ACO 30 Antiplatelet Therapy in Ischemic Vascular Disease

Or

How using aspirin pays in quality and shared-savings

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December 21, 2012

Accountable Care Organization 2013 Program Analysis

Quality Performance Standards Narrative Measure Specifications

Prepared for

Quality Measurement & Health Assessment Group
Center for Clinical Standards & Quality
Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, MD 21244-1850

google search:
Accountable Care Organization 2013 Program Analysis - Centers for ...

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

- **ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic**

DESCRIPTION:
Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or another antithrombotic

DENOMINATOR:
Patients aged 18 years and older with the diagnosis of ischemic vascular disease, or who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI)

NUMERATOR:
Patients who are using aspirin or another antithrombotic therapy

RATIONALE:
Aspirin therapy has been shown to directly reduce 14% of the odds of cardiovascular events among men and 12% of the odds for women. (Berger, 2006) Aspirin use reduced the number of strokes by 20%, myocardial infarction (MI) by 30%, and other vascular events by 30%. (Weisman, 2002) Also, aspirin treatments have been shown to prevent 1 cardiovascular event over an average follow-up of 6.4 years. This means that on average in a 6.4 year time period the use of aspirin therapy results in a benefit of 3 cardiovascular events prevented per 1000 women and 4 events prevented per 1000 men. (Berger, 2006) Even for patients with peripheral arterial disease, aspirin has been shown to reduce coronary heart disease (CHD) in people. (Kikano, 2007)

CLINICAL RECOMMENDATION STATEMENTS:

What CMS wants:

Centers for Medicare & Medicaid Services

the population

2013 ACO Narrative Measure Specifications
At-Risk Population Domain

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NUMERATOR:
Patients who are using aspirin or another antithrombotic therapy

Number using aspirin or other in previous 12mos

%

adults

diagnosed with CAD or large artery atherosclerosis

(think carotid and PAD codes also)

Antiplatelet Agents

The class of antiplatelet drugs include:

- Irreversible cyclooxygenase inhibitors
- Aspirin
- Adenosine diphosphate (ADP) receptor inhibitors
- Clopidogrel (Plavix)
- Prasugrel (Effient)
- Ticagrelor (Brilinta)
- Ticlopidine (Ticlid)
- Phosphodiesterase inhibitors
- Cilostazol (Pletal)
- Glycoprotein IIB/IIIA inhibitors (intravenous use only)
- Abciximab (ReoPro)
- Eptifibatide (Integrilin)
- Tirofiban (Aggrastat)
- Adenosine reuptake inhibitors
- Dipyridamole (Persantine)
- Thromboxane inhibitors
- Thromboxane synthase inhibitors
- Thromboxane receptor antagonists
    - Terutroban

But how does Centers for Medicare-Medicaid Services (CMS) know if we are meeting the quality metric??

google search: [0068 - National Quality Forum]

NQF #0068

NATIONAL QUALITY FORUM

Measure Evaluation 4.1
December 2009

This form contains the measure information submitted by stewards. Blank fields indicate no information was provided. Attachments also may have been submitted and are provided to reviewers. The subcriteria and most of the footnotes from the evaluation criteria are provided in Word comments within the form and will appear if your cursor is over the highlighted area. Hyperlinks to the evaluation criteria and ratings are provided in each section.

TAP/Workgroup (if utilized): Complete all yellow highlighted areas of the form. Evaluate the extent to which each subcriterion is met. Based on your evaluation, summarize the strengths and weaknesses in each section.

Note: *If there is no TAP or workgroup, the SC also evaluates the subcriteria (yellow highlighted areas).*

Steering Committee: Complete all pink highlighted areas of the form. Review the workgroup/TAP assessment of the subcriteria, noting any areas of disagreement; then evaluate the extent to which each major criterion is met; and finally, indicate your recommendation for the endorsement. Provide the rationale for your ratings.

Evaluation ratings of the extent to which the criteria are met
C = Completely (unquestionably demonstrated to meet the criterion)
P = Partially (demonstrated to partially meet the criterion)
M = Minimally (addressed BUT demonstrated to only minimally meet the criterion)
N = Not at all (NOT addressed; OR incorrectly addressed; OR demonstrated to NOT meet the criterion)
NA = Not applicable (only an option for a few subcriteria as indicated)

(for NQF staff use) **NQF Review #:** 0068 **NQF Project:** Cardiovascular Endorsement Maintenance 2010

MEASURE DESCRIPTIVE INFORMATION

De.1 Measure Title: Ischemic Vascular Disease (IVD): Use of Aspirin or another Antithrombotic

De.2 Brief description of measure: The percentage of patients with ischemic vascular disease who currently report taking aspirin and the percentage of patients with ischemic vascular disease who were counseled about the risks and benefits of aspirin.

numerator statement

high % quality + = shared savings

2a. MEASURE SPECIFICATIONS

S.1 Do you have a web page where current detailed measure specifications can be obtained?
S.2 If yes, provide web page URL:

2a. Precisely Specified

2a.1 Numerator Statement (*Brief, text description of the numerator - what is being measured about the target population, e.g. target condition, event, or outcome*):
Current aspirin use. The percentage of members in the denominator who are currently taking aspirin.
The number of patients who have documentation of use of aspirin or another antithrombotic during the 12-month measurement period.
Documentation in the medical record must include, at a minimum, a note indicating the date on which aspirin or another antithrombotic was prescribed or documentation of prescription from another treating physician.

2a.2 Numerator Time Window (*The time period in which cases are eligible for inclusion in the numerator*):
12 months

2a.3 Numerator Details (*All information required to collect/calculate the numerator, including all codes, logic, and definitions*):
Table IVD-D: Codes to Identify Prescribed Oral Anti-Platelet Therapy

Description	CPT Category II	ICD-9-CM Diagnosis
Oral anti-platelet therapy prescribed	4011F	V58.63, V58.66

Table IVD-E: Oral Anti-Platelet Therapies

Description	Prescription	
Oral anti-platelet therapies	• aspirin	
• clopidogrel		
• aspirin-dipyridamole	• prasugrel	
• ticlopidine		

2a-specs C☐ P☐ M☐ N☐

Rating: C=Completely; P=Partially; M=Minimally; N=Not at all; NA=Not applicable 7

denominator statement

NQF #0068

2a.4 Denominator Statement (*Brief, text description of the denominator - target population being measured*):
Age 18 years or older as of December 31 of the measurement year.
Patient inclusion criteria Health plan. Continuous medical benefit enrollment for the measurement year, with no more than one gap in continuous enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, there may not be more than a 1-month gap in coverage during each year of continuous enrollment. The patient must be enrolled as of December 31 of the measurement year.
Non-health plan. Any enrollment, claim or encounter transaction any time during the measurement year.
Event/ diagnosis Event. Discharged alive for AMI, CABG or PCI on or between January 1 and November 1 of the year prior to the measurement year. Use the codes listed in Table IVD-A to identify AMI, PCI and CABG. AMI and CABG cases should be from inpatient claims only. All cases of PCI should be included, regardless of setting (e.g., inpatient, outpatient, ED).
Diagnosis. Identify patients as having IVD who met at least one of the two criteria below, during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.
•At least one outpatient visit (Table IVD-C) with an IVD diagnosis (Table IVD-B), or
•At least one acute inpatient visit (Table IVD-C) with an IVD diagnosis (Table IVD-B)Medical record data
Documentation of IVD in the medical record includes:
•IVD
•Ischemic heart disease
•Angina
•Coronary atherosclerosis
•Coronary artery occlusion
•Cardiovascular disease
•Occlusion or stenosis of precerebral arteries (including basilar, carotid and vertebral arteries)
•Atherosclerosis of renal artery
•Atherosclerosis of native arteries of the extremities
•Chronic total occlusion of artery of the extremities
•Arterial embolism and thrombosis
•Atheroembolism.
Note: Use paper logs, patient registries or EMRs to identify the denominator, then use the medical record to confirm patient eligibility.
Exclusions None.

Table IVD-A: Codes to Identify AMI, PCI and CABG

Description	CPT	HCPCS	ICD-9-CM Diagnosis	ICD-9-CM Procedure
AMI (inpatient only)			410.x1	
CABG (inpatient only)	33510-33514, 33516-33519, 33521-33523, 33533-33536			S2205-S2209
				36.1, 36.2
PCI	92980, 92982, 92995	G0290		00.66, 36.06, 36.07

Table IVD-B: Codes to Identify IVD

Description	ICD-9-CM Diagnosis
IVD	411, 413, 414.0, 414.2, 414.8, 414.9, 429.2, 433, 434, 440.1, 440.2, 440.4, 444, 445

Source: Table CMC-B in Cholesterol Management for Patients With Cardiovascular Conditions.

V58.66 Long-term (current) use of aspirin

V58.63 Long-term (current) use of antiplatelets/antithrombotics

4011F Substance
Poisoning
Accident
Therapeutic Use
Suicide Attempt
Assault
Undetermined

Reimbursement = % NQF Numerator statement / NQF Denominator statement

Table IVD-A: Codes to Identify AMI, PCI and CABG

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PCI	92980, 92982, 92995	G0290		00.66, 36.06, 36.07

Table IVD-B: Codes to Identify IVD

Description	ICD-9-CM Diagnosis
IVD	411, 413, 414.0, 414.2, 414.8, 414.9, 429.2, 433, 434, 440.1, 440.2, 440.4, 444, 445

- IVD
- Ischemic heart disease
- Angina
- Coronary atherosclerosis
- Coronary artery occlusion
- Cardiovascular disease
- Occlusion or stenosis of precerebral arteries (including basilar, carotid and vertebral arteries)
- Atherosclerosis of renal artery
- Atherosclerosis of native arteries of the extremities
- Chronic total occlusion of artery of the extremities
- Arterial embolism and thrombosis
- Atheroembolism.

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

RATIONALE:

Aspirin therapy has been shown to directly reduce 14% of the odds of cardiovascular events among men and 12% of the odds for women. (Berger, 2006) Aspirin use reduced the number of strokes by 20%, myocardial infarction (MI) by 30%, and other vascular events by 30%. (Weisman, 2002) Also, aspirin treatments have been shown to prevent 1 cardiovascular event over an average follow-up of 6.4 years. This means that on average in a 6.4 year time period the use of aspirin therapy results in a benefit of 3 cardiovascular events prevented per 1000 women and 4 events prevented per 1000 men. (Berger, 2006) Even for patients with peripheral arterial disease, aspirin has been shown to reduce coronary heart disease (CHD) in people. (Kikano, 2007)

Meta-analysis 6 trials 1966 - 2005
51,342 women 44,114 men

Aspirin for the Primary Prevention of Cardiovascular Events in Women and Men

A Sex-Specific Meta-analysis of Randomized Controlled Trials

FREE

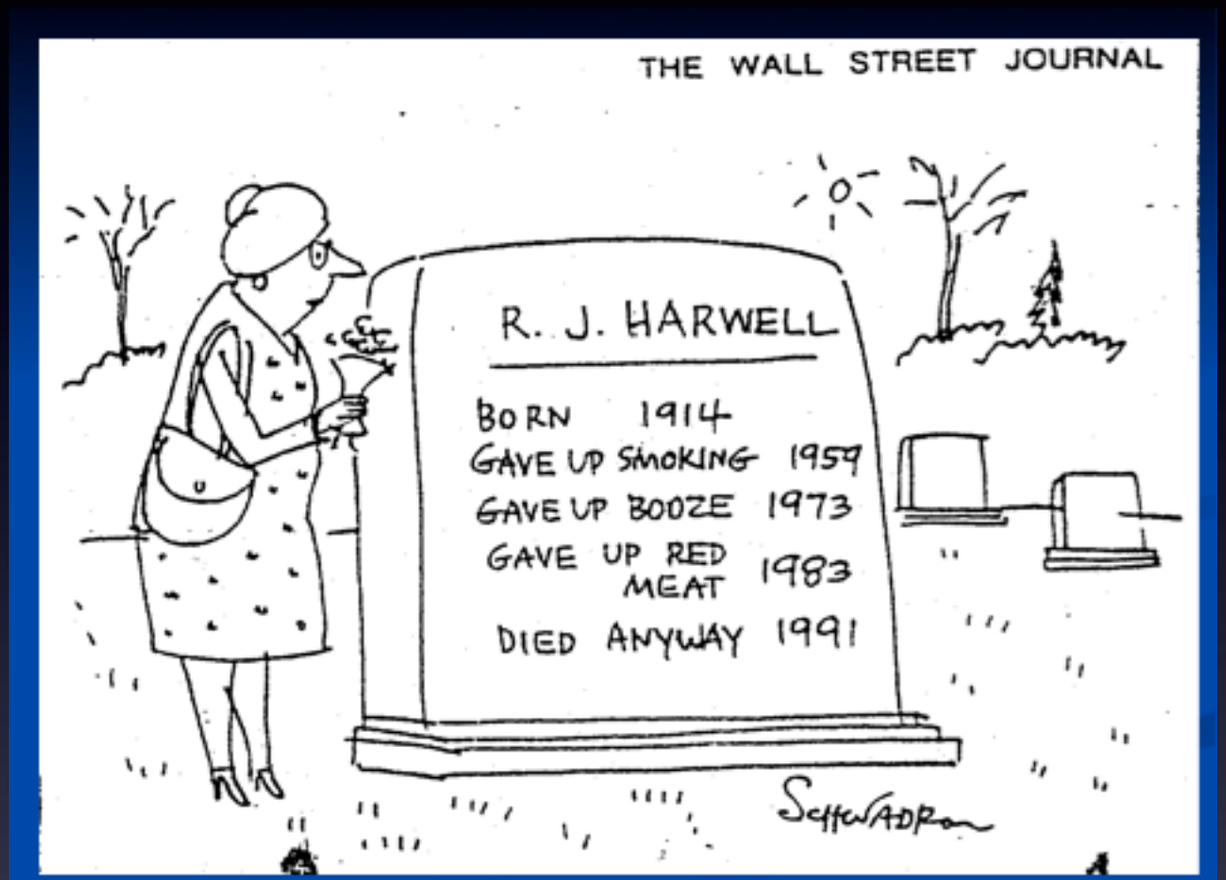
Jeffrey S. Berger, MD, MS; Maria C. Roncaglioni, MD; Fausto Avanzini, MD; Ierta Pangrazzi, MD; Gianni Tognoni, MD; David L. Brown, MD

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

1a.3 Summary of Evidence of High Impact: Coronary Heart Disease (CHD) was an underlying or contributing cause of death for 451,300 people that accounted for 1 of every 5 deaths in the United States in 2004. AMI was as an underlying or contributing cause of death for 156,000 people (AHA, 2008). In addition, the prevalence of CHD for both sexes in 2005 is nearly 16 million people or 7.3% of the American population (AHA, 2008) The cost of cardiovascular diseases and stroke in the United States for 2008 is estimated at $448.5 billion (AHA, 2008)

Modest but real savings 3.5 lives /1000

for 16,000,000 ~56,000 events saved at a savings of several billions of dollars


THE WALL STREET JOURNAL
R. J. HARWELL
BORN 1914
GAVE UP SMOKING 1959
GAVE UP BOOZE 1973
GAVE UP RED MEAT 1983
DIED ANYWAY 1991
SCHWADRON

Keeping Perspective: Many Risk Factor Modifications Are More Effective

Established Risk Factors for CHD

Blood cholesterol
10% ↓ = 20%-30% ↓ in CHD

High blood pressure
5-6 mm Hg ↓ = 42% ↓ in Stroke
= 16% ↓ in CHD

Cigarette smoking
Cessation = 50%-70% ↓ in CHD

Body weight
BMI<25 vs BMI>27 = 35%-55% ↓ in CHD

Physical activity
20-minute brisk walk daily = 35%-55% ↓ in CHD

"Take an aspirin every day, but before you swallow it, take it out for a five-mile walk."

Framingham Calculator

- Iphone: Safari -> http://sumsearch.org/fram ->

Add to Home Screen

- Android (tell me)

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Clinical recommendation Statements:

1.

CLINICAL RECOMMENDATION STATEMENTS:

The U.S. Preventive Services Task Force (USPSTF) strongly recommends that clinicians discuss aspirin chemoprevention with adults who are at increased risk (5-year risk of greater than or equal to 3 percent) for coronary heart disease (CHD). Discussions with patients should address both the potential benefits and harms of aspirin therapy.

The USPSTF found good evidence that aspirin decreases the incidence of coronary heart disease in adults who are at increased risk for heart disease. They also found good evidence that aspirin increases the incidence of gastrointestinal bleeding and fair evidence that aspirin increases the incidence of hemorrhagic strokes. The USPSTF concluded that the balance of benefits and harms is most favorable in patients at high risk of CHD (5-year risk of greater than or equal to 3 percent) but is also influenced by patient preferences.

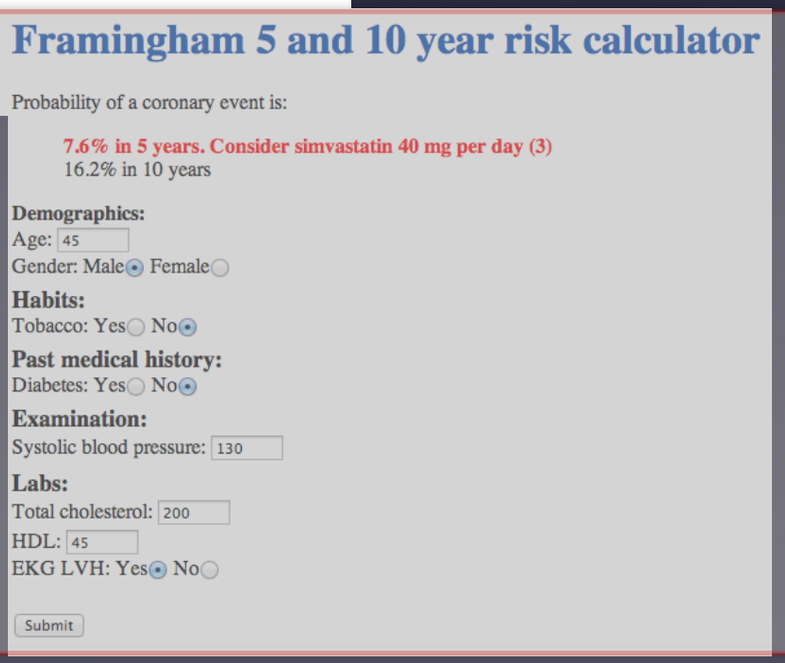
USPSTF encourages men age 45 to 79 years to use aspirin when the potential benefit of a reduction in myocardial infarctions outweighs the potential harm of an increase in gastrointestinal hemorrhage. They encourage women age 55 to 79 years to use aspirin when the potential benefit of a reduction in ischemic strokes outweighs the potential harm of an increase in gastrointestinal hemorrhage.

V58.63 Long-term (current) use of antiplatelets/antithrombotics

V58.66 Long-term (current) use of aspirin

4011F Substance
Poisoning
Accident
Therapeutic Use
Suicide Attempt
Assault
Undetermined

Framingham Calculator
http://sumsearch.org/fram/



Framingham 5 and 10 year risk calculator

Probability of a coronary event is:

7.6% in 5 years. Consider simvastatin 40 mg per day (3)
16.2% in 10 years

Demographics:
Age: 45
Gender: Male ◉ Female ○

Habits:
Tobacco: Yes ○ No ◉

Past medical history:
Diabetes: Yes ○ No ◉

Examination:
Systolic blood pressure: 130

Labs:
Total cholesterol: 200
HDL: 45
EKG LVH: Yes ◉ No ○

Submit

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Aspirin for the Primary Prevention of Cardiovascular Events in Women and Men

A Sex-Specific Meta-analysis of Randomized Controlled Trials

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Harm of Aspirin Therapy

Aspirin treatment resulted in an approximately 70% increase in the risk of major bleeding events among women and men. Based on the absolute risk increase of 0.25% and 0.33% in women and men, respectively, the number needed to harm over 6.4 years of aspirin treatment by causing 1 major bleeding event was 400 women and 303 men. In other words, aspirin therapy for an average of 6.4 years results in an average absolute increase of approximately 2.5 major bleeding events caused per 1000 women and 3 major bleeding events caused per 1000 men.

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Clinical recommendation Statements:

2. The American Diabetes Association (ADA) recommends use aspirin therapy (75-162 mg/day) as a primary prevention strategy in those with type 1 or 2 diabetes at increased cardiovascular risk, including those who are 40 years of age or who have additional risk factors (family history of cardiovascular disease (CVD), hypertension, smoking, dyslipidemia, or albuminuria).

81mg ASA

Framingham 5 and 10 year risk calculator

Probability of a coronary event is:

1.6% in 5 years.
4.1% in 10 years

Demographics:
Age: 38
Gender: Male Female

Habits:
Tobacco: Yes No

Past medical history:
Diabetes: Yes No

Examination:
Systolic blood pressure: 120

Labs:
Total cholesterol: 200
HDL: 45
EKG LVH: Yes No

Submit

5 year risk ≥3% or
10 year risk ≥6%

Clinical recommendation Statements:

81mg ASA

3. American Heart Association/American College of Cardiology (AHA/ACC): Start aspirin 75 to 162 mg/day and continue indefinitely in all patients with coronary and other vascular disease unless contraindicated.

PCI **V45.82 Percutaneous transluminal coronary angioplasty status**

CABG **V45.81 Aortocoronary bypass status**

MI **410 Acute myocardial infarction**

Carotid

PAD

- **411 Other acute and subacute forms of ischemic heart disease**
- **413 Angina pectoris**
- **414 Other forms of chronic ischemic heart disease**
- **414.2 Chronic total occlusion of coronary artery**

414.8 Other specified forms of chronic ischemic heart disease
Chronic coronary insufficiency
, myocardial (chronic)
Any condition classifiable to 410 specified as chronic, or presenting with symptoms after 8 weeks from date of infarction

414.9 Chronic ischemic heart disease, unspecified
Ischemic heart disease NOS

- **429.2 Cardiovascular disease, unspecified** Arteriosclerotic cardiovascular disease [ASCVD], Cardiovascular arteriosclerosis

- **433 Occlusion and stenosis of precerebral arteries**
- **434 Occlusion of cerebral arteries**
- **440.1 Of renal artery**
- **440.2 Of native arteries of the extremities**
- **440.4 Chronic total occlusion of artery of the extremities**
- **444 Arterial embolism and thrombosis**
  Includes:infarction:,embolic ,thrombotic, occlusion
- **445 Atheroembolism**
  Includes:Atherothrombic microembolism, Cholesterol embolism

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Clinical recommendation Statements:

4. Institute for Clinical Systems Improvement (ICSI): Aspirin should be prescribed to all patients with stable coronary disease. If a patient is aspirin intolerant, then use clopidogrel.

CURE

Effects of Clopidogrel in Addition to Aspirin in Patients with Acute Coronary Syndromes without ST-Segment Elevation

The Clopidogrel in Unstable Angina to Prevent Recurrent Events Trial Investigators
N Engl J Med 2001; 345:494-502 | August 16, 2001 | DOI: 10.1056/NEJMoa010746

- CURE Trial found 2.1% absolute benefit clopidogrel + ASA vs. ASA alone
  - EXCLUDED ANY CENTER WITH AN EARLY INVASIVE STRATEGY
  - 6 / 1000 increase in bleeding requiring transfusion

TABLE 2. INCIDENCE OF THE MAIN STUDY OUTCOMES.*

OUTCOME	CLOPIDOGREL GROUP (N=6259)	PLACEBO GROUP (N=6303)	RELATIVE RISK (95% CI)	P VALUE
	no. (%)			
First primary outcome: nonfatal myocardial infarction, stroke, or death from cardiovascular causes	582 (9.3)	719 (11.4)	0.80 (0.72–0.90)	<0.001
Second primary outcome: first primary outcome or refractory ischemia	1035 (16.5)	1187 (18.8)	0.86 (0.79–0.94)	<0.001
Death from cardiovascular causes	318 (5.1)	345 (5.5)	0.93 (0.79–1.08)	
Myocardial infarction†	324 (5.2)	419 (6.7)	0.77 (0.67–0.89)	
Q-wave	116 (1.9)	193 (3.1)	0.60 (0.48–0.76)	
Non–Q-wave	216 (3.5)	242 (3.8)	0.89 (0.74–1.07)	
Stroke	75 (1.2)	87 (1.4)	0.86 (0.63–1.18)	
Refractory ischemia‡	544 (8.7)	587 (9.3)	0.93 (0.82–1.04)	
During initial hospitalization	85 (1.4)	126 (2.0)	0.68 (0.52–0.90)	
After discharge	459 (7.6)	461 (7.6)	0.99 (0.87–1.13)	
Death from noncardiovascular causes	41 (0.7)	45 (0.7)	0.91 (0.60–1.39)	

Dose of Clopidogrel: CURRENT- Oasis7

- Randomized, double-blind, 2x2 factorial trial
- 25,087 ACS patients (70.8% UA/non-STEMI)
- Clopidogrel arm: double dose (600mg then 150mg dailyx7days then 75mg dailyx22 days) vs standard dose (300mg then 75mg daily x29 days)
- Aspirin arm: 300-325mg daily vs 75-100mg daily x 30 days.

Mehta, S et al. Am Heart J. Nov 6 2008 ; 156: 1080-1088

CURRENT

Clopidogrel Dose Comparison

- Overall, for efficacy, double-dose clopidogrel (600 loading dose + 150 for 7 days then 75 mg for 22 days) versus standard dose (300 + 75 for 29 days) produced no significant reduction in the primary composite of major CV events (CV death, MI or stroke)
- The hazard ratio of 0.95 was a weighted average of 0.85 (p=.03) among the subgroup undergoing PCI and 1.17 (p=0.14) among the subgroup not undergoing PCI
- Overall, for safety, using the CURRENT definitions, double dose clopidogrel produced significant increases in severe and major bleeds.

Presented at ESC Congress 2009, Barcelona Spain

CURRENT

ASA Dose Comparison

ASA 300-325 mg versus
ASA 75-100 mg showed
no significant differences in
efficacy or bleeding.

Presented at ESC Congress 2009, Barcelona Spain

Dual Antiplatelet Therapy after CoronaryStenting

- DES- Clopidogrel 75mg + ASA 81mg for 1 year
- BMS- Clopidogrel 75mg + ASA 81mg for 1 month

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Clinical recommendation Statements:

5. Veterans Affairs/Department of Defense (VA/DoD): Ensure that all patients with ischemic heart disease or angina symptoms receive antiplatelet therapy (aspirin 81-325 mg/day). For patients who require warfarin therapy, aspirin may be safely used at a dose of 80 mg/day. If use of aspirin is contraindicated, clopidogrel (75 mg/day) may be used.

81mg ASA

caveat emptor

Arch Intern Med. 2010 Sep 13;170(16):1433-41. doi: 10.1001/archinternmed.2010.271.

Risk of bleeding with single, dual, or triple therapy with warfarin, aspirin, and clopidogrel in patients with atrial fibrillation.

Hansen ML, Sørensen R, Clausen MT, Fog-Petersen ML, Raunsø J, Gadsbøll N, Gislason GH, Folke F, Andersen SS, Schramm TK, Abildstrøm SZ, Poulsen HE, Køber L, Torp-Pedersen C.

Department of Cardiology, Copenhagen University Hospital Gentofte, Niels Andersens Vej 65 2900, Hellerup, Copenhagen, Denmark. mlh@heart.dk

RESULTS: A total of 82,854 of 118,606 patients (69.9%) surviving AF hospitalization had at least 1 prescription filled for warfarin, aspirin, or clopidogrel after discharge. During mean (SD) follow-up of 3.3 (2.6) years, 13,573 patients (11.4%) experienced a nonfatal or fatal bleeding. The crude incidence rate for bleeding was highest for dual clopidogrel and warfarin therapy (13.9% per patient-year) and triple therapy (15.7% per patient-year). Using warfarin monotherapy as a reference, the hazard ratio (95% confidence interval) for the combined end point was 0.93 (0.88-0.98) for aspirin, 1.06 (0.87-1.29) for clopidogrel, 1.66 (1.34-2.04) for aspirin-clopidogrel, 1.83 (1.72-1.96) for warfarin-aspirin, 3.08 (2.32-3.91) for warfarin-clopidogrel, and 3.70 (2.89-4.76) for warfarin-aspirin-clopidogrel.

Using warfarin monotherapy as a reference, the hazard ratio (95% confidence interval) for the combined end point was

0.93 (0.88-0.98) for aspirin,

1.06 (0.87-1.29) for clopidogrel,

1.66 (1.34-2.04) for aspirin-clopidogrel

1.83 (1.72-1.96) for warfarin-aspirin

3.08 (2.32-3.91) for warfarin-clopidogrel

3.70 (2.89-4.76) for warfarin-aspirin-clopidogrel

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Clinical recommendation Statements:

6. American Heart Association/American Stroke Association (AHA/ASA): The use of aspirin is recommended for cardiovascular (including but not specific to stroke) prophylaxis among persons whose risk is sufficiently high for the benefits to outweigh the risks associated with treatment (a 10-year risk of cardiovascular events of 6% to 10%).

Framingham 5 and 10 year risk calculator

Probability of a coronary event is:

3.7% in 5 years.
8.7% in 10 years

Demographics:
Age: 45
Gender: Male ○ Female ●

Habits:
Tobacco: Yes ● No ○

Past medical history:
Diabetes: Yes ○ No ●

Examination:
Systolic blood pressure: 150

Labs:
Total cholesterol: 200
HDL: 45
EKG LVH: Yes ○ No ●

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ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

Clinical recommendation Statements:

7. American College of Chest Physicians (ACCP): For long-term treatment after percutaneous coronary intervention (PCI), the guideline developers recommend aspirin, 75 to 162 mg/day. For long-term treatment after PCI in patients who receive antithrombotic agents such as clopidogrel or warfarin, the guideline developers recommend lower-dose aspirin, 75 to 100 mg/day. For patients with ischemic stroke who are not receiving thrombolysis, the guideline developers recommend early aspirin therapy, 160 to 325 mg/day.

after PCI
dual antiplatelet therapy

81mg ASA

after ischemic stroke

only exception?
2 x 81mg ASA

Dose-Dependent Side Effects of Aspirin

The 5 Year UK-TIA Trial of about 2400

Side Effects	Placebo	300 mg	1200 mg
GI Symptoms	25%	29%	39%
GI bleeding requiring transfusion	1.6%	2.6%	4.9%

Warlow C. et al. BMJ, 1988

2nd Stroke Prevention Carotid Stenosis

1 AHA/ASA Guideline

Guidelines for the Prevention of Stroke in Patients With Stroke or Transient Ischemic Attack

Stroke.
2011; 42: 227–276

Recommendations

1. For patients with stroke or TIA due to 50% to 99% stenosis of a major intracranial artery, aspirin is recommended in preference to warfarin (Class I; Level of Evidence B). Patients in the WASID trial were treated with aspirin 1300 mg/d, but the optimal dose of aspirin in this population has not been determined. On the basis of the data on general safety and efficacy, aspirin doses of 50 mg to 325 mg of aspirin daily are recommended (Class I; Level of Evidence B). (New recommendation)

81mg ASA

ASA use in Afib Stroke Prevention (when warfarin can't be used)

1 AHA/ASA Guideline

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Evidence supporting the efficacy of aspirin is substantially weaker than for warfarin. A pooled analysis of data from 3 trials resulted in an estimated relative risk reduction of 21% compared with placebo (95% CI, 0 to 38%).229 The largest aspirin effect was seen in the Stroke Prevention in Atrial Fibrillation (SPAF 1) Trial, which used aspirin 325 mg/d. However, on the basis of results of studies performed in multiple vascular indications, the best balance of the efficacy and safety of aspirin appears to be approximately 75 mg/d to 100 mg/d.229

81mg ASA

Dose Of Aspirin: Indirect Comparisons

Regimen	No Trials	% Reduction (SE)	3*P* value
Aspirin Alone (mg)			
500-1500	34	19 (3)	<0.00001
160-325	19	26 (3)	<0.00001
75-150	12	32 (6)	<0.0001
<75	3	13 (8)	NS
Total	68	23 (2)	<0.0001

X_3^2 het = 8.2, *P*=.04.

AntiThrombotic Trialists Collaboration. Lancet, 2002

ASA 81mg

Final thoughts on Aspirin

- Efficacy vs Risk shows 81mg ASA daily can be used as optimal dose FOR ALL indicated CV conditions
- Prior CABG, PCI, MI, and CVA all benefit from lifetime aspirin therapy at time of discharge

Final thoughts on Aspirin

- In all patients without primary event or evidence of athrosclerosis: Use Framingham calculator and document CV risk.
- Discuss risks and benefits with your patient
- By Risk : Benefit analysis ASA can benefit adult patients with 5 year Risk ≥3% and 10 year Risk ≥ 6%

Making Antiplatelet Therapy Pay

- Use aspirin codes to indicate patients using antiplatelet therapy
- Document contraindication to ASA in patients with IVD who you feel risk outweighs benefit

V58.66 Long-term (current) use of aspirin

V58.63 Long-term (current) use of antiplatelets/antithrombotics

4011F Substance Poisoning Accident Therapeutic Use Suicide Attempt Assault Undetermined ?

- Increased Quality and Shared Savings = antiplatelet code / IVD 400 athrosclerosis codes

ACO 30 (GPRO IVD-2) (NQF #0068): Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic

END

questions?