1. Was an echocardiogram completed?  Yes  No  Unknown
2. If Yes, indicate date of echocardiogram:
3. Left ventricular end-diastolic posterior wall thickness (PWTd): centimeters: z-score:
4. Left ventricular end-diastolic septal thickness (LVSTd): centimeters: z-score:
5. Left ventricular end-diastolic internal dimension (LVIDd): centimeters: z-score:
6. Left ventricular end-systolic internal dimension (LVIDs): centimeters: z-score:
7. Left atrial antero-posterior dimension: centimeters: z-score:
8. Right Ventricular Wall Thickness in diastole (RVWTd): centimeters: z-score:
9. Right atrial enlargement:  Present  Absent
10. Right ventricular enlargement:  Present  Absent
11. Right ventricular systolic dysfunction:  Present  Absent
12. Left Ventricle Mass (index): grams: z-score:
13. Does subject have left ventricular hypertrophy?  Yes  No  Unknown
14. Was the subject’s left ventricle dilated?  Yes  No  Unknown
15. Was there a Left Ventricular Outflow Tract (LVOT) obstruction?  Yes  No  Unknown
16. If Yes, indicate:
17. Peak systolic pressure gradient (millimeters of mercury):
18. Mean pressure gradient (millimeters of mercury):
19. Left ventricular ejection fraction (percent):
20. Degree of Aortic Regurgitation (AR):  None  Mild  Moderate  Severe
21. Degree of Mitral Regurgitation (MR):  None  Mild  Moderate  Severe
22. Degree of Tricuspid Regurgitation (TR):  None  Mild  Moderate  Severe
23. Fractional shortening (percent):
24. Early mitral inflow velocity (E) (centimeters per second):
25. Late Mitral Inflow Velocity (A) (centimeters per second):
26. Mitral Inflow (E) deceleration time (milliseconds):
27. Tissue Doppler:

### Septum:

1. E’ velocity (centimeters per second):
2. A’ velocity (centimeters per second):
3. S’ velocity (centimeters per second):

### Mitral annulus:

1. E’ velocity (centimeters per second):
2. A’ velocity (centimeters per second):
3. S’ velocity (centimeters per second**):**

## General Instructions

This form contains data elements that are collected to measure heart function.

## Specific Instructions

Please see the Data Dictionary for definitions for each of the data elements included in this CRF Module.

Data and time performed – The date/time should be recorded to the level of granularity known (e.g., year, year and month, complete date plus hours and minutes, etc.) and in the format acceptable to the study database.

PWTd measurement - Record the value out to one decimal place in centimeters (cm). Age and weight related. Adult normal range: 0.6 – 1.1 cm. Child normal range: 0.4 – 0.8 cm.

PWTD z- score – Record the z-score with up to two decimal places. Z-scores are a means of expressing the deviation of a given measurement from the size or age specific population mean and can be useful in pediatric populations. Online echocardiogram z-score calculators are available.

LVSTd measurement – Record the value out to one decimal in centimeters (cm). Age and weight related. Adult normal range: 0.6 – 1.1 cm. Child normal range: 0.3 – 0.8 cm.

LVSTd z-score – Record the z-score with up to two decimal places.

LVIDd measurement – Record the value out to one decimal place in centimeters (cm). Age and weight related. Adult normal range: 3.5 – 5.7 cm. Child normal range: 3.3 – 5.2 (25 kg and above child).

LVIDd z-score – Record the z-score with up to two decimal places

LVIDs measurement – Record the value out to one decimal place in centimeters (cm).

Age and Weight related.

LVIDs z-score – Record the z-score with up to two decimal places

Left atrial antero-posterior dimension measurement – Record the value in centimeters (cm).

Left atrial antero-posterior dimension z-score – Record the z-score with up to two decimal places

RVWTd measurement –Record the value out to one decimal place in centimeters (cm).

RVWTd z-score – Record the z-score with up to two decimal places

Left ventricle mass measurement –Record the value out to one decimal place in grams (gm).

Left ventricle mass z-score – Record the z-score with up to two decimal places

Peak systolic pressure gradient measurement –Record the value as an integer in mmHg. This measurement should be recorded if the participant/subject is found to have a LVOT obstruction.

Mean pressure gradient measurement –Record the value as an integer in mmHg. This measurement should be recorded if the participant/subject is found to have a LVOT obstruction.

Left ventricle ejection fraction measurement – Record the value as a percent (%).  
Normal range: 54% – 75%

Fractional shortening measurement – Record the value as a percent (%)

Early mitral inflow velocity measurement –Record the value to two decimal places in cm/s. Age related values.

Tissue doppler septum E’ velocity measurement –Record the early diastolic myocardial relaxation value to two decimal places in cm/s. Age related values.

Tissue doppler septum A’ velocity measurement – Record the active atrial contraction in late diastole value to two decimal places in cm/s. Age related values.

Tissue doppler septum S’ velocity measurement – Record the myocardial contraction value to two decimal places in cm/s. Age related values.

Tissue doppler mitral annulus E’ velocity measurement – Record the early diastolic myocardial relaxation value to two decimal places in cm/s. Age related values.

Tissue doppler mitral annulus A’ velocity measurement – Record the active atrial contraction in late diastole value to two decimal places in cm/s. Age related values.

Tissue doppler mitral annulus S’ velocity measurement – Record the early diastolic myocardial value to two decimal places in cm/s. Age related values.