**Aim:** Provide timely comprehensive care to all cardiovascular patients at multiple levels of their recovery.

### Assumptions
- RN available in Cardiac environment
- Provider order in EMR for Cardiac rehab consults — PT, OT and Speech as needed.
- Monitoring of patient will be ongoing, telemetry while in patient room, hallway or in Cardiac Rehab gym, as well as heart rate, blood pressure, O2 sats, Borg Scale, pain scales, perceived exertion scale and patient demeanor/presentation.
- Protocol for surgical and medically managed patients.
- Cleared by all medical team involved (cardiology, surgery, physiatry, etc.)
- Twice-daily (BID) Physical and Occupational Therapy throughout Phase 1.

### Precautions
- Median sternotomy — no lifting greater than 15 lbs., no tensive force across chest, no crutches, no walker, no lifting the patient via pulling on arms, no 4 point, no crawling; can walk with hand-held assist, can be prone.
- Seizures — hold therapy for aura, change in mental status or tonic-clonic activity. Put patient in safe position.
- Transplant — immune-compromised, so same as Hem/Onc patients.

<table>
<thead>
<tr>
<th>DAY OF EXTUBATION OR SURGERY</th>
<th>DAY/POD #1</th>
<th>DAY/POD #2–3</th>
<th>DAY/POD #4–6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AROM</td>
<td>Sit at edge of bed for 10 mins BID</td>
<td>Stand pivot to chair, taking few steps if necessary</td>
<td>To Cardiac Gym</td>
</tr>
<tr>
<td>Heel slides</td>
<td>AROM of LE and UE</td>
<td>Sitting up in chair 1–2 hrs/day (increasing to 3–5)</td>
<td>Walking in room 3x/day, progress to hallway</td>
</tr>
<tr>
<td>Glut sets</td>
<td>Bed mobility</td>
<td>AROM 3x/day</td>
<td>Squatting, standing, strengthening/developmental exercises (age-dependent)</td>
</tr>
<tr>
<td>Ankle pumps</td>
<td></td>
<td>Toileting independently (at bedside commode)</td>
<td>Climb flight of stairs</td>
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<tr>
<td><strong>OT</strong></td>
<td>ADLs at bedside</td>
<td>ADLs in chair</td>
<td>Functional mobility</td>
</tr>
<tr>
<td>PROM/AROM to UE</td>
<td>Swallowing dysfunction screen</td>
<td>Functional transfers</td>
<td>Strengthening</td>
</tr>
<tr>
<td></td>
<td>Swallow eval if indicated</td>
<td>UE AROM</td>
<td>Endurance building</td>
</tr>
<tr>
<td></td>
<td>UE PROM/AROM</td>
<td>Screen for speech</td>
<td>Discharge planning</td>
</tr>
<tr>
<td></td>
<td>Screen for speech</td>
<td></td>
<td>Educate on Phase 1.5/Phase 2</td>
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</tbody>
</table>

Continue BID; Monitor HR, BP, O2 Sats, RPE or Borg Scale for exertions throughout.

<table>
<thead>
<tr>
<th><strong>SLP</strong></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>SLP evaluation, if indicated</td>
<td></td>
<td>Repeat Day/Pod #2–3</td>
</tr>
<tr>
<td></td>
<td>Receptive/expressive language</td>
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<td>Discharge planning</td>
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<tr>
<td></td>
<td>Pragmatics/social communication</td>
<td></td>
<td>Educate on Phase 1.5/Phase 2</td>
</tr>
<tr>
<td></td>
<td>Cognition</td>
<td></td>
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<tr>
<td></td>
<td>Intelligibility</td>
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</tr>
</tbody>
</table>

Continue speech therapy as needed; Monitor HR, BP, O2 Sats, RPE or Borg Scale for exertions throughout.

Disclaimer: This guideline is designed for general use with most patients; each clinician should use his or her own independent judgment to meet the needs of each individual patient. This guideline is not a substitute for professional medical advice, diagnosis or treatment.
Aim: Provide timely comprehensive care to all cardiovascular patients at multiple levels of their recovery.

Assumptions
- RN available in Cardiac environment
- Provider order in EMR for Cardiac rehab consults — PT, OT and Speech as needed.
- Monitoring of patient will be ongoing as needed, telemetry while in Cardiac Rehab gym, as well as heart rate, blood pressure, O2 sats, Borg Scale, pain scales, perceived exertion scale and patient demeanor/presentation.
- Protocol for surgical and medically managed patients.
- Cleared by all medical team involved (cardiology, surgery, physiatry, etc.)
- BID Physical and Occupational Therapy throughout Phase 1.5.
- Patient will be on Acute Inpatient Rehab Unit and able meet all admission and participation criteria for this unit.

Precautions
- Median sternotomy — no lifting greater than 15 lbs., no tensive force across chest, no crutches, no walker, no lifting the patient via pulling on arms, no 4 point, no crawling; can walk with hand-held assist, can be prone.
- Seizures — hold therapy for aura, change in mental status or tonic-clonic activity. Put patient in safe position.
- Transplant — immune-compromised, so same as Hem/Onc patients.

PT
- To Cardiac Gym
- BID Therapy
- Participate in activities on Inpatient Acute Rehab unit.
- Walking in room 3x/day
- Squatting, standing, strengthening or developmental exercises (age-dependent)
- Climb flight of stairs
- 6 minute walk test
- Discharge planning
- Educate on Phase 2 Cardiac Rehab

OT
- In-Room or Cardiac Rehab gym
- BID Therapy
- ADLs
- Functional mobility
- Strengthening
- Endurance building
- Discharge planning
- Educate on Phase 2 Cardiac Rehab

SLP
- In-Room or Cardiac Rehab gym
- QD or BID therapy as needed
- Receptive/expressive language
- Pragmatics/social communication
- Cognition
- Intelligibility
- Discharge planning
- Educate on Phase 2 Cardiac Rehab

Disclaimer: This guideline is designed for general use with most patients; each clinician should use his or her own independent judgment to meet the needs of each individual patient. This guideline is not a substitute for professional medical advice, diagnosis or treatment.
Aim: Provide timely comprehensive care to all cardiovascular patients at multiple levels of their recovery.

Assumptions
- Provider order in EMR for Cardiac rehab consults — PT, OT and Speech as needed.
- Monitoring of patient will be ongoing, heart rate, blood pressure, O2 sats, Borg Scale, pain scales, perceived exertion scale and patient demeanor/presentation.
- Protocol for surgical and medically managed patients.
- Cleared by all medical team involved (cardiology, surgery, physiatry, etc.)
- Group therapy 1–3 times/week with similar age group.
- OT and SLP only if developmental or cognitive needs.

Precautions
- Median sternotomy — no lifting greater than 15 lbs., no tensile force across chest, no crutches, no walker, no lifting the patient via pulling on arms, no 4 point, no crawling; can walk with hand-held assist, can be prone.
- Seizures — hold therapy for aura, change in mental status or tonic-clonic activity. Put patient in safe position.
- Transplant — immune-compromised, so same as Hem/Onc patients.

Physical Therapy
- Group therapy 1–3x/week with age group (8–13 year-olds and 13–17 year-olds)
- General format: 20 minute warm up, cardio strengthening, 10 min stretch
- Younger than 8 years old will be treated individually
- Structured home exercise program for different ages (daily walking/activity program)
- Work at at 65–75% maximum heart rate
- Use of 6-minute walk test, Berg Balance, and PDMS-2 to monitor progress
- Education for Phase 3 Cardiac Rehab