Mr. Jones -scenario #1
(day of first treatment session)

Case Scenario: You are assuming care for Mr. Jones. He is a 54 year old white male admitted to the ICU 2 days ago for acute chest pain and to rule out myocardial infarction. He was diagnosed with a large acute anterior myocardial infarction. He was taken within 90 minutes to cath lab and found to have two 90% occlusions of his Left Anterior Descending (LAD) artery. Two stents were placed in the LAD at the site of the occlusions. Mr. Jones was noted to have cardiomyopathy and an ejection fraction of 35%. Following the stent procedure Mr. Jones has had frequent premature ventricular contractions (PVCs) and 2 runs of Ventricular Tachycardia (V-Tach) due to poor reperfusion; but none during the past 16 hours. He has an IV line, arterial line, pulmonary artery catheter, ECG, urinary catheter and he is on 2L oxygen via nasal canula. He has a history of hypertension that was controlled with medication prior to admission.

PT initial evaluation: Mr. Jones is a 54 yo white male admitted to the ICU ~48 hours ago. He was diagnosed with a large acute anterior myocardial infarction and he had 2 stents placed in the LAD. Mr. Jones was also noted to have cardiomyopathy and an ejection fraction of 35%. Currently Mr. Jones has an IV line, arterial line, pulmonary artery catheter, ECG, urinary catheter and he is on 2L oxygen via nasal canula. Cardiac enzymes and proteins were positive for a myocardial infarction. Blood panel findings indicate mild anemia. He is currently taking multiple medications that may limit his capacity to perform exercise. Orders for cardiac rehabilitation were received from the physician in charge of his care.

Mr. Jones appears to be a 54 yo white male in no apparent distress at the time of evaluation. Mr. Jones denied pain at this time, but says that he feels “weak” and “tired”. He is alert and oriented. English is his native language and he was able to follow directions and communicate without difficulty. His skin is pink and intact throughout. He was breathing without difficulty, but primarily through his mouth. He was able to demonstrate full ROM for both UEs and LEs but required assistance due to weakness. Patient reported that he could lift his UEs and LEs functionally prior to admission. At the time of evaluation his vital signs were as
follows: HR=90 bpm with NSR; BP=105/65; RR=14; SO2=98%. During active assisted exercise
his peak vital signs were: HR=106 with NSR; BP=115/68; RR=18; SO2=96%.
Intervention Plan: Evaluate patient capacity and ability for bed exercises, standing, transfers
and ambulation. Proceed with cardiac rehabilitation program including patient education.
Medication Administration Record

(day of first treatment session after initial evaluation)

Patient name: Mr. Jones

Diagnosis: acute myocardial infarction
DOB: 08/30/xx
Allergies: no known allergies

Medications prior to admission:

Metoprolol 50mg PO BID
ASA 325mg PO Daily

Today

scheduled medication time scheduled time administered
ASA 325mg PO daily 0900
Metoprolol 50 mg PO BID 0900 2100
Captopril 25mg PO BID 0900 2100
Isordil 20mg PO BID 0900 2100
Lovenox 60mg SQ BID 0900 2100
Pepcid 20mg PO daily 0900
Plavix 75mg PO daily 0900
Amioderone 150mg PO daily 0900
Colace 100mg PO BID 0900 2100
PRN medication
NTG 50mg/250mL start @10 mcg/min PRN Chest Pain
titrate for chest pain.
Morphine Sulfate 2-4mg IV q 2 hrs PRN moderate to severe pain
Tylenol 1g PO PRN mild to moderate pain/head ache
Zofran 4mg IV q 4 hrs PRN nausea/vomiting
Normal Saline 250mL bolus
PRN SBP <90. May repeat x1.
Medication Administration Record

(day of first treatment session after initial evaluation)

Patient name: Mr. Jones

Diagnosis: acute myocardial infarction
DOB: 08/30/xx
Allergies: no known allergies

Medications prior to admission:

Metoprolol 50mg PO BID
ASA 325mg PO Daily

(Yesterday: day on initial evaluation)

scheduled medication time scheduled time administered
ASA 325mg PO daily 0900 0900
Metoprolol 50 mg PO BID 0900 2100 0900 2100
Captopril 25mg PO BID 0900 2100 0900 2100
Isordil 20mg PO BID 0900 2100 0900 2100
Lovenox 60mg SQ BID 0900 2100 0900 2100
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Amioderone 150mg PO daily 0900 0900
Colace 100mg PO BID 0900 2100 0900 2100
PRN medication
NTG 50mg/250mL start @10 mcg/min PRN Chest Pain
titrated for chest pain.
0600
Morphine Sulfate 2-4mg IV q 2 hrs PRN moderate to severe pain
0600
Tylenol 1g PO PRN mild to moderate pain/head ache
Zofran 4mg IV q 4 hrs PRN nausea/vomiting
0800
Normal Saline 250mL bolus
PRN SBP <90. May repeat x1.
Patient name: Mr. Jones

Diagnosis: possible myocardial infarction
DOB: 08/30/xx
Allergies: no known allergies

Cardiac Enzymes and Proteins: results of serial tests done since admission

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Normal Range</th>
<th>Patient value</th>
</tr>
</thead>
<tbody>
<tr>
<td>creatine kinase-myocardial (CK-MB)</td>
<td>&lt;3.0 ng/ml ***see below</td>
<td></td>
</tr>
<tr>
<td>troponin</td>
<td>&lt;0.4 ng/ml ***see below</td>
<td></td>
</tr>
<tr>
<td>lactate dehydrogenase (LDH)</td>
<td>140 -280 U/l ***see below</td>
<td></td>
</tr>
<tr>
<td>C-reactive protein</td>
<td>&lt;8 mg/l not tested</td>
<td></td>
</tr>
</tbody>
</table>

Abnormal findings:

*** CK-MB: the value was elevated at admission and peaked at 24 hours post onset of chest pain. The level is trending downward. The findings are consistent with a myocardial infarction

*** troponin: the value was elevated at admission and peaked at 24 hours post onset of chest pain. The level is trending downward but remains elevated. The findings are consistent with a myocardial infarction

*** lactate dehydrogenase: the value was high and rose since admission. The value appeared to peak and is now beginning to decline. The findings are consistent with a myocardial infarction

Hematology

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Normal Range</th>
<th>Patient value</th>
</tr>
</thead>
<tbody>
<tr>
<td>white blood cells</td>
<td>5.0 -11.5 x 10^3/mm^3</td>
<td>6.5 x 10^3/mm^3</td>
</tr>
<tr>
<td>red blood cells (female)</td>
<td>3.7 -5.2 x 10^3/mm^3</td>
<td></td>
</tr>
<tr>
<td>red blood cells (male)</td>
<td>4.5 -6.0 x 10^3/mm^3</td>
<td></td>
</tr>
<tr>
<td>hemoglobin (female)</td>
<td>12.5 -15.0 x gm/dl</td>
<td></td>
</tr>
<tr>
<td>hemoglobin (male)</td>
<td>14.0 -17.0 x gm/dl</td>
<td></td>
</tr>
<tr>
<td>hematocrit (female)</td>
<td>33 -46%</td>
<td></td>
</tr>
<tr>
<td>hematocrit (male)</td>
<td>42 -52%</td>
<td></td>
</tr>
<tr>
<td>platelet count</td>
<td>150,000 -400,000/ mm^3</td>
<td>270,000 / mm^3</td>
</tr>
<tr>
<td>hemoglobin A1c</td>
<td>4 -6.7%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Abnormal findings:

*** red blood cell count: value is low and consistent anemia.
*** hemoglobin concentration: value is low and consistent anemia.
*** hematocrit: value is low and consistent anemia.
Chemistry

<table>
<thead>
<tr>
<th>Parameter</th>
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<th>Patient value</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium</td>
<td>136 - 146 mEq/l</td>
<td>140</td>
</tr>
<tr>
<td>potassium</td>
<td>3.5 - 5.0 mEq/l</td>
<td>3.9</td>
</tr>
<tr>
<td>chloride</td>
<td>98 - 106 mEq/l</td>
<td>103</td>
</tr>
<tr>
<td>bicarbonate</td>
<td>22 - 28 mEq/l</td>
<td>24</td>
</tr>
<tr>
<td>BUN (blood urea nitrogen)</td>
<td>5 - 20 mg/dl</td>
<td>20</td>
</tr>
<tr>
<td>creatinine</td>
<td>0.7 - 1.5 mg/dl</td>
<td>1.3</td>
</tr>
<tr>
<td>glucose</td>
<td>70 - 110 mg/dl</td>
<td>107</td>
</tr>
<tr>
<td>magnesium</td>
<td>1.6 - 2.6 mg/dl</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Abnormal findings:

Potassium and magnesium levels are now normal after being below normal since admission.

Coagulation Profile: most recent results

<table>
<thead>
<tr>
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<th>Patient value</th>
</tr>
</thead>
<tbody>
<tr>
<td>platelet count</td>
<td>150,000 - 400,000/ mm3</td>
<td>170,000/ mm3</td>
</tr>
<tr>
<td>prothrombin time (PT)</td>
<td>11.0 - 13.5 seconds</td>
<td>12.0 seconds</td>
</tr>
<tr>
<td>partial thromboplastin time (PPT)</td>
<td>30.0 - 45.0 seconds</td>
<td>46.2 seconds</td>
</tr>
<tr>
<td>international normalization ratio (INR)</td>
<td>1.0</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Abnormal findings:

The PPT and INR are elevated and consistent with the presence of anticoagulant medication that the patient is currently receiving.