Improving Healthcare Value in Coronary Artery Disease

The ICHOM Standard Set in Australia

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Research

Over 150 potentially low-value health care practices: an Australian study


Identifying and acting on potentially inappropriate care

Australian Healthcare - NHMRC

• Research Translation Faculty
  – Newly established Faculty with more than 2,500 NHMRC funded researchers
  – Identify the major evidence - practice gaps in NHMRC’s “Major Health Issues”, and
  – Develop a “Case for Action”, on how NHMRC can address the gap
    • Advice to government
    • Clinical or public health guidelines
    • Transformative research through a Targeted Call for Research
CASE FOR ACTION-
PROPOSAL TO NHMRC

Appropriateness and performance in the management of cardiovascular disease in Australian hospitals

Authors:
Associate Professor Christopher Zeitz
Professor John Beltrame
Australian Healthcare - Media

Dr Norman Swan (2015)

- Australia Healthcare spend = $155b
- Unnecessary spending = $46b
- Rewards procedures not outcomes

‘Surgery – the ultimate placebo’
- Questionable benefit for procedures
Value Healthcare

Focus on:

- improved value, not just reduce cost
- value for patients (i.e. patient outcomes)
- medical conditions over full cycle of care
- regional & national comparisons
- reward innovations that increase value

Porter & Olmsted Telsberg (2006)
International Consortium for Health Outcomes Measurement

Founding Partners

• Non-profit Organisation
• Value-based Healthcare
• Standard Datasets
• Global Comparisons
Coronary Disease Work Group

What are the key outcomes?

0800hrs  1000hrs  1500hrs  1930hrs  2330hrs
ICHOM Coronary Artery Disease Standard Set

Conditions:
• Asymptomatic CAD
• Stable Angina
• Acute Coronary Syndrome

Treatments:
• Lifestyle Modification
• Drug Therapy
• PCI
• Coronary Artery Bypass

Outcomes
ICHOM – CAD Standard

Standardized Outcome Measurement for Patients With Coronary Artery Disease: Consensus From the International Consortium for Health Outcomes Measurement (ICHOM)

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Cardiology 101
Stable Angina

- Chest Pain with exercise
- Myocardial infarct risk 1%/yr
Stable Angina Management
Clinical Outcomes Utilising Revascularisation and Aggressive Guideline-driven drug Evaluation

Patients
• Angina
• Suitable for Stent

Meds Only

Meds + Stent (PCI)

Death / Heart Attack
Post-PCI Angina

Major Adverse Cardiac Events

Number at Risk

- Medications Only: 1138, 1017, 959, 834, 638, 408, 192, 30
- Meds + PCI: 1149, 1013, 952, 833, 637, 417, 200, 35

Survival Free of All-Cause Death/MI

Hazard ratio: 1.05
95% CI (0.87-1.27)
P = 0.62

Angina Improvement


Angina Frequency

Mean SAQ Score

COURAGE-PCI (n=939)
COURAGE-Medical (n=939)
TQEH-PCI (n=118)
TQEH-Medical (n=229)

Time after angiography (months)
PCI Appropriateness

APPROPRIATE USE CRITERIA

ACCF/SCAI/STS/AATS/AHA/ASNC/HFSA/SCCT
2012 Appropriate Use Criteria for Coronary Revascularization Focused Update


Endorsed by the American Society of Echocardiography and the Heart Rhythm Society
PCI Appropriateness
Acute Coronary Syndrome

PCI Appropriateness
Stable Angina

<table>
<thead>
<tr>
<th>Symptoms Med. Rx</th>
<th>Low-Risk Findings on Noninvasive Study</th>
<th>Stress Test Med. Rx</th>
<th>Asymptomatic</th>
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Improving PCI Appropriateness

Stable Angina Management
Holostic’ Stable Angina Management

Disease
Coronary Heart Disease

Symptoms
Angina

Functional Limitation
Physical
Emotional
Social

Quality of Life
Discrepancy in actual & desired health

Patient-focused

Patient-related outcome measures (PROM’s)
Prevalence of Weekly Angina in Stable Angina Patients attending GP’s

How many patients have persistent angina (>1/wk) ?

- Mailout 19,817 GP’s
- 535 GP Expressions of Interest
- 207 Active GP Participation
- 2060 Patients (median 10/GP)
- 2,031 Stable Angina Patients
  Clinical details + Quality of life questionnaire
Cluster-Stratification

29% stable angina patients experience angina ≥ 1/week

**Angina Assessment**

- **GP**: “Optimal Control” = 80%
- **Patient**: “Angina Free” = 52%
  “not limit enjoyment of life” = 47%
Coronary Angiogram Database of South Australia

- A *quality assurance* and *outcomes research* project
- Clinical characteristics & outcomes of SA Teaching Hospital angio pts
- Since 2012, enrolled >20,000 Diagnostic Angiograms + PCI

**In-Hospital Status**
- Clinical Outcomes Registry (ICHOM & Am College Cardiology)
- Health Outcomes Registry (ICHOM Questionnaires)

**Clinical Outcomes Follow-up**
(Death & Re-admission at 12 mths)

**Health-Outcomes Follow-up**
(Patient Outcomes 1 & 12 mth)
Coronary Artery Disease

ICHOM Data Collection:
- Survival (linkage)
- Complications
- Disease Progression
- PROMs

Current Status:
- 1,062 patients
- Psyche Liaison 50pts
- 12-mth follow-up 90%
Angina Improvement

Value-based Health Care

Value = Patient health outcomes achieved / Cost of delivering the outcomes

Improve outcomes: Starting point is to focus on improving health results that matter most for a patient's condition

Reduce overall costs: Better quality of care is often less expensive over the long-term

Increase value: Better quality care at equal or lower cost leads to higher value in the system

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Future Value Healthcare for Stable Angina

Clinician Feedback

Stable Angina -> Angiography ± PCI -> 12-month PROMs

International learning