**COMMON DISEASE SEVERITY SCORES**

**Cardiovascular**
- **Angina CCS classification**
  - Class I: Angina with strenuous activity only
  - Class II: Angina with walking uphill, climbing stairs rapidly
  - Class III: Angina with > 1 flight of stairs or > 2 blocks
  - Class IV: Angina with any physical activity or at rest

- **CHF NYHA classification**
  - Class I: No limitation
  - Class II: Slight limitation of physical activity
  - Class III: Marked limitation in physical activity
  - Class IV: Inability to do any physical activity or discomfort at rest

**Aortic stenosis grading**
- **Severity**
  - Mild: 2.0 - 2.9
  - Moderate: 3.0 - 3.9
  - Severe: > 4

**Mean pressure gradient (mmHg)**
- Mild: < 20
- Moderate: 20 - 39
- Severe: > 40

**Value area (cm²)**
- Mild: 1.0 - 1.5

**Pulmonary hypertension**
- **Severity**
  - Mild: > 35
  - Moderate: 35 - 45
  - Severe: > 45

**Mean pulmonary artery pressure (mmHg)**
- Mild: > 20
- Moderate: 20 - 39
- Severe: > 40

**Atrial fibrillation CHADS2 score**
- **Score**
  - Hx of CHF: 1
  - HTN: 1
  - Age > 75: 1
  - Diabetes mellitus: 1
  - Stroke: 2

**Risk per year**
- 1.2%
- 2.0%
- 3.5%
- 8.5%
- 12.5%
- 18.2%

**2016 CCS Guidelines on perioperative cardiac risk assessment and management for non-cardiac surgery**

**Asthma good control if:**
- **Characteristic**
  - Frequency/Value
    - Daytime sx/SABA use: <4 days/week
    - Night-time sx: <1 night/weeks
    - Physical activity: Normal

**OSA STOP BANG score**
- **Snore loudly**
- **Tired during the day**
- **Observed stopping breathing**
- **BMI >35**
- **Age>50**
- **Neck >40cm**
- **Gender male**

**ARISCAT Score for postoperative pulmonary complications**

**Risk of in hospital post-op pulmonary complications**
- **Score**
  - <26: Low
  - 26-44: Intermediate
  - >44: High

**ESP/ESS/SEPS - 30 day risk of death, MI or cardiac arrest**

**Criteria**
- **Score**
  - High risk surgery (intraperitoneal, intrathoracic, or suprainguinal vascular): 1
  - Ischemic heart disease: 1
  - CHF: 1
  - Diabetes requiring insulin: 1
  - History of cerebrovascular disease: 1
  - Gr >176: 1

**Risk of MINS**
- **Score**
  - 1: 3.9%
  - 2: 6.0%
  - 3 or more: 19%

**RESPIRATORY PERIOPERATIVE RISK SCORE**

**ARISCAT score**

**Risk of in hospital post-op pulmonary complications**
- **Score**
  - <26: Low
  - 26-44: Intermediate
  - >44: High

**Canadian Cardiovascular Society Guidelines on Perioperative Cardiac Risk Assessment and Management for Patients Who Undergo Noncardiac Surgery**

**Author:** Emmanuelle Duceppe, Joel Parise, Paul McDermott, Elizabeth Lyons, Michael McMullen, Sadeesh Srinathan, Michelle Graham, Vikas Tandon, Kim Styles, Amal Bessissow, Daniel I. Sessler, Gregory Bryson, P.J. Devereaux

**Publication:** Canadian Journal of Cardiology

**Publisher:** Elsevier

**Date:** January 2017
**Geriatric assessment**

Clinical Frailty Score (Score of 4 or more predicts morbidity, mortality, post-op delirium and non-home discharge)

- 1. Very frail - People who are totally dependent on others for daily care, may need help with hygiene and dressing.
- 2. Vulnerable - People who have no active disease and can be discharged home.
- 3. Marginally frail - People who have active disease, are well, and may be discharged to home.
- 4. Well - People who have no active disease and can be discharged home.
- 5. Very well - People who have no active disease and can be discharged home.

### Nephrology

**KDIGO CKD**

<table>
<thead>
<tr>
<th>GFR value for &gt;3m</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;60</td>
<td>Chronic kidney disease</td>
</tr>
<tr>
<td>&lt;15</td>
<td>Chronic kidney failure</td>
</tr>
<tr>
<td>On dialysis or pending renal transplant</td>
<td>End stage renal disease</td>
</tr>
</tbody>
</table>

KDIGO AKI definition: Cr 1.5 times baseline or absolute rise of 26.5 mmol/l or urine output < 0.5 ml/kg/h for >6 hours

### Endocrine

If >20mg prednisone equivalent for >3 weeks – stress dose
If 5-20 mg prednisone equivalent for >3 weeks – guidance unclear, consider stress dose

### Hepatic

**MELD Score (Model for End-Stage Liver Disease)**

<table>
<thead>
<tr>
<th>Score</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>s9</td>
<td>1.9%</td>
</tr>
<tr>
<td>10-19</td>
<td>6.0%</td>
</tr>
<tr>
<td>20-29</td>
<td>19.6%</td>
</tr>
<tr>
<td>30-39</td>
<td>52.6%</td>
</tr>
</tbody>
</table>

**Dialysis Zs in past week**

- **Class A**
  - Total points: 5-6
  - 1 yr survival: 100%
  - 2 yr survival: 85%
- **Class B**
  - Total points: 7-9
  - 1 yr survival: 95%
  - 2 yr survival: 65%
- **Class C**
  - Total points: 10-15
  - 1 yr survival: 81%
  - 2 yr survival: 45%

### Cardiac

- **Chronic aortic valve disease with previous embolic event**
  - Reassess for thrombosis event
  - Capture and maintain high levels of INR
  - Restart warfarin 24h after surgery for moderate or high risk procedure

### COAGULATION MANAGEMENT

**Preparation for surgery**

- Stop DOACs >5 days before surgery
- DOACs must be stopped >5 days prior to surgery

### Functional capacity

**DASI score**

If patient is frail consider:

**Nutritional assessment and referral to a dietician if BMI <18.5**

- 10-15% unintentional weight loss in the last 6 months
- Dementia screening with Mini-Cog
  - 3 word recall (0-3 points), clock drawing (0 or 2 points). Dementia screening cutoff is <3; Preop cognitive impairment is linked to delirium, complications, functional decline and death after surgery.

**Depression screening with PHQ-2 and referral for treatment**

**Estimated METS=((0.43 x DASI score) +9.5)/3.5**

**Total score:**

- **Class A:** 1-2 points
- **Class B:** 3-4 points
- **Class C:** 5-6 points

*See online calculator, formula for MELD is complex*