HOME VISIT PROTOCOL

1. Priority List for Home Visit

1. Obtain informed consent
2. Height, Weight, and Pulse Measurements
3. Review Sleep Questionnaires (SAQ)
4. Actigraphy
5. Medications (Interview)
6. Review Medical Conditions and Self-Reported Health (SAQ)
7. Conduct Cognitive Tests (MMSE and Trails B)
8. Conduct Functional Status Interview
9. Review remainder of SAQ (Marital Status, Fracture and Falls History, Back Pain and Function, Habits, Physical Activity, and Depression)
10. Grip Strength
11. Chair Stand
12. Walking Speed
13. Visual Acuity

Ask one more time if participant would be willing to come in to the clinic just for follow-up BMD measures.

Provide the subject with an environmental Home Safety checklist.

2. Instructions and Questionnaire

The self-administered questionnaire should be sent to the participant at least one week prior to the home visit. Tell the participant to complete the questionnaire by the time of the visit. Consent should also be sent if possible according to your institutions regulations.

In addition, instructions for participants on how to prepare for the home visit are mailed one week prior to the visit. Instructions cover the following:

Footwear: To eliminate the effect of different footwear on test performance, these tests should be performed in tennis shoes or other shoes with minimal or no heels. The participant should not wear slippers. The participant may perform the tests in stocking feet if appropriate footwear is not available and floor surface is not slippery.

Clothing: Participants should wear comfortable, loose fitting slacks and tops. Skirts and dresses are discouraged.

Medications: Participants are asked to collect pill bottles and containers for all medications they have taken in the past 30 days for review by the examiner. If they no longer have the container, they should try to locate a copy of the prescription, or write down the name and/or reason for taking the medication.

Questionnaire: Participants are asked to complete as much of the questionnaire as possible prior to the home visit. Participants should flag any questions that they did not understand or have questions on.

Informed consent: Participants are asked to review the informed consent prior to the visit. Any questions can be reviewed with the interviewer. This procedure may differ slightly clinic to clinic.

3. Hazardous conditions and health/social service needs

If a potentially dangerous situation is encountered in a home visit, such as an uncontrollable dog, someone carrying a weapon, an abusive person, or threatening neighbors, **leave the situation**. If it appears to be a situation that is easily resolved, call the home from another location and discuss it with the participant. If the situation cannot be resolved, cancel the interview.

The home visit staff should be alert to health or life-threatening situations in the home that may need to be investigated by social service or health care personnel. Examples include: hunger/malnutrition, extremely unsafe dwellings (fire, electrical hazards), extreme isolation, unattended serious health problems, severe unattended cognitive impairment, threat of suicide or violence, or abuse.

Serious health or psychiatric problems should be referred to the study physician at your clinic who should contact the subject's physician.

Nonemergency issues regarding safety, competency, or other such problems should be discussed with the participant. If the participant is receptive to outside help, say that you will make some inquiries about available services in the area and get back in touch with the participant to discuss the next step.

Record any problems encountered during the home visit on the Home Visit Problem Report page of the interview form.

4. Questionnaire and Interview

The questionnaire for the home visit is the same as for the clinic visit. A home visit problem report form is included.

The interview should be performed with both the participant and the interviewer seated comfortably. Sit close enough to the participant to communicate effectively and maintain eye contact. Sit at the same level as the participant. Speak clearly and loud enough for the participant to hear without having to repeat what was said.

If others are present in the residence, try to conduct the interview in relative privacy. However, if a spouse wants to be present, particularly if they can be helpful with a subject that has hearing or cognitive problems, then the interviews may be conducted in their presence.

The home visit assessment covers the topics listed at the beginning of this chapter, in the order listed. The visit is designed so that if, for some reason, the visit is cut short, the items toward the end of the visit can be completed over the phone. If this situation arises, make sure to inform the participant that you will be calling her to finish up some of the items and decide on a mutually agreeable time.

5. Examinations

List of equipment: The following is the list of equipment needed to carry out the assessments in the home.

- measuring tape in metric units (20 ft carpenters tape for measuring the walking course or pre-measured 3, 4, 5, and 6 meter strings)
- floor markers for gait test (starting and ending line, X for target)
- hand-held dynamometer
- sleepwatch
- right angle for height
- portable scale
- stopwatch
- armless, straight backed, hard seated chair (if none available in the home fitting this description, use the one provided by the CC)
- pencils - at least 2
- post-its
- light box
- light meter
- clipboard
- extra set of forms

Equipment calibration: The scale should be calibrated the morning of any scheduled home visit day using a 25kg or 2-12.5kg weights. If equipment is unused for more than a day, then recheck calibrations. Calibrations on home visit equipment are especially important since the equipment is moved around so often. Keep a log of these calibration checks at the clinic.

HOME VISIT PROTOCOLS

If the subject is injured during the home visit, call a local emergency number (911).

Weight

1. Equipment

Weight is measured in pounds using a portable scale. Pounds should be converted to kilograms once back at the clinic.

The scale should be calibrated in the clinic prior to each home visit day against 2 50 lb weights, or a 50 kg or 2 25 kg weights.

2. Subject preparation

Weight is measured without shoes and without outer clothing or heavy sweaters. All heavy objects, such as keys or changes, should be removed from participant's pockets.

3. Measurement Procedure

a) The participant should stand in the center of the scale with weight equally distributed on both feet and not touching or supporting herself on anything.

"In order to measure your weight, I would like you to remove your shoes (and any heavy outer clothing) and step forward onto the center of the scale."

b) Some participants may require support while being weighed. If it is necessary for the participant to use a cane for support while weighing, weigh yourself with and without the participant's cane, walker, etc., to determine its weight. Subtract the weight of the aid from the participant's weight before recording. In the event that it is necessary for the examiner to support the participant during weighing, provide the minimum support that is safe.

c) Weight is recorded to the nearest pound (half pound if scale allows it). Convert pounds to kilograms for data entry when back at the clinic.

Standing Height

1. Equipment

Height is measured in centimeters against a wall using a right angle on the top of the scalp and a measuring tape. Find a blank wall in a room with a bare floor or thin (low pile carpeting) with adequate space on the side for the examiner to stand to make an accurate measure.

2. Subject preparation

Height is measured without shoes.

3. Measurement Procedure

a) The participant stands with her back against the wall with the heels together and both heels touching the wall plate. The back (scapulae) and buttocks should be in contact with the wall.

"Please stand against the this wall. Your heels should be together (as close as possible) and both heels should be touching the wall (or molding). Look straight ahead. (If

necessary say: I will position your head so that I can measure your height more accurately.)"

b) Be sure that in this position the participant maintains erect posture, i.e., no slouching. Heels should be together with the weight equally distributed and the head in the "Frankfort Horizontal Plane." The line through the lowest point on the inferior orbital margin (orbitale) and the upper margin of the external auditory meatus (tragion) should be horizontal. The right angle is brought down firmly onto the top of the head. It may be necessary, upon occasion, to remove or alter the hairdress of some of the participants. This is necessary for the right angle to make contact with the top of the scalp.

Occasionally, it will be impossible to position the participant's heels, buttocks, scapulae and the back of the head in one vertical plane against the wall and still have her stand naturally and comfortably. If the back is arched due to large buttocks, move the participant forward and have only one part (usually the buttocks) in contact with the wall. Similarly for participants with severe spinal curvature, if the spine is the part that protrudes the farthest, then that should be the part that is touching the wall.

c) Once in position, say:

"Take a deep breath."

Have the participant inhale deeply, again not altering position by, for example, raising the heels off the floor.

d) Stature is measured just <u>before</u> exhaling. Mark the position where the bottom of the right angle touches the wall with a small piece of tape or a post-it.

"Exhale."

e) Ask participant to step away from the wall. Measure the distance from the floor at the base of the wall to the piece of tape. Record height to the nearest millimeter.

f) Repeat procedure obtaining second height measure.

Pulse

Procedure will be same as described for clinic visit. **See Pulse Protocol.**

Actigraphy

Procedure will be same as described for clinic visit. **See Actigraphy Protocol.**

The SleepWatch-O will be dropped off for participants at the time of their home visit. The watch will be set to start recording data on the morning following their home visit. The watch will be initialized in

the clinic prior to the home visit and directions will be given to the participant at the home visit. The watch will be retrieved by a staff member at the end of their data collection period.

NEUROMUSCULAR PERFORMANCE

Footwear: The subject should wear comfortably fitting shoes for each of the tests in this section. Do not perform these tests with the subject wearing high heels (= 1 inch) or slippers. If no other options are available, perform the tests with the subject in stocking or bare feet.

Grip Strength

Procedure will be same as described for clinic visit. **See Neuromuscular Function Protocol**.

Timed Chair Stand

Procedure will be the same as the clinic visit. **See Neuromuscular Function Protocol.**

Issues that may be addressed due to completing the procedure in the home rather than in the clinic:

- You may need to bring a chair to use for the test. A straight-backed, armless, hard seated chair (such as a hard wooden as provided by the CC) approximately 45 centimeters (18 inches) high at the front edge should be used. The seat should incline no more than a few degrees from front to back.

- Place the back of the chair against a wall to steady it. Stand next to the participant to provide assistance in case she loses her balance.

Walking Tests

Procedure Same as for clinic visit. **See Walking Speed Protocol.**

Issues that need to be addressed in the home:

Identify an obstacle free pathway, as close to 6 meters if possible. If possible, use an area with bare floor or thin (low pile) carpeting. There should be about an extra meter of space on either end of the course for stopping. If space is limited, then the course can be designed to have the participant just walk in one direction, returning to the same starting point for each trial. Less space would be required at the starting line, with just the toes behind the starting line and then at least one meter on the other side of finish line.

Ideally, the walking course will cover just one type of surface (ie bare floor or low pile carpeting). However, if necessary, the course can be set up across two different surfaces to get an adequate length. The participant probably walks these areas in her home on a daily basis and thus they should not incur any undo hazard.

If possible, choose an area where the examiner can view the subject from the side about midway between the end markers, such as by standing in a doorway along a hallway. The examiner may need to walk next to very frail subjects or those with severe postural instability. In this case, choose an area with enough space for two people to walk side by side.

Use the tape measure or premeasured 3, 4, 5, and 6 meter strings to set up the course. Flexible (plastic or cardboard) floor starting and ending line markers, about 1 meter long (marked with a red line at 1/2 meter) and 5 centimeters wide should be placed flat across both ends of the obstacle free pathway. Place an X on the other side of the finish line as a goal for the participant to walk to.
Record the length of the course and the type of surface that the course covered.

COGNITIVE FUNCTION, MEDICATION INVENTORY, AND FUNCTIONAL STATUS

Procedures same as used in the clinic visit. **SEE COGINITIVE FUNCTION PROTOCOL, MEDICATION PROTOCOL, AND FUNCTIONAL STATUS PROTOCOL.**

VISUAL ACUITY

The protocol in the home is virtually the same as a clinic visit. A light box with an eye chart is used rather than the standard eye chart. The information is recorded the same way on the Vision Worksheet and Functional Visit form and the same questions are asked of the participant prior to testing. Follow the clinic visit protocol for administering the test except where noted below.

The portable eye test case (light box) should be placed at approximately eye level of seated participant. The participant should be seated on a straight-backed chair, 10 feet from the midline of the body to the chart. Have the participant start at the 20/50 line of the light box eye chart. If they can not see this line or reads the line with 3 or more errors have her try the top row of the chart and proceed from there. If she is unable to read the top row at 10 feet have her move to 5 feet and start from the top of the chart. Record the distance and the number of letters correctly read on the worksheet and transfer to the form.

There are some issues that need to be dealt with in the home to assure that the most accurate results are obtained:

- Illumination – It is important that the visual acuity test be performed in an area of uniform illumination, no abrupt changes in illumination or shadows when moving a few feet or changing orientation. Since the portable eye test case is illuminated this should not be a problem.
- Distance – The test is administered with the participant seated at 10 feet from the lightbox. Measure from the lightbox case to the middle of the chair.
- Glasses – Acuity is tested with habitual correction for distance vision.