New Recommendations

Thienopyridines

1. Prasugrel is not recommended as part of a dual antiplatelet therapy regimen in STEMI patients with a prior history of stroke and transient ischemic attack for whom primary PCI is planned (Class III, LOE: C).
2. Intensive glucose control.
3. It is reasonable to use an insulin-based regimen to achieve and maintain glucose levels <180 mg/dL while avoiding hypoglycemia for patients with STEMI with either a complicated or uncomplicated course (Class I, LOE: B).
4. Stents.
5. A DES may be used as an alternative to a BMS for primary PCI in STEMI (Class IIa, LOE: B).
6. A DES may be considered for clinical and anatomical settings in which the efficacy/safety profile appears favorable (Class IIb, LOE: B).

Percutaneous Coronary Intervention

Modified Recommendations

Angiography in Patients with Chronic Kidney Disease (CKD)

1. Appropriate contrast agents during angiography or PCI in patients with CKD now include both isosmolar (Class I, LOE: A) and a low-molecular-weight contrast medium other than ioxaglate or iohexol (Class I, LOE: B).
2. Fractional flow reserve (FFR).
3. It is reasonable to use FFR (Class IIa, LOE: A) or Doppler velocimetry (Class IIa, LOE: C) to assess the effects of intermediate coronary stenoses (30% to 70% luminal narrowing) in patients with anginal symptoms.
4. Routine assessment with FFR or Doppler ultrasonography to assess angiographic disease severity in concordant vascular distribution in patients with angina and a positive, unequivocal noninvasive functional study is not recommended (Class III, LOE: C).

New Recommendations

PCI for Unprotected Left Main Coronary Artery Disease

1. PCI of the left main coronary artery using stents as an alternative to coronary artery bypass graft (CABG) may be considered in patients with anatomical conditions that are associated with low risk of PCI procedural complications and clinical conditions that predict an increased risk of adverse surgical outcomes (Class IIb, LOE: B).
2. Timing of angiography and antiplatelet therapy in UA/NSTEMI.
3. Patients with definite or likely unstable angina/non-ST-elevation myocardial infarction (UA/NSTEMI) who are selected for an invasive approach should receive dual antiplatelet therapy (Class I, LOE: A). Aspirin should be initiated on presentation (Class I, LOE: A). Either clopidogrel (before or at the time of PCI) (Class I, LOE: A) OR prasugrel (at the time of PCI) (Class I, LOE: B) is recommended as a second antiplatelet agent.

It is reasonable for initially stabilized high-risk patients with UA/NSTEMI Global Registry of Acute Coronary Events (GRACE) score >140 to undergo an early invasive strategy within 12 to 24 hours of admission. For patients who are not at high risk, an early invasive approach is also reasonable (Class IIa, LOE: B).

Additional reading:

Kushner FG et al. Published online 18 November 2009 in *Circulation* and *JACC*.

HRT Does Not Protect Against or Improve Survival in Postmenopausal Women Who Develop HF

Over the last 30 years, the incidence of heart failure (HF) has increased in women by about 10% [Levy D et al. *N Engl J Med* 2002; Roger VL et al. *JAMA* 2004], and although survival has improved in women, it has not done so to the same degree as in men [Barker WH et al. *Circulation* 2006]. Although some studies have suggested a beneficial effect on HF survival from hormone therapy [Lindenfeld J et al. *J Am Coll Cardiol* 2003; Reis SE et al. *J Am Coll Cardiol* 2000], others have not seen this relationship [Bibbins-Domingo K et al. *Am J Cardiol* 2005].

Liviu Klein, MD, MS, Northwestern University, Feinberg School of Medicine, Chicago, IL, presented the results of a study that compared the effect of hormone therapy on the incidence of HF and HF survival in postmenopausal women aged 50 to 79 years (~81% white) who were participants in the Women's Health Initiative (WHI) Hormone Therapy Trials. Subjects in this study were randomly assigned to receive 0.625 mg daily of conjugated

equine estrogen (CEE) alone, CEE + 2.5 mg daily of medroxyprogesterone acetate (MPA), or placebo (PBO). A total of 10,739 women with prior hysterectomy were randomized to CEE or PLC; 16,608 women with uterus were randomized to CEE+MPA or PLC.

Subjects were followed for a mean of 7.9 years. There were 331 incident HF events that met the combination of clinical (WHI) and standardized (Framingham) criteria for HF. The incidence of HF was low, as would be expected in this relatively healthy population. Hormone therapy had no effect on the incidence of HF. The risk of HF was not significantly different in the combined HT group compared with the PLC group (Figure 1) or between the two hormone therapy groups (Table 1). There were no significant differences based on age or hormone replacement status.

Figure 1. Heart Failure Incidence and Survival Rates.

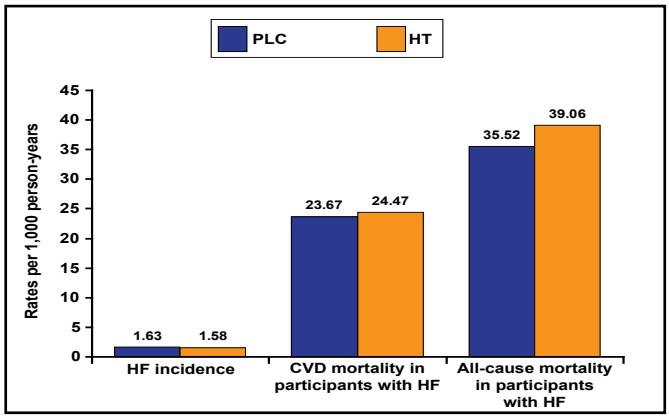

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Table 1. Risk of Heart Failure.

	HR (95% CI vs Placebo)		
	Combined HT Group	CEE	CEE + MPA
Intention-to-Treat	0.97 (0.79, 1.21)	1.06 (0.78, 1.43)	0.91 (0.67, 1.24)
Adjusted*	0.98 (0.79, 1.22)	1.07 (0.79, 1.45)	0.91 (0.67, 1.23)

* Including interim MI; adjusted for age, race, smoking, alcohol, hypertension, systolic blood pressure, BMI, diabetes, high cholesterol

There were 61 cardiovascular (CV) deaths and 95 total deaths in women with incident HF and 339 CV deaths and 1307 total deaths in women with no HF. Hormone therapy had no effect on CV (HR, 0.97; 95% CI, 0.79 to 1.21) or all-cause mortality (HR, 0.91; 95% CI, 0.67 to 1.24), even after adjustment for interim myocardial infarction and ejection fraction status, age, race, smoking, alcohol, hypertension, systolic blood pressure, BMI, diabetes, and high cholesterol.