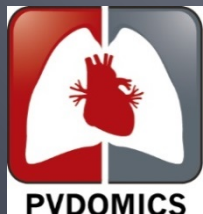


VITAL SIGN MEASURES: TEMPERATURE, RESPIRATORY RATE, BLOOD PRESSURE, AND PULSE

MOP Chapter 38, Form #120



NHLBI Pulmonary Vascular Disease Phenomics Program

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Preparation for Measure of Vital Signs

- Participants should abstain from caffeine, smoking, and exercise at least 30 minutes prior to and until completion of all vital signs measurements.
- Vital signs should take place in a separate, quiet room where temperature fluctuations are minimal.
- Equipment (including study form, digital oral thermometer, oximeter, sphygmomanometer, etc.) should be checked and waiting for the participant.

Temperature Measure

- For the oral temperature measures in PVDOMICS to be accurate, the participant must not have eaten, drunk, or smoked anything in the last 30 minutes, as the temperature of food, drink, or smoke can dramatically affect readings. Record the temperature sublingually in Fahrenheit.
- All participants should be sitting in a comfortable room temperature area without bulky jackets or heavy coats for at least 15 minutes prior to measure.

Respiratory Rate Measure

- The rate should be taken when the participant is at rest in a quiet room for at least 15 minutes, and it is assessed by counting the number of times the chest rises in one minute.
- The respiratory rate and temperature can be taken while the pulse oximetry is measured.

Blood Pressure Measure

1

- **An appropriate size cuff should be used.** This is defined as a blood pressure cuff containing a bladder, which covers at least $2/3$ of the distance from the acromion to the olecranon. In overweight adults, it may be necessary to use a large adult or thigh cuff to obtain an accurate measurement.
- The **bare right arm** is to be used consistently for measurement of blood pressure. If this is not possible, use the left arm.
- Blood pressure can be measured using standard auscultatory methods or using an oscillometric device such as the Dynamap. The manufacturer of the blood pressure device you use will provide information on how to use it. Be sure to read and follow the instructions to obtain an accurate blood pressure measure.
- Try to use the same method throughout the study. The method of measuring blood pressure should be recorded on Form #120.

Blood Pressure Measure

2

1. The participant should be seated with arm extended at **heart level**, **resting on table** for approximately 15 minutes prior to making the measurement. The participant should be relaxed, seated with back supported with legs uncrossed and feet comfortably flat on the floor and not dangling.

Blood pressure measure

4



Pulse Measure

1

- This measurement serves two purposes:
 1. To document the resting heart rate at the time of examination.
 2. To permit detection of gross irregularities of heart rhythm which may affect the interpretation of the blood pressure readings.

Pulse Measure

2

1. The measurement of pulse is performed only after the participant has been seated quietly, with feet flat on the floor, in an erect but comfortable posture, for at least 15 minutes.
2. The right wrist (radial artery) is to be used consistently for measurement of the pulse. If this is not possible, use the left arm.
3. Pulse can be measured by palpation of the radial artery at the wrist. This is done for 30 seconds. Alternatively, an oscillometric device such as the Dynamap may be used. The manufacturer of the device you use will provide information on how to use it. Be sure to read and follow the instructions to obtain an accurate pulse.
4. Try to use the same method throughout the study.
5. Any marked irregularity observed during this period should be called to the attention of the Principal Investigator.