

# PROTOCOL FOR SDB AND CARDIOVASCULAR DISEASE OUTCOMES (2009-2013)

## Preparation and Introduction (approx. 30 minutes)

- Sleep tech enters into the lab logbook the participant information (Cohort ID#, study date, time of arrival, time of dismissal, information on caffeine consumption and smoking). The Data Collection Checklist is labeled with the Cohort ID # and Study date and kept with the study folder.
- The sleep tech orients the participant to the room, explains the consent and HIPAA form, and the outpatient menu.
- After obtaining consent, the consent form is given to the CTRC and the HIPAA and a copy of the consent form is retained in the data folder.
- The sleep tech reviews and confirms the lunch menu selection and orders the selection to be delivered at 12:00pm or 12:30pm.

## Measurements and Questionnaire Data Collection (approx. 5 hours)

- After being seated for 5 minutes, a seated blood pressure is obtained on the left arm according to the Wisconsin Sleep Cohort Study standard blood pressure measurement protocol. Two readings are taken at intervals of at least 2 minutes and recorded on the Measurement/Review form.
- Height (in cm) and weight (in kg) is taken and recorded on the Measurement/Review form.
- The participant is asked to remove shoes and socks and lie down on the bed for at least 5 minutes in preparation for the arm/ankle blood pressure measurements which are done according to Wisconsin Sleep Cohort Study standard protocol and recorded on the Measurement/Review form.
- A 12-lead ECG with rhythm strip is obtained. Two copies are printed, one copy is retained in the study folder and the other copy is given to Dr. Stein in the UWHC Atherosclerosis Imaging Research Lab.
- After the participant is asked to use the bathroom, he/she is escorted to the UWHC Atherosclerosis Imaging Research Lab procedure room for the echocardiography, arterial tonometry and carotid doppler cIMT protocols. These protocols are administered by a sonography technician. The cohort ID #, height (in cm) and weight (in kg) is taken to the AIRP lab and given to the sonography technician.
- The participant is escorted back to the Sleep Lab.
- The Psychomotor Vigilance Test (PVT-192) is set up by the technician, instructions are explained to the participant, and the test is administered after a brief demonstration. PVT's are administered at 10:00am and 1:00pm. Times of administration for the PVT are recorded on the CVD-OP Logsheet.
- The participant has lunch in the sleep lab room.
- The participant is given the following questionnaires to complete:
  1. Health Status Update Questionnaire
  2. Current Physical Activity Questionnaire;
  3. Falls Questionnaire
  4. Anxiety & Mood Symptoms Questionnaires
  5. Medical Outcomes Survey (SF36)
  6. Louisville Older Persons Events Scale
  7. Calgary Symptoms of Stress Inventory
- A computer assisted Balance and Falls History Questionnaire is administered by the sleep technician. Data is immediately saved in the database.

## Balance and Gait Protocols (administered by sleep technicians; approx 15 min)

- Sleep technician sets up the hallway in the sleep center for preparation for the balance and gait protocols. A chair with arms and no wheels is placed in the hallway. A stop watch, voice recorder, shoebox and the Gait and Balance Data Sheet is placed on a table in the hallway.
- **Timed Up & Go (TUG):** Test consists of timing an individual as he or she stands, walks 3 meters, turns 180 degrees, and returns to the chair and sits down. The score on the test is the time it takes (in seconds) to complete the task which is recorded on the Gait and Balance Data Sheet. The subject wear's his/her regular footwear.
- **Dual Task Method (3 tasks):** Involves testing walking similar to baseline (TUG) while the participant is concomitantly performing serial 3's subtractions (starting at 125). Time to complete the task (in seconds), number of subtractions and number of mistakes are recorded. In addition, for the Dual Task Method, testing of walking over obstacles (one obstacle placed mid distance) will be performed in

conjunction to TUG without and with the dual task of serial three's subtraction (starting at 90). For the obstacle crossing tasks, the participants will be instructed to walk and step over an obstacle (a shoe box: 10 cm highx19 cm widex33 cm long) placed at the 2-m mark. Time to complete the test (in seconds), if the participant hit the obstacle, number of subtractions, and number of mistakes will be recorded on the Gait and Balance Data Sheet. The sleep tech will time the participant with a stop watch and record the participant's speech with a voice recorder (during the serial three's subtraction).

- **Test of Standing Balance:** The participants will be asked to attempt to maintain their feet in the side-by-side, semi-tandem (heel of one foot beside the big toe of the other foot), and tandem (heel of one foot directly in front of the other foot) positions for 10 seconds each. Test is performed in the hallway of the sleep center next to a railing with the participant in bare feet or socks. Socks/bare feet, and time (in seconds) to complete each task will be recorded on the Gait and Balance Data Sheet.
- After the testing is complete, the technician listen's to the voice recording to count the number of subtractions and mistakes and records the information on the Gait and Balance Data Sheet.

### **Study Completion (approx. 10 minutes)**

- The sleep technician reviews all paperwork for completion.
- The participant is issued a check and given the comment form/doctor's information in an SASE. The CTRC discharges the study participant.
- The sleep technician enters the time of dismissal in the logbook and completes the online CVD-OP log sheet.