Pre-operative Estimation of Risk of CABG, Mitral or Aortic Valve Mortality

Directions: Locate outcome of interest. Use the score in that column for each relevant pre-op variable; then sum these scores to get the total score. Take the total score and look up the approximate preoperative risk in the table.

CABG

Patient or

Aortic

Valve

Mitral

Valve

n attent of	CADG	valve	v aive
Disease	Mortality	Mortality	Mortality
Characteristic	Score	Score	Score
Age 60-69	1.5	1.5	1.5
Age 70-75	2.5	1.5	2.5
Age 76-79	2.5	2	2.5
Age ≥80	6.5	2.5	2.5
Female sex	2		1.5
EF<40%	2		
NYHA IV		1.5	2
3-Vessel Disease	1.5	1.5	_
LM 50-89%	1.5		
	2		
LM≥90%			
WBC>12K	2.5		
MI <u><</u> 7days	1.5		
Urgent surg.	2	1.5	1.5
Emergency surg.	5	5	5.5
Prior CVA			2
Prior CABG	2.5	1.5	
PVD	1.5		
CHF		1.5	1.5
Afib		1.5	
CAD			1.5
Diabetes	1		1.5
Dialysis	4		1.5
Creatinine >1.3	**	2	1.5
	0		1.5
Creatinine >2.0	2 2		
COPD	2		
BSA <1.70		1.5	
Concomitent		1.5	
CABG			
Mitral replace.			1.5
Total Score			
	Preoperati	ve Risk	
Total Score	CABG	Aortic	Mitral
	% 0.2	%	%
0			
1	0.2	1	<1.0
2	0.3	1.5	1.0
3	0.3	2.0	1.5
4	0.5	3.0	2.0
5	0.7	4.0	2.5
6	1.0	6.0	3.0
7	1.3	7.0	5.0
8	1.8	9.0	6.0
9	2.3	13.0	8.0
10	3.0	17.0	11.0
	4.0	20.0	14.0
11		0= 0	18.0
11 12	5.3	25.0	
11 12 13	5.3 6.9	25.0 ≥35.0	25.0
11 12 13 14	5.3 6.9 8.8		25.0 ≥35.0
11 12 13 14 15	5.3 6.9 8.8 11.5		
11 12 13 14 15 16	5.3 6.9 8.8 11.5 14.1		
11 12 13 14 15	5.3 6.9 8.8 11.5		

Pre-operative Estimation of Risk
of Cerebrovascular Accident and Mediastinitis
For use only in isolated CABG surgery

Patient or Disease	CVA	Mediastinitis
Characteristic	Score	Score
Age 55-59		
Age 60-64	1.5	1
Age 65-69	1.5	1
Age 70-74	2.5	1.5
Age 75-79	2.5	1.5
Age <u>></u> 80	3	2
Female sex	1.5	
EF<40%	1.5	1.5
Urgent surgery	1.5	2
Emergency surgery	3.5	2
Vascular disease	1.5	
Diabetes	1.5	1.5
Dialysis or creatinine ≥2	2	3
COPD		2
Obesity (BMI 31-36)		2
Severe Obesity (BMI ≥37)		4.5
Total Score		
Preoperat	ive Risk	
Total Score	CVA	Mediastinitis
	04	07
	%	%
0	0.4	0.3
0		
-	0.4	0.3
1	0.4	0.3 0.3
1 2	0.4	0.3 0.3 0.4
1 2 3	0.4 - 0.6 0.9	0.3 0.3 0.4 0.5 0.7
1 2 3 4	0.4 - 0.6 0.9 1.3	0.3 0.3 0.4 0.5
1 2 3 4 5	0.4 - 0.6 0.9 1.3 1.4	0.3 0.3 0.4 0.5 0.7
1 2 3 4 5 6	0.4 - 0.6 0.9 1.3 1.4 2.0	0.3 0.3 0.4 0.5 0.7 0.9 1.3
1 2 3 4 5 6 7	0.4 - 0.6 0.9 1.3 1.4 2.0 2.7	0.3 0.3 0.4 0.5 0.7 0.9 1.3 1.7
1 2 3 4 5 6 7 8	0.4 - 0.6 0.9 1.3 1.4 2.0 2.7 3.4	0.3 0.4 0.5 0.7 0.9 1.3 1.7 2.5
1 2 3 4 5 6 7 8	0.4 - 0.6 0.9 1.3 1.4 2.0 2.7 3.4 4.2 5.9	0.3 0.3 0.4 0.5 0.7 0.9 1.3 1.7 2.5 3.2
1 2 3 4 5 6 7 8 9	0.4 - 0.6 0.9 1.3 1.4 2.0 2.7 3.4 4.2	0.3 0.3 0.4 0.5 0.7 0.9 1.3 1.7 2.5 3.2 4.2
1 2 3 4 5 6 7 8 9 10	0.4 - 0.6 0.9 1.3 1.4 2.0 2.7 3.4 4.2 5.9 7.6	0.3 0.4 0.5 0.7 0.9 1.3 1.7 2.5 3.2 4.2 5.6

Definitions:

EF <40%: The patient's current EF is less than 40%.

Urgent: Medical factors require patient to stay in hospital to have operation before discharge. The risk of immediate morbidity and death is believed to be low.

Emergency: Patient's cardiac disease dictates that surgery should be performed within hours to avoid unnecessary morbidity or death. Atrial fibrillation: Sustained atrial fibrillation requiring treatment with digoxin, beta/calcium channel blockers, anti-arrhythmics or cardioversion.

PVD: Cerebrovascular disease, including prior CVA, prior TIA, prior carotid surgery, carotid stenosis by history or radiographic studies, or carotid bruit. Lower extremity disease including claudication, amputation, prior lower extremity bypass, absent pedal pulses or lower extremity ulcers.
Diabetes: currently treated with oral medications or insulin.

Dialysis or creatinine ≥2: peritoneal or hemodialysis dependent renal failure or creatinine >2 mg./dl.

COPD: treated with bronchodilators or steroids.

CAD: Angina, previous MI or >50% stenosis of a major vessel CHF: During admission or prior to surgery

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