

Heart-Lung Transplant Candidate Registration (TCR) Field Descriptions

The Transplant Candidate Registration (TCR) record is generated when a candidate for transplant is added to the OPTN/UNOS waiting list.

If the candidate is already on the waiting list for a transplant, another TCR record will not be generated unless listed by a different center or for another organ type.

The TCR record must be completed within 90 days from the record generation date. See [OPTN Policies](#) for additional information. Use the search feature to locate specific policy information on Data Submission Requirements.

To correct information that is already displayed on an electronic record, call the UNetSM Help Desk at 1-800-978-4334.

Additional Resources: See [History of Definition Changes](#).

Provider Information

Recipient Center: The Recipient Center information reported in Waitlist displays. Verify that the center information is the hospital where the transplant operation will be performed. The Provider Number is the 6-character Medicare identification number of the hospital. This is followed by the Center Code and Center Name.

Candidate Information

Organ Registered: Verify the organ(s) displayed is/are the organ(s) listed for this candidate. If the candidate is listed for more than one type of transplant, both organs should be displayed. Separate records exist for certain multi-organ transplant candidates (e.g. Heart/Lung and Kidney/Pancreas).

Date of Listing or Add: The date the candidate was listed or added in Waitlist will display.

Name: The waitlisted candidate's last name, first name and middle initial will be displayed. If it is incorrect, corrections must be completed on the active waitlist. For a candidate who has been removed from the waitlist, the **Last Name**, **First Name** and **MI** fields will display. Corrections may be made directly in the record. These fields are **required**.

Previous Surname: If the candidate had a previous surname that is different from the Name entered, enter the previous surname.

SSN: Verify the candidate's social security number. If the information is incorrect and the candidate is waitlisted, contact the UNOS Organ Center at 1-800-292-9537.

Gender: Report candidate sex (Male or Female), based on biologic and physiologic traits, at birth. If sex at birth is unknown, report sex at time of registration as reported by candidate or documented in medical record. The intent of this data collection field is to capture physiologic

characteristics that may have an impact on recipient size matching or graft outcome. This field is **required**.

HIC: Enter the 9 to 11 character Health Insurance Claim number for the candidate. If the candidate does not have a HIC number, you may leave this field blank.

DOB: Verify the displayed date is the candidate's date of birth. If the information is incorrect, correction must be completed on the active waitlist. If the candidate has been removed, reenter the correct date using the 8-digit numeric format of MM/DD/YYYY. Corrections may be made directly in the record. This field is **required**.

State of Permanent Residence: Select the name of the state of the candidate's permanent address at the time of listing (location of full-time residence, not where the candidate is currently waiting). This field is **required**. ([List of State codes](#))

Permanent Zip Code: Enter the candidate's permanent zip code (location of full-time residence, not where the candidate is currently waiting). This field is **required**.

Ethnicity: The Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity (Office of Management and Budget (OMB) [Statistical Policy Directive No. 15](#)) define the minimum standards for collecting and presenting data on race and ethnicity for all Federal reporting. The OPTN collection of ethnicity is aligned to this standard.

OMB defines ethnicity to be whether or not a person self-identifies as Hispanic or Latino. For this reason, ethnicity is broken out into two categories, (1) Hispanic or Latino or (2) Not Hispanic or Latino. Select one ethnicity category or select 'Ethnicity Not Reported' if a category was not self-identified by the person.

This field is **required**.

Hispanic or Latino – A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

Not Hispanic or Latino

Ethnicity Not Reported – Select if person did not self-identify an ethnicity category.

Race: The Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity (Office of Management and Budget (OMB) [Statistical Policy Directive No. 15](#)) define the minimum standards for collecting and presenting data on race and ethnicity for all Federal reporting. The OPTN collection of race is aligned to this standard. OMB defines race as a person's self-identification with one or more social groups.

An individual can select one or more race categories (1) White, (2) Black or African American, (3) Asian, (4) American Indian or Alaska Native, (5) Native Hawaiian or Other Pacific Islander, or Race Not Reported.

This field is **required**.

Select one or more race sub-categories or origins. Select 'Other Origin' if origin is not listed. Select 'Origin Not Reported' if the origin was not self-identified by the person.

White – A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

European Descent
Arab or Middle Eastern
North African (non-Black)
Other Origin
Origin Not Reported

Black or African American – A person having origins in any of the Black racial groups of Africa.

African American
African (Continental)
West Indian
Haitian
Other Origin
Origin Not Reported

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.

American Indian
Eskimo
Aleutian
Alaska Indian
Other Origin
Origin Not Reported

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.

Asian Indian/Indian Sub-Continent
Chinese
Filipino
Japanese
Korean
Vietnamese
Other Origin
Origin Not Reported

Native Hawaiian or Other Pacific Islander – A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Native Hawaiian
Guamanian or Chamorro
Samoaan
Other Origin
Origin Not Reported

Race Not Reported – Select if person did not self-identify a race category or origin.

Citizenship: Select as appropriate to indicate the candidate's citizenship. This field is **required**. ([List of Citizenship codes](#))

U.S. Citizen: A United States citizen by birth or naturalization.

Non-U.S. Citizen/U.S. Resident: A non-citizen of the United States for whom the United States is the primary place of residence.

Non-U.S. Citizen/Non-U.S. Resident, Traveled to U.S. for Reason Other Than Transplant: A non-citizen of the United States for whom the United States is not the primary place of residence, and who came to the U.S. for a reason other than transplant.

Non-U.S. Citizen/Non-U.S. Resident, Traveled to U.S. for Transplant: A non-citizen of the United States for whom the United States is not the primary place of residence, and who came to the U.S. for the purpose of transplant.

Country of Permanent Residence: If **Non-U.S. Citizen/Non-U.S. Resident, Traveled to U.S. for Reason Other Than Transplant** or **Non-U.S. Citizen/Non-U.S. Resident, Traveled to U.S. for Transplant** is selected, enter the country associated with the primary place of residence. This field is **required**.

Year of Entry to the U.S.: If the candidate is a Non-U.S. Citizen/Non-U.S. Resident, enter the year the candidate entered the United States. Select the appropriate status from the **ST** field (**Missing, Unknown, N/A, Not Done**). This field is **required**.

Highest Education Level: Select the choice which best describes the candidate's highest level of education. This field is **required**. ([List of Education codes](#))

None

Grade School (0-8)

High School (9-12) or GED

Attended College/Technical School

Associate/Bachelor Degree

Post-College Graduate Degree

N/A (< 5 Yrs Old)

Unknown

Patient on Life Support: If the candidate was on life support at the time of listing, select **Yes**. If not, select **No**. If **Yes**, select life support types that apply. If **Other Mechanism, Specify** is selected, enter the type of mechanism in the space provided. This field is **required**.

Extra Corporeal Membrane Oxygenation

Intra Aortic Balloon Pump

Ventilator - Select only if the candidate was on continuous invasive ventilation.

Prostacyclin Infusion

Prostacyclin Inhalation

Inhaled NO

IV Inotropes (pediatric candidates only)

Other Mechanism, Specify

Patient on Ventricular Assist Device: If the candidate was on a Ventricular Assist Device (VAD), select the type. If the candidate was not on a VAD, select **None**. This field is **required**. ([List of Device Type codes](#))

If a VAD was indicated, select the brand of device that the candidate was on. If **LVAD+RVAD** was indicated, select the brand of device the candidate was on for both **LVAD** and **RVAD**. If **Other, Specify** is selected for one of the following, specify the name in the space provided.

LVAD: ([List of LVAD codes](#))

Abiomed AB5000
Abiomed BVS 5000
Berlin Heart EXCOR
Biomedicus
Cardiac Assist Protek Duo
Cardiac Assist Tandem Heart
CentriMag (Thoratec/Levitronix)
Evaheart
Heartmate II
Heartmate III
Heartsaver VAD
Heartware HVAD
Impella CP
Impella RP
Impella Recover 2.5
Impella Recover 5.0
Jarvik 2000
Maquet Josta Rotaflow
Medos
PediMag (Thoratec/Levitronix)
ReliantHeartAssist 5
ReliantHeart aVAD
Terumo DuraHeart
Thoratec IVAD
Thoratec PVAD
Toyobo
Ventracor VentrAssist
Worldheart Levacor
Other, Specify - Select if the candidate is on a device brand that is not in the list.

RVAD: ([List of RVAD codes](#))

Abiomed AB5000
Abiomed BVS 5000
Berlin Heart EXCOR
Biomedicus
Cardiac Assist Protek Duo
Cardiac Assist Tandem Heart
CentriMag (Thoratec/Levitronix)
Evaheart
Heartmate II
Heartmate III
Heartsaver VAD
Heartware HVAD
Impella CP
Impella RP
Impella Recover 2.5
Impella Recover 5.0

Jarvik 2000

Maquet Josta Rotaflow

Medos

PediMag (Thoratec/Levitronix)

ReliantHeartAssist 5

ReliantHeart aVAD

Terumo DuraHeart

Thoratec IVAD

Thoratec PVAD

Toyobo

Ventracor VentrAssist

Worldheart Levacor

Other, Specify - Select if the candidate is on a device brand that is not in the list.

TAH: ([List of TAH codes](#))

AbioCor

SynCardia CardioWest

Other, Specify - Select if the candidate is on a device brand that is not in the list.

LVAD + RVAD: ([List of LVAD codes](#)) ([List of RVAD codes](#))

Functional Status: Select the choice that best describes the candidate's functional status at the time of listing. This field is **required**. ([List of Functional Status codes](#))

Note: The Karnofsky Index will display for adults aged 18 and older.

- 100% - Normal, no complaints, no evidence of disease
- 90% - Able to carry on normal activity: minor symptoms of disease
- 80% - Normal activity with effort: some symptoms of disease
- 70% - Cares for self: unable to carry on normal activity or active work
- 60% - Requires occasional assistance but is able to care for needs
- 50% - Requires considerable assistance and frequent medical care
- 40% - Disabled: requires special care and assistance
- 30% - Severely disabled: hospitalization is indicated, death not imminent
- 20% - Very sick, hospitalization necessary: active treatment necessary
- 10% - Moribund, fatal processes progressing rapidly
- Unknown

Note: The Lansky Score will display for pediatrics aged less than 18.

- 100% - Fully active, normal
- 90% - Minor restrictions in physically strenuous activity
- 80% - Active, but tires more quickly
- 70% - Both greater restriction of and less time spent in play activity
- 60% - Up and around, but minimal active play; keeps busy with quieter activities
- 50% - Can dress but lies around much of day; no active play; can take part in quiet play/activities
- 40% - Mostly in bed; participates in quiet activities
- 30% - In bed; needs assistance even for quiet play
- 20% - Often sleeping; play entirely limited to very passive activities
- 10% - No play; does not get out of bed
- Not Applicable (patient < 1 year old)
- Unknown

Note: This evaluation should be in comparison to the person's normal function, indicating how the patient's disease has affected their normal function.

Cognitive Development: (Complete for candidates 18 years of age or younger.) Select the choice that best describes the candidate's cognitive development at the time of listing. This field is **required**. ([List of Cognitive Development codes](#))

Definite Cognitive Delay/Impairment (verified by IQ score <70 or unambiguous behavioral observation)

Probable Cognitive Delay/Impairment (not verified or unambiguous but more likely than not, based on behavioral observation or other evidence)

Questionable Cognitive Delay/Impairment (not judged to be more likely than not, but with some indication of cognitive delay/impairment such as expressive/receptive language and/or learning difficulties)

No Cognitive Delay/Impairment (no obvious indicators of cognitive delay/impairment)

Not Assessed

Motor Development: (Complete for candidates 18 years of age or younger.) Select the choice that best describes the candidate's motor development at the time of listing. This field is **required**. ([List of Motor Development codes](#))

Definite Motor Delay/Impairment (verified by physical exam or unambiguous behavioral observation)

Probable Motor Delay/Impairment (not verified or unambiguous but more likely than not, based on behavioral observation or other evidence)

Questionable Motor Delay/Impairment (not judged to be more likely than not, but with some indication of motor delay/impairment)

No Motor Delay/Impairment (no obvious indicators of motor delay/impairment)

Not Assessed

Working for income: (Complete for candidates 18 years of age or older.) If the candidate is physically working and receiving a salary for income, select **Yes**. If not, select **No**. If unknown, select **UNK**.

Academic Progress: (This field is required for candidates less than 18 years of age.) Select the choice that best describes the candidate's academic progress at the time of listing. If the candidate is too young for school or has graduated from high school, select **Not Applicable, too young for school/High School graduate or GED**. This field is **required**. ([List of Academic Progress codes](#))

Within One Grade Level of Peers

Delayed Grade Level

Special Education

Not Applicable, too young for school/High School graduate or GED

Status Unknown

Academic Activity Level: (This field is required for candidates less than 18 years of age.) Select the choice that best describes the candidate's academic activity level at the time of listing. If the candidate is too young for school or has graduated from high school, select **Not**

Applicable, too young for school/High School graduate or GED. This field is **required**. ([List of Academic Activity Level codes](#))

Full academic load

Reduced academic load

Unable to participate in academics due to disease or condition

Not Applicable, too young for school/High School graduate or GED

Status Unknown

Previous Transplants: The three most recent transplant(s), indicated on the candidate's validated Transplant Recipient Registration (TRR) record(s), will display. Verify all previous transplants listed by organ type, transplant date and graft failure date.

Note: The three most recent transplants on record for this candidate will be displayed for verification. If there are any prior transplants that are not listed here, contact the UNet Help Desk at 1-800-978-4334 or unethelpdesk@unos.org to determine if the transplant event is in the database.

Source of Payment:

Primary: Select as appropriate to indicate the candidate's source of primary payment (largest contributor) for the transplant. If the source of payment is not yet determined, select **Pending**. This field is **required**. ([List of Primary Insurance codes](#))

Private insurance refers to funds from agencies such as Blue Cross/Blue Shield, etc. It also refers to any worker's compensation that is covered by a private insurer.

Public insurance - Medicaid refers to state Medicaid funds.

Public insurance - Medicare FFS (Fee-for-Service) refers to funds from the government in which doctors and other health care providers are paid for each service provided to a candidate. Includes Medicare part A, part B and part D. Medicare part A (hospital) must be in place to be considered primary payer. For additional information about Medicare, see <http://www.medicare.gov/>.

Public insurance - Medicare & Choice (also known as Medicare Managed Care) refers to funds from the government in which doctors and other health care providers are paid for each service provided to a candidate, along with additional benefits such as coordination of care or reducing-out-of-pocket expenses. Sometimes a candidate may receive additional benefits such as prescription drugs. For additional information about Medicare, see <http://www.medicare.gov/>.

Public insurance - CHIP (Children's Health Insurance Program)

Public insurance - Department of VA refers to funds from the Veterans Administration.

Public insurance - Other government refers to funds from another government agency.

Self indicates that the candidate will pay for the cost of transplant.

Donation indicates that a company, institution, or individual(s) donated funds to pay for the transplant and care of the candidate.

Free Care indicates that the transplant hospital will not charge candidate for the costs of the transplant operation.

Pending is used if the source of payment is not yet determined (Primary only).

Foreign Government, Specify refers to funds provided by a foreign government (Primary only) Specify the foreign country in the space provided. ([List of Foreign Country codes](#))

Clinical Information: AT LISTING

Height Date of Measurement: (Complete for candidates 18 years of age or younger.) Enter the date, using the 8-digit format of MM/DD/YYYY, the candidate's height was measured.

Height: Enter the height of the candidate at the time of listing in the appropriate space, in feet and inches or centimeters. If the candidate's height is unavailable, select the appropriate status from the **ST** field (**Missing, Unknown, N/A, Not Done**). This field is **required**. ([List of Status codes](#)) For candidates 18 years old or younger at the time of listing, UNet will generate and display calculated percentiles based on the 2000 CDC growth charts.

Weight Date of Measurement: (Complete for candidates 18 years of age or younger.) Enter the date, using the 8-digit format of MM/DD/YYYY, the candidate's weight was measured.

Weight: Enter the weight of the candidate at the time of listing in the appropriate space, in pounds or kilograms. If the candidate's weight is unavailable, select the appropriate status from the **ST** field (**Missing, Unknown, N/A, Not Done**). This field is **required**. ([List of Status codes](#)) For candidates 18 years old or younger at the time of listing, UNet will generate and display calculated percentiles based on the 2000 CDC growth charts.

BMI (Body Mass Index): The candidate's BMI will display. For candidates less than 20 years of age at the time of listing, UNetSM will generate and display calculated percentiles based on the 2000 CDC growth charts.

Percentiles are the most commonly used clinical indicator to assess the size and growth patterns of individual children in the United States. Percentiles rank the position of an individual by indicating what percent of the reference population the individual would equal or exceed (i.e. on the weight-for-age growth charts, a 5 year-old girl whose weight is at the 25th percentile, weighs the same or more than 25 percent of the reference population of 5-year-old girls, and weighs less than 75 percent of the 5-year-old girls in the reference population). For additional information about CDC growth charts, see <http://www.cdc.gov/>.

Note: Users who check the BMI percentiles against the CDC calculator may notice a discrepancy that is caused by the CDC calculator using 1 decimal place for height and weight and UNet using 4 decimal places for weight and 2 for height.

ABO Blood Group: The candidate's blood type will be displayed. If the blood type is incorrect, correction must be completed on the active waitlist. If the candidate has been removed from the active waitlist, you may select the candidate's correct blood type directly in the record. ([List of ABO Blood Type codes](#))

A
A1
A1B
A2
A2B
AB
B
O
Z (In Utero Only)

Primary Diagnosis: Select the primary diagnosis **for the disease requiring a transplant** at the time of listing for this candidate. If the candidate has had a previous transplant for the same organ type, use **Retransplant/Graft Failure** as the primary diagnosis for that organ. If an **Other** code is selected, use the blank provided to specify the Other diagnosis. This field is **required**. ([List of Thoracic Diagnosis codes](#))

General Medical Factors:

Diabetes: If the candidate does not have diabetes at time of listing, select **No**. If the candidate has diabetes, select **Type I** or **Type II**. If the candidate has any type of drug-induced diabetes, select **Type Other**. If the candidate has diabetes but the type is unknown, select **Type Unknown**. A patient should *not* be considered as having diabetes based on gestational diabetes only. If this information is unknown, select **Diabetes Status Unknown**. This field is **required**. ([List of Diabetes codes](#))

No

Type I is defined as a disease in which the body does not produce any insulin, most often occurring in children and young adults. People with Type 1 diabetes must take daily insulin injections to stay alive. Type 1 diabetes accounts for 5 to 10 percent of diabetes.

Type II is defined as a metabolic disorder resulting from the body's inability to make enough, or properly use, insulin. It is the most common form of the disease. Type 2 Diabetes accounts for 90 to 95 percent of diabetes.

Type Other

Type Unknown

Diabetes Status Unknown

Any previous malignancy: If the candidate has history of any previous malignant cancer prior to the time of listing, select **Yes**. If the candidate has not had a history of any previous malignant cancer prior to the time of listing, select **No**. If **Yes** is selected, select the type(s) of malignancy. If **Other, specify** is selected, indicate the type of tumor in the space provided. This field is **required**. ([List of Malignancy codes](#))

Skin Melanoma

Skin Non-Melanoma

CNS Tumor

Genitourinary

Breast

Thyroid

Tongue/Throat/Larynx

Lung

Leukemia/Lymphoma

Liver

Other, specify

Total Serum Albumin: Enter the total serum albumin value in g/dl at time of listing. If the value is unavailable, select the appropriate status from the ST field (**Missing, Unknown, N/A, Not Done**). If the latest value is over a year old, select Status=Not Done. This field is **required**.

Heart Medical Factors

Sudden Death: (This field is required for candidates less than 18 years of age.) If the candidate had sudden death, death that is abrupt, unexpected, and due to a cardiovascular cause (most

commonly occurring due to an arrhythmia in the setting of cardiomyopathy, congenital coronary anomalies, or a primary heart rhythm condition) at the time of listing, select **Yes**. If not, select **No**. If unknown, select **UNK**.

Implantable Defibrillator: If the candidate had an implantable defibrillator at the time of listing, select **Yes**. If not, select **No**. If unknown, select **UNK**. This field is **required**.

Exercise Oxygen Consumption: Enter the candidate's oxygen consumption at exercise in ml/min/kg. If the value is unavailable, select the appropriate status from the **ST** field (**Missing, Unknown, N/A, Not Done**). This field is **required**. ([List of Status codes](#))

Lung Medical Factors

Pulmonary Status

Pan-Resistant Bacterial Lung Infection: If the candidate has a history of pan-resistant bacterial lung infection prior to listing, select **Yes**. If not, select **No**. If unknown, select **UNK**. This field is **required**.

Heart/Lung Medical Factors

Most Recent Hemodynamics: Enter the most recent hemodynamic values. Always enter the most recent value for each measurement, even if they are obtained from different dates/times. For example, that might mean reporting the wedge and CO from Monday, and PA pressures from Tuesday. For each measure, indicate if the measurement was obtained while the candidate was on Inotropes or Vasodilators. Only intravenous injection Inotropes/Vasodilators should be reported. If the tests were not done, select **Not Done** in the **ST** field (**Missing, Unknown, N/A, Not Done**). **Note:** It is better to indicate the most recent values you have, even if they are from listing or before listing, than to indicate "not done."

PA (sys) mm/Hg - systolic pulmonary artery pressure. This field is **required**.

PA (dia) mm/Hg - diastolic pulmonary artery pressure. This field is **required**.

PA (mean) mm/Hg - mean pulmonary artery pressure. This field is **required**.

PCW (mean) mm/Hg - mean pulmonary capillary wedge pressure. This field is **required**.

CO L/min - cardiac output. This field is **required**.

History of Cigarette Use: If the candidate has a history of cigarette use, select **Yes**. If not, select **No**. If **Yes** is selected, indicate the number of pack years. Then indicate the **Duration of Abstinence**. This field is **required**.

Duration of Abstinence: Select the number of months the candidate has abstained from cigarettes. If the time is unknown, select **Unknown duration**. If the candidate has not stopped smoking, select **Continues To Smoke**. This field is **required**. ([List of Duration of Abstinence codes](#))

0-2 months

3-12 months

13-24 months

25-36 months

37-48 months

49-60 months

> 60 months
Continues to Smoke
Unknown duration

[ADULT CANDIDATES]

Prior Cardiac Surgery (non-transplant): If the candidate had cardiac surgery prior to listing, including VAD implantation, select **Yes**. Previous cardiac surgery via any access method complicates the transplant surgery, increasing the risk of bleeding and primary graft dysfunction. If no prior cardiac surgery, select **No**. If unknown, select **UNK**. If the type of cardiac surgery is not listed, select **Other, specify** and enter the type of cardiac surgery in the space provided. This field is **required**. ([List of Cardiac Surgery codes](#))

If **Yes** is selected, select all type(s) of surgery.

CABG
Valve Replacement/Repair
Congenital
Left Ventricular Remodeling
Other, specify

[PEDIATRIC CANDIDATES]

Prior Thoracic Surgery Other Than Prior Transplant: If the candidate had thoracic surgery prior to listing, select **Yes**. If no prior thoracic surgery, select **No**. If unknown, select **UNK**. If **Yes** is selected, select all type(s) of surgery. If the type of thoracic surgery is not listed, select **Other, specify** and enter the type of thoracic surgery in the space provided. This field is **required**.

If **yes**, number of prior sternotomies ([List of Sternotomies codes](#))

If **yes**, number of prior thoracotomies ([List of Thoracotomies codes](#))

Prior Congenital Cardiac Surgery: If the candidate had prior surgery, select **Yes**. If not, select **No**. If unknown, select **UNK**.

If **Yes, palliative surgery:** If the surgery was palliative, select **Yes**. If not, select **No**. If unknown, select **UNK**.

If **Yes, corrective surgery:** If the surgery was corrective, select **Yes**. If not, select **No**. If unknown, select **UNK**.

If **Yes, single ventricular physiology:** If the surgery was to correct single ventricular physiology, select **Yes**. If not, select **No**. If unknown, select **UNK**.