**PREOPERATIVE ASSESSMENT—CARDIAC**

For NONCARDIAC SURGERY*

**Step #1 “START HERE”**

- Need for non cardia surgery
- Emergency surgery
- Urgent or Elective surgery

**Step #2**

- Coronary revascularization within 5 years?
- Recurrent signs or symptoms of ischemia?
- Negative for active ischemia and no recent change in cardiac symptoms?

**Step #3**

- Coronary Angiography and treatment?

Go to Step #6 (next page)

**CLINICAL CARDIAC RISK PREDICTORS**

**Step #4**

- MAJOR clinical predictors:
  - unstable coronary syndrome
  - significant arrhythmia
  - severe valvular disease
  - CHF decompensated

**Step #5**

- INTERMEDIATE clinical predictors:
  - Angina
  - History of MI
  - CHF compensated
  - DM

**Step #6**

- MINOR clinical predictors:
  - Age > 70
  - subvalvular EKG, arrhythmia
  - History of CVA, uncontrolled BM

Go to Step #7 (next page)

**Step #7**

- **MINOR or NO clinical predictors:**
  - Age > 70, abs. EKG, arrhythmia, As of CVA, uncontrolled BM

**Functional Capacity**

- **POOR (< 4 METS)**
  - Coronary Angiography and treatment

- **MODERATE TO EXCELLENT (> 4 METS)**
  - To O.R.

**Test**

- **ARG**
  - Predicts poor outcome if PC02 > 45
  - ARS: smoking < 2 weeks post-op or abdominal or thoracic procedures

**PULMONARY—Pre-op management:**

- **Goal:** Maximize lung function (this applies mostly to abdominal or thoracic procedures)

- **Management**
  - Bronchodilators, steroids?
  - Overweight: weight loss
  - Smoking: smoking < 2 weeks post-op, abdominal or thoracic procedures
  - Chest physiotherapy in thoracic and abdominal surgery for deep breathing, mobilization. Positive pressure for pt’s unable to do lung exercises

**Functional Capacity**

**POOR (< 4 METS)**

- Coronary Angiography and treatment

**MODERATE TO EXCELLENT (> 4 METS)**

- To O.R.

**PROCEDURE RISK:**

- Emergent major operations
- Cardiac revascularization
- Electrosurgery
- Thoracic and abdominal procedures

**Non-invasive Testing**

- DSE or Dypr. Thal.

- Consider Coronary angiography

**Invasive Testing**

- Negative for Ischemia

**Subsequent care dictated by findings and treatment results**

**POOR (< 4 METS)**

- Coronary Angiography and treatment

**MODERATE TO EXCELLENT (> 4 METS)**

- To O.R.

**Clinical Predictors**

**Step #8**

- Emergency major operations
- Cardiac revascularization
- Electrosurgery
- Thoracic and abdominal procedures

**Non-invasive Testing**

- DSE or Dypr. Thal.

**Invasive Testing**

- Consider Coronary angiography

**Subsequent care dictated by findings and treatment results**

**FUNCTIONAL CAPACITY**

- High
- Intermediate
- Low

**High**

- Emergent major operations
- Cardiac revascularization
- Electrosurgery
- Thoracic and abdominal procedures

**Intermediate**

- Coronary revascularization
- Electrosurgery
- Thoracic and abdominal procedures

**Low**

- Emergency major operations
- Cardiac revascularization
- Electrosurgery
- Thoracic and abdominal procedures

**CLINICAL CARDIAC RISK PREDICTORS**

**MAJOR**

- Unstable coronary syndrome
- Angina
- History of MI
- CHF compensated
- DM

**INTERMEDIATE**

- Significant arrhythmia
- CHF (hx of) — compensated
- Abnormal EKG
- Age > 70
- History of stroke
- History of CVA
- Unstable coronary syndrome
- Angina
- History of MI
- CHF compensated
- DM

**MINOR**

- CHF compensated
- DM

**Functional Capacity**

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**Subsequent care dictated by findings and treatment results**

**FUNCTIONAL CAPACITY**

- High
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**FUNCTIONAL CAPACITY**

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- Intermediate
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**High**

- Emergent major operations
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- Electrosurgery
- Thoracic and abdominal procedures

**Intermediate**

- Coronary revascularization
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