Step-By-Step For Taking A PWA Measurement

The following is a brief step-by-step guide to taking a PWA measurement. Refer to manual for more detailed instructions.

1. Select or enter a New patient

Open the 'Patient' screen by clicking on the 'Patient' Button, or pressing F2 on your keyboard function keys. This screen will allow you to create a new patient entry or select a patient that is already present in the database.

To create a new patient entry, select the 'Create New' button and enter the patient details. You can move between the fields by using the Tab on your keyboard or placing the curser inside the field into which you wish to enter details. The following fields are mandatory: 'Last name', 'first name', 'date of birth', and 'sex'. Once you have finished entering the patient details, click on the 'Update' button to add the details of the patient to the database.

To select an existing patient from the database, you may choose the patient by **one** of the following means:

- Scroll down the list of patients and click on the row to select that patient. If you click on the heading 'Family name' at the top of the browser this will place the patients in alphabetical order. When the patient is selected the patient name is highlighted.

OR

- Place the curser in the 'Patient Search' field and enter the patient's family name. As you do so the system selects the patient in the browser whose name best matches the characters you are typing. Ensure the patient you wish to select has been highlighted.

Note: Before creating a new patient entry, please check that the patient does not already exist in the database, as separate patient entries cannot be merged.

2. Perform the Study (take a PWA measurement)

While still in the 'Patient Screen', select 'PWA' mode by either clicking on the arrow on the selection box (located next to the 'Analysis' button, or by pressing F6 on your keyboard to scroll through the mode options.

Open the Study Screen by clicking on the "Study" button or pressing F3 on your function keys on your keyboard. This screen will allow you enter the study details and to proceed to 'Capture data'.

For measurements taken at the radial artery:

- Click the 'radial' check box.
- Enter the diastolic and systolic blood pressure values, that have been obtained from the cuff sphygmomanometer or automatic blood pressure device.
- The Medication, Notes, Operator and Anthropometric fields are optional.

To proceed to the capture data screen, click on the 'Capture Data' button or press 'Enter' on your keyboard.

Placement of the tonometer:

- The tonometer should be placed on the wrist, where the radial pulse can be detected.
- The tonometer should be perpendicular to the wrist and adjustments to the position should be made until a strong, accurate and reproducible waveform is displayed in the 'Signal detail' window. This signal will be automatically re-scaled and zoomed to fit the waveform within the signal detail window every 5 seconds.

Capturing the waveforms:

- When you are satisfied that you have a good reading, press the 'Space Bar' on your keyboard or click the 'OK' button at the top of the screen.
- You must have a minimum of 12 seconds of signal for the data to be captured. The last 2 seconds of waveforms will be deleted, allowing sufficient time to remove the tonometer from the wrist to activate the capture of data.
- The software analyses the last 10 seconds of waveforms. The 10 second window of waveforms to be captured is displayed in the 'Signal for Processing Area' immediately below the 'Signal Detail' window in the capture screen.

Note: For measurements taken at the carotid artery, please refer to Carotid Measurement Technical Datasheet for more information.

3. Examine the Report for quality control

After you have completed the data capture, the 'Report Screen' will be automatically displayed. This can also be recalled at any time by selecting the patient in the 'Patient Screen' and pressing the 'Report button'.

Two types of 'Report Screen' are available, Clinical and Detailed Screen, and each may be selected by clicking on the 'clinical' or 'detailed' tab directly above the patient data section.

Before proceeding with the interpretation of results it is important to check the quality control to ensure that you measurement has been recorded with sufficient quality. The quality control indices are provided on both the 'detailed' and 'clinical' report screens.

Quality Control:
The Quality Indices and visual check of the over-layed waveforms should be used together when making a decision on whether to accept the measurement. Measurements that are of an unacceptable quality should be repeated.

Where the figures appear in green they are within the limits set using the Configuration Settings (refer to manual for detailed explanation). When they appear in red they are outside these limits.

- The 'Average Pulse Height' is the average height of the pulses measured
- The 'Pulse Height Variation' is the amount of variation present in the height of the pulses measured
- The 'Diastolic Variation' is the amount of variation present in the diastolic point of the pulse wave and indicates how constant the baseline pressure was during the measurement.
- Quality Index is a number calculated based on weighting equation using the three indices above.

The graph displaying the overlay of captured individual waveforms should be examined to ensure there was as little variability as possible.

As a general guide only:

Average Pulse Height	**≥80**
Pulse Height Variation	**≤5**
Diastolic Variation	**≤5**
Quality Index	**≥80% acceptable, 75-80% borderline**

If you have performed more than one reading on a patient, the studies are listed chronologically in the 'Study Time' window and the most recent report will be at the bottom of the list. Each of the reports may be viewed by clicking on the study you wish to view. The report being displayed will correspond to the highlighted study in the 'Study Time' window.