood flow.

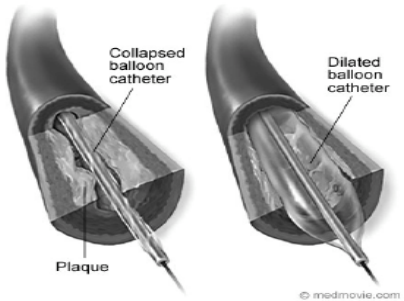


Figure 2

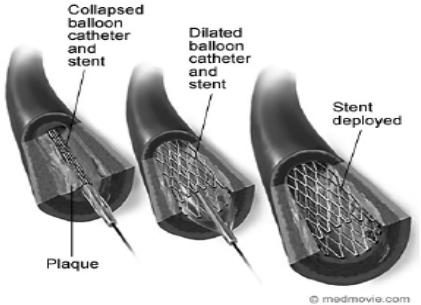


Figure 3

Stent Implant: A catheter is used to deliver a small metal mesh tube (stent) to a blockage in an artery (Figure 3). A stent, which helps keep the artery open, is often implanted after angioplasty.

The doctor has explained the benefits of the procedure(s) to me. I understand there is no guarantee that I will achieve those benefits. I understand that unknown things may happen during this procedure. Because of that, a different procedure may be needed. Therefore, I authorize the doctor, associates, or assistants to perform any procedure(s) needed to best take care of me. I authorize sedation and/or anesthesia to be given to me for my comfort, well-being, and safety. This would be done by:

_____

eLumen: Decision Aids In the Cath Lab Can Improve Safety and Substantially Reduce Costs

Patient-Provider Encounter

Is A Stress Test Appropriate?

FOCUS Tool

Is Angiography Appropriate?

Shared Decision-Making Tool

Name: Martha Johnson | Age: 51 | Weight: 121 lbs

PCI Mortality Risk:	0.16%
PCI Bleeding Risk:	1.08%
Restenosis Risk (DES):	4.90%
Restenosis Risk (BMS):	8.56%

Post-procedure Restenosis Risk

Diameter	Length > 30mm		Length < 30mm	
< 3mm	BMS:	9.25%	BMS:	7.21%
	DES:	4.93%	DES:	3.84%
> 3mm	BMS:	6.36%	BMS:	4.93%
	DES:	3.33%	DES:	2.52%

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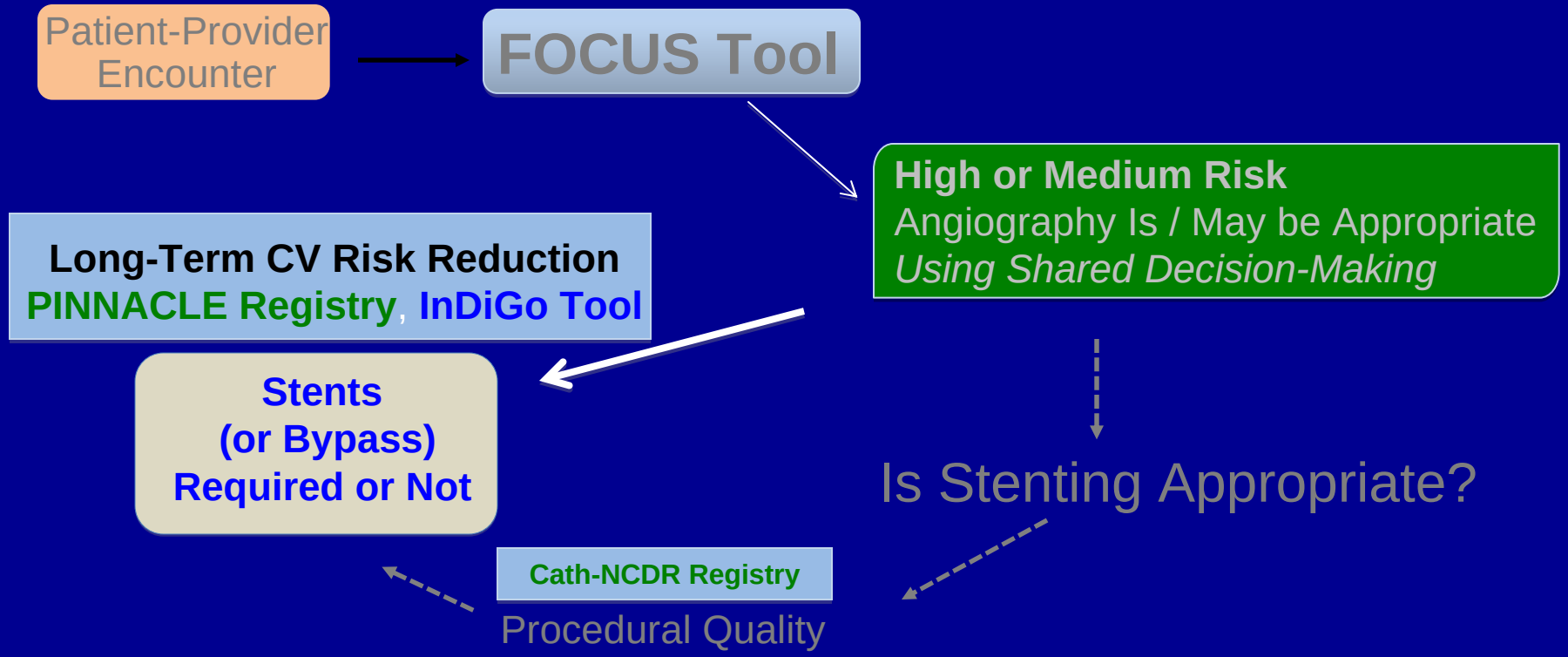
Is Stenting Appropriate?

eLumen Tool

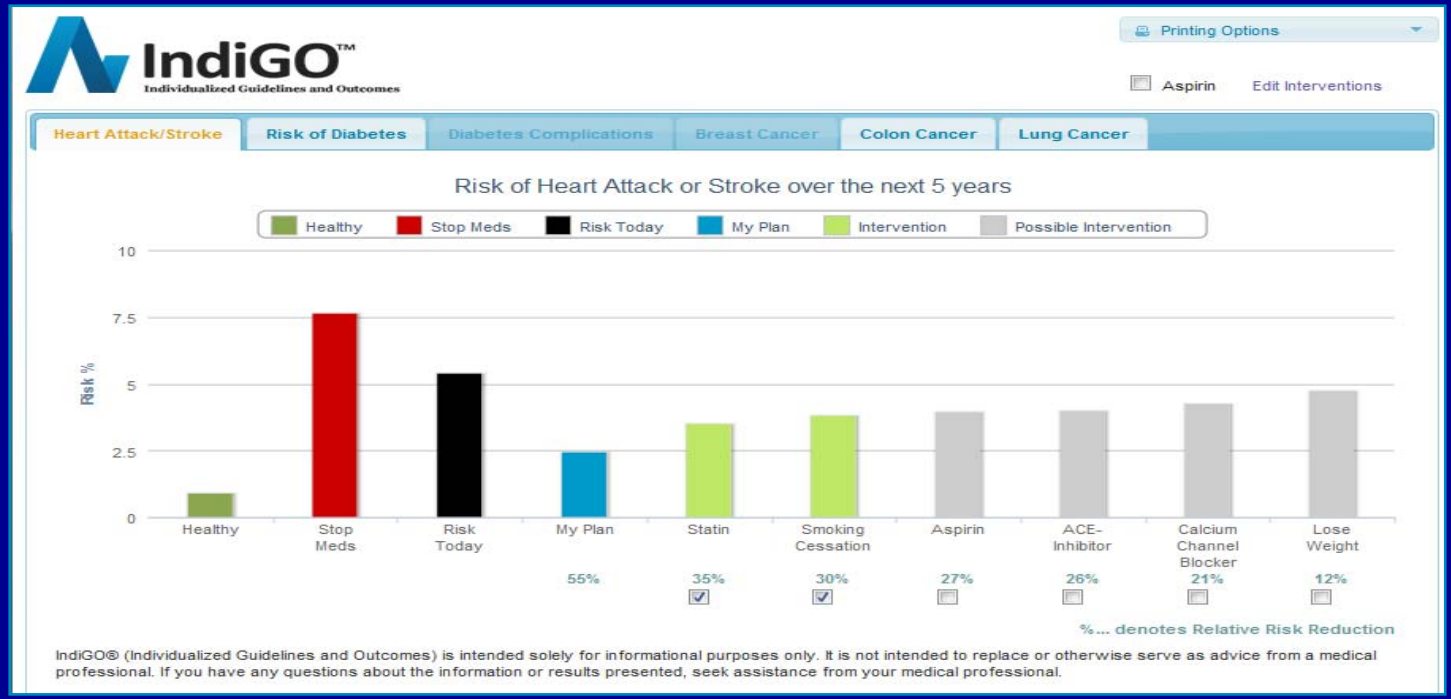
Calculates Risk/Benefit:

- Kidney Injury
- "Plain" vs. "Coated" Stent
- Heparin vs. Bivalirudin

Whether Stents, Bypass or Medical Therapy, Patients are counseled by providers using electronic tools, registries, And these are shared among specialists, PCPs, APPs



Specialists, PCPs, and APPs Use IndiGo, Pinnacle To Counsel Patients and Benchmark Performance Against National Goals



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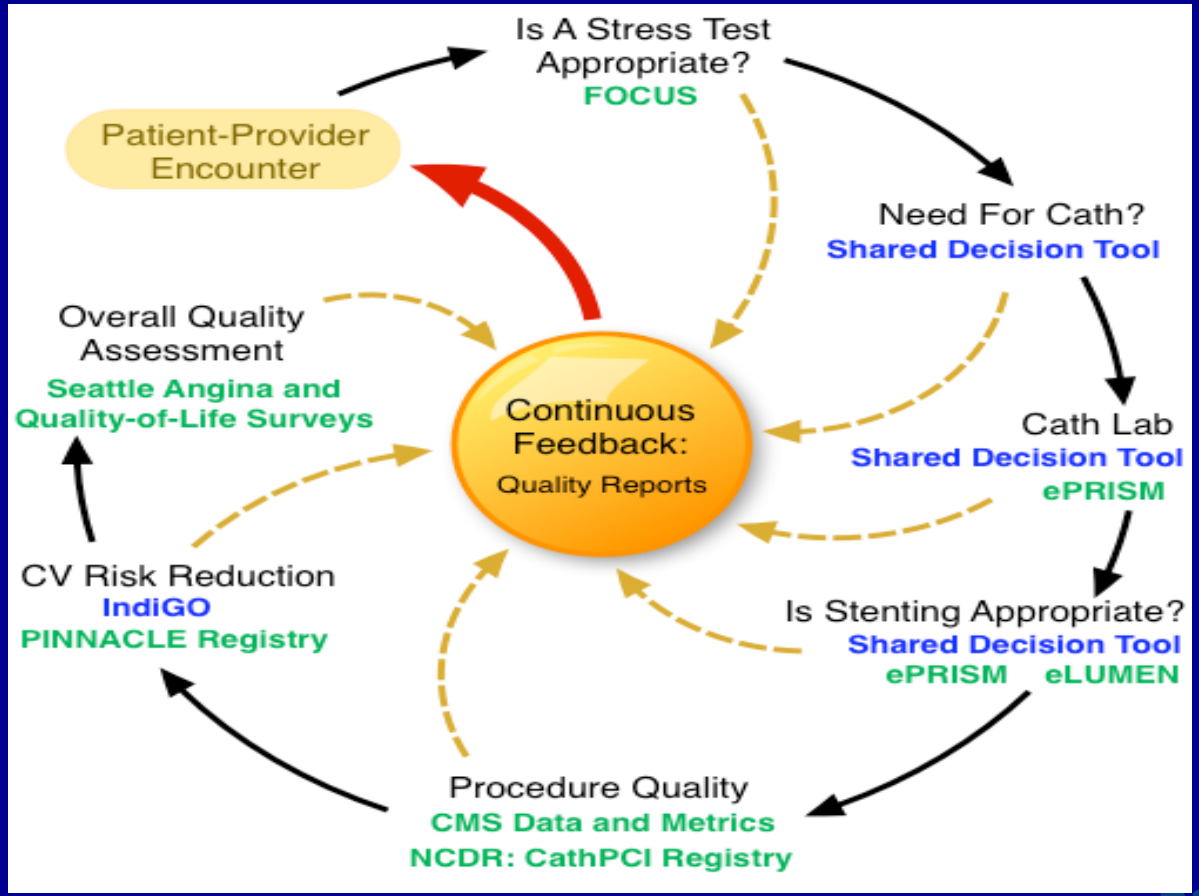

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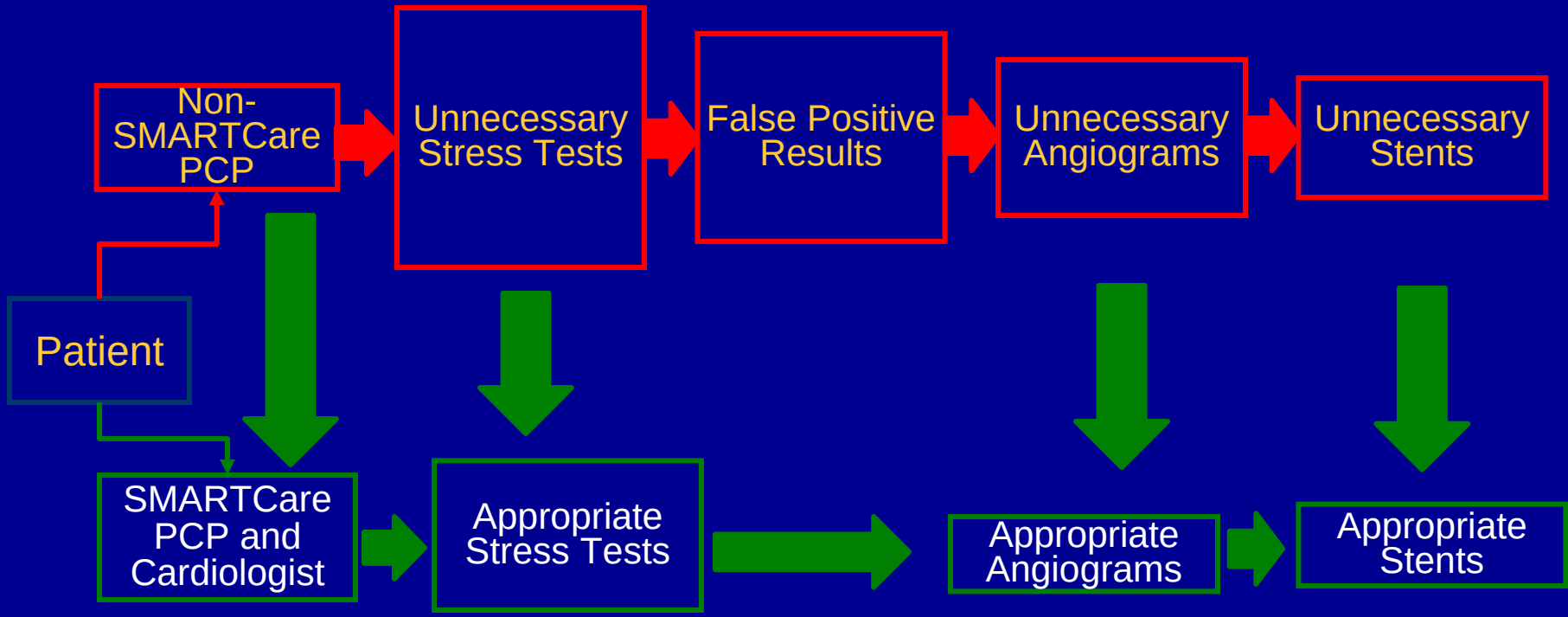
Why Physicians Participate:

In Multiple Practice types, High-value physicians *eagerly* joined SMARTCare!

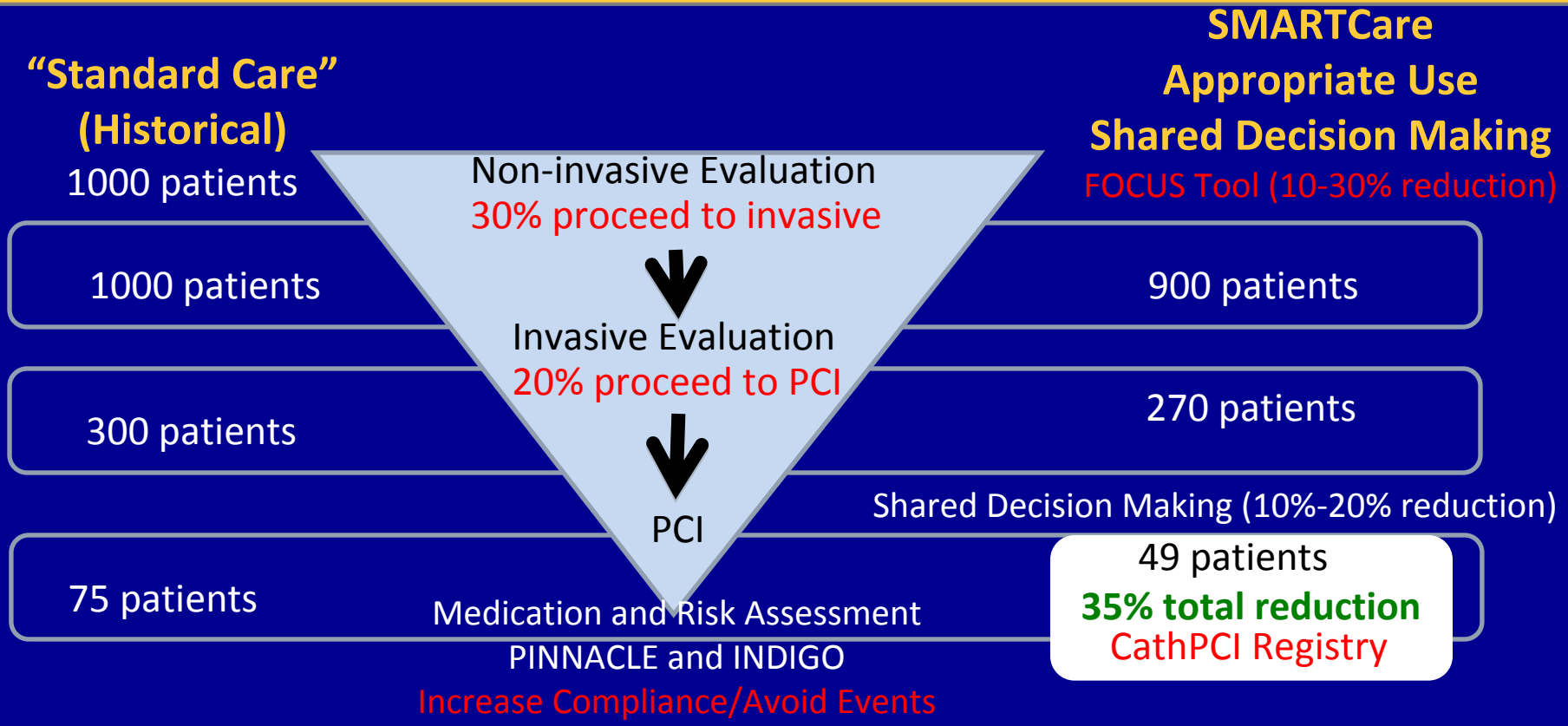
1. Tools Work – and work *best* at the point of care.
   Critical information to both physician and patient, *when decisions made*
2. ~ Half of all stress tests are ordered by primary care physicians, with a higher rate of “rarely appropriate” tests: FOCUS will decrease this rate along with unnecessary downstream invasive studies
3. What is “Best Practice” changes rapidly
4. We will be *<u>required</u>* to use decision aids;
   MACRA: We will be paid based on “Value”.
5. Convenience: Satisfy CMS’ Bonuses, Metrics, etc.
6. Professionalism: Physicians, ACC determine AUC, metrics

SMARTCare Goal: Reducing Unnecessary Stress Tests Reduces Downstream Procedures

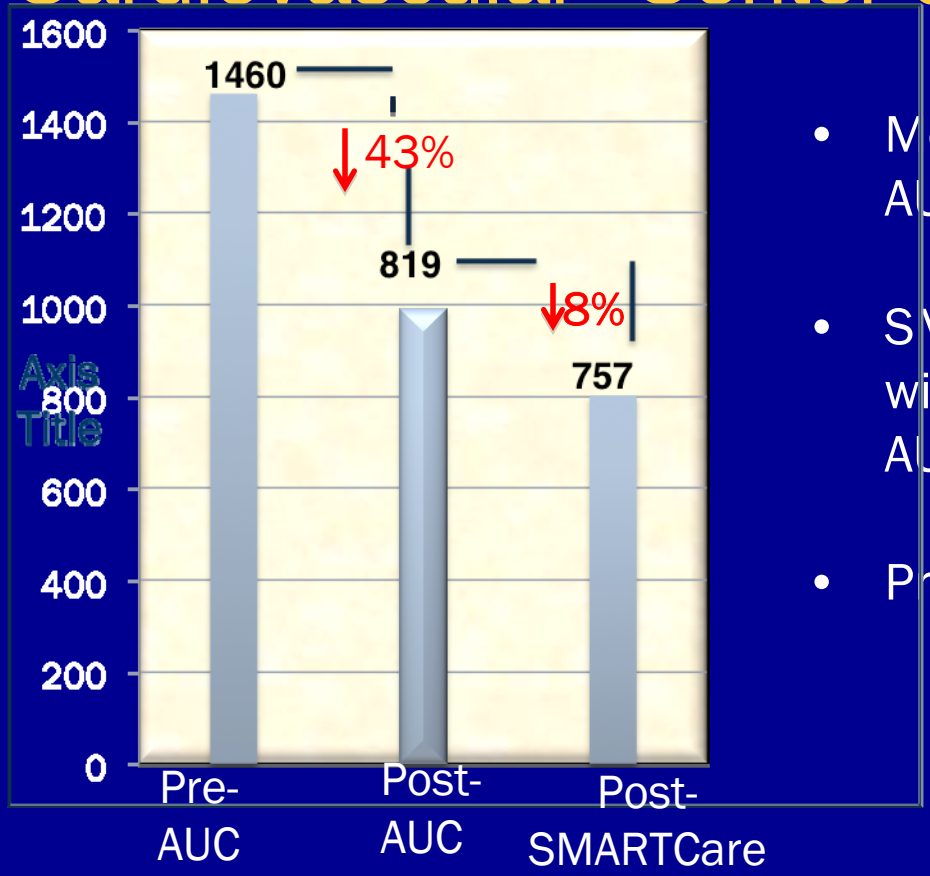


Potential Utiilization Reduction and Savings

Reducing Rarely Appropriate Upstream Testing and Engaging Patients
Decreases Testing and Downstream PCI – Decision Support, Payment, and Research

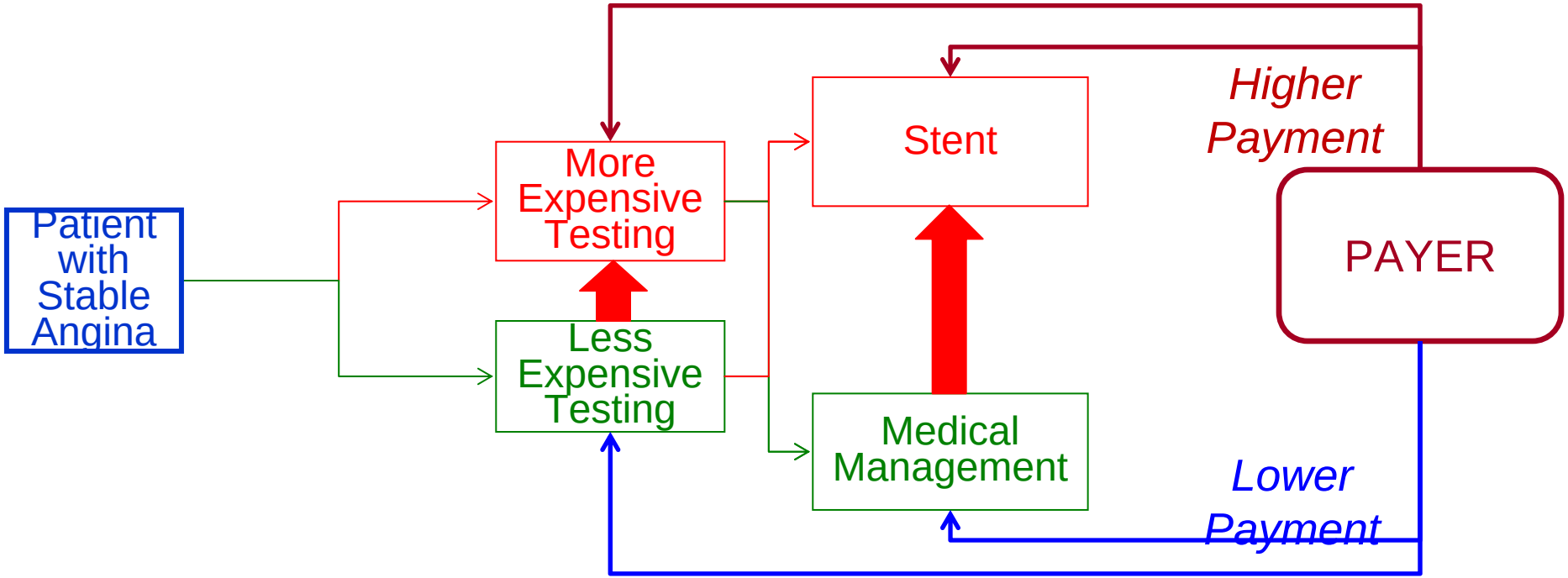


Impact - Reduction in Stress Tests: Cardiovascular "Center of Excellence" (UHC, FL-Blue)

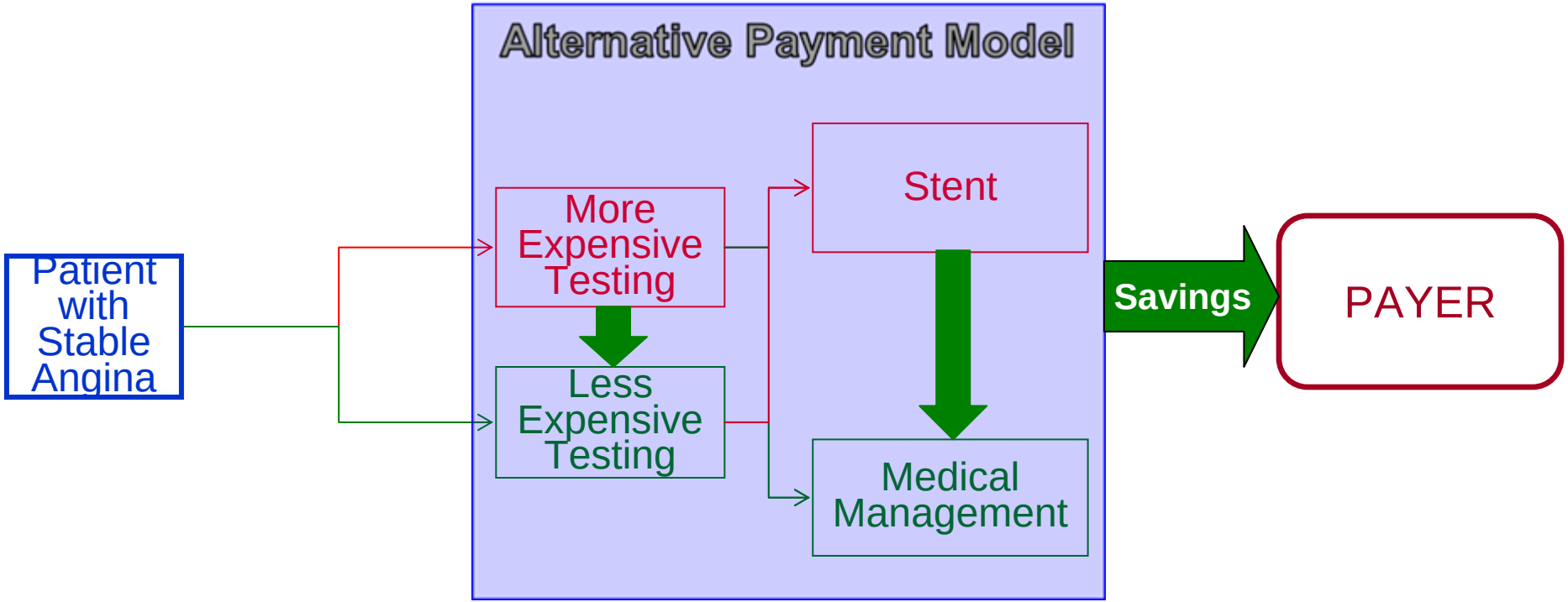


- Motivated Cardiology Specialists: AUC alone results in 43% reduction
- SMARTCare: incremental 8% reduction with specialists already practicing with AUC at the highest level!
- Pre-AUC to 2015: 48% reduction overall

When There is Uncertainty, FFS Rewards Choosing More



Payment Reform Needed to Reward Cognitive, Conservative Care even for Specialist Care



Conclusions (Thus Far, In Year 1.5)

- Incorporating Appropriate Use Criteria “at the bedside” with electronic tools is feasible and reduces testing deemed rarely appropriate
- Complex care changes *can* occur if incorporated into current workflow
- Physicians accept tools, registries and feedback when they know the data is accurate, reduces their data entry, and improves care
- Although interoperability is a challenge, integrating different EMRs and vendors is achievable when using a centralized dataset
- HIPAA requirements and data security are formidable, but are often used as reason “to control access to the data.”
- Patients report favorably on shared decision making and educational tools
- **Payment models that include specialists and promote sharing best practice among specialties will be needed to further incentivize SMARTCare-like care pathways**

SMARTCare: Not a "Project," Rather, *A Test of Concepts*

1. Physicians (and other providers) who have critical information at the time they make decisions/recommendations, will do so more effectively
2. When patients are empowered with knowledge –
   and when patients participate in decision-making about their care, adherence and satisfaction will increase
3. "Best practices" and AUC advance at an ever increasing pace. Technology ("Tools") now exist to bring the best information "to the bedside" much more rapidly than conventional methods
4. When physicians, groups, and systems are provided with continuous feedback on outcomes, *outcomes will improve further*

These principles can be applied to other scenarios and other specialties

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