

## STUDY OF OSTEOPOROTIC FRACTURES (V4)

### V4 Performance Cohort

### Protocol for Tandem Stand

#### I. TANDEM STANCE SEQUENCE

##### **1. Description:**

This is a graded series of timed (up to 10 seconds) static balance tests with the feet side by side, in semi-tandem and full tandem position. The trials are performed with eyes open.

##### **2. Equipment:** Stopwatch.

##### **3. Measurement Procedure:**

#### **POSITION 1. Full Tandem Stance (Eyes Open)**

a) Tell the participant,

"This series of tests will assess both the strength in your legs and your balance. First, I would like you to stand with the heel of one foot in front of and touching the toes of the other foot for about ten seconds.

b) Demonstrate the tandem stance for the participant. The participant can place the heel of either the right or left foot in front of and touching the toes of the opposite foot; whichever is more comfortable. Stand next to the participant to help her into the tandem position, supplying just enough support to her arm to prevent loss of balance. Tell the participant:

"You may use your arms to maintain your balance, but try not to move your feet. Try to hold this position until I say stop."

c) When the participant has her feet in the tandem position, ask if she is ready. When her stance has stabilized, let go gently and start timing as you say "Start". Stop the stopwatch after 10 seconds or when the subject steps out of position or touches the examiner for support.

d) Record time to the nearest second on the exam form.

e) If the participant cannot attain the tandem position at all, or cannot hold it for at least one second, score "attempted but unable." GO TO POSITION 2. If the participant holds the tandem stance for less than 10 seconds, record the time and GO TO POSITION 2.

f) If the participant holds the tandem position for  $\geq 10$  seconds, then her test of tandem stand is finished. Proceed to next exam.

**POSITION 2. Semi-Tandem Stance (Eyes Open)**

a) Tell the participant:

"Next I would like you to try to stand with the side of the heel of one foot touching the great toe of the other foot for about ten seconds."

**b, c, d) SAME AS ABOVE**

e) If the participant cannot attain the semi-tandem position at all, or cannot hold it for at least one second, score "attempted but unable" and GO TO POSITION 3. If the participant holds the semi-tandem stance for less than 10 seconds, record the time and GO TO POSITION 3.

f) If the participant holds the semi-tandem position for  $\geq 10$  seconds, her tandem stand test is finished. Proceed to next exam.

**POSITION 3. Side by Side Stance (Eyes Open)**

a) Tell the participant:

"Now I would like you to try to stand with your feet together, side by side, for about ten seconds."

**b, c, d) SAME AS ABOVE.**

e) If the subject cannot attain the position, or cannot hold it for at least one second, then record "attempted but unable" and then proceed to next exam. OTHERWISE, record the time and proceed to next exam.