

# Abbott Northwestern Hospital

## NEW Post-hypothermia Patient Care Process



## Hypothermia After Cardiac Arrest

- ❑ ANW has been utilizing hypothermia since 2005. We have treated more than 170 patients and have excellent outcomes for many of our patients.
- ❑ A need was identified by staff and patients to improve the coordination of care after patients are transferred out of ICU and provide improved assessment of cognitive abilities for potential impairments.
- ❑ A multidisciplinary group convened to develop a process for providing improved coordinated care to this patient population in a consistent manner

## Hypothermia After Cardiac Arrest

- ❑ Patients in an ICU: H4200 (most often), H4100 or PB2000
- ❑ Order Sets: **Hypothermia Initiation Phase One** and **Hypothermia Initiation Phase Two - Admission**
- ❑ Arctic Sun device/pads placed to cool patient's body temperature to 33 degrees centigrade for 24 hours. Body is then slowly re-warmed over 8 hours. During this time patient is paralyzed and sedated on pain medications. Once re-warmed, the sedation is slowly weaned to allow for the patient to "wake up" and participate in breathing trials to wean off the ventilator.

## Post Therapeutic Hypothermia

This patient population experiences varying degrees of brain injury due to the cardiac arrest resulting in:

Impaired Cognition

Impulsivity and behavior changes

Memory loss

Altered learning ability

## The Process

- ❑ Patient is admitted to ICU
- ❑ Arctic Sun device/pads placed to cool patient's body temperature to 33 degrees centigrade for 24 hours.
- ❑ Body is then slowly re-warmed over 8 hours. During this time patient is paralyzed and sedated on pain medications.
- ❑ Once re-warmed, the sedation is slowly weaned to allow for the patient to "wake up" and participate in breathing trials to wean off the ventilator.
- ❑ When appropriate, the patient will transfer for a telemetry unit.

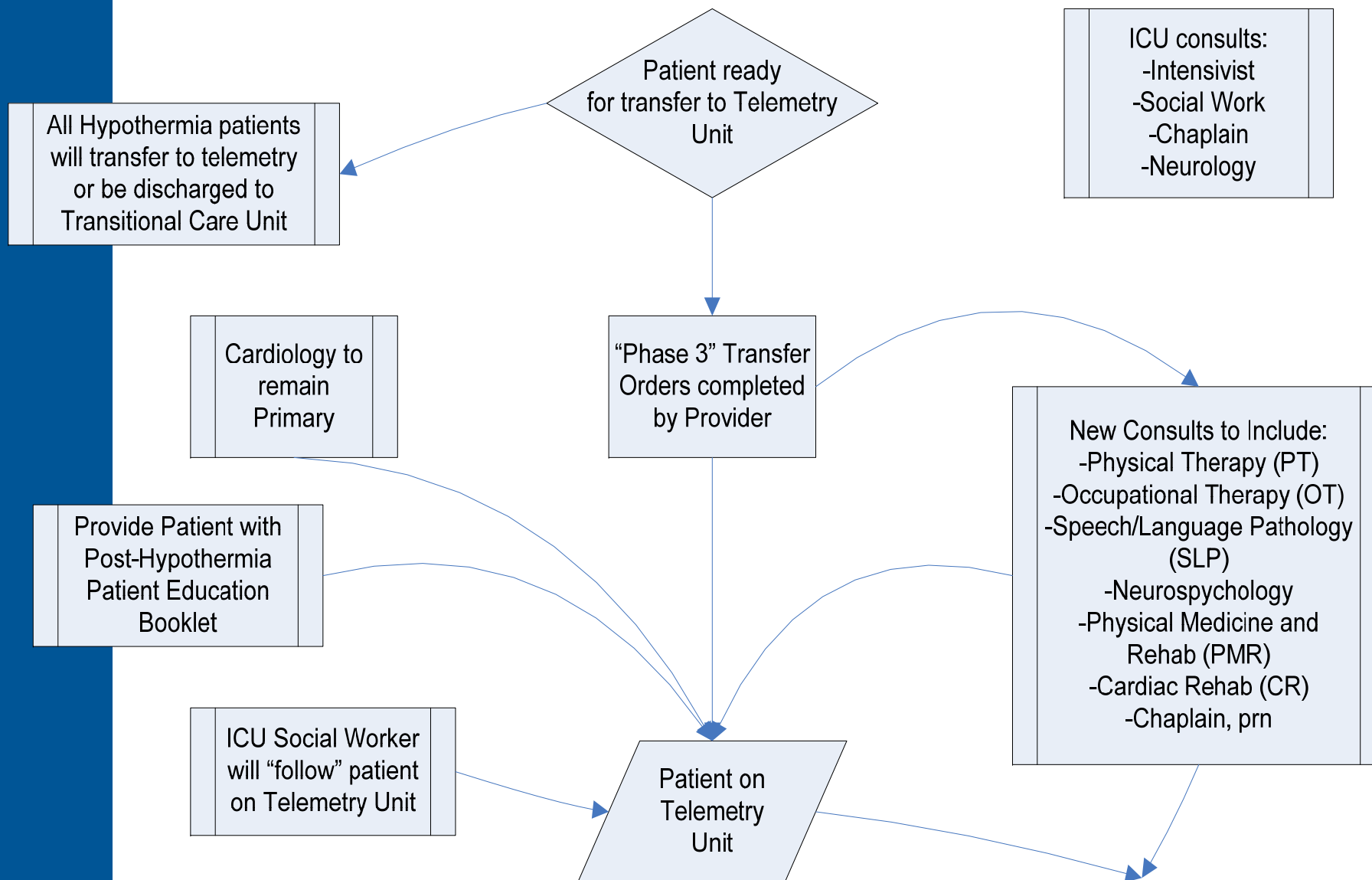
## Hypothermia Care Plan

### ❑ 2 New Care Plans are in Development:

- Cardiac Arrest: Primary Care Plan to be added for patients admitted for cardiac arrest
- Therapeutic Hypothermia: Secondary Care Plan to be added for cardiac arrest patients who are cooled: “Cool Its”

## Ready for Transfer

- ❑ MUST always transfer to Telemetry
- ❑ **NEW Order Set: Post Hypothermia Phase Three-Transfer**
  - Highlights of Order Set:
    - Consults defaulted for
      - ✓ Physical therapy
      - ✓ Occupational therapy
      - ✓ Speech and language pathology
      - ✓ Neuropsychology
      - ✓ Physical medicine and rehab
      - ✓ Cardiac rehab



## Transfer to Telemetry

- Cardiology will remain primary throughout telemetry stay and will continue to follow if DC to Sister Kenny Rehab Institute
- Cardiology will identify Primary Care Provider and communicate plans at DC
- Cardiology will complete “Phase Three” transfer orders and “Prep for Discharge” orders

## Patient Assessments

- Physical Therapy Assessment
  - Safety in moving, ambulation, strength
  - Home environment
- Occupational Therapy Assessment
  - Self care
  - Home responsibilities (meal prep, information/schedule management, finances, medications)
  - Work responsibilities
  - Driving
- Speech/Language Pathology Assessment
  - Thinking skills
  - Memory
  - Problem solving
- Cardiac Rehab Assessment
  - If patient has CAD, will treat per protocol
  - In all cases, will teach family CPR

## Other defaulted consults

### Social work

- Will follow patients from admission to discharge
- Will coordinate Discharge Planning meeting

### Case management

- Will actively follow patients at time of transfer
- Will coordinate required After Discharge appointments

### Spiritual care

### Smoking cessation (if appropriate)

### Hospitalist

- Manages non-cardiac issues

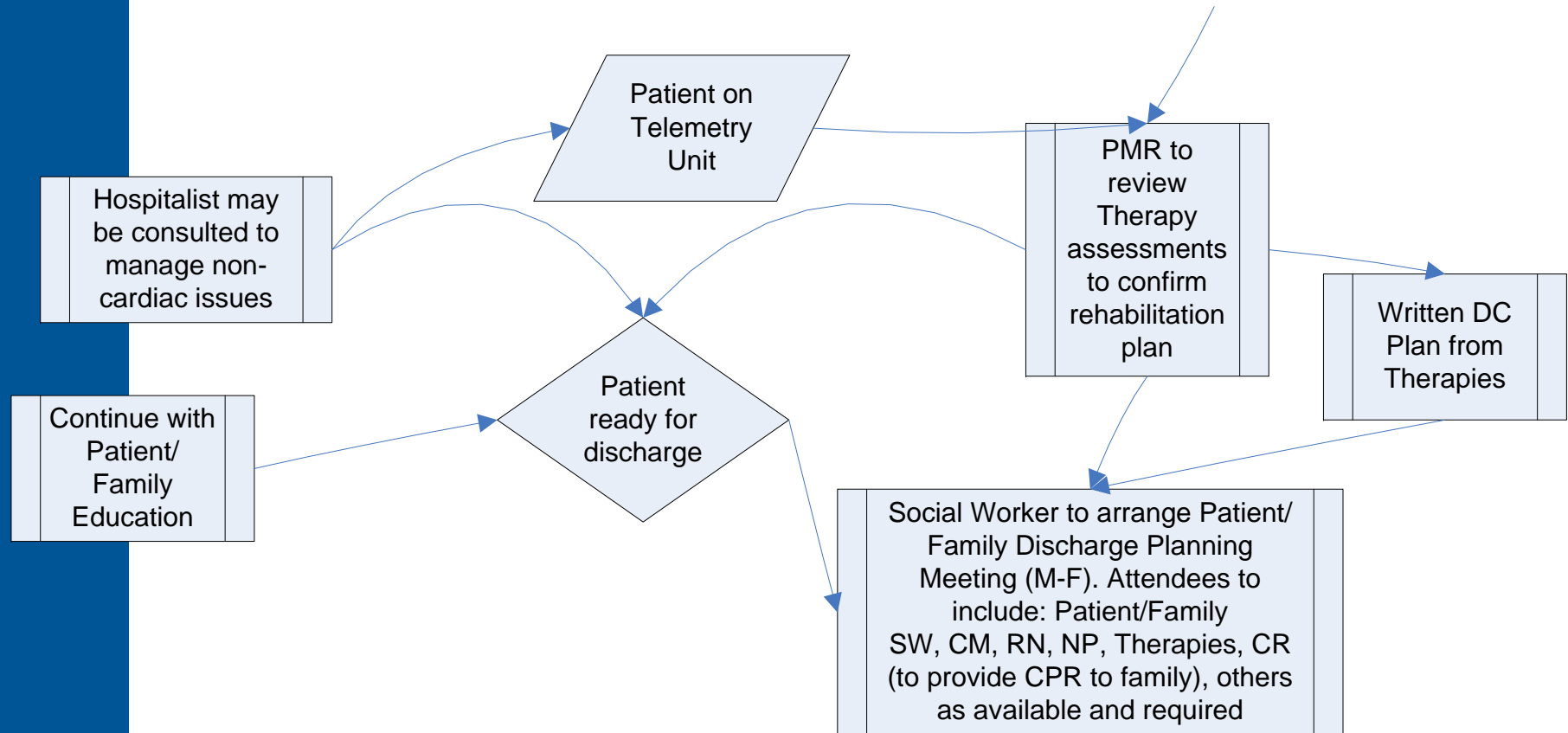
## Rehabilitation Consults

- ❑ Neuropsychology consult: Kyle Harvison, PhD
  - Will see as inpatient, depending on availability, to complete neurobehavioral status examination, interpret cognitive tests administered by speech-language pathology, and assist in rehabilitation planning
  - Will see 4-6 weeks after discharge, in conjunction with case coordinator and occupational therapist from the Brain Injury Clinic, to reassess cognitive status and assist in rehabilitation planning

## Rehabilitation Consults

### Physical Medicine and Rehab

- Will determine next organized medical rehabilitation program, if any. This may include a referral to inpatient acute comprehensive rehabilitation referral to inpatient acute comprehensive rehabilitation, nursing home for rehabilitation program, home rehabilitation therapy, outpatient rehabilitation therapy, community-based rehabilitation program, or no post-discharge rehabilitation care.
- Will confirm, modify if needed, and reinforce recommendations of physical, occupational, and speech therapies; as a physician there is a certain level of authority that a physiatrist can bring to recommendations that an allied health professional can not
- Will coordinate after discharge rehabilitation care and follow-up



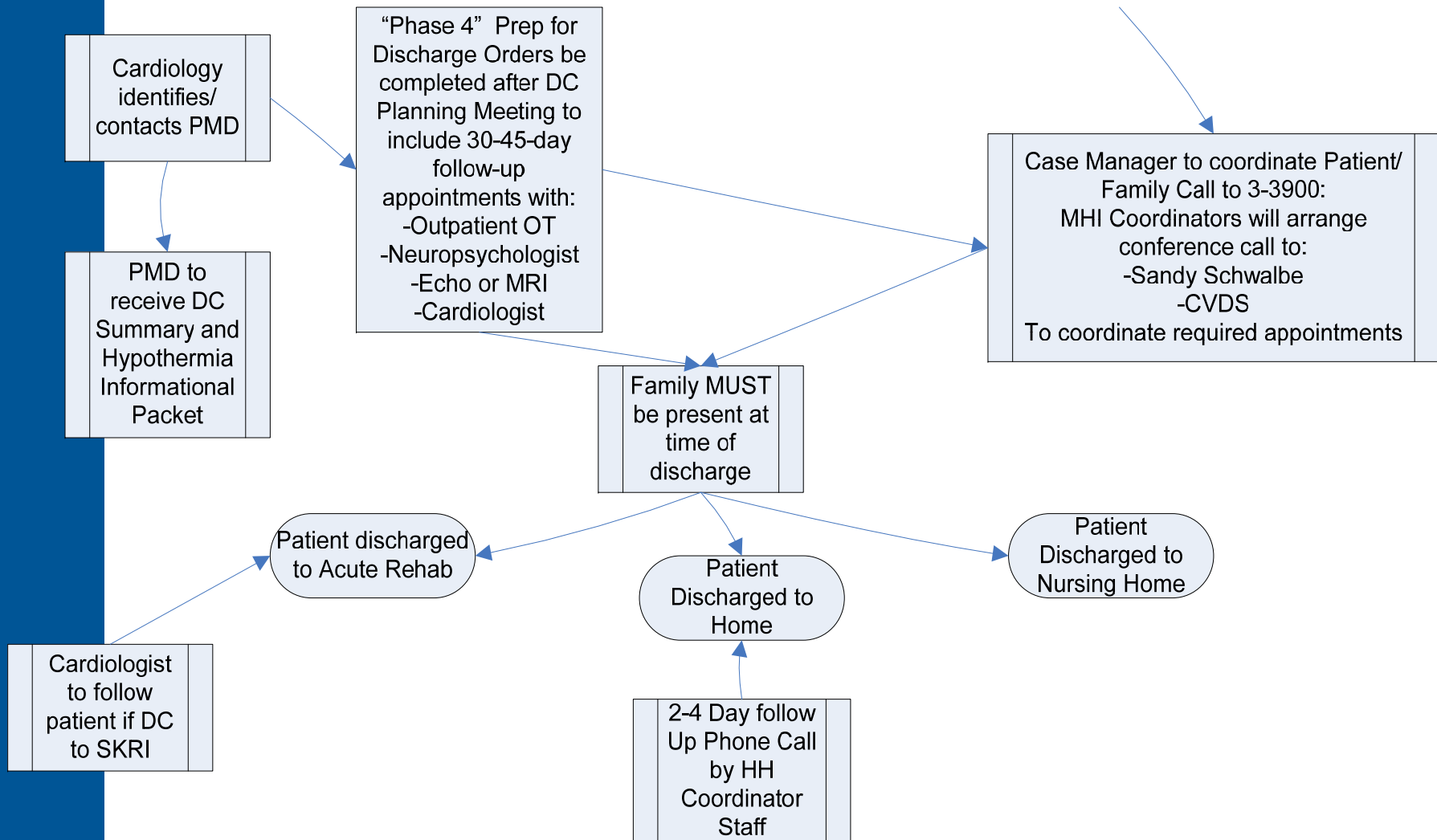
## Discharge Planning

### ❑ Social Worker will

- Coordinate patient/family discharge planning meeting (M-F)
- Enter date and time of meeting in Staff Alert
- Attendees MUST include:
  - Family
  - Social Worker
  - Case Manager
  - Nurse Practitioner
  - Bedside RN, if able
  - OT, if able. Otherwise will leave activity recommendations for after discharge
  - Others as able

## Discharge Planning

- ❑ After Discharge Planning meeting, NP will
  - Complete “**Post Hypothermia Phase 4-Prep for Discharge**” order set, that includes:
    - 4-6 week post-discharge appointments for:
      - ✓ Occupational therapy
      - ✓ Neuropsychology
      - ✓ Cardiac MRI (or TTE for patients WITH devices)
      - ✓ Cardiology appointment
    - Orders for patient activity at home
      - ✓ Recommendations made from OT need to be transcribed into orders



## Discharge Planning

- Case Manager will initiate phone call with patient/family and 3-3900 (MHI)
- MHI will arrange conference call with
  - Patient/family
  - Sandy Schwalbe at Sister Kenny Rehabilitation Institute
  - Cardiovascular Diagnostic Servicesto ensure all return to clinic appointments are on same day
- Appointments **MUST** be entered into Patient Education Book

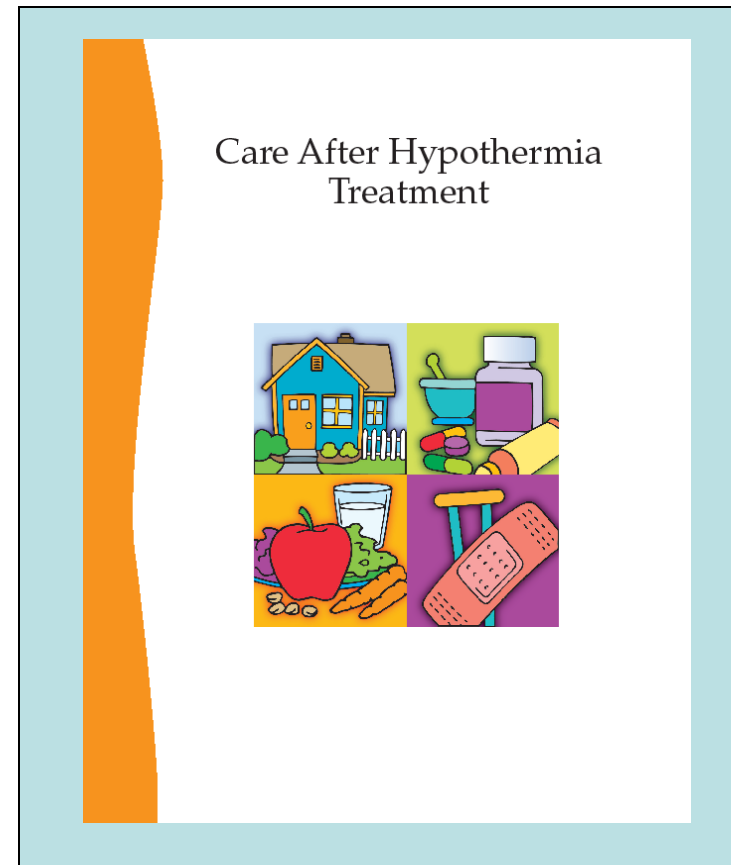
## Discharge Planning

- Provider (NP or physician) will complete DC orders (whichever set is appropriate) on day of discharge
- RN will complete patient education and complete DC writer
- RN will review DC orders/writer with patient and family
- Family must be present at time of DC to receive DC instructions!**

## Patient Education Book

### ☐ Includes:

- Information explaining Care Team Member roles
- Patient/Family Care Map
- Separate page for notation of Follow Up Appointments with dates and times
- Calendar for notation of return to clinic appointments
- Separate page for documentation of Care Team and contact numbers






# Patient/Family Care Map

12.18.09: Draft






## Hypothermia

In general, the below Care Map is what you can expect during your hospital stay. Your health care team may suggest changes unique to your recovery.

	Telemetry Day 1 (day of transfer) Date: _____	Telemetry Day 2 Date: _____	Telemetry Day 3 Date: _____	Telemetry Day 4 Date: _____	Telemetry Day 5 (day to leave hospital) Date: _____
<b>Comfort</b> 	<input type="checkbox"/> Ask your nurse about your pain goal and pain relief.	<input type="checkbox"/> Ask your nurse about your pain goal and pain relief.	<input type="checkbox"/> Ask your nurse about your pain goal and pain relief.	<input type="checkbox"/> Ask your nurse about your pain goal and pain relief.	<input type="checkbox"/> Ask your nurse about your pain goal and pain relief.
<b>Treatment</b>	<input type="checkbox"/> The nurse will check the incision site(s).	<input type="checkbox"/> The nurse will check the incision site(s).	<input type="checkbox"/> The nurse will check the incision site(s).	<input type="checkbox"/> The nurse will check the incision site(s).	
<b>Breathing</b> 	<input type="checkbox"/> When you can breathe comfortably on your own, the nurse will reduce your extra oxygen.	<input type="checkbox"/> The nurse will stop your extra oxygen if you no longer need it.	<input type="checkbox"/> The nurse will stop your extra oxygen if you no longer need it.		
<b>Tests, Labs and Procedures</b> 	<input type="checkbox"/> You may have blood tests. <input type="checkbox"/> You may have an EKG (electrocardiogram).	<input type="checkbox"/> You may have blood tests. <input type="checkbox"/> You may have an EKG (electrocardiogram). <input type="checkbox"/> You will meet with a physical therapist. <input type="checkbox"/> You will meet with an occupational therapist. <input type="checkbox"/> You will meet with a speech/language therapist. <input type="checkbox"/> You will meet with a cardiac rehabilitation specialist.	<input type="checkbox"/> You may have blood tests. <input type="checkbox"/> You may have an EKG (electrocardiogram). <input type="checkbox"/> After you meet with a physical therapist, occupational therapist, and a speech/language therapist, you may meet with a rehabilitation doctor to talk about your rehabilitation needs.	<input type="checkbox"/> You may have blood tests. <input type="checkbox"/> You may have an EKG (electrocardiogram). <input type="checkbox"/> You may meet with a neuropsychologist.	<input type="checkbox"/> You may have blood tests. <input type="checkbox"/> You may have an EKG (electrocardiogram).

# Patient/Family Care Map

	Telemetry Day 1	Telemetry Day 2	Telemetry Day 3	Telemetry Day 4	Telemetry Day 5
	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____
<b>Activity</b> 	<input type="checkbox"/> You will be helped out of bed three times to sit in a chair, walk around your room, or walk in the hall. 1__ 2__ 3__	<input type="checkbox"/> You will be helped out of bed five times to sit in a chair, walk around your room, or walk in the hall. 1__ 2__ 3__ 4__ 5__	<input type="checkbox"/> You will be helped out of bed five times to sit in a chair, walk around your room, or walk in the hall. 1__ 2__ 3__ 4__ 5__	<input type="checkbox"/> You will be helped out of bed five times to sit in a chair, walk around your room, or walk in the hall. 1__ 2__ 3__ 4__ 5__	<input type="checkbox"/> You will be helped out of bed five times to sit in a chair, walk around your room, or walk in the hall. 1__ 2__ 3__ 4__ 5__
<b>Diet</b> 	<input type="checkbox"/> Eat as you can tolerate. <input type="checkbox"/> Follow your health care team's direction.	<input type="checkbox"/> Eat as you can tolerate. <input type="checkbox"/> Follow your health care team's direction.	<input type="checkbox"/> Eat as you can tolerate. <input type="checkbox"/> Follow your health care team's direction.	<input type="checkbox"/> Eat as you can tolerate. <input type="checkbox"/> Follow your health care team's direction.	<input type="checkbox"/> Eat as you can tolerate. <input type="checkbox"/> Follow your health care team's direction.
<b>Bladder/Bowel</b> 	<input type="checkbox"/> The nurse will remove your bladder catheter, if you had one.				
<b>Education</b>	<input type="checkbox"/> You and your family will receive a booklet with education.	<input type="checkbox"/> The nurse will go over the booklet with you and your family.	<input type="checkbox"/> The nurse will go over the booklet with you and your family.	<input type="checkbox"/> The nurse will go over the booklet with you and your family. <input type="checkbox"/> You and your family will receive CPR education.	
<b>Planning for Going Home</b>				<input type="checkbox"/> Your care team will meet with you and your family to talk with you about plans for your care after you leave the hospital.	<input type="checkbox"/> Your nurse will give you instructions for going home. <input type="checkbox"/> You may go home: <ul style="list-style-type: none"> <li>• when your therapy plan is ready</li> <li>• when you have safe discharge (going home) plans</li> <li>• when follow-up visits are made.</li> </ul>

## After Discharge

- Hypothermia staff will call patients 2-4 days after discharge using set script
- Patient will return in 4-6 weeks for follow up appointments
- Most importantly, patient will have improved coordination of care with all disciplines on the same page.