ACS Treatment Algorithm

For download to your smartphone

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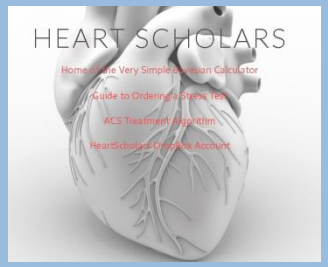
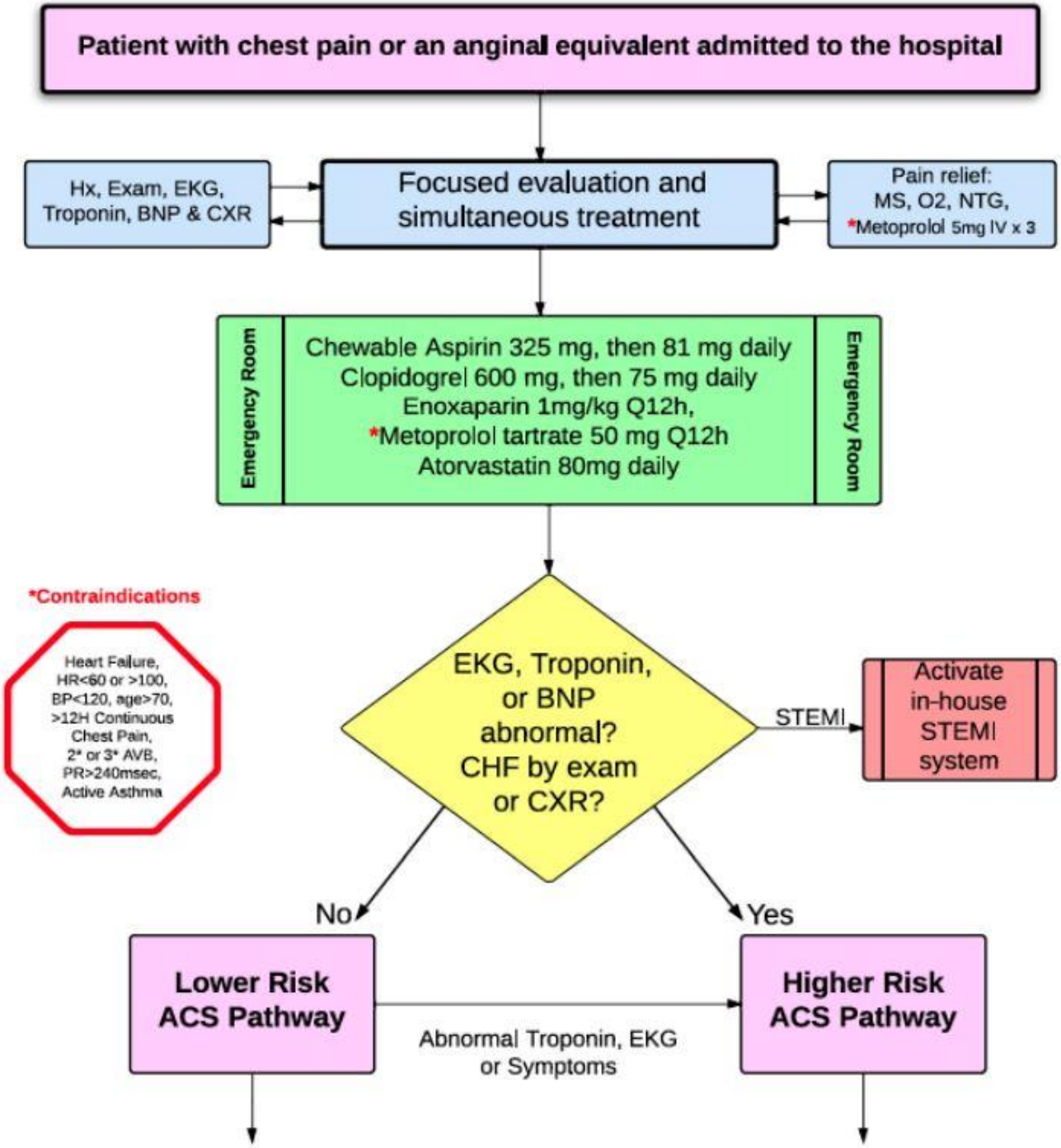
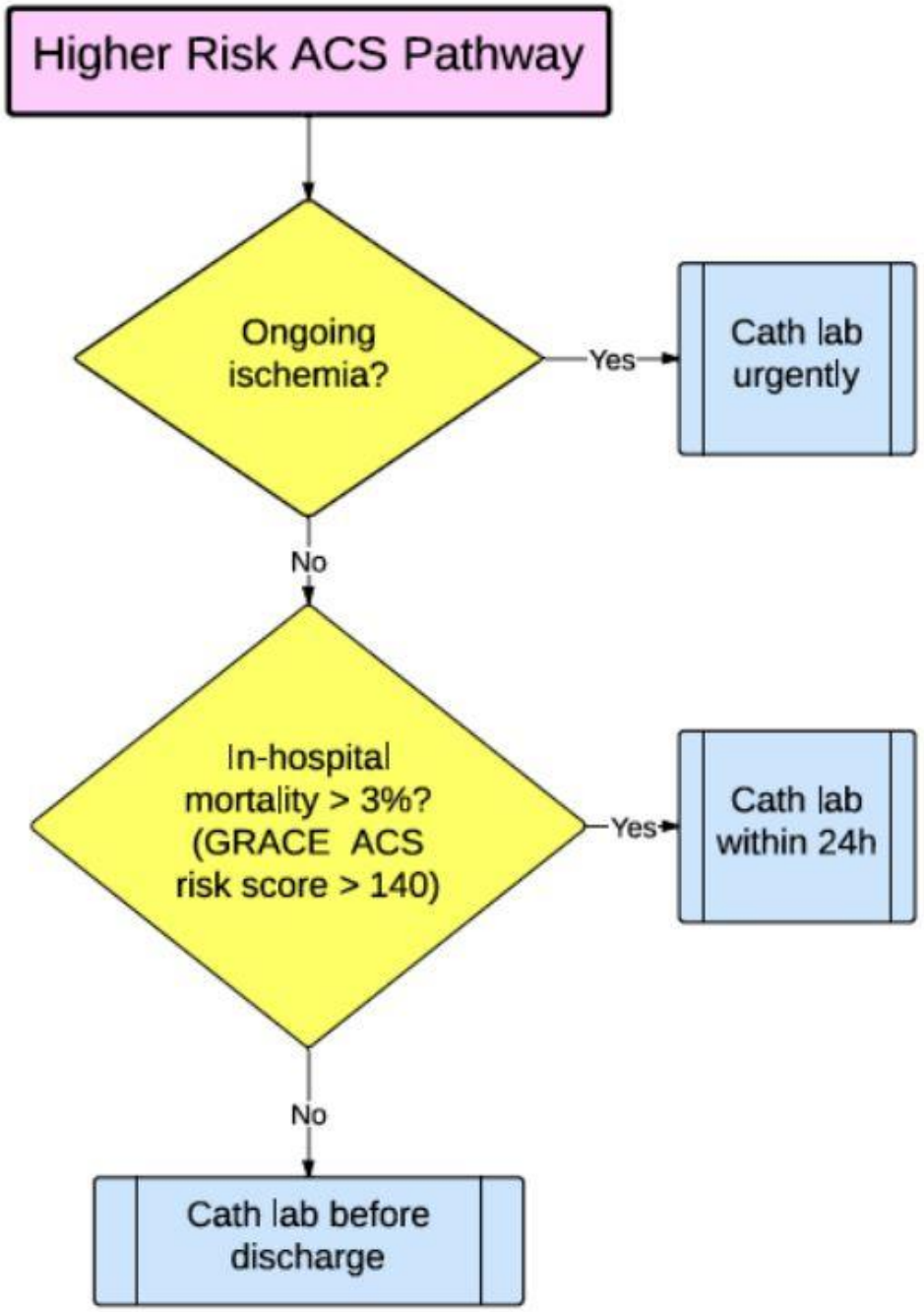
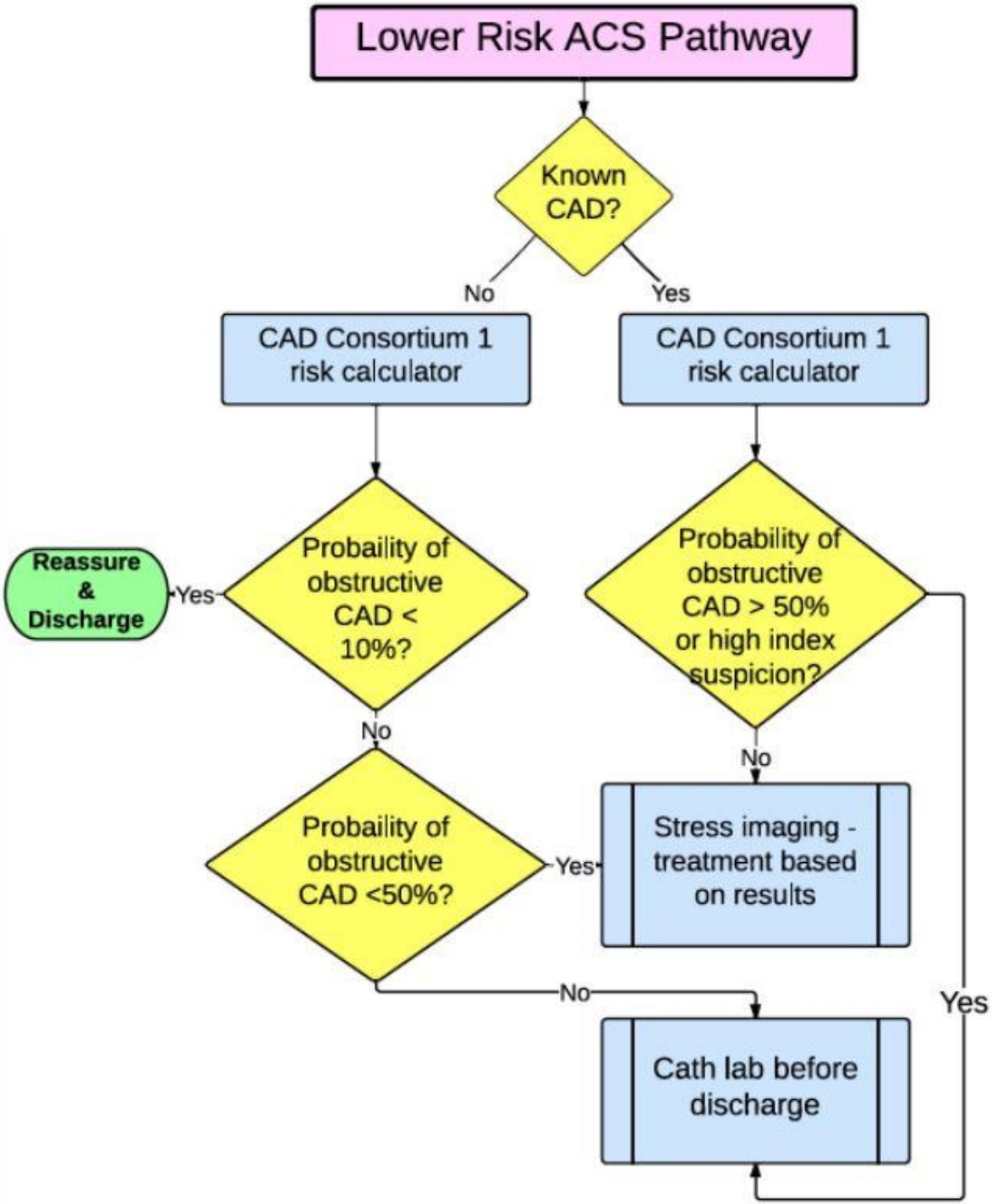
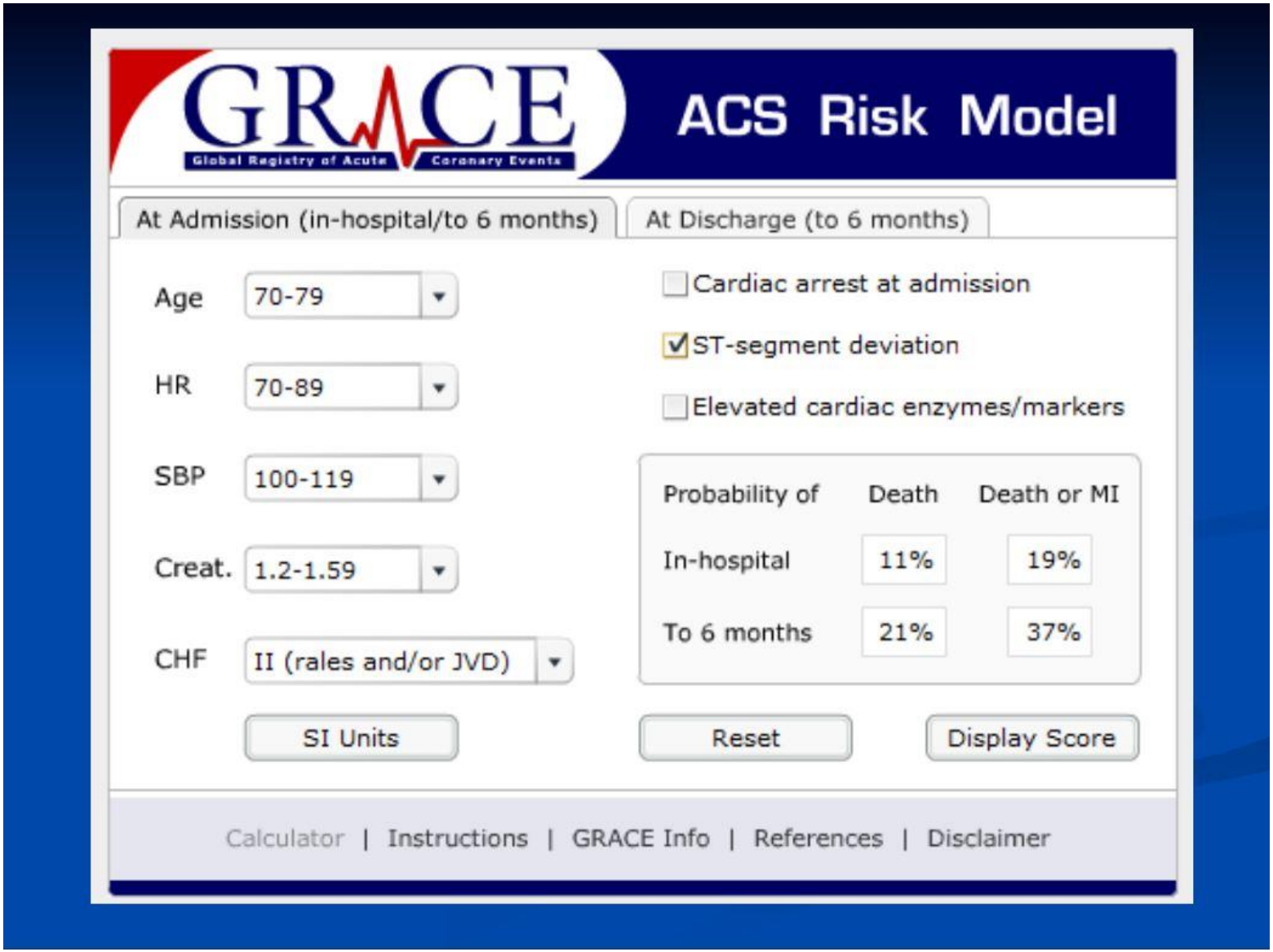



Patient with chest pain or an anginal equivalent admitted to the hospital
Hx, Exam, EKG, Troponin, BNP & CXR
Focused evaluation and simultaneous treatment
Pain relief: MS, O2, NTG, *Metoprolol 5mg IV x 3
Emergency Room
Chewable Aspirin 325 mg, then 81 mg daily
Clopidogrel 600 mg, then 75 mg daily
Enoxaparin 1mg/kg Q12h,
*Metoprolol tartrate 50 mg Q12h
Atorvastatin 80mg daily
Emergency Room
*Contraindications
Heart Failure, HR<60 or >100, BP<120, age>70, >12H Continuous Chest Pain, 2° or 3° AVB, PR>240msec, Active Asthma
EKG, Troponin, or BNP abnormal? CHF by exam or CXR?
STEMI
Activate in-house STEMI system
No
Yes
Lower Risk ACS Pathway
Abnormal Troponin, EKG or Symptoms
Higher Risk ACS Pathway


Higher Risk ACS Pathway
Ongoing ischemia?
Yes
Cath lab urgently
No
In-hospital mortality > 3%? (GRACE ACS risk score > 140)
Yes
Cath lab within 24h
No
Cath lab before discharge


Lower Risk ACS Pathway
Known CAD?
No
Yes
CAD Consortium 1 risk calculator
CAD Consortium 1 risk calculator
Probaility of obstructive CAD < 10%?
Reassure & Discharge
Yes
Probability of obstructive CAD > 50% or high index suspicion?
No
Probaility of obstructive CAD <50%?
Yes
Stress imaging - treatment based on results
No
Yes
Cath lab before discharge



https://www.outcomes-umassmed.org/grace/acs_risk/acs_risk_content.html

Using the CAD Consortium probability of obstructive coronary disease calculator

- First determine the nature of the chest pain

Angina As Defined By ACC/AHA Guidelines
Typical Angina
Mid-sternal discomfort that is provoked by exertion or emotional distress and relieved by rest and/or nitroglycerin
Probable Angina (or "Atypical Angina")
Lacks one of these components
(Best characterization for exertional dyspnea is 'probable angina')
Nonspecific or Nonanginal Chest Discomfort
Has only one or none of the 3 characteristics of Typical Angina

- Then use the table on the following page….

Use the following table to estimate the probability of obstructive coronary artery disease, expressed as a percentage. For example:

- A 75 y/o man with typical angina has a 76% chance of having significant CAD by angiography.
- A 55 y/o woman with nonspecific discomfort has only a 3% chance of serious CAD.

Non-specific chest pain	Probable angina	Typical angina	Age	Non-specific chest pain	Probable angina	Typical angina
6	11	32	40-49	2	3	11
11	19	47	50-59	3	6	19
19	31	63	60-69	6	10	30
30	46	76	70-79	10	18	45
45	61	85	80-89	17	29	60

Values in this table represent the probability (expressed as a percentage) of obstructive coronary artery disease at the time of coronary angiography based on age, gender and symptoms.
From Genders, et al. BMJ. 2012;344:e3485. doi: 10.1136/bmj.e3485

A more precise version of the CAD Consortium 1 probability of obstructive coronary artery disease calculator is available at

- The Qx calculate app. Open the Cardiology tab→Treadmill Testing→Pre-test probability of CAD (CAD consortium)

Note: This data set and the table above assume there is no prior history of coronary disease and the evaluation is performed in outpatient settings. The values in the table above most likely underestimate the probability of obstructive CAD in patients with a history of CAD or being evaluated in an emergency room on hospital.

- The opinions or assertions contained herein are the private views of the author and are not to be construed as official or as reflecting the views of the University of Wisconsin
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