Pre-cardiac Transplant Frailty Assessment

During your UCLA consult rotation, you may be asked to perform a **Frailty evaluation** in hospitalized, pre-cardiac transplant patients. Frailty is a syndrome of physiologic decline and multi-organ deterioration that is characterized by increased vulnerability to adverse health outcomes. Frailty in surgical patients has been associated with increased morbidity, mortality, longer hospitalizations, and post-surgical complications. It is thought that about 1/3 of heart transplant candidates are thought to be frail prior to transplant.

There are two main frailty evaluations you will be asked to perform.

1. **Fried Frailty Phenotype Assessment** – includes weight loss, exhaustion, physical activity, gait speed, and grip strength.
2. **Short Physical Performance Battery** – includes chair rise, balance test, and gait speed.

On average, you will get about **1-2 consultations per month**. Please print and complete the frailty evaluation form at the end of this document. **Once completed, scan and email the evaluation to Dr. Ben Seligman at BSeligman@mednet.ucla.edu.** You may reach out to Dr. Seligman if you have any questions regarding the evaluation.

Additional Points:

* You may use the scanner/fax machine at any of the nursing stations. 4E also has a scanner/fax machine you can use.
* The nursing supply room has paper tape measures that you can use to measure out the 5 meters for the walk test. You may need to ask a nurse to let you into the room.
* A dynamometer for grip strength is located in the CCU charge nurse’s office.
* You may get consulted on a day you are not onsite. Please perform the assessment the next time you are at UCLA RR. For example, consult comes in on Thursday, assessment can be performed on Friday.

**Geriatric and Frailty Evaluation – Master Form**

**OVERVIEW**

1. **Physical Frailty**
   1. Weight loss (< 1 min)\*
   2. Exhaustion (< 1 min)\*
   3. Physical activity (< 1 min)\*
   4. Chair rise (< 30 sec)
   5. Balance test (1 min)
   6. Gait speed (2 min)
   7. Grip strength (2 min)
2. **Functional status**
   1. Katz Activities of Daily Living (< 1 min)\*
3. **Mood assessment**
   1. GDS-5 (< 1 min)\*
4. **Cognitive Function (Mini-Cog)**
   1. 3-word recall (< 1 min)
   2. Clock Draw (3 min)

**\***May be completed by patient via questionnaire

**---------------------------------------------------------------------------------------------------------------------**

**Fried Frailty scoring**

Combined score for weight loss, exhaustion, physical activity, gait speed, grip strength.

0 = nonfrail

1 - 2 = pre-frail or vulnerable

3 - 5 = frail

**Short physical performance battery (SPPB) scoring**

Combined score for chair rise, balance test, and gait speed

0 – 6 = frail

7-9 = pre-frail or vulnerable

10-12 = nonfrail

**1. Physical Frailty Evaluation**

Part A: Weight loss (Fried)

|  |  |  |
| --- | --- | --- |
|  | Yes | No |
| In the last year, have you lost more than 10 pounds unintentionally (meaning not due to dieting, exercise, or diuretic use) | 1 | 0 |

**Score \_\_\_\_\_**

Subjects answering “yes” meet frailty criteria for the weight loss criterion.

Part B: Exhaustion (Fried)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Most of the time | A moderate amount of time (3-4 days) | Some or a little of the time (1-2 days) | Rarely (< 1 day) |
| How often in the last week did you feel that everything that you did was an effort? | 3 | 2 | 1 | 0 |
| How often in the last week did you feel that you could not get going? | 3 | 2 | 1 | 0 |

**Score: \_\_\_\_\_\_**

Subjects answering “2” or “3” to either of these questions meet frailty criteria for the exhaustion criterion.

Part C: Physical Activity: (Fried) Modified version of the Minnesota Leisure Time Physical activity

Please mark the activities that the patient has participated in during the past TWO weeks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Activity | No | Yes | Number of times in last two weeks | Time per session |
| Walking for exercise |  |  |  |  |
| Jogging |  |  |  |  |
| Dancing |  |  |  |  |
| Biking |  |  |  |  |
| Weight lifting |  |  |  |  |
| Strenuous household chores (i.e. vacuuming or scrubbing the floor) |  |  |  |  |
| Strenuous outdoor chores (i.e. gardening or raking leaves) |  |  |  |  |

**Kcals per week:­­­\_\_\_\_\_**

Men: Those with Kcals of physical activity per week < 383 meet frailty criteria for Physical Activity

Women: Those with Kcals per week < 270 meet frailty criteria for Physical Activity

http://activitycalc.com/

Part D: Chair Rise (SPPB)

Research assistant will say: “I will time how long it takes for you to stand up and sit down five times in a row without using your arms for support.”

**Time: ­­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_**

**Chair rise scoring for SPPB: Score \_\_\_\_**

0 = unable

1 = 16.7 s

2 = 13.7 – 16.6 s

3 = 11.2 – 13.6 s

4 = ≤ 11.1 s

Part E: Balance Test (SPPB)

1. Side by side stand:

Held for 10 seconds – 1 point

Held for less than 10 seconds or not attempted – 0 points

1. Semi-tandem stand (heel of one foot next to the toes of the other)

Held for 10 seconds – 1 point

Held for less than 10 seconds or not attempted – 0 points

1. Tandem stand (heel of one foot directly in front of the toes of the other)

Held for 10 seconds – 2 points

Held for 3 - 9.99 seconds – 1 point

Held for < 3 seconds or not attempted – 0 points

**Total score for balance: \_\_\_\_\_\_\_**

Part F: Gait Speed (Fried and SPPB)

1) Measure 5 meters with 0.5 feet extra on either side of the course

2) Participants are instructed to walk their usual speed.

3) The walk is conducted twice with both times recorded

4) The best position for the examiner to be in is to walk with the patient, slightly behind and to the side of them. This optimizes visualization of when the participant’s foot crosses the finish line.

5) A cane or walker may be used during the walk, but if people with such devices can walk short distances without them, they should be encouraged to do so, particularly if they walk around their house without an assistive device.

Research assistant will say: “I will say: ‘Ready, begin, when I want you to start.”

Then have the participant stand with both feet touching the starting tape.

When properly positioned, say “ready, begin”.

Time 1: \_\_\_\_\_\_\_\_\_\_\_

Time 2: \_\_\_\_\_\_\_\_\_\_\_

If not attempted/completed (select one)

\_\_\_\_\_ Tried but unable

\_\_\_\_\_ Not attempted, staff felt it unsafe

\_\_\_\_\_ Could not walk, even with support

\_\_\_\_\_ Participant unable to understand instruction

\_\_\_\_\_ Participant refused

\_\_\_\_\_ Other (specify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Aids used for walk

\_\_\_\_\_ none

\_\_\_\_\_ cane

\_\_\_\_\_ walker

**Fastest time: \_\_\_\_\_**

**Scoring for Fried:** \_\_\_\_\_ (one point if meets frailty criteria below; 0 points if it does not)

Cutoff for Time to Walk 5 meter criterion for frailty

Men

Height ≤ 173 cm ≥7 seconds

Height > 173 cm ≥6 seconds

Women

Height ≤ 159 cm ≥7 seconds

Height > 159 cm ≥6 seconds

Scoring for SPPB: Score \_\_\_\_\_\_

0 = unable to walk 5m

1 = ≥11.6 s (≤0.43 m/s)

2 = 8.3–11.5 s (0.44–0.60 m/s)

3 = 6.5–8.2 s (0.61–0.77 m/s)

4 = 4 = ≤6.4 s (≥0.78 m/s)

Part G: Grip Strength

*Conduct this examination with the participant in the sitting position with the arm to be tested pressing against his or her side at a right angle and the dynamometer resting on the leg.*

Say: “In this test, I am going to use this instrument to test the strength in your hands. Use your dominant hand. When I say “squeeze”, squeeze the metal as hard as you can. You won’t feel the bar moving, but it will measure how hard you are squeezing. If you feel any pain or discomfort, tell me and we will stop.”

Trial 1: \_\_\_\_\_ kg

Trial 2: \_\_\_\_\_ kg

Trial 3: \_\_\_\_\_ kg

Hand tested:

\_\_\_\_\_ right

\_\_\_\_\_ left

If non-dominant side was tested, why:

\_\_\_\_\_ Physical

\_\_\_\_\_ Cognitive

\_\_\_\_\_ Environmental

\_\_\_\_\_ Other (specify) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If not attempted/completed (select one)

\_\_\_\_\_ Tried but unable

\_\_\_\_\_ Not attempted, staff felt it unsafe

\_\_\_\_\_ Not attempted, participant felt it unsafe

\_\_\_\_\_ Participant unable to understand instruction

\_\_\_\_\_ Participant refused

\_\_\_\_\_ Other (specify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Strongest grip**:\_\_\_\_\_\_

**Score** = \_\_\_\_\_ (one point if meets frailty criteria below; 0 points if does not)

Cutoff for grip strength (Kg) criterion for frailty

Men

BMI ≤ 24 ≤29

BMI 24.1-26 ≤30

BMI 26.1-28 ≤30

BMI > 28 ≤32

Women

BMI ≤ 23 ≤17

BMI 23.1-26 ≤17.3

BMI 26.1-29 ≤18

BMI > 29 ≤21

**2. FUNCTIONAL ASSESSMENT:**

KATZ INDEX OF INDEPENDENCE IN ACTIVITIES OF DAILY LIVING

|  |  |  |
| --- | --- | --- |
| **TASK** | No Help Needed  (**NO** supervision, direction or personal assistance) | Help Needed  (**WITH** supervision, direction, personal assistance or total care) |
| Bathing  Able to use the bathe or shower alone | 1 | 0 |
| Dressing  able to get dressed alone | 1 | 0 |
| Toileting  Able to use the bathroom alone | 1 | 0 |
| Transferring  For example: moving from bed to chair | 1 | 0 |
| Continence  control over bladder and bowel elimination/does not require adult diapers | 1 | 0 |
| Feeding  \*preparation of food may be done by another person | 1 | 0 |

**TOTAL SCORE: (points): \_\_\_\_\_**

**MOOD ASSESSMENT:**

GDS-5: Geriatric depression screen (Can be replaced by the PHQ-9)

|  |  |  |
| --- | --- | --- |
| 1. Are you basically satisfied with your life? | Yes | **No** |
| 2. Do you often get bored | **Yes** | No |
| 3. Do you often feel helpless? | **Yes** | No |
| 4. Do you prefer to stay at home rather than going out and doing new things? | **Yes** | No |
| 5. Do you feel pretty worthless the way you are now? | **Yes** | No |
| Each bolded answer scores as **1 point.** If score is **2 or greater**, patient has screened positive for depression |  |  |

**TOTAL SCORE: (points): \_\_\_\_\_**

**3. COGNITIVE ASSESSMENT:**

MINI-COG SCREEN FOR DEMENTIA

STEP1: Three Word Registration

Look directly at person and say, “Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now.” If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).The following and other word lists have been used in one or more clinical studies. For repeated administrations, use of an alternative word list is recommended:

|  |  |  |
| --- | --- | --- |
| **Version 1** | **Version 2** | **Version 3** |
| Banana  Sunrise  Chair | Leader  Season  Table | Village  Kitchen  Baby |

STEP 2: Clock Drawing

Say: “Next, I want you to draw a clock for me. First, put in all of the numbers where they go.” When that is completed, say: “Now, set the hands to 10 past 11.” Use the preprinted circle on the next page for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

STEP 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: “What were the three words I asked you to remember?” (For example, Version 1: banana, sunrise, chair)

Record the word list version number and the person’s answers:

Word List Version: \_\_\_

Patient’s Answers:\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_

STEP 4: Scoring

|  |  |
| --- | --- |
| Word Recall:  \_\_\_\_ (0–3 points) | 1 point for each word spontaneously recalled without cueing. |
| Clock Draw:  \_\_\_\_ (0 or 2 points) | Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored.  Inability or refusal to draw a clock (abnormal) = 0 points. |
| Total Score:  \_\_\_\_ (0–5 points) | Total score = Word Recall score + Clock Draw score.  A cut point of <3 on the Mini-Cog has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status. |