CARES Targeted Temperature Management (TTM) Module

IHCA Data Dictionary

June 2014

CASE NUMBER

Definition:

- This is the number assigned to the patient by the hospital.

Description:

- The case number is the number the hospital assigns the patient, such as a MRN (Medical Record Number).
- <u>Not</u> nullable. A unique value must be provided to create a unique record ID within the database.

Instructions for Coding:

- Enter the case number assigned to the patient.

Example:

Case Number
1325012

TRANSFERRED FROM ANOTHER HOSPITAL?

Definition:
- The question asks whether or not the patient was transferred from another acute care facility.

Description:
- If this patient was transferred from another facility to the facility where TTM was administered, this variable acknowledges that.

Instructions for Coding:
- If the patient was transferred from another facility, select "Yes" and type the name of the original facility in the free text field.
- If the patient wasn't transferred from another facility, select "No."

Example:

Patient arrested in the hospital while undergoing treatment.	Code "No."
Patient arrested in the hospital. Patient was stabilized in the hospital after the addition of Dopamine. Patient was transported to Pine Valley Tertiary Care Hospital for further intervention.	Code Yes."

AGE

Definition:
- The patient's age (calculated from the date of birth <u>or best approximation</u>).

Description:
- Allows for categorization of patients according to their age at the time of cardiac arrest when used in conjunction with patient age units.

Instructions for Coding:
- Both "Patient Age" and "Patient Age Units" must be coded.
- If the patient's actual age is not known, it should be estimated and recorded.
- If a child is less than one year, enter the number of months. If older than one year, do not enter months.
- If a child is less than one month, enter the number of days. If older than one month, do not enter days.
- This is an all-inclusive registry – please enter patients of ALL ages.

Examples:

Code	Age
1	1 day, 1 month, or 1 year when combined with "Patient Age Units."
11	11 days, 11 months, or 11 years when combined with "Patient Age Units."
64	64 years when combined with "Patient Age Units." (If the age is 64 days, the age should be recorded as 2 with the "months" code for "Patient Age Units.")

AGE UNITS

Definition:
- The units by which the age is documented.

Description:
- Allows for categorization of patients according to their age at the time of cardiac arrest.
- Detailed pediatric age groups may identify those cardiac arrests that are associated with congenital heart defects that may be inherited (such as prolonged QT Syndrome and Wolf-Parkinson-White Syndrome).

Instructions for Coding:
- Select the appropriate units for the recorded age in the previous field.

Field Values

Days
Months
Years

GENDER

Definition:
- The patient's gender.

Description:
- The sex of the patient may be an important risk factor for cardiac arrest and resuscitation interventions.

Instructions for Coding:
- The patient's sex as recorded in the patient record or by self-report.

Field Values

Male
Female

RACE

Definition:
- The patient's race or ethnicity as defined by the OMB (US Office of Management and Budget; http://www.whitehouse.gov/omb/ OR http://www.whitehouse.gov/omb/fedreg_1997standards/).
    - o American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
    - o Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
    - o Black or African American: A person having origins in any of the black racial groups of Africa.
    - o Hispanic/Latino: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
    - o Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
    - o White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
    - o Unknown

Description:
- The race/ethnicity of the patient may be an important risk factor for cardiac arrest and resuscitation interventions.

Instructions for Coding:
- Assign race/ethnicity of patient as considered by patient, family, or healthcare provider.
- If the patient is of mixed race, select the category that is most appropriate.
- Currently, OMB allows for coding of more than one race. However, due to the structure of one answer for each data field, CARES will only accept one answer. In these cases, select the most appropriate/applicable race.

Field Values:

American-Indian/Alaska-Native
Asian
Black/African-American
Hispanic/Latino
Native-Hawaiian/Other-Pacific-Islander
White
Unknown

MEDICAL HISTORY

Definition:
- Patient's past medical history.

Instructions for Coding:
- Code any and all that are known as part of the past medical history of the patient.
- Other would apply for any other chronic diseases that are known but not classified by the existing choices.

Field Values:

No
Unknown
Heart Disease
Diabetes
Cancer
Hypertension
Renal disease
Respiratory disease
Hyperlipidemia
Stroke
Other

Examples:

Example	Appropriate Code/Value
The patient has a history of heart disease.	Heart Disease
The patient has diabetes, renal disease and history of a stroke.	Diabetes, Renal Disease, and Stroke
Patient has ALS (amyotrophic lateral sclerosis).	Other
Patient is unresponsive and EMS is unable to obtain any past medical history.	Unknown

LOCATION TYPE

Definition:
- This is the location where the patient arrested

Description:
- Allows categorization of cardiac arrest according to type of location.

Instructions for Coding:
- Select the location type that is most appropriate based on the definitions below:

Field Values:

Code	Values & Definitions
01	ED – Emergency Department
02	ICU –Intensive Care Unit
03	Ward – Hospital Ward
09	Other – To be used when location is not included in the above categories. Please specify in free text field.

Examples:

Example	Appropriate Code/Value
Patient arrested while they were being treated for a GI bleed in the ED.	ED
Patient arrested in the ICU after surgery.	ICU
Patient was admitted to the hospital for routine surgery. While he was in the hospital, he arrested in his room.	Ward

DATE AND TIME OF ARREST

Definition:
- This is the date and time of the arrest

Description:
- The date and time of the arrest is essential for a continuous quality improvement program that aims to track changes in process data through time.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date of arrest	Time of arrest
07/23/2013	11:22

ARREST WITNESSED

Definition:
- A witnessed arrest is one that is <u>seen or heard</u> by another person.

Description:
- To be able to determine a true Utstein survival rate in a given community it is necessary to identify those patients who have been witnessed to collapse.

Instructions for Coding:
- A witnessed arrest is one that is <u>seen or heard</u> by another person.
- If the patient was found after an uncertain period of time (the arrest was neither seen nor heard), then the arrest is considered an unwitnessed arrest.

Field Values:

Code	Options
1	Witnessed arrest
2	Unwitnessed arrest

Examples:

Example	Appropriate Code/Value
The patient was found on the floor of her hospital room by her husband. He did not see or hear her fall but immediately called for a nurse.	2 – Unwitnessed Arrest
The patient's wife heard a load 'thud' while in the hallway of the hospital. She immediately walked into the room to find the patient on the floor unconscious/unresponsive and called for help.	1 – Witnessed Arrest

WHO INITIATED CPR

Definition:
- Identifies the initial person to perform CPR.
- Cardiopulmonary resuscitation (CPR) is an attempt to restore spontaneous circulation by performing chest compressions with or without ventilation.

Description:
- Used to measure Bystander and Hospital Staff involvement.

Instructions for Coding:
- Select who initiated CPR using the definitions below.

Field Values:

Code	Definition
Bystander	Someone who was not a medically trained professional.
Hospital Staff	Someone employed by the hospital.

Examples:

Example	Appropriate Code
After visiting their relative, a couple saw a woman suddenly collapse in the hospital hallway outside her room. Since there was no pulse the man began chest compressions while the woman called for help.	Bystander
A nurse heard someone collapse in the hallway. A man was found on the ground with no pulse and no respirations. CPR was initiated by the nurse.	Hospital Staff

FIRST ARREST RHYTHM

Description:
- The first monitored rhythm is the first cardiac rhythm present when a manual (monitor/defibrillator) or AED (automated external defibrillator) is attached to a patient after cardiac arrest. If the AED does not have a rhythm display, then it may be possible to determine the first monitored rhythm from a storage data card, hard drive, or other device used by the AED to record data. If the AED has no data-recording device, then the first monitored rhythm should be classified simply as "unknown shockable" or "unknown unshockable." This data point can be updated later if the AED has downloadable capability.
- The initial rhythm that the patient was found to be in as indicated by hospital personnel. For the purposes of uniform reporting, the Utstein group classifies a deflection on the surface ECG < 1mm amplitude (calibrated 10 mm/mv) as asystole; 1 mm or more is ventricular fibrillation.

Instructions for Coding:
- In order to obtain the first monitored rhythm from the AED, it must have a working recording cartridge. The recording cartridge provides an electronic copy of the recorded rhythms and respective defibrillations that may be delivered. This cartridge must be retrieved after the arrest for review by the principle investigators or registry medical director.
- For manual defibrillators, the first monitored rhythm should be recorded in the patient care narrative by hospital staff.
- If an AED is used during the event and is without a recording cartridge, selection should only be made from "Unknown shockable rhythm" or "Unknown unshockable rhythm."

Field Values:

Ventricular Fibrillation
Ventricular Tachycardia
Asystole
Idioventricular/Pulseless Electrical Activity (PEA)
Unknown Shockable Rhythm
Unknown Unshockable Rhythm

Examples:

Example	Appropriate Code/Value
Monitor/Defibrillator was available to rhythm interpretation by hospital staff. Ventricular Fibrillation was the presenting rhythm interpreted by trained personnel.	00 – Ventricular Fibrillation
An AED was used by hospital staff that did not provide observation of rhythm for interpretation. The AED advised to deliver a shock. This is the first arrest rhythm regardless of actual rhythm observed after staff interpretation.	06 – Unknown Shockable Rhythm

ANY DEFIBRILLATION ?

Description:
- To determine the frequency of defibrillatory shocks among IHCA patients.

Examples:

Example	Appropriate Code/Value
Patient coded in their hospital room. Pads were applied and one shock was given.	Yes
Patient coded but ROSC occurred before any defibrillation occurred.	No

DATE AND TIME OF ROSC

Definition:
- This is the date and time ROSC occurred.

Description:
- The date and time of ROSC is essential for a continuous quality improvement program that aims to track changes in process data through time.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date of ROSC	Time ROSC Occurred
07/23/2013	11:22

ARREST ETIOLOGY

Definition:
- Indication of the etiology or cause of the cardiac arrest.

Description:

- The arrest etiology can be cardiac or non-cardiac (respiratory, electrocution, drug induced).

Instructions for Coding:
- If the etiology of the arrest was cardiac, select "Cardiac."
- If the etiology of the arrest was non-cardiac, select "Non-Cardiac."

Field Values:

Cardiac
Non-Cardiac

IS PATIENT AWAKE AND ABLE TO FOLLOW COMMANDS?

Definition:

- Patient is alert and responsive to commands.

Description:

- Patient is alert and responsive to medical staff.

Instructions for Coding:

- If the patient is awake and able to follow commands, select "Yes."
- If the patient is not awake or able to follow commands, select "No."

Example:

Is patient awake and able to follow commands?
O Yes O No

TARGETED TEMPERATURE MANAGEMENT (TTM) INDUCED?

Definition:

- This is whether targeted temperature management was induced.

Description:

- Targeted temperature management is a medical treatment that lowers a patient's body temperature in order to help reduce the risk of tissue injury from lack of blood flow.

Instructions for Coding:
- If targeted temperature management was induced, select "Yes."
- If targeted temperature management was not induced, select "No."

Example:

The patient had targeted temperature management performed using an external cooling blanket.	Code "Yes."
The patient had targeted temperature management performed using an intravascular device.	Code "Yes."
The patient had targeted temperature management performed using external ice application.	Code "Yes."

WHERE WAS TARGETED TEMPERATURE MANAGEMENT (TTM) INITIATED IN THE HOSPITAL?

Definition:

- This indicates where targeted temperature management was initiated in the hospital.

Description:

- Targeted temperature management may be induced in several locations at the receiving facility, including the Emergency Department, Cath Lab, or ICU.

Instructions for Coding:
- If targeted temperature management was initiated in the ED, select "ED."
- If targeted temperature management was initiated in the Cath Lab, select "Cath Lab."
- If targeted temperature management was initiated in the ICU, select "ICU."
-

Example:

TTM was initiated in the ED	ED
TTM was initiated while patient was in the Cath Lab.	Cath Lab
TTM was initiated upon transfer to the ICU	ICU

COOLING METHOD (INTERNAL VS. EXTERNAL)

Definition:

- The medical methods through which targeted temperature management is induced fall into two categories: invasive and non-invasive.

Description:

- There are several different cooling methods used to induce targeted temperature management.

Instructions for Coding:
- If surface cooling was used, select "Surface."
- If intravascular cooling was used, select "Intravascular."
- If intranasal cooling was used, select "Intranasal."
- If ECMO was used, select "ECMO."
- If another method was used, select "Other" and use the free text box to specify what method was used.
- Multiple cooling methods can be selected on the form.

Examples:

Surface	Blanket device, External gel pads, Ice packs
Intravascular	Catheter-based device, Nasogastric
Intranasal	Rhinochill
ECMO	Cooling during ECMO
Others	Cooling during dialysis, etc.

TARGET TEMPERATURE

Definitions:

- This is the target temperature identified for this patient.

Description:

- The target temperature is a specifically measured and controlled vital sign of the patient that contributes to the maintenance of normal physiology and affects the processes that lead to recovery after a cardiac arrest event.

Instructions for Coding:
- If the target temperature was 32 ℃ ℃,select "32."
- If the target temperature was 33 ℃ ℃,select "33."
- If the target temperature was 34 ℃ ℃,select "34."
- If the target temperature was 35 ℃ ℃,select "35."
- If the target temperature was 36℃ , select "36."
- If another temperature was used, select "Other" and indicate the temperature (in C) in the free text box.

Examples:

Target temperature was 33 degrees	Code as "33℃"
Target temperature was 37℃	Code as "Other" and enter "37℃" in the free text box.

TARGET TEMPERATURE REACHED?

Definition:

- This measures whether the target temperature was reached (+/- 0.5 deg C of target) when temperature management was used.

Description:

- This tracks whether the target temperature was reached.

Instructions for Coding:
- If the target temperature was reached, select "Yes."
- If the target temperature was not used, select "No."

Examples:

The patient's temperature was 36℃ when he expired.	Code "No."
The target temperature was 34 ℃, but the patient's temperature was 36℃.	Code "No."
The patient's temperature was 34℃, the target temperature.	Code "Yes."

DID OVERSHOOT OCCUR DURING COOLING PHASE?

Definition:
- This measures if the target temperature was exceeded by more than 0.5 deg C during the cooling phase.

Description:

- When inducing TTM, the target temperature can be exceeded. This measures if the temperature was overshot. Complications can result from overshooting during the cooling phase.

Instructions for Coding:
- If the target temperature was exceeded, select "Yes."
- If the target temperature was not exceeded, select "No."

Examples:

Target temperature of 33℃ was reached at 2:45pm	Code "No."
Patient was cooled to 32℃. Target temperature was 33℃.	Code "Yes."

DID REBOUND HYPERTHERMIA OCCUR (TEMP≥ 37. 5℃)?

Definition:

- This measures whether the patient's internal temperature exceeded 37.5℃ when the patient was rewarmed.

Description:

- When the patient is rewarmed, the target body temperature can be exceeded. This is called rebound hyperthermia.

Instructions for Coding:
- If rebound hyperthermia occurred, select "Yes."
- If rebound hyperthermia did not occur, select "No."

Examples:

Upon warming, the patient's temperature was 40 ℃	Code "Yes."
When warmed, the patient stabilized at a normal body temperature.	Code "No."

DATE AND TIME TARGETED TEMPERATURE MANAGEMENT (TTM) INITIATED IN THE HOSPITAL

Definition:

- This is the date and time targeted temperature management was initiated.

Description:

- The date and time of treatment is essential for a continuous quality improvement program that aims to track changes in process data through time.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date targeted temperature management was initiated	Time targeted temperature management was initiated
07/23/2013	11:22

DATE AND TIME TARGET TEMPERATURE REACHED

Definition:

- This is the date and time the target temperature was reached (+/- 0.5 deg C) when inducing targeted temperature management.

Description:

- The date and time the designated target temperature was reached as part of a quality control check.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date temperature reached	Time temperature reached
07/23/2013	11:22

DATE AND TIME REWARMING INITIATED

Definition:

- This is the date and time rewarming was initiated.

Description:

- The date and time an attempt to rewarm or increase the patient's body temperature was indicated.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date rewarming initiated	Time rewarming was initiated
07/23/2013	11:22

DATE AND TIME REWARMING COMPLETE

Definition:

- This is the date and time the rewarming was completed.
- Rewarmed to 36.9 (+/- 0.5 deg C).

Description:

- The date and time an attempt to rewarm or increase the patient's body temperature was ceased because the target temperature was reached.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date rewarming completed	Time rewarming completed
07/23/2013	11:22

HOSPITAL OUTCOME

Description:
- The final disposition of the patient from the hospital.
- This variable will be used to quantify the outcome of the patient from the hospital.

Instructions for Coding:
- This variable should not be left blank. All the information from patient medical record and discharge summary should be used to complete this data field.
- Select "Died in ED if the patient died in the ED.
- Select "Died in hospital" if the patient died after being admitted to the hospital.
- Select " Transferred after admission" if the patient was transferred to another hospital.
- Select "Survived to discharge" if the patient was discharged alive.

Examples:

Example	Appropriate Code/Value
Patient was admitted to CCU after successful resuscitation from sudden cardiac arrest. Patient became unstable after 2 days in the CCU. Blood pressure could not be maintained after pharmacological support. Patient arrested at 04:30 after being admitted to the CCU. Resuscitation attempts were unsuccessful and patient was pronounced dead at 6:00.	"Died in the Hospital"
Patient was received in the ED after successful resuscitation in the field by EMS personnel. Patient blood pressure was adequate upon receiving in the ED and continued to improve after the addition of Dopamine. Patient was transported to the CCU. Patient remained stable and Dopamine was weaned off in 12 hours. Patient was transferred to the floor and discharged home after one week in the hospital.	"Survived to discharge"
Patient was taken to the ED by EMS. After arrival at the ED, the patient arrested. He died in the ED.	"Died in the ED"
The patient was admitted to the hospital where he arrested while in his room. After he was stable, he was transferred to another hospital.	"Transferred after admission"

DATE AND TIME OF DEATH (IF APPLICABLE)

Definition:
- This is the date and time the patient expired.

Description:
- This field records the patient's date and time of death.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date of death	Time of death
07/23/2013	11:22

DATE AND TIME OF DISCHARGE (IF APPLICABLE)

Definition:

- This is the date and time the patient was discharged from the hospital.

Description:

- This records when the patient was discharged from the hospital, if the patient survived to discharge.

Instructions for Coding:
- Enter the date according to the following format: MM/DD/YYYY
- Enter the time according to the following format: HH:MM

Example:

Date of discharge	Time of discharge
07/23/2013	11:22

DISCHARGE FROM HOSPITAL

Description:
- This variable will be used to determine the type of destination and the frequency of each destination type for discharged patients.

Instructions for Coding:
- If the field "Hospital Outcome" has a value of "Survived to Discharge," this variable should not be left blank. All the information from patient medical record and discharge summary should be used to complete this data field.
- Rehabilitation facility is defined as an establishment for "treatment or treatments designed to facilitate the process of recovery from injury, illness, or disease to as normal a condition as possible."
- Skilled nursing facility is defined as "an establishment that houses chronically ill, usually elderly patients, and provides long-term nursing care, rehabilitation, and other services. Also called *long-term care facility*, *nursing home.* Hospice facility is defined as a providing special care for people who are near the end of their life. Note: If a patient is discharged home with hospice care, this should be coded as "Home/Residence."

Field Values:

Code	Definition
1	Home/residence
2	Rehabilitation facility
3	Skilled nursing facility/Hospice

Examples:

Example	Appropriate Code/Value
After two weeks in the CCU following sudden cardiac arrest, and a week on the floor, the patient was discharged home with follow up orders.	1 – Home/residence
After 3 weeks in the CCU and 5 weeks on the floor patient was transported to Sunshine Rehabilitation Hospital for further treatment.	2 – Rehabilitation facility
After an extensive stay at Memorial Hospital, the patient was discharged with severe cerebral disability in a hospice facility.	3 – Skilled nursing facility/Hospice

NEUROLOGICAL OUTCOME AT DISCHARGE

Description:
- Survival without higher neurological outcome is suboptimal; therefore it is important to attempt to assess neurological outcome at discharge.
- This variable will be used to determine the frequency of neurological outcome in resuscitation survivors at the time of discharge.

Instructions for Coding:
- The level of cerebral performance of the patient at the time of discharge from the hospital. The following simple, validated neurological score is referred to as the Cerebral Performance Category, CPC.
- 1 = Good Cerebral Performance – Conscious, alert, able to work and lead a normal life.
- 2 = Moderate Cerebral Disability – Conscious and able to function independently (dress, travel, prepare food), but may have hemiplegia, seizures, or permanent memory or mental changes.
- 3 = Severe Cerebral Disability – Conscious, dependent on others for daily support, functions only in an institution or at home with exceptional family effort.
- 4 = Coma, vegetative state.
- If the field "Hospital Outcome" has a value of "Discharged Alive," this variable should not be left blank. All the information from patient medical record and discharge summary should be used to complete this data field.
- If a record is coded as discharged to a 'Rehabilitation Facility' or 'Skilled Nursing Facility/Hospice' with 'Good Cerebral Performance' at time of discharge, CARES will prompt the use to clarify in the comments box.
- If a record is coded as discharged to 'Home/Residence' with 'Severe Cerebral Performance' or 'Coma, vegetative state' at time of discharge, CARES will prompt the user to clarify in the comments box.

Field Values:

Code	Definition
1	Good Cerebral Performance; CPC 1
2	Moderate Cerebral Disability; CPC 2
3	Severe Cerebral Disability; CPC 3
4	Coma, vegetative state; CPC 4

Examples:

Example	Appropriate Code/Value
At discharge, patient was conscious, alert, able to work and lead a normal life.	1 – Good Cerebral Performance
At discharge, patient was conscious and able to function independently but had some permanent memory changes.	2 – Moderate Cerebral Disability
At discharge, patient was unable to function independently with severe cognitive disability,	3 – Severe Cerebral Disability
Patient was in a vegetative state at time of discharge.	4 – Coma, vegetative state

CORONARY ANGIOGRAPHY PERFORMED?

Definition:
- Coronary Angiography is a therapeutic procedure used to treat the stenotic (narrowed) coronary arteries of the heart.
- Indicate whether emergency coronary angiography was performed after patient has ROSC.

Coding Instruction:
- If yes, please provide date and time of the coronary angiography.
    - Use initial groin puncture of the femoral artery as the time of procedure.

Field Values:

Code	Options
1	Yes
2	No
3	Unknown
	If yes, provide date and time

Examples:

Example	Appropriate Code/Value
Coronary Angiography was performed on the patient.	1 – Yes; provide date and time
Coronary Angiography was not performed on the patient.	2 – No

WAS A CARDIAC STENT PLACED?

Definition:
- A cardiac stent is a small mesh tube that is introduced into the coronary artery and is used to prop it open during a PCI procedure

Field Values:

Code	Options
1	Yes
2	No
3	Unknown

Examples:

Example	Appropriate Code/Value
A cardiac stent was placed.	1 – Yes
A cardiac stent was not placed.	2 – No

WAS AN ICD PLACED AND/OR SCHEDULED?

Definition:
- ICD - An implantable cardioverter-defibrillator (ICD) is a small battery powered electrical impulse generator which is implanted in patients who are at risk of sudden cardiac death due to VFib and VTach.

Field Values:

Code	Options
1	Yes
2	No
3	Unknown

Examples:

Example	Appropriate Code/Value
An ICD was placed.	1 – Yes
An ICD was not placed.	2 – No

WAS CABG PERFORMED?

Definition:
- CABG is defined as a coronary artery bypass graft.

Coding Instruction:
- Indicate whether CABG was performed after patient has ROSC.

Field Values:

Code	Options
1	Yes
2	No
3	Unknown

Examples:

Example	Appropriate Code/Value
CABG was performed on the patient.	1 – Yes
CABG was not performed on the patient.	2 – No

ANY EEG MONITORING?

Definition:

- This measures whether there was any EEG monitoring of the patient.

Description:
- EEG is defined as electroencephalogram, which is a measurement of the brain's electrical activity.

Instructions for Coding:

- If there was EEG monitoring, select "Yes."
- If there wasn't EEG monitoring, select "No."
- If the status of EEG monitoring is not known, select "Unknown."

Examples:

Any EEG monitoring?
O Yes O No O Unknown

ANY SEIZURE DURING TARGETED TEMPERATURE MANAGEMENT (TTM)?

Definition:

- This determines whether there were any seizures requiring treatment during TTM.

Description:

- A seizure is the physical findings or changes in behavior that occur after an episode of abnormal electrical activity in the brain.
- The term "seizure" is often used interchangeably with "convulsion." Convulsions are when a person's body shakes rapidly and uncontrollably. During convulsions, the person's muscles contract and relax repeatedly.
- Treatment may include anti-convulsive medications.

Instructions for Coding:
- If there was a seizure during TTM, select "Yes."
- If there weren't any seizures, select "No."
- If the status of seizures is not known, select "Unknown."

Examples:

Any seizures during TTM?
O Yes O No O Unknown

ANY CARDIAC ARRHYTHMIA?

Definition:

- This measures whether there was any cardiac arrhythmia requiring treatment during TTM.

Description:
- Arrhythmia is a problem with the rate or rhythm of the heartbeat. The heart may beat too fast, too slow, or with an irregular rhythm.
- Treatment may include drugs, defibrillation, pacing, etc.

Instructions for Coding:

- If there was any cardiac arrhythmia, select "Yes."
- If there wasn't any cardiac arrhythmia, select "No."
- If the status of cardiac arrhythmia is not known, select "Unknown."

Examples:

Any Cardiac Arrhythmia?
O Yes
O No
O Unknown

ANY SKIN COMPLICATIONS?

Definition:

- This measures whether there were any skin complications requiring treatment during TTM.

Description:

- Skin necrosis can be caused by the cold blankets used to cool the patient.
- Treatment may include wound care and surgery.

Instructions for Coding:
- If there were skin complications, select "Yes."
- If there weren't any skin complications, select "No."
- If the status of skin complications is not known, select "Unknown."

Examples:

The patient's skin showed ulceration developing.	Code "Yes."
The patient's skin shows signs of breaking down.	Code "Yes."
The patient's skin showed no signs of complications from the treatment.	Code "No."

STRESS ULCER/GI BLEED

Definition:

- This measures if there are any stress ulcers or GI bleeds requiring treatment during TTM.

Description:
- TTM puts physiological stress on the body, which can predispose the patient to a stress ulcer or GI bleed.
- Treatment may include medications, blood transfusion, endoscopy, etc.

Instructions for Coding:

- If there was a stress ulcer or GI bleed, select "Yes."
- If there were no ulcers or GI bleeds, select "No."
- If the occurrence of a stress ulcer or GI bleed is not known, select "Unknown."

Examples:

Stress Ulcer/GI Bleed
O Yes O No O Unknown

REQUIRES VASOPRESSOR FOR BP SUPPORT?

Definition:

- This measures whether there was hypotension (systolic BP less than 90mm hg) requiring treatment during TTM.

Description:

- Low blood pressure, or hypotension, may occur due to significant vasodilatation during the rewarming process.
- Treatment may include medications and fluid resuscitation.

Instructions for Coding:
- If there was hypotension, select "Yes."
- If no hypotension was recorded, select "No."
- If the status of hypotension is not known, select "Unknown."

Examples:

The patient's systolic blood pressure decreased to 75 mm hg.	Code "Yes."

HYPERKALEMIA – UPON REWARMING

Definition:

- This measures if there is hyperkalemia (serum potassium > 5.0 mEq/L) upon rewarming after TTM.

Description:
- As the rewarming process occurs, vessels begin to dilate. Due to dilation, the patient must be monitored for hyperkalemia, or a higher than normal level of potassium in the blood stream.

Instructions for Coding:

- If there was hyperkalemia upon rewarming, select "Yes."
- If there was no hyperkalemia, select "No."
- If the status of hyperkalemia is not known, select "Unknown."

Examples:

The patient's potassium level increased from 4.5 to 6.0 mEq/L during the rewarming process.	Code "Yes."
The patient's potassium level never exceeded 5.0 mEq/L during the rewarming process.	Code "No."

HYPERGLYCEMIA

Definition:

- This measures whether the patient was hyperglycemic (glucose level higher than 11.1 mmol/l (200 mg/dl) during TTM.

Description:

- Hyperglycemia may be seen in hypothermic patients due to decreased insulin release and inhibition of peripheral utilization of glucose.

Instructions for Coding:
- If hyperglycemia occurred, select "Yes."
- If hyperglycemia did not occur, select "No."
- If the status of hyperglycemia is not known, select "Unknown".

Examples:

The patient's blood glucose increased to 305 mg/dl during TTM.	Code "Yes."
The patient's blood glucose never exceeded 11.1 mmol/l or 200mg/dl during TTM.	Code "No."

PNEUMONIA/SEPSIS

Definition:

- This measures if pneumonia or sepsis requiring treatment occurred during TTM.

Description:
- Patients undergoing TTM are prone to contracting pneumonia or sepsis.
- Treatment may include antibiotic medications.

Instructions for Coding:

- If pneumonia or sepsis occurred, select "Yes."
- If pneumonia or sepsis did not occur, select "No."
- If the status of pneumonia or sepsis is not known, select "Unknown."

Examples:

Pneumonia/Sepsis
O Yes
O No
O Unknown

ANY PARALYTICS USED?

Description:

- Drugs used to paralyze the patient during TTM.

Instructions for Coding:

- If paralytics were used during TTM, select "Yes."
- If paralytics were not used during TTM, select "No."
- If the status of paralytic use is not known, select "Unknown."

Examples:

Any paralytics used?
O Yes O No O Unknown

GLASGOW COMA SCORE (GSC)

The Glasgow Coma Score is collected at two separate time points, the initiation of TTM and hospital discharge (if applicable). Once you have selected responses for all three categories, the CARES/PAROS software will auto-calculate the total score (3-15).

EYE RESPONSE

Definition:

- This measures the patient's ocular response to GCS testing.

Description:

- The patient's eye response to pain stimuli, verbal commands, or spontaneous reaction while obtaining a Glasgow Coma Score.

Instructions for Coding:
- If there was no eye opening, select "no eye opening."
- If there was eye opening in response to pain stimuli, select "eye opening in response to pain stimulus."
- If there was eye opening in response to verbal commands, select "eye opening to verbal command."
- If the patient's eyes opened spontaneously, select "eyes opening spontaneously."

Examples:

There was no eye movement by the patient	Code as "No eye opening (+1)"
The patient's eyes opened upon application of pain stimuli.	Code as "Eye opening in response to pain stimulus (+2)"
The patient's eyes opened when they were asked to open his eyes.	Code as "Eye opening to verbal command (+3)"
The patient's eyes opened without prompting.	Code as "Eyes opening spontaneously (+4)"

VERBAL RESPONSE

Definition:

- This measures the patient's verbal response to GCS testing.

Description:

- The patient's verbal response to GCS testing may include slurred speech, inappropriate words, or confusion.

Instructions for Coding:
- If there was no verbal response, select "No verbal response (+1)."
- If patient emitted only incomprehensible sounds, select "Incomprehensible sounds (+2)."
- If the patient said inappropriate words, select "Inappropriate words (+3)."
- If the patient was confused, select "Confused (+4)."
- If the patient was oriented, select "Oriented (+5)."

Examples:

There was no verbal response by the patient at all.	Code as "No verbal response (+1)"
The patient mumbled something incomprehensible.	Code as "Incomprehensible sounds (+2)"
The patient said a few inappropriate phrases.	Code as "Inappropriate words (+3)"
The patient was confused about what was going on around them.	Code as "Confused (+4)"
The patient was fully aware of his surroundings/situation.	Code as "Oriented (+5)"

MOTOR RESPONSE

Definition:

- This measures the patient's motor response to GCS testing.

Description:

- The patient's motor response can include extension, flexion, or differing responses to pain.

Instructions for Coding:
- If there was no motor response, select "No motor response (+1)."
- If patient extended when painful stimuli were applied, select "Extension to pain (+2)."
- If the patient responded to pain with flexion, select "Flexion to pain (+3)."
- If the patient responded to pain with withdrawal, select "Withdrawal from pain (+4)."
- If the patient was able to localize pain, select "Localize pain (+5)."
- If the patient obeys commands, select "Obeys commands (+6)."

Examples:

There was no motor response by the patient.	Code as "No motor response (+1)"
Decerebrate posturing.	Code as "Extension to pain (+2)"
Decorticate posturing.	Code as "Flexion to pain (+3)"
Withdraw from pain stimulus.	Code as "Withdrawal from pain (+4)"
Purposeful movement in response to pain.	Code as "Localizes pain (+5)"
The patient responded to commands to move his fingers.	Code as "Obeys commands (+6)"

GCS AT TTM OR GCS AT DISCHARGE (3-15)

Definition:

- This measures the conscious state of the patient.

Description:

- The Glasgow Coma Scale (GCS) gives the patient a score between 3 (showing deep unconsciousness) and 15 (conscious/alert).

Instructions for Coding:
- The patient's GCS score is auto-calculated based on responses to the GSC questions: eye, verbal, and motor responses.

Examples:

Eye: +4, Verbal: +3, Motor: +2	Coded as 9