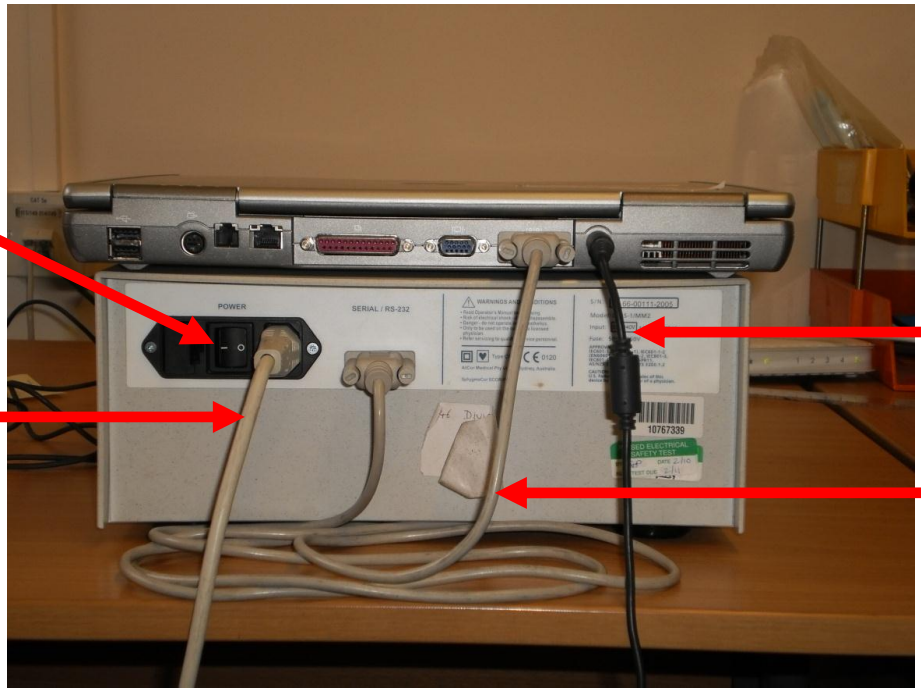
PULSE WAVE ANALYSIS: PROCEDURE for RIGHT TRIAL

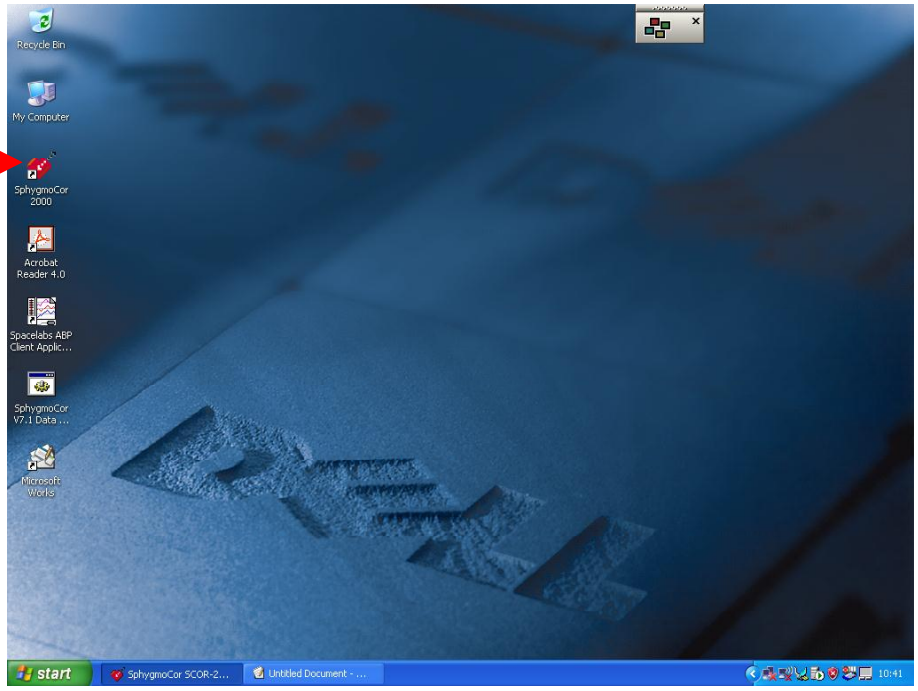
1. THE SET UP- LAPTOP AND SPHYGMOCOR MACHINE

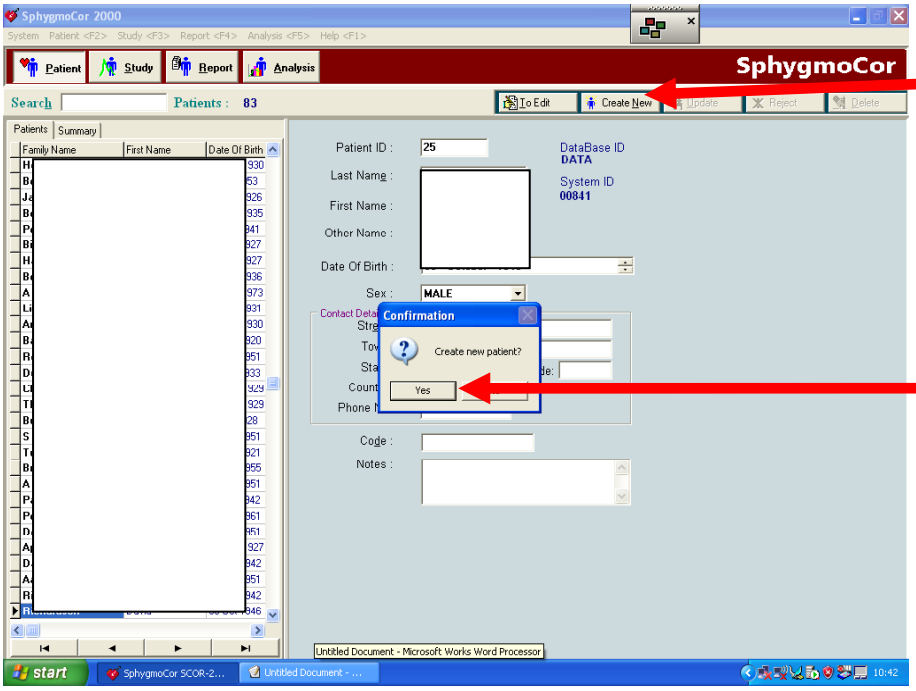
2. CONNECTIONS



3. SPHYGMOCOR SOFTWARE INTERFACE

Double Click SphygomoCor 2000



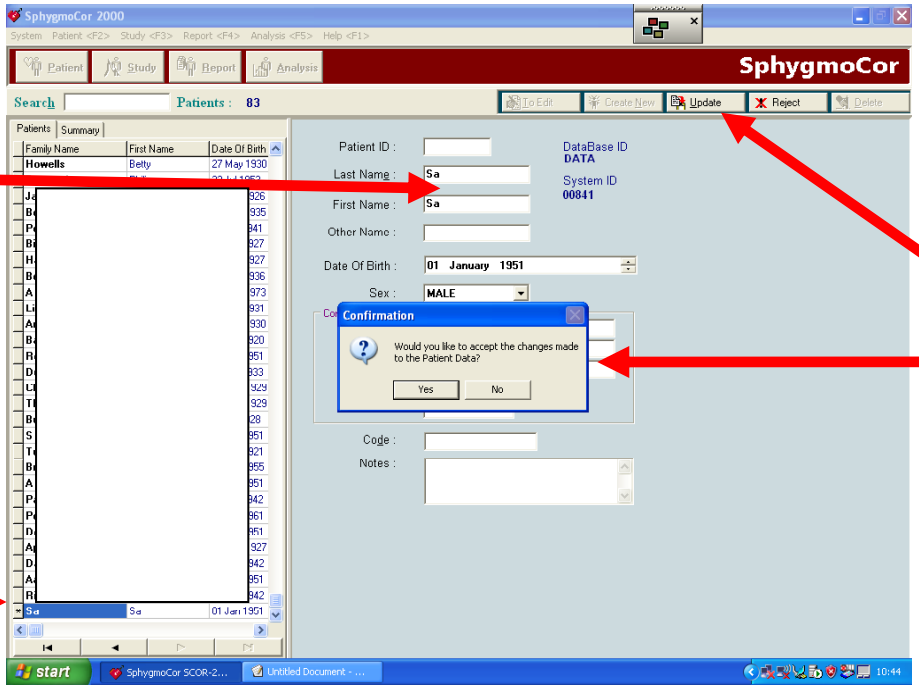


1. Click on 'Create New'.

2. Click on 'Yes' to confirm.

4. ENTER NEW PATIENT DETAILS

1. Enter Trial Number as Patient ID, Last Name, First Name, DOB and Sex.

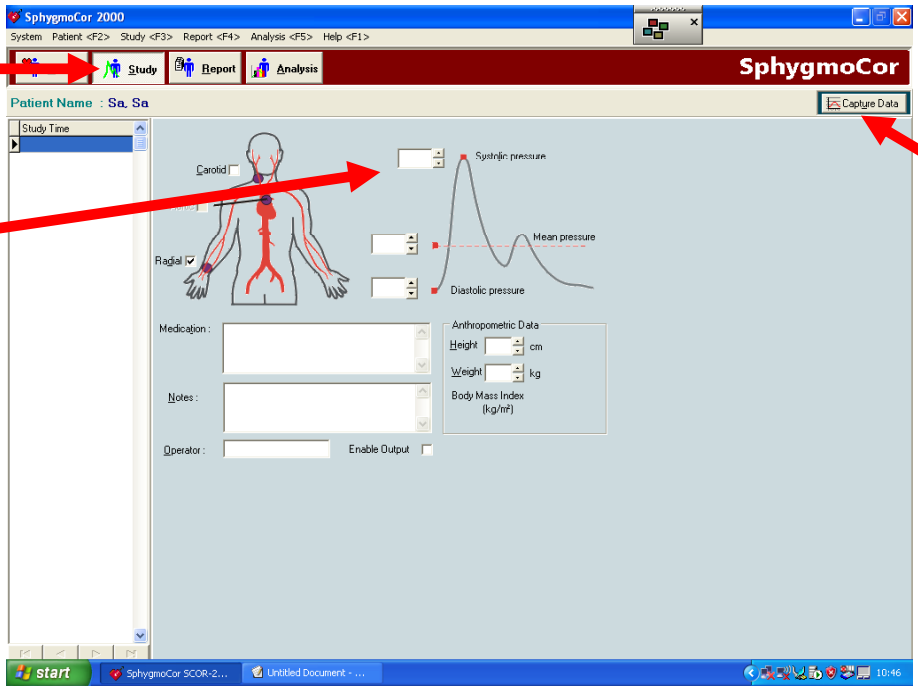


2. Once entered, click on 'Update' and then 'Yes' to confirm changes.

3. The name should now appear in the left box.

5. **ONCE ALL DETAILS ENTERED, THE FOUR TABS ON THE TOP LEFT CORNER BECOME ACTIVE-** Patient, Study, Report and Analysis

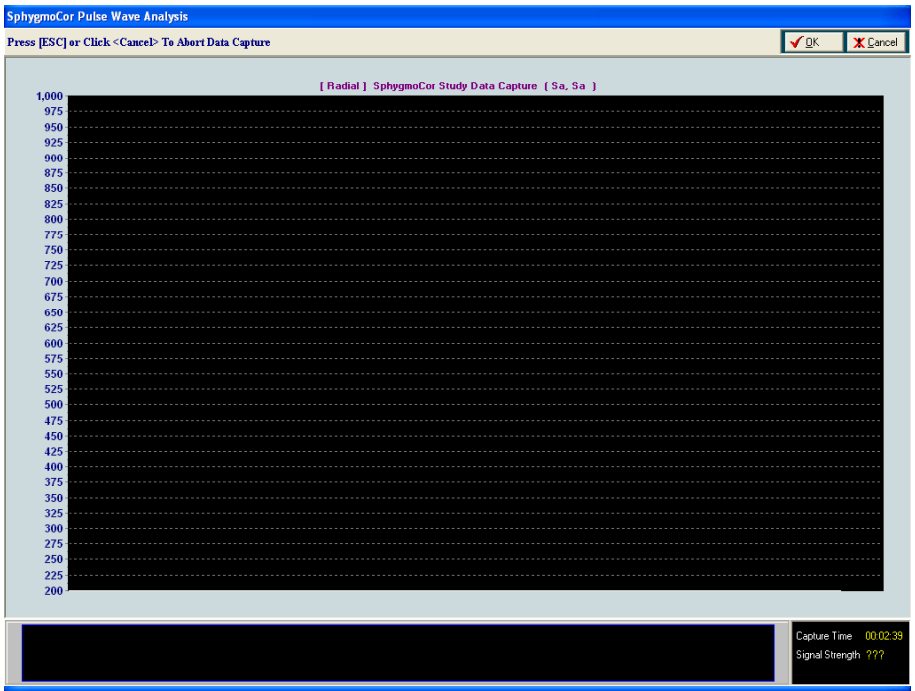
1. Click on 'Study' and enter Systolic and Diastolic BP. If you have 2 Omron readings, take the average. You do not need to enter *Mean Pressure* or any other details.



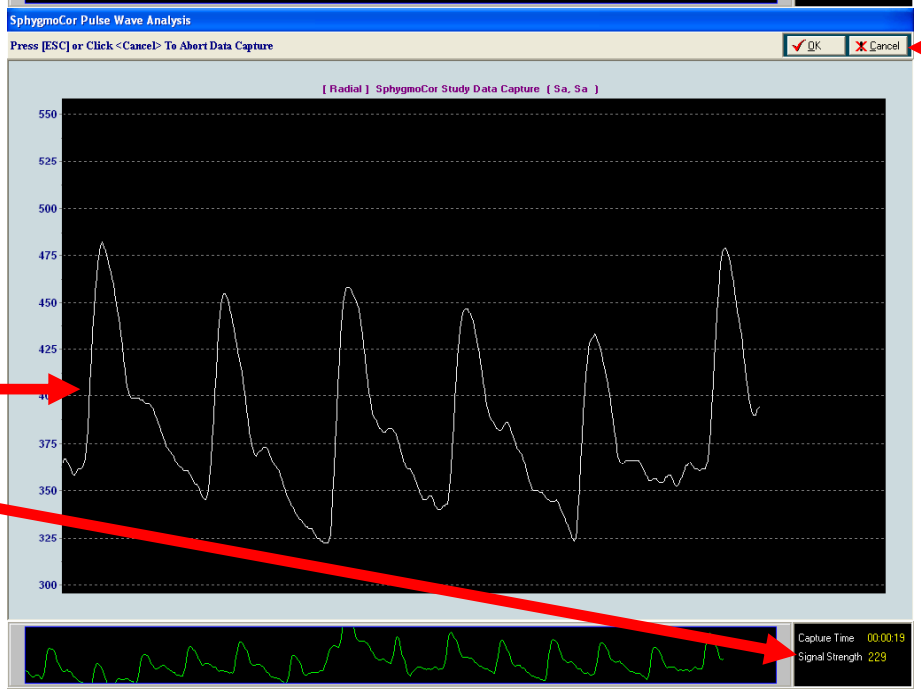
2. Now click on 'Capture Data'.

6. CAPTURE DATA SCREEN.

It is preferable to take the reading in the non paretic hand (if it is not possible for some reason, you may take it from the paretic hand). Also BP and Pulse Wave measurements should be ideally taken from the same arm. Extend the hand at the wrist and stabilize the limb. Use a pillow if necessary. Feel for the radial artery pulse and place the probe where the pulse is best felt. You should now start to see the wave form on the screen. If you are right handed, practise holding the probe using only the left hand. Keep your right hand free for the computer.



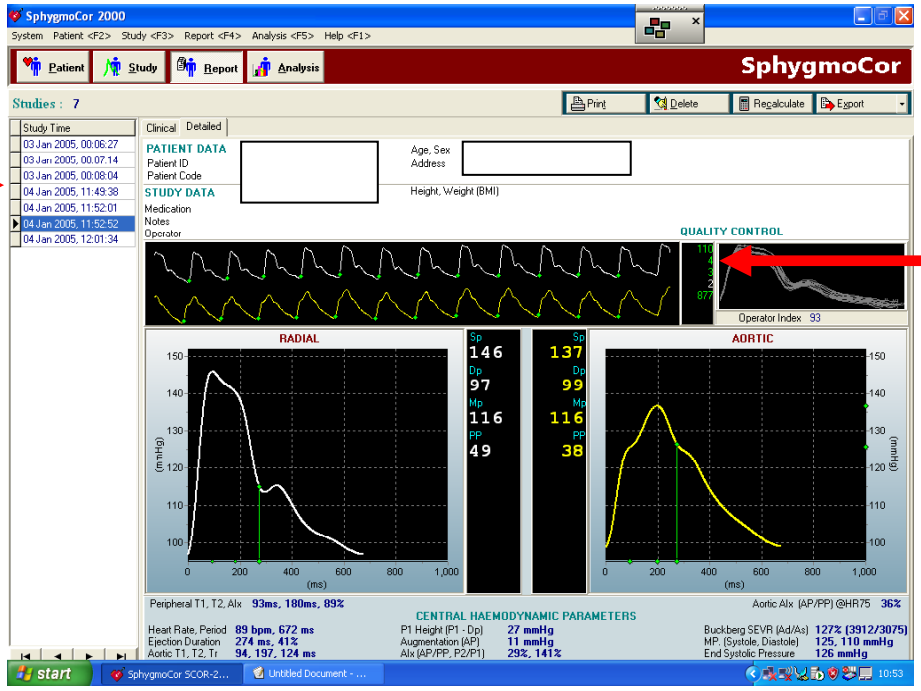
1.Once you start good waveforms, click on 'Cancel'- this will take you back to the Study screen- click on 'Capture Data' again while holding the probe steady on the pulse. This ensures we get good readings from the very beginning, (important as the report consists of summed data of all the waveforms. Once you see 4-6 screens of good waveforms, click 'OK' to capture the waveform.



2. A good wave form will look somewhat like this or even better. Aim for a signal strength between 100 to 250.

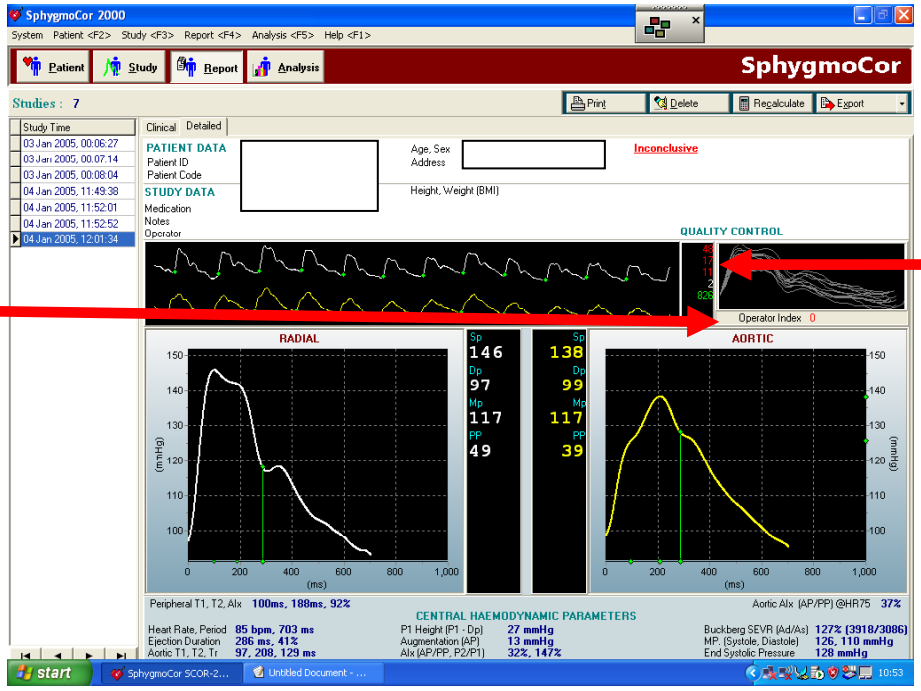
7. REPORT SCREEN- Once you click 'OK' on the capture screen, it takes you to the 'Report' screen.

1. All previous studies on the same patient will be listed here with date and time.



2. Check 'Quality Control' first. If all numbers are green and one white- it s is a good reading. you do not need to take any further readings.

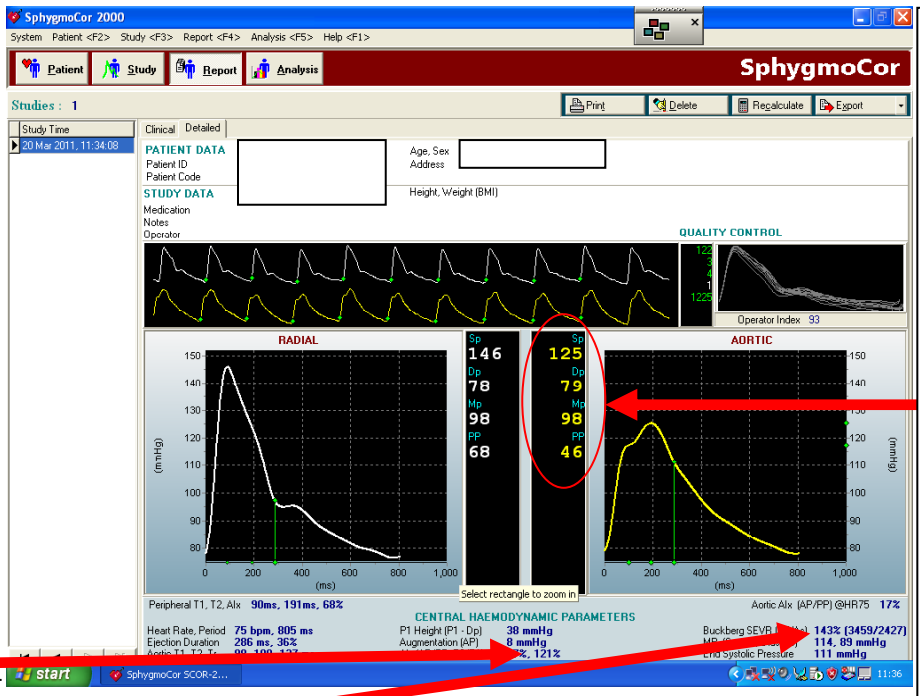
3. If quality control shows red numbers, repeat till you get 3 greens and a white. Take up to 20 readings if needed.



4. If you are unsuccessful even after 20 readings, take down the measurements from the study that has the best 'Operator index'- preferably above 75.

8. ENTERING MEASUREMENTS ON CASE REPORT FORM. We need 7 variables.

1. Time and Date



2. Sp- Central Systolic Pressure
3. Dp- Central DP
4. Mp- Central Mean Pressure
5. PP- Central Pulse Pressure

PS: Note the yellow readings- marked 'Aortic' in red are the Central readings. The reading on the left in white, marked 'Radial' are the peripheral readings. We want the central readings.

6. Augmentation Index- It is the second percentage reading
7. Buckberg Index- The Percentage reading