

# EMR Tutorial Acute Coronary Syndrome

## How to find the Acute Coronary Syndrome

AAA Home

**SOUTHEAST TEXAS MEDICAL ASSOCIATES, LLP**

Patient:   Sex:  Age:  DOB:

Home Phone:  Work Phone:

Patient's Code Status:

**Patient has one or more alerts!** [Click Here to View Alerts](#)

[SETMA's LESS Initiative](#) | [Preventing Diabetes](#) | [Preventing Hypertension](#) | [Medical Home Coordination](#)  
[Charge Posting Tutorial](#) | [ICD-9 Code Tutorial](#) | [E&M Coding Recommendations](#) **Needs Attention!!**

[Master GP](#) | [Nursing Home](#) | [Ophthalmology](#) | [Pediatrics](#) | [Physical Therapy](#) | [Podiatry](#) | [Rheumatology](#)  
[Daily Progress](#) | [Admission Orders](#) | [Discharge](#) | [Insulin Infusion](#) | [Colorectal Surgery](#) | [Pain Management](#) |

[Exercise](#) | [CHF Exercise](#) | [Diabetic Exercise](#) | [Drug Interactions](#) | [Smoking Cessation](#) |  
[Hydration](#) | [Nutrition](#) | [Guidelines](#) | [Lab Future](#) | [Lab Results](#) |

**Disease Management**

[Acute Coronary Syn](#) | [Angina](#) | [Asthma](#) | [CHF](#) | [Diabetes](#) | [Headaches](#) | [Hypertension](#) | [Lipids](#) | [Cardiometabolic Risk Syndrome](#) |  
[Weight Management](#) | [Renal Failure](#) | [Diabetes Edu](#)

Patient's Pharmacy:

Phone:

Fax:

**Pending Referrals** | [Referral History](#)

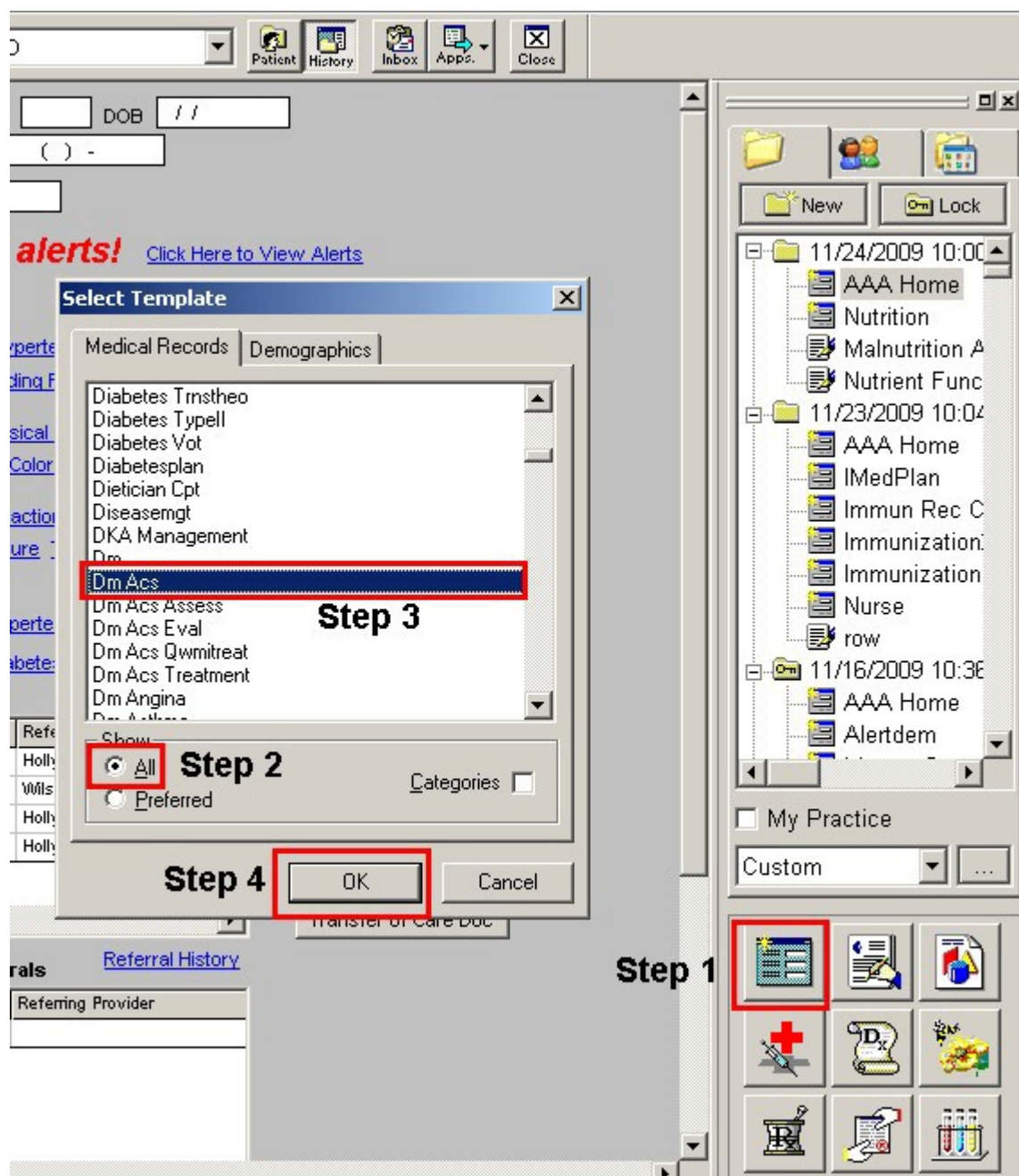
Status	Priority	Referral	Referring Provider
Completed	Routine	Thyroid Biopsy	Holly
Completed	Stat	Sleep Studies	Willson
Completed	Immediate	CT	Holly
Completed	Immediate	Carotid Doppler	Holly

**Archived Referrals - Do not use for new referrals**

Status	Priority	Referral	Referring Provider
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**Chart Note**

## Master Tool Bar Icon



- When the Template button is clicked you will be presented with the preference list.
- If the Acute Coronary Syndrome template is listed as one of your preferences, select it.
- If it is not one of your preferences, select the All radio button and scroll down until you find it in the list. Then you may select the template by either double-clicking on the name or single click on the name (so that it is highlighted in blue) and then click the OK button.

**NOTE:** For more on how to set up your preferences, [Click Here](#)

One of the most difficult and one of the most important differential diagnoses which confront physicians in the outpatient setting is the distinguishing between chronic stable angina and the acute coronary syndrome. The former is a relatively benign condition which can be safely and successfully treated in the outpatient setting. The latter is a potentially fatal condition which requires immediate intervention to decrease the mortality risk of the patient.

This suite of templates in conjunction with the Angina Suite of Templates has been developed in order to aid the healthcare provider in making that distinction accurately and quickly.

The Acute Coronary Syndrome Suite of Templates consists of the following templates:

- Master Acute Coronary Syndrome
- Q-Wave
- Evaluation
- Differential Dx
- NESTMI/Unstable Angina Treatment
- Q-Wave MI Treatment

## Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

**Vital Signs**

Temp  F

Height  63.00 in

Weight  100.00 lb

BMI

Body Fat  30 %

Pulse

Blood Pressure  /  mmHg

**Goals**

**Definition**

**Risk Factors**

☒ Diabetes

☒ Dyslipidemia

☐ Family Hx of Premature CAD (under 55 for males, 65 females)

☐ History of CVA

☐ History of PVD

☐ History of MI

☒ Hypertension

☐ Overweight/Obese

☐ Sedentary lifestyle

☒ Smoking

[Framingham 10-Yr CVD Risk](#)  %

[Framingham 10-Yr Stroke Risk](#)  %

[Hubbard Probability Severe Coronary Disease](#)  %

[TIMI Risk Score](#)  %

[Global Cardiovascular Risk](#)  23.4

Patient  Greg  Test Jr

Sex  M Age

**Latest Lab Results**

HGB	<input type="text"/>	<input type="text"/>
HCT	<input type="text"/>	<input type="text"/>
WBC	<input type="text"/>	<input type="text"/>
hsCRP	<input type="text"/>	<input type="text"/>
Homocysteine	<input type="text"/>	<input type="text"/>
Sed Rate	<input type="text"/>	<input type="text"/>
Cholesterol	<input type="text"/> 3000	<input type="text"/> 04/08/2009
HDL	<input type="text"/> 140	<input type="text"/> 04/08/2009
Chol/HDL	<input type="text"/>	<input type="text"/>
Triglycerides	<input type="text"/> 5000	<input type="text"/> 04/08/2009
Trig/HDL	<input type="text"/>	<input type="text"/>
Fasting Glucose	<input type="text"/>	<input type="text"/>
Insulin	<input type="text"/>	<input type="text"/>
HOMA-IR	<input type="text"/>	<input type="text"/>
Ca	<input type="text"/>	<input type="text"/>
Mg	<input type="text"/>	<input type="text"/>
Ca/Mg	<input type="text"/>	<input type="text"/>
UA Protein	<input type="text"/>	<input type="text"/> 10/13/2009
MS Strip	<input type="text"/>	<input type="text"/>
Creat/Albumin	<input type="text"/>	<input type="text"/>
CPK	<input type="text"/>	<input type="text"/>
Troponin	<input type="text"/>	<input type="text"/>

**Check for New Labs**

**Home**

[Q-Wave](#)

[Evaluation](#)

[Differential Dx](#)

**Treatment**

[NESTMI/Unstable Angina](#)

[Q-Wave MI](#)

**Document**

The Master Acute Coronary Syndrome Template Content:

The following statement begins the suite, “**Do not think of chest pain as ‘rule out MI,’ but think ‘rule out acute coronary syndrome’ (MI and Unstable Angina).**”

The first button is entitled **Goals**. It contains six goals of the evaluation of the patient for ACS. They are:

The screenshot displays the 'Acute Coronary Syndrome' template interface. At the top, the title 'Acute Coronary Syndrome' is in blue. Below it, a bold instruction reads: 'Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).' The interface includes fields for Patient (Greg), Test Jr, Sex (M), and Age. A 'Latest Lab Results' table shows HGB, HCT, WBC, and hsCRP with placeholder values '///'. A 'Check for New Labs' button is present. On the right, a vertical menu contains buttons for 'Home', 'Q-Wave', 'Evaluation', 'Differential Dx', 'Treatment' (with sub-buttons 'NESTMI/Unstable Angina' and 'Q-Wave MI'), and 'Document'. The 'Goals' button in the top left is highlighted with a red box. A dialog box titled 'Dm Acs Goals' is open, showing a list of six goals for ACS evaluation. The dialog box has 'OK' and 'Cancel' buttons at the bottom.

**Acute Coronary Syndrome**

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

**Goals** **Definition**

**Vital Signs**

Temp  F  
Height  in  
Weight  lb  
BMI   
Blood Pressure  /   
Pulse  bpm  
Blood Oxygen  %

**Risk Factors**

☒ Diabetes  
☒ Dyslipidemia

**Latest Lab Results** **Check for New Labs**

HGB	<input type="text"/>	<input type="text"/>
HCT	<input type="text"/>	<input type="text"/>
WBC	<input type="text"/>	<input type="text"/>
hsCRP	<input type="text"/>	<input type="text"/>

**Treatment**

NESTMI/Unstable Angina  
Q-Wave MI

**Document**

**Dm Acs Goals**

**Goals**

- To assist practitioners in distinguishing among patients with acute coronary syndromes (AMI, unstable angina), stable angina and noncardiac chest pain
- To assist practitioners in accurately stratifying patients with possible acute coronary syndrome into high, moderate or low risk of morbidity or mortality
- To minimize the number of patients discharged from the ED with unrecognized myocardial infarction or unstable angina
- To decrease the hospitalization rates for patients having noncardiac chest pain. The accelerated evaluation will result in earlier diagnosis and decreased hospital length of stay. These two features will decompress our often crowded critical care areas and improve overall hospital efficiencies
- To increase patient satisfaction by providing earlier and more definitive diagnosis of either cardiac or noncardiac causes for their chest pain symptoms
- To increase physician satisfaction by providing a strategy that minimizes the uncertainty of the ultimate diagnosis upon discharge from the ED without over utilizing resources or jeopardizing patient safety

**OK** **Cancel**

The second button is entitled **Definition**. It states:

**Acute Coronary Syndrome**

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Patient: Greg Test Jr  
Sex: M Age:   
Latest Lab Results:   
Check for New Labs:   
HGB: / /   
HCT: / /   
WBC: / /   
hsCRP: / /   
Homocysteine: / /   
Sed Rate: / /   
Cholesterol: 3000 04/08/2009   
HDL: 140 04/08/2009   
Creat/Albumin: / /   
CPK: / /   
Troponin: / /

**Vital Signs**  
Temp: F  
Height: 63.00 in  
Weight: 100.00 lb  
BMI:   
Body Fat: 30 %  
Pulse:   
Blood Pressure:   
Framingham 10-yr CVD Risk  
Framingham 10-Yr Stroke Risk  
Hubbard Probability Severe Coronary Disease  
TIMI Risk Score  
Global Cardiovascular Risk

**Risk Factors**  
☒ Diabetes  
☒ Dyslipidemia  
☐ Family Hx of Premature CAD (under 55 for males, 65 females)  
☐ History of CVA  
☐ History of PVD  
☐ History of MI

**Definition**  
Acute coronary syndrome (ACS) refers to the acute presentation of patients having CAD. It includes a spectrum of illness ranging from the first onset of angina up to and including acute myocardial infarction (Q-wave and non-elevated ST wave MI (NSTEMI)). ACS includes patients with unstable angina, but excludes patients with chronic stable angina.

OK Cancel

Home  
Q-Wave  
Evaluation  
Differential Dx  
Treatment  
NSTEMI/Unstable Angina  
Q-Wave MI  
Document

In the first column of the **Master Acute Coronary Syndrome** template, the following then appears:

- Vital signs
- [Framingham 10-yr CVD Risk](#)
- [Framingham 10-Yr Stroke Risk](#)
- [Hubbard Probability Severe Coronary Disease](#)
- [TIMI Risk Score](#)
- [Global Cardiovascular Risk](#)



## Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Patient    
Sex  Age

Goals    Definition

### Vital Signs

Temp  F  
Height  in  
Weight  lb  
BMI   
Body Fat  %  
Pulse   
Blood Pressure  /  mmHg

### Risk Factors

- ☒ Diabetes
- ☒ Dyslipidemia
- ☐ Family Hx of Premature CAD  
(under 55 for males, 65 females)
- ☐ History of CVA
- ☐ History of PVD
- ☐ History of MI
- ☒ Hypertension
- ☐ Overweight/Obese
- ☐ Sedentary lifestyle
- ☒ Smoking

[Framingham 10-Yr CVD Risk](#)  %  
[Framingham 10-Yr Stroke Risk](#)  %  
[Hubbard Probability Severe Coronary Disease](#)  %  
[TIMI Risk Score](#)   
[Global Cardiovascular Risk](#)

### Latest Lab Results

### Check for New Labs

HGB		///
HCT		///
WBC		///
hsCRP		///
Homocysteine		///
Sed Rate		///
Cholesterol	3000	04/08/2009
HDL	140	04/08/2009
Chol/HDL		///
Triglycerides	5000	04/08/2009
Trig/HDL		
Fasting Glucose		///
Insulin		///
HOMA-IR		
Ca		///
Mg		///
Ca/Mg		
UA Protein		10/13/2009
MS Strip		///
Creat/Albumin		///
CPK		///
Troponin		///

### Home

Q-Wave

Evaluation

Differential Dx

### Treatment

NESTMIUnstable Angina

Q-Wave MI

### Document

In the second column, 10 Risk Factors are listed which increase the probability that the patient could be having the ACS.

## Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

**Vital Signs**

Temp  F

Height  in

Weight  lb

BMI

Body Fat  %

Pulse

Blood Pressure  /  mmHg

**Goals**      **Definition**

**Risk Factors**

- ☒ Diabetes
- ☒ Dyslipidemia
- ☐ Family Hx of Premature CAD (under 55 for males, 65 females)
- ☐ History of CVA
- ☐ History of PVD
- ☐ History of MI
- ☒ Hypertension
- ☐ Overweight/Obese
- ☐ Sedentary lifestyle
- ☒ Smoking

[Framingham 10-Yr CVD Risk](#)  %

[Framingham 10-Yr Stroke Risk](#)  %

[Hubbard Probability Severe Coronary Disease](#)  %

[TIMI Risk Score](#)

[Global Cardiovascular Risk](#)

Patient

Sex  Age

**Latest Lab Results**      **Check for New Labs**

HGB	<input type="text"/>	<input type="text" value=""/>
HCT	<input type="text"/>	<input type="text" value=""/>
wBC	<input type="text"/>	<input type="text" value=""/>
hsCRP	<input type="text"/>	<input type="text" value=""/>
Homocysteine	<input type="text"/>	<input type="text" value=""/>
Sed Rate	<input type="text"/>	<input type="text" value=""/>
Cholesterol	<input type="text" value="3000"/>	<input type="text" value="04/08/2009"/>
HDL	<input type="text" value="140"/>	<input type="text" value="04/08/2009"/>
Chol/HDL	<input type="text"/>	<input type="text" value=""/>
Triglycerides	<input type="text" value="5000"/>	<input type="text" value="04/08/2009"/>
Trig/HDL	<input type="text"/>	<input type="text" value=""/>
Fasting Glucose	<input type="text"/>	<input type="text" value=""/>
Insulin	<input type="text"/>	<input type="text" value=""/>
HOMA-IR	<input type="text"/>	<input type="text" value=""/>
Ca	<input type="text"/>	<input type="text" value=""/>
Mg	<input type="text"/>	<input type="text" value=""/>
Ca/Mg	<input type="text"/>	<input type="text" value=""/>
UA Protein	<input type="text"/>	<input type="text" value="10/13/2009"/>
MS Strip	<input type="text"/>	<input type="text" value=""/>
Creat/Albumin	<input type="text"/>	<input type="text" value=""/>
CPK	<input type="text"/>	<input type="text" value=""/>
Troponin	<input type="text"/>	<input type="text" value=""/>

**Home**

Q-Wave

Evaluation

Differential Dx

**Treatment**

NESTMI/Unstable Angina

Q-Wave MI

**Document**

In the third column, 22 lab tests are displayed which are relevant to the evaluation of the patient potentially with the ACS. There is a button entitled **Check For New Labs** which allows you to import the latest lab values for the evaluation.

## Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Patient  Test Jr

Sex  Age

**Goals** **Definition**

**Vital Signs**

Temp  F

Height  in

wWeight  lb

BMI

Body Fat  %

Pulse

Blood Pressure  /  mmHg

**Risk Factors**

☒ Diabetes

☒ Dyslipidemia

☐ Family Hx of Premature CAD (under 55 for males, 65 females)

☐ History of CVA

☐ History of PVD

☐ History of MI

☒ Hypertension

☐ Overweight/Obese

☐ Sedentary lifestyle

☒ Smoking

[Framingham 10-Yr CVD Risk](#)  %

[Framingham 10-Yr Stroke Risk](#)  %

[Hubbard Probability Severe Coronary Disease](#)  %

[TIMI Risk Score](#)  %

[Global Cardiovascular Risk](#)

**Latest Lab Results**

HGB	<input type="text"/>	//
HCT	<input type="text"/>	//
wBC	<input type="text"/>	//
hsCRP	<input type="text"/>	//
Homocysteine	<input type="text"/>	//
Sed Rate	<input type="text"/>	//
Cholesterol	3000	04/08/2009
HDL	140	04/08/2009
Chol/HDL	<input type="text"/>	//
Triglycerides	5000	04/08/2009
Trig/HDL	<input type="text"/>	
Fasting Glucose	<input type="text"/>	//
Insulin	<input type="text"/>	//
HOMA-IR	<input type="text"/>	
Ca	<input type="text"/>	//
Mg	<input type="text"/>	//
Ca/Mg	<input type="text"/>	
UA Protein	<input type="text"/>	10/13/2009
MS Strip	<input type="text"/>	//
Creat/Albumin	<input type="text"/>	//
CPK	<input type="text"/>	//
Troponin	<input type="text"/>	//

**Check for New Labs**

**Home**

Q-Wave

Evaluation

Differential Dx

**Treatment**

NESTMI/Unstable Angina

Q-Wave MI

**Document**



In the fourth column are the navigation buttons followed by the button entitled **Document**, which when depressed creates a document for this suite of templates.

## Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Patient

Sex  Age

**Latest Lab Results**

HGB	<input type="text"/>	//
HCT	<input type="text"/>	//
WBC	<input type="text"/>	//
hsCRP	<input type="text"/>	//
Homocysteine	<input type="text"/>	//
Sed Rate	<input type="text"/>	//
Cholesterol	3000	04/08/2009
HDL	140	04/08/2009
Chol/HDL	<input type="text"/>	//
Triglycerides	5000	04/08/2009
Trig/HDL	<input type="text"/>	
Fasting Glucose	<input type="text"/>	//
Insulin	<input type="text"/>	//
HOMA-IR	<input type="text"/>	
Ca	<input type="text"/>	//
Mg	<input type="text"/>	//
Ca/Mg	<input type="text"/>	
UA Protein	<input type="text"/>	10/13/2009
MS Strip	<input type="text"/>	//
Creat/Albumin	<input type="text"/>	//
CPK	<input type="text"/>	//
Troponin	<input type="text"/>	//

**Vital Signs**

Temp  F

Height  in

Weight  lb

BMI

Body Fat  %

Pulse

Blood Pressure  /  mmHg

**Risk Factors**

☒ Diabetes

☒ Dyslipidemia

☐ Family Hx of Premature CAD (under 55 for males, 65 females)

☐ History of CVA

☐ History of PVD

☐ History of MI

☒ Hypertension

☐ Overweight/Obese

☐ Sedentary lifestyle

☒ Smoking

[Framingham 10-Yr CVD Risk](#)  %

[Framingham 10-Yr Stroke Risk](#)  %

[Hubbard Probability Severe Coronary Disease](#)  %

[TIMI Risk Score](#)  %

[Global Cardiovascular Risk](#)

**Home**

[Q-Wave](#)

[Evaluation](#)

[Differential Dx](#)

**Treatment**

[NESTMI/Unstable Angina](#)

[Q-Wave MI](#)

**Document**

## Q-Wave Template

The full name of this template is “**Comparison of Q wave and non-Q wave MI.**” Nine characteristics of a Q-Wave MI and 10 Characteristics of a Non-Q Wave MI are displayed.

### Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

**Vital Signs**

Temp  F

Height  63.00 in

Weight  100.00 lb

BMI

Body Fat  30 %

Pulse

Blood Pressure  /  mmHg

**Risk Factors**

☒ Diabetes

☒ Dyslipidemia

☐ Family Hx of Premature CAD (under 55 for males, 65 females)

☐ History of CVA

☐ History of PVD

☐ History of MI

☒ Hypertension

☐ Overweight/Obese

☐ Sedentary lifestyle

☒ Smoking

[Framingham 10-Yr CVD Risk](#)  %

[Framingham 10-Yr Stroke Risk](#)  %

[Hubbard Probability Severe Coronary Disease](#)  %

[TIMI Risk Score](#)  %

[Global Cardiovascular Risk](#)  23.4

Patient  Greg  Test Jr

Sex  M Age

**Latest Lab Results**

HGB	<input type="text"/>	<input type="text"/>	<input type="text"/>
HCT	<input type="text"/>	<input type="text"/>	<input type="text"/>
WBC	<input type="text"/>	<input type="text"/>	<input type="text"/>
hsCRP	<input type="text"/>	<input type="text"/>	<input type="text"/>
Homocysteine	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sed Rate	<input type="text"/>	<input type="text"/>	<input type="text"/>
Cholesterol	<input type="text"/> 3000	<input type="text"/> 04/08/2009	<input type="text"/>
HDL	<input type="text"/> 140	<input type="text"/> 04/08/2009	<input type="text"/>
Chol/HDL	<input type="text"/>	<input type="text"/>	<input type="text"/>
Triglycerides	<input type="text"/> 5000	<input type="text"/> 04/08/2009	<input type="text"/>
Trig/HDL	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fasting Glucose	<input type="text"/>	<input type="text"/>	<input type="text"/>
Insulin	<input type="text"/>	<input type="text"/>	<input type="text"/>
HOMA-IR	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ca	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mg	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ca/Mg	<input type="text"/>	<input type="text"/>	<input type="text"/>
UA Protein	<input type="text"/>	<input type="text"/> 10/13/2009	<input type="text"/>
MS Strip	<input type="text"/>	<input type="text"/>	<input type="text"/>
Creat/Albumin	<input type="text"/>	<input type="text"/>	<input type="text"/>
CPK	<input type="text"/>	<input type="text"/>	<input type="text"/>
Troponin	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Home**

**Q-Wave**

Evaluation

Differential Dx

**Treatment**

NESTMI/Unstable Angina

Q-Wave MI

**Document**

## Comparison of Q Wave and Non-Q Wave MI

### ☐ Q-Wave

Presents with ST-segment elevation

High in-hospital mortality

Lower reinfarction rate after hospital discharge

Thrombolysis beneficial

Sustained coronary artery occlusion

Large infarct size

Acute complications common

1-mo mortality rate, 10%-15%

2-yr mortality rate, 30%

### ☐ Non Q-Wave

Presents with ST-segment depression

Lower in-hospital mortality

High reinfarction rate after hospital discharge

Thrombolysis not recommended

Early spontaneous reperfusion common

Small infarct size

Acute complications uncommon

1-mo mortality rate, 3%-5%

2-yr mortality rate, 30%

[Return](#)

# Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Goals

Definition

Vital Signs

Temp

F

Height

63.00

in

Weight

100.0

lb

BMI

Body Fat

30

%

Pulse

Blood Pressure

/

mmHg

Risk Factors

☒ Diabetes
 ☒ Dyslipidemia
 ☐ Family Hx of Premature CAD (under 55 for males, 65 females)

☐ History of CVA
 ☐ History of PVD
 ☐ History of MI
 ☒ Hypertension
 ☐ Overweight/Obese
 ☐ Sedentary lifestyle
 ☒ Smoking

[Framingham 10-Yr CVD Risk](#)

%

[Framingham 10-Yr Stroke Risk](#)

%

[Hubbard Probability Severe Coronary Disease](#)

%

[TIMI Risk Score](#)

%

[Global Cardiovascular Risk](#)

23.4

Patient

Greg

Test Jr

Sex

M

Age

Latest Lab Results

Check for New Labs

HGB		/ /
HCT		/ /
WBC		/ /
hsCRP		/ /
Homocysteine		/ /
Sed Rate		/ /
Cholesterol	3000	04/08/2009
HDL	140	04/08/2009
Chol/HDL		/ /
Triglycerides	5000	04/08/2009
Trig:HDL		
Fasting Glucose		/ /
Insulin		/ /
HOMA-IR		
Ca		/ /
Mg		/ /
Ca/Mg		
UA Protein		10/13/2009
MS Strip		/ /
Creat/Albumin		/ /
CPK		/ /
Troponin		/ /

Home

Q-Wave

Evaluation

Differential Dx

Treatment

NESTMI/Unstable Angina

Q-Wave MI

Document

The full name of this template is, “**Key Diagnostic Items to be Elicited for Assessing Significant CAD in Patients with Chest Pain Suggestive of Acute Coronary Syndrome.**”

Key Diagnostic Items to be Elicited for Assessing Significant CAD in Patients with Chest Pain Suggestive of Acute Coronary Syndrome		
<b>Time of Onset of Pain</b>	Critical for determining whether the patient should receive thrombolytic agents if an AMI is present .  Sensitivity and specificity of cardiac markers are time dependent.	Onset Date <input type="text"/> / <input type="text"/> / <input type="text"/> Time <input type="text"/>
<b>Duration and Persistence of Pain</b>	Helpful in the classification of chest pain.  Features suggestive of noncardiac chest pain include constant pain lasting days or fleeting pain lasting a few seconds or less.	Duration/Persistence <input type="text"/> <input type="text"/>
<b>Character of Pain</b>	Pain which is pleuritic, reproduced by movement or palpation of the chest or arms, or localized with one finger is suggestive of noncardiac chest pain but does not completely exclude the diagnosis of ischemic pain.	Type of Chest Pain <input type="text"/> Class of Angina <input type="text"/>
<b>Associated Symptoms</b>	Helpful in assigning a cardiac diagnosis (as they are anginal equivalents), they include...	<input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> Shortness of breath <input type="checkbox"/> Nausea <input type="checkbox"/> Diaphoresis <input type="checkbox"/> Light headedness
<b>History of AMI or Invasive Procedures</b>	Prior AMI as determined by history or ECG findings of Q waves or a history of invasive procedures for CAD such as CABG or PTCA are the most important indicators of severe CAD.	Cardiac History <input type="text"/>
<b>Age and Gender</b>	Older age and male gender have been consistently shown to be predictive of MI or USA in the ED setting.  The management of patients over age 65 continues to be more complex and demanding than of younger patients. It has also been shown that women with chest pain are less aggressively evaluated.	Sex <input type="text"/> M  Age <input type="text"/>

**Partial  
Sample**

There are ten parts to this template. They are explained below:

The first two are:

- **Time of Onset of Pain** – there is a place to document the date and time of onset of the pain.

<b>Time of Onset of Pain</b>	Critical for determining whether the patient should receive thrombolytic agents if an AMI is present .  Sensitivity and specificity of cardiac markers are time dependent.	Onset Date <input type="text"/> / <input type="text"/> / <input type="text"/> Time <input type="text"/>
------------------------------	--	---



- **Duration and persistence of Pain** – there is a place to document how long the pain has lasted.

<b>Duration and Persistence of Pain</b>	Helpful in the classification of chest pain.	Duration/Persistence	
	Features suggestive of noncardiac chest pain include constant pain lasting days or fleeting pain lasting a few seconds or less.	<input type="text"/>	<input type="text"/>

The next two are:

- **Character of Pain** – there are two buttons here which link you to the **Angina Suite** of templates for **Type of Chest Pain** and **Class of Angina**. For more information on Angina, [Click Here](#).

<b>Character of Pain</b>	Pain which is pleuritic, reproduced by movement or palpation of the chest or arms, or localized with one finger is suggestive of noncardiac chest pain but does not completely exclude the diagnosis of ischemic pain.	Type of Chest Pain
		Class of Angina

- **Associated Symptoms**.—four angina equivalents are displayed so that you can note them if they are present.

<b>Associated Symptoms</b>	Helpful in assigning a cardiac diagnosis (as they are anginal equivalents), they include...	<input type="checkbox"/>	<input type="checkbox"/>	Shortness of breath
		<input type="checkbox"/>	<input type="checkbox"/>	Nausea
		<input type="checkbox"/>	<input type="checkbox"/>	Diaphoresis
		<input type="checkbox"/>	<input type="checkbox"/>	Light headedness

The next two are:

**History of AMI or Invasive Procedures** – there is a link here to the **Cardiac History**  
**Age and Gender** – these two elements are displayed automatically

<b>History of AMI or Invasive Procedures</b>	Prior AMI as determined by history or ECG findings of Q waves or a history of invasive procedures for CAD such as CABG or PTCA are the most important indicators of severe CAD.	Cardiac History	
<b>Age and Gender</b>	Older age and male gender have been consistently shown to be predictive of MI or USA in the ED setting.  The management of patients over age 65 continues to be more complex and demanding than of younger patients. It has also been shown that women with chest pain are less aggressively evaluated.	Sex	<input type="text" value="M"/>
		Age	<input type="text"/>

**Associated Risk Factors** – there is a place to document the presence of the five major risk factors for coronary artery disease

<b>Associated Risk Factors</b>	Diabetes is the most important risk factor, but cigarette smoking, hypercholesterolemia, and hypertension are also important predictors of significant CAD.	<input checked="" type="checkbox"/> Diabetes <input checked="" type="checkbox"/> Dyslipidemia <input checked="" type="checkbox"/> Hypertension <input type="checkbox"/> Sedentary lifestyle <input checked="" type="checkbox"/> Smoking

**Drug Use** – if patient's use or non-use of illicit drugs is automatically noted from the History template. A link to the List of **Elicit Drugs** in the patient's **History** is present here

<b>Drug Use</b>	Cocaine and amphetamine abuse can cause both MI and unstable angina .  Cocaine can also cause an elevation of serum CK enzymes that are unrelated to AMI.	<input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> History of drug use <div style="border: 2px solid red; padding: 2px; display: inline-block;">List of Elicit Drugs</div>

**Add Social Hx**

Habit Detail

Only check the "Cigarettes" box if the patient CURRENTLY smokes. You may uncheck the "Cigarettes" box if the patient has stopped smoking ONLY after you have entered the number of years and date stopped.

<b>Tobacco</b>		PPD	# Years	Date Stopped	<input type="checkbox"/> <b>Drugs</b>	# Years	Date Stopped
<input checked="" type="checkbox"/> Cigarettes	2	20	<input type="checkbox"/> Stopped?	//	<input type="checkbox"/> Cocaine	10	//
<input type="checkbox"/> Cigars			<input type="checkbox"/> Stopped?	//			//
<input type="checkbox"/> Pipes			<input type="checkbox"/> Stopped?	//			//
<input type="checkbox"/> Smokeless			<input type="checkbox"/> Stopped?	//			//
<input type="checkbox"/> <b>Alcohol</b>		oz/wk	Date Stopped	<input type="checkbox"/> <b>Toxic Substances</b>			
<input checked="" type="checkbox"/> Beer	80.00	//	<input type="checkbox"/> Benzene				
<input type="checkbox"/> Wine	.00	//					
<input type="checkbox"/> Mixed	.00	//					
<input type="checkbox"/> <b>Caffeine</b>	10	Cups / Cans per day	<input type="checkbox"/> <b>Exercise</b>				
			running				

**Comments**

**Physical Examination** – this lists the **Physical Findings suggestive of CAD** and **Signs/cause of secondary unstable angina**.

<b>Physical Exam</b>	Physical findings suggestive of CAD include...	<input type="checkbox"/> S3 or S4 sound or gallop <input type="checkbox"/> Mitral regurgitant murmur <input type="checkbox"/> Paradoxically split S2 <input type="checkbox"/> Bibasilar rales <input type="checkbox"/> Chest wall heave that disappears when pain subsides <input type="checkbox"/> Pericardial rub
	Signs/causes of secondary unstable angina include...	<input type="checkbox"/> Pallor or tachycardia from anemia <input type="checkbox"/> Pulse abnormalities <ul style="list-style-type: none"> <li><input type="checkbox"/> Atrial fibrillation</li> <li><input type="checkbox"/> Bradycardias</li> </ul> <input type="checkbox"/> Proptosis <input type="checkbox"/> Thyromegaly <input type="checkbox"/> Hyperactive reflexes <input type="checkbox"/> Tachycardia <input type="checkbox"/> Skin changes to suggest hyperthyroidism

Next there is:

**ECG** – there is a link to the **ECG Report** from the Procedures template in NextGen.

<b>ECG</b>	High likelihood of CAD if: ST increase or decrease $\geq 1$ mm; Marked symmetrical T wave inversions in multiple precordial leads; dynamic changes with chest pain	<div> <a href="#">EKG Report</a> </div>
	Intermediate likelihood of CAD if: ST depression .5 to 1 mm; T wave inversion $\geq 1$ mm in leads with dominant R waves  Low likelihood of CAD: A normal ECG; T wave flat or inverted $< 1$ mm in leads with dominant R waves	

## Differential Diagnosis Template

This is a pop-up which displays other potential causes of the pain which is commonly associated with the **Acute Coronary Syndrome**.

**Acute Coronary Syndrome**

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Patient: Greg Test Jr  
Sex: M Age:   
Height: 63.00 in Temp: F

**Vital Signs**  
Temp: F  
Height: 63.00 in

**Risk Factors**  
☒ Diabetes  
☒ Dyslipidemia  
☐ Family Hx of Premature CAD

**Latest Lab Results**  
HGB: / /  
HCT: / /  
WBC: / /  
hsCRP: / /  
Hemoglobin: / /

**Check for New Labs**

**Home**  
Q-Wave  
Evaluation  
**Differential Dx**  
**Treatment**  
NSTEMI/Unstable Angina  
Q-Wave MI  
**Document**

**Dm Acs Diffdx**

**Differential Diagnosis to Acute Coronary Syndrome**

☐ Myocardial infarction  
☐ Unstable angina  
☐ Aortic dissection  
☐ Pericarditis

**Gastrointestinal Disease**  
☐ Esophagitis  
☐ Esophageal spasm  
☐ Peptic ulcer  
☐ Biliary colic  
☐ Pancreatitis

**Pulmonary Disease**  
☐ Pulmonary embolism  
☐ Pneumonia  
☐ Pleuritis  
☐ Pneumothorax  
☐ Psychogenic hyperventilation syndrome

**Chest Wall Pain**  
☐ Musculoskeletal  
☐ Neurologic

OK Cancel

## NESTIMI and Unstable Angina Treatment

**Acute Coronary Syndrome**

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Patient:    
Sex:  Age:

**Vital Signs**

Temp:  F  
Height:  in  
Weight:  lb  
BMI:   
Body Fat:  %  
Pulse:   
Blood Pressure:  /  mmHg

**Risk Factors**

☒ Diabetes  
☒ Dyslipidemia  
☐ Family Hx of Premature CAD (under 55 for males, 65 females)  
☐ History of CVA  
☐ History of PVD  
☐ History of MI  
☒ Hypertension  
☐ Overweight/Obese  
☐ Sedentary lifestyle  
☒ Smoking

**Latest Lab Results**

Test	Result	Date
HGB	11	11
HCT	33	33
WBC	11	11
hsCRP	11	11
Homocysteine	11	11
Sed Rate	11	11
Cholesterol	3000	04/08/2009
HDL	140	04/08/2009
Chol/HDL	11	11
Triglycerides	5000	04/08/2009
Trig/HDL	11	11
Fasting Glucose	11	11
Insulin	11	11
HOMA-IR	11	11
Ca	11	11
Mg	11	11
Ca/Mg	11	11
UA Protein	10/13/2009	10/13/2009
MS Strip	11	11
Creat/Albumin	11	11
CPK	11	11
Troponin	11	11

**Goals**

[Framingham 10-Yr CVD Risk](#)  %  
[Framingham 10-Yr Stroke Risk](#)  %  
[Hubbard Probability Severe Coronary Disease](#)  %  
[TIMI Risk Score](#)  %  
[Global Cardiovascular Risk](#)  %

**Treatment**

☒ NESTMI/Unstable Angina  
☐ Q-Wave MI

**Document**

This template begins with the statement, "Once unstable angina or non-SET Segment has been identified, standard anti-ischemic treatments should be initiated."

The template then displays 15 standard anti-ischemic treatments which can be initiated. Two of these Calcium Channel Blockers and Thrombolytic Therapy are not generally used with unstable angina and/or non-ST-segment elevation MI. All of the treatments which are in blue have links to documents which give more information about each of these treatments.

**Treatment for NSTEMI and Unstable Angina**

Once unstable angina or non-ST-segment elevation MI has been identified, standard **anti-ischemic** treatments should be initiated.

☐ Bed rest  
☐ Continuous ECG monitoring for possible arrhythmias  
☐ [Oxygen](#)  
☐ Nitrates  
☐ [Morphine](#)  
☐ [Beta-blockers](#)  
☐ [Calcium channel blockers](#) (generally not used)  
☐ [Long-acting dihydropyridine calcium channel blockers](#)  
☐ [Angiotensin-converting enzyme inhibitors](#)

☐ [Intra-aortic balloon pump](#)  
Anticoagulant Therapy  
☐ [Unfractionated heparin](#)  
☐ [Low-molecular-weight heparins](#)

☐ [Thrombolytic therapy](#) (generally not used)  
☐ [Statin therapy](#)  
☐ [Antiplatelet therapy](#)

**Return**

**Information**

[AHA Antiplatelet Recommendations](#)  
[AHA Anticoagulant Recommendations](#)  
[Glycoprotein Trials](#)



- AHA Antiplatelet Recommendations
- AHA Anticoagulant Recommendations
- Glycoprotein Trials

# Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Goals      Definition

**Vital Signs**

Temp  F

Height  63.00 in

Weight  100.00 lb

BMI

Body Fat  30 %

Pulse

Blood Pressure  /  mmHg

**Risk Factors**

☒ Diabetes

☒ Dyslipidemia

☐ Family Hx of Premature CAD (under 55 for males, 65 females)

☐ History of CVA

☐ History of PVD

☐ History of MI

☒ Hypertension

☐ Overweight/Obese

☐ Sedentary lifestyle

☒ Smoking

[Framingham 10-Yr CVD Risk](#)  %

[Framingham 10-Yr Stroke Risk](#)  %

[Hubbard Probability Severe Coronary Disease](#)  %

[TIMI Risk Score](#)  %

[Global Cardiovascular Risk](#)  23.4

Patient  Greg  Test Jr

Sex  M  Age

**Latest Lab Results**

HGB  / /

HCT  / /

WBC  / /

hsCRP  / /

Homocysteine  / /

Sed Rate  / /

Cholesterol  3000  04/08/2009

HDL  140  04/08/2009

Chol/HDL  / /

Triglycerides  5000  04/08/2009

Trig/HDL

Fasting Glucose  / /

Insulin  / /

HOMA-IR

Ca  / /

Mg  / /

Ca/Mg

UA Protein  10/13/2009

MS Strip  / /

Creat/Albumin  / /

CPK  / /

Troponin  / /

**Check for New Labs**

**Home**

Q-Wave

Evaluation

Differential Dx

**Treatment**

NESTMI/Unstable Angina

**Q-Wave MI**

**Document**

The instruction is then given, “Select one of the following options...

- Page 19 of 26

## Treatment for Q-Wave MI

Glycoprotein IIb/IIIa therapy is recommended in moderate to high-risk patients.

[Return](#)

Select one of the following options... [Clear](#)

☒ Is cath lab treatment planned within 12 hours?

☐ Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 12 hours?

- \* IV abciximab (Reopro® bolus therapy, 0.25mcg/kg, followed by maintenance weight-adjusted dose for 12 hours)
- \* If tirofiban (Aggrastat®) used for PCI (agent selected by interventional attending): bolus infusion, 10mcg/kg x 3 minutes, then maintenance infusion (0.15 mcg/kg/min x 12-24 hours).
- \* Aspirin 325 mg
- \* Beta blocker to reduce HR less than or equal to 60
- \* Nitrate therapy (I.V., long-acting oral, or topical)
- \* IV heparin (800-1000 U/hr to maintain APTT between 50-60 sec); goal of ACT in lab less than or equal to 250 seconds.
- \* Note: If PCI is performed, add clopidogrel 300mg, then 75 mg qd.

[Monitoring and Assessment](#) [Medications](#) [Complications in Q-Wave MI](#) [Treatment Recommendations](#) [EKG Changes](#)

- Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 123 hours?

## Treatment for Q-Wave MI

Glycoprotein IIb/IIIa therapy is recommended in moderate to high-risk patients.

[Return](#)

Select one of the following options... [Clear](#)

☐ Is cath lab treatment planned within 12 hours?

☒ Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 12 hours?

- \* IV heparin (5000 U bolus, then 800-1000 U/hr to maintain APTT between 50-60 secs)\*
- \* IV tirofiban (Aggrastat®) for up to 108 hours (0.4 ug/kg/min) for 30 minutes, then 0.1 ug/kg/min)
- \* Beta blocker (to keep heart rate < 60 bpm); i.e., metoprolol 50mg bid
- \* Aspirin 325 mg qd (chewable)
- \* Nitrate therapy (IV, long acting oral, or topical)
- \* Note: Enoxaparin 1mg/kg s.o. bid may be considered instead of unfractionated IV heparin; however, the combination of an LMWH and a GP IIb/IIIa inhibitor has not been well studied.
- \* Note: If PCI is performed, continue Rx with IV Aggrastat for 12 hours after procedure.

[Monitoring and Assessment](#) [Medications](#) [Complications in Q-Wave MI](#) [Treatment Recommendations](#) [EKG Changes](#)

At the bottom of this template, there are five links:

[Monitoring and Assessment](#) [Medications](#) [Complications in Q-Wave MI](#) [Treatment Recommendations](#) [EKG Changes](#)

- **Monitoring and Assessment**

### Treatment for Q-Wave MI

Glycoprotein IIb/IIIa therapy is recommended in moderate to high-risk patients.

Select one of the following options...

☐ Is cath lab treatment planned within 12 hours?

☐ Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 12 hours?

[Monitoring and Assessment](#) [Medications](#) [Complications in Q-Wave MI](#) [Treatment Recommendations](#) [EKG Changes](#)

Dm Acs Qwmimoni

### Monitoring and Assessment

**Monitoring and Assessment**

Since administration of IIb/IIIa antagonists may be associated with an increased frequency of thrombocytopenia and major bleeding complications, the following precautions should be taken:

1. Obtain CBC with platelets at baseline, 6 and 24 hours following administration, then qd.
2. Obtain troponin level at baseline and 8 hours after admission
3. Discontinue drug if platelets decrease to less than 100,000 or by 25% of pre-treatment value (assess peripheral smear to r/o pseudothrombocytopenia)
4. Assess for signs of bleeding:
  - Observe for mental status changes
  - Observe eyes for hemorrhage
  - Assess mucous membranes of nose and mouth
  - Monitor puncture and access sites
  - Examine urine, stool, and emesis for signs of frank blood
  - Guaiac stool and Hemastix for presence
5. If significant bleeding occurs:
  - Discontinue GP IIb/IIIa and heparin therapy
  - Consider infusion of 12 units platelets (or PRBC/FFP) if clinically indicated
  - Stat CBC and platelets
  - Fem-stop or direct pressure for groin bleed.

- **Medications** – this is an electronic PDR for 9 categories of medications which are used in the treatment of Acute Coronary Syndrome.

## Treatment for Q-Wave MI

Glycoprotein IIb/IIIa therapy is recommended in moderate to high-risk patients.

Select one of the following options...

☐ Is cath lab treatment planned within 12 hours?  
☐ Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 12 hours?

[Monitoring and Assessment](#)
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Dm Acs Drugs

### Medications for Use in Acute Coronary Syndrome

**1. Select a category.**

- ☐ Adenosine Diphosphate Rcpt Antagonists
- ☐ Analgesics
- ☐ Anticoagulants
- ☐ Antiplatelets
- ☐ Beta-Blockers
- ☐ Direct Thrombin Inhibitors
- ☐ Glycoprotein IIa/IIIb Inhibitors
- ☐ Low Molecular Weight Heparin
- ☐ Nitrates

**2. Select a medication.**

**3. Review the available information.**

General	Dosing	Contraindications	Interactions	Pregnancy	Precautions

\*\* Pediatric Dose Not Established

- **Complications in Q-Wave IM**

## Treatment for Q-Wave MI

Glycoprotein IIb/IIIa therapy is recommended in moderate to high-risk patients.

Select one of the following options...

☐ Is cath lab treatment planned within 12 hours?  
☐ Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 12 hours?

[Monitoring and Assessment](#)
[Medications](#)

[Complications in Q-Wave MI](#)

[Treatment Recommendations](#)
[EKG Changes](#)

Dm Acs Qwavecomp
✕

### Complications in Q-Wave Myocardial Infarction

Complication	Management
<input type="checkbox"/> Bradyarrhythmias	Atropine, pacemakers
<input type="checkbox"/> Congestive heart failure	Vasodilators, IV inotropic agents, diuretics (use with caution), IABP (intra-aortic balloon pumping)
<input type="checkbox"/> Hypotension	Volume replacement, inotropic agents, vasodilators, IABP, mechanical revascularization
<input type="checkbox"/> Papillary muscle rupture	Inotropic agents, vasodilators, IABP, mechanical revascularization
<input type="checkbox"/> Pericarditis	Nonsteroidal anti-inflammatory drugs
<input type="checkbox"/> Recurrent ischemia	Nitrates, beta-blockers, morphine, repeated reperfusion
<input type="checkbox"/> Ventricular fibrillation	Defibrillation, amiodarone, beta-blockers
<input type="checkbox"/> Ventricular septal rupture	Inotropic agents, vasodilators, IABP, mechanical revascularization
<input type="checkbox"/> Ventricular tachycardia	Lidocaine (Xylocaine) HCl, amiodarone HCl (Cordarone, Pacerone), beta-blockers, synchronized defibrillator-cardioverter shock



- **Treatment Recommendations**

## Treatment for Q-Wave MI

Glycoprotein IIb/IIIa therapy is recommended in moderate to high-risk patients.

Select one of the following options...

☐ Is cath lab treatment planned within 12 hours?  
☐ Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 12 hours?

[Monitoring and Assessment](#)
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[Complications in Q-Wave MI](#)

[Treatment Recommendations](#)

[EKG Changes](#)

Dm Acs Treatrec
✕

### Therapy for Acute Coronary Syndrome

Treatment	Recommendations
<input type="checkbox"/> Adenosine Diphosphate Receptor Inhibitor	Consideration of clopidogrel (Plavix) therapy in selected cases
<input type="checkbox"/> Antiplatelet Agent	Aspirin, 325 mg (chewable)
<input type="checkbox"/> Beta-Blocker	IV therapy optional for prompt response, followed by oral therapy: * Metoprolol (Lopressor), 5 mg IV every 5 min for three doses * Propranolol HCl (Inderal), 1 mg IV; may repeat every 5 min for total of 5 mg * Esmolol HCl (Brevibloc), initial IV dose of 50 micrograms/kg/min and adjust up to 200-300 micrograms/kg/min
<input type="checkbox"/> Cardiac Catheterization	Consideration of early invasive approach in patients at intermediate to high risk and those in whom conservative management fails
<input type="checkbox"/> Enoxaparin Sodium (Lovenox)	1 mg/kg IV, followed by 1 mg/kg subcutaneously bid
<input type="checkbox"/> Glycoprotein IIb/IIIa Receptor Inhibitors	Abciximab (ReoPro), eptifibatide (Integrilin), or tirofiban HCl (Aggrastat) for patients with high-risk features in whom an early invasive approach is planned
<input type="checkbox"/> Heparin	Goal: aPTT (activated partial thromboplastin time), 1.5-2.5 X control
<input type="checkbox"/> Nitrates	Sublingual nitroglycerin (NitroQuick, Nitrostat), one tablet every 5 min for total of three tablets initially, followed by IV form (Nitro-Bid IV, Tridil) if needed

- **EKG Changes**

## Treatment for Q-Wave MI

Glycoprotein IIb/IIIa therapy is recommended in moderate to high-risk patients.

Select one of the following options...

☐ Is cath lab treatment planned within 12 hours?  
☐ Is the patient to receive medical management ONLY or is cath lab treatment postponed for more than 12 hours?

[Monitoring and Assessment](#)
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[Complications in Q-Wave MI](#)
[Treatment Recommendations](#)
[EKG Changes](#)

### EKG Changes in Q-Wave MI

The electrocardiogram (ECG) remains a key tool in the diagnosis of Q wave infarction; serial tracings provide critical diagnostic information.

- The hallmark of Q wave infarction is acute ST-segment elevation in association with severe chest pain.
- Significant ST-segment elevation is defined as 0.10 mV or more measured 0.02 second after the J point in two contiguous leads, from the following combinations:
  - (1) leads II, III, or aVF (inferior infarction),
  - (2) leads V1 through V6 (anterior or anterolateral infarction), or
  - (3) leads I and aVL (lateral infarction).
- Abnormal Q waves usually develop within 8 to 12 up to 24 to 48 hours after the onset of symptoms.
- Abnormal Q waves are at least 30 msec wide and 0.20 mV deep in at least two leads from the combinations listed.

Complete left bundle branch block:

- In the appropriate clinical setting (acute, severe chest pain suggestive of myocardial ischemia) should be managed as acute myocardial infarction pending cardiac marker analysis.
- It is usually not possible to definitively diagnose acute myocardial infarction by the ECG alone in the setting of left bundle branch block.
- The diagnosis of either posterior or right ventricular myocardial infarction requires specific analysis worthy of detailed review.

**Document** – this generates the summary of the use of this suite of templates.

## Acute Coronary Syndrome

Do not think of chest pain as "rule out MI," but think "rule out acute coronary syndrome" (MI and Unstable Angina).

Patient

Robert

Test Jr

Sex

M

Age

39

Goals

Definition

Vital Signs

Temp

F

Height

72.00

in

Weight

.00

lb

BMI

Body Fat

22

%

Pulse

Blood Pressure

/

mmHg

Risk Factors

☒ Diabetes

☒ Dyslipidemia

☐ Family Hx of Premature CAD (under 55 for males, 65 females)

☐ History of CVA

☐ History of PVD

☐ History of MI

☒ Hypertension

☐ Overweight/Obese

☐ Sedentary lifestyle

☐ Smoking

[Framingham 10-Yr CVD Risk](#)

%

[Framingham 10-Yr Stroke Risk](#)

%

[Hubbard Probability Severe Coronary Disease](#)

%

[TIMI Risk Score](#)

%

[Global Cardiovascular Risk](#)

1.4

Latest Lab Results

Check for New Labs

HGB		//
HCT		//
wBC		//
hsCRP		//
Homocysteine		//
Sed Rate		//
Cholesterol	150	06/06/2007
HDL		//
Chol/HDL		//
Triglycerides	175	06/06/2007
Trig/HDL		
Fasting Glucose		//
Insulin		//
HOMA-IR		
Ca		//
Mg		//
Ca/Mg		
UA Protein		//
MS Strip		//
Creat/Albumin		//
CPK		//
Troponin		//

Home

Q-Wave

Evaluation

Differential Dx

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NESTMI/Unstable Angina

Q-Wave MI

Document