

Individualizing Cardiovascular Risk Assessment & Primary Prevention

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Mrs. Mc Statin:



63 yo woman presents for risk evaluation Brother died of MI age 51 Lifelong nonsmoker Active, works retail, asymptomatic BP controlled on HCTZ-ARB

Wants to discuss CV risk and prevention.

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Heart disease is the #1 killer of Arkansans





Atherosclerotic Cardiovascular Disease

ASCVD (n):

- 1. coronary death
- 2. nonfatal myocardial infarction
- 3. fatal or nonfatal stroke



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AMERI COLLE CARDI	ICAN IGE of A OLOGY	SCVD F	Risk Esti	mator Plu	s
Τα	ools.acc.org/	ASCVD-Ris	<-Estimato	r-Plus	
Current Age 9 *	Sex *		Race *		
	Male	Female	White	African American	Other
Age must be between 20-79					
Systolic Blood Pressure (mm Hg) *	Diastolic B	lood Pressure (mm Hg) ^O			
Value must be between 90-200	Volue must be b	ebween 60-130			
Total Cholesterol (mg/dL) *	HDL Chole	HDL Cholesterol (mg/dL) *		LDL Cholesterol (mg/dL) 🤁 ^O	
Volue must be between 130 - 320	Value must be b	etween 20 - 100	Value n	nust be between 30-300	
History of Diabetes? *	Smoker?	Smoker? 🔁 *			
Yes 1	lo la	Current ()	Former 🕄	Never	0
0 - 11	0	200	0-1		
Ves Yes	In a statir	Vec	No	Spirin Therapy? 😈 🗸	No









<section-header> Calcification of atherosclerotic plaque occurs by the active process of mineralization with deposition of hydroxyapatite crystals (early stage of CAD). CAC: Assessment of total atherosclerotic burden Limitations of CAC: Not all plaque is calcified In a given coronary artery, there is poor correlation and wide variation between the degree of plaque calcification and extent of

luminal stenosis (due to vessel remodeling)





CAC and ASCVD Risk Calculation













ASCVD Risk and Aspirin

A	CC/AHA: A	Aspirin if high ASCVD risk (IIB)	ESC: Aspirin only for DM with high ASC	CVD (IIB)	
Recommendations for Aspirin Use Referenced studies that support recommendations are summarized n Online Data Supplements 17 and 18		r Aspirin Use nat support recommendations are summarized ements 17 and 18	Recommendations	Class ^a	Level ^t
COR	LOE	Recommendations	In patients with DM at high/very high risk, ^c		
ШЬ А	 Low-dose aspirin (75-100 mg orally daily) might be considered for the primary prevention of ASCVD among select adults 40 to 70 years of age who are at higher 	aspirin (75 - 100 mg/day) may be considered in primary prevention in the absence of clear contraindications. ^{d 231}	нь	A	
	ASCVD risk but not at increased bleeding risk. ^{54,6-1-54,6-8}	In patients with DM at moderate CV risk, ^c			
ll: Harm B-R	B-R	 Low-dose aspirin (75-100 mg orally daily) should not be administered on a routine basis for the primary prevention of ASCVD 	aspirin for primary prevention is not recommended.	ш	В
		among adults >70 years of age. ^{54,6-9}	Gastric protection		
ll: Harm	C-LD	 Low-dose aspirin (75-100 mg orally daily) should not be administered for the primary prevention of ASCVD among adults of any age who are at increased risk of bleeding.^{54,6-10} 	When low-dose aspirin is used, proton pump inhibitors should be considered to prevent gastrointestinal bleeding. ^{232,235}	lla	А

Mrs. Mc Statin:



Although she has RF (HTN, family history, elevated LDL), the risk of ASCVD event over 10 yr for others with similar risk profile is low risk, and statin therapy for primary prevention is not likely to add further beneficial risk reduction.

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Effective 1º prevention requires patient-specific risk assessment

Pooled cohorts provide a useful clinical tool to communicate risk to patients

Coronary artery calcium score may further refine risk for intermediate-risk statin candidates

ASCVD risk appropriately matches therapy intensity with risk

An informed patient is more likely to become a motivated patient



