



**Pulse Wave Analysis System  
SCOR-Px**

# **Addendum Version 7.1**

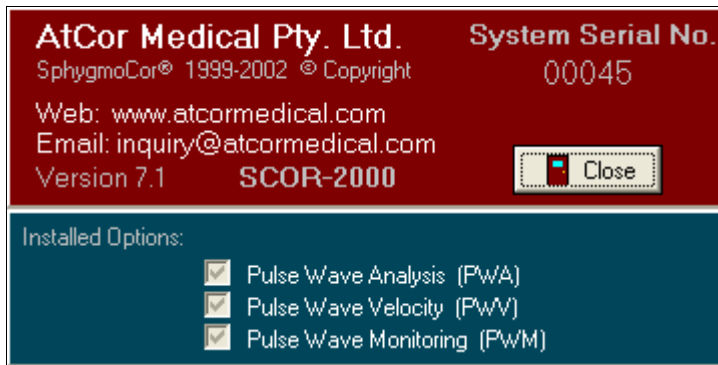


## 11.1 ABOUT THIS ADDENDUM

This Addendum outlines the changes to the SphygmoCor PWA software and is a guide to the operation of the **SphygmoCor 2000** software. It is intended to be used with the current PWA Software Operator's Guide and those sections described in this manual replace those in the existing PWA Software Guide.

For details on the **SphygmoCor** System installation, use and maintenance of the Tonometer and Electronics Module, and the comprehensive analysis features available within the system, please refer to the **SphygmoCor Operator's Manual**.

This addendum accompanies **Version 7.1** of the **SphygmoCor 2000 Software**. You can click the **About** option under the system **Help** menu to see the following screen, which shows you the version of the software you are running.



## 12. Working with the Clinical Report Screen

This section describes the on-screen clinical reporting that is available in the system, and how to print and export results.

The screenshot shows the SphygmoCor 2000 software interface. The title bar reads 'SphygmoCor 2000'. The main window has a menu bar with 'Patient', 'Study', 'Report', and 'Analysis'. Below the menu bar is a toolbar with 'Print', 'Delete', 'Recalculate', and 'Export' buttons. The interface is divided into several sections:

- Patient/Study Data:** Located at the top left, showing a list of studies and patient details. The patient details include: PATIENT DATA: Patient, Test; Age, Sex: 44, 82 Dec 1952, MALE; STUDY DATA: 18 Nov 1997, 0:32:13 AM; Height, Weight (BMI): 174cm, 84kg (27.74 kg/m<sup>2</sup>); Interpretation.
- Report tool-bar:** Located at the top right, containing 'Print', 'Delete', 'Recalculate', and 'Export' buttons.
- Averaged Aortic Waveform:** A graph on the right side showing the average aortic pulse waveform over time (0 to 1,200 ms).
- Quality Control Data:** A section on the left showing 'RADIAL Flow Data Quality Control' with a waveform plot and 'Average Pulse Height', 'Pulse Height Variance', and 'Diastolic Variation' metrics.
- Key Parameters:** A central table displaying key parameters:
 

	RADIAL	AORTIC
SBP	138	122
DBP	76	76
PP	62	46
HR	94	56
HRV	23	10
- Pressures:** A section at the bottom left showing 'CENTRAL CLINICAL PARAMETERS' with values for Aortic AIx @HR75 (14), Aortic AP @HR75 (6), Election Duration (322, 30%), and SEVR (%) (101).
- Parameter Graphs:** A graph at the bottom right showing 'Aortic Augmentation Index (AIx %)' versus 'Age (years)'.
- Report Browser:** A vertical list on the far left showing a list of studies.

The **Clinical Report Screen** has the following key areas:

### Report Tool-bar

Use this tool-bar to perform functions relating to the report which is currently being displayed. See Section 6.3 for more on these options.

### Patient/Study Data

This section summarises information about the patient and the study you have just performed. Check this section to ensure that the details you have entered for the patient and the study are correct. If the study data is not correct, click the **Recalculate** button on the Report Tool-bar to open the **SphygmoCor Recalculate Report** window. This window lets you change any of the study fields you originally entered in the **Study Screen** and also allows you to enter an **Interpretation**.

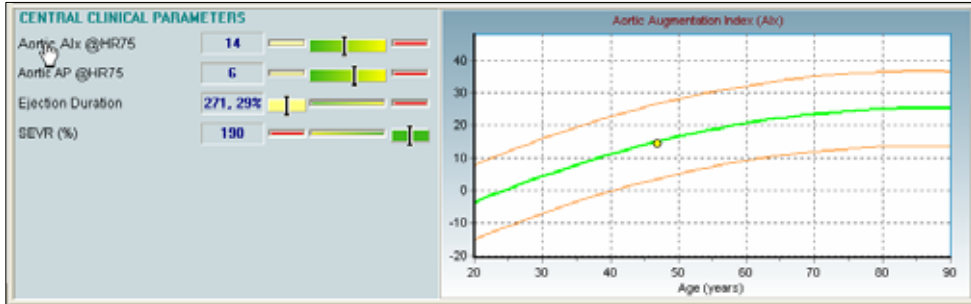
This section displays a **Not Validated** label when the patient is not a fully-grown adult or when a carotid measurement is performed.

An **Inconclusive** label is displayed when calculated haemodynamic parameters are outside normal

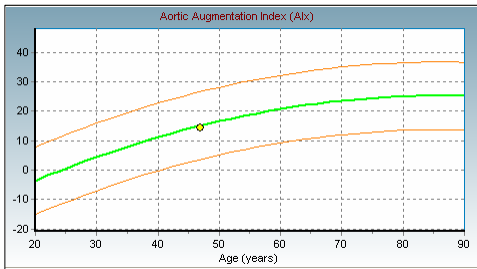
	<p>physiological ranges or the <b>Operator Index</b> is too low. The hint associated with the <b>Inconclusive</b> label will indicate the condition responsible.</p> <p>The current <b>Inconclusive</b> conditions are as follows:</p> <ol style="list-style-type: none"> <li>1. Central T1 &lt; 80ms OR Central T1 &gt; 150ms</li> <li>2. Peripheral T1 &lt; 80ms OR Peripheral T1 &gt; 150ms</li> <li>3. Correspondence of Aortic and Peripheral T1</li> <li>4. Operator Index &lt; 65</li> </ol>
<b>Quality Control Data</b>	<p>Check this area to ensure that the measurement conforms to the quality control settings. See Section 12.2 for more on <b>Quality Control</b>.</p>
<b>Report Browser</b>	<p>Use the <b>Report Browser</b> to examine other studies for the same patient. Notice that the current study (the one you have just performed) is at the bottom of the <b>Browser Panel</b>.</p>
<b>Averaged Aortic Waveform (Derived)</b>	<p>This section shows the derived <b>Averaged Aortic Waveform</b>. This waveform is obtained by the application of a generalised transfer function to the Peripheral Pulse Waveform.</p>
<b>Key Parameters</b>	<p>This section shows the key parameters which can be used for clinical cardiovascular evaluation:</p> <ul style="list-style-type: none"> <li>• Heart Rate Corrected Aortic Augmentation Index (%)</li> <li>• Heart Rate Corrected Aortic Augmentation Pressure (mmHg)</li> <li>• Ejection Duration (ms and % of Period)</li> <li>• Buckberg Sub-Endocardial Viability Ratio (SEVR %)</li> </ul> <p>The red, yellow and green classification bars, to the right of the parameters, indicate the patient's position relative to the reference population data for that parameter.</p> <p>If the slide-bar is in the green area this indicates that the parameter value is within the reference population range.</p> <p>Note that there will be no indicator in the red, yellow and green classification bars when a carotid or aortic measurement is performed.</p> <p>See the relevant sections in the Clinical User Guide for more information on the key parameters.</p>
<b>Pressures</b>	<p>This area displays the peripheral and central pressures (SP/DP, MP, PP), heart rate (HR), Aortic augmentation index (Aix) and Aortic augmentation pressure (AP).</p>
<b>Parameter Graphs</b>	<p>This region displays the population reference data graph associated with each parameter, indicating the patient's position relative to the reference population data. See section 12.1 to select the different parameters.</p> <p>Note that there will be no indicator for the patient's position in the graphs when a carotid or aortic measurement is performed.</p>

## 12.1 PARAMETER GRAPHS

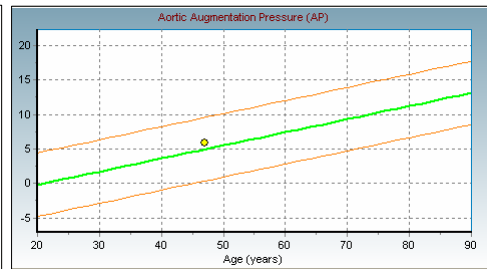
To display a particular parameter graph, simply move and click the mouse cursor on the parameters text label.



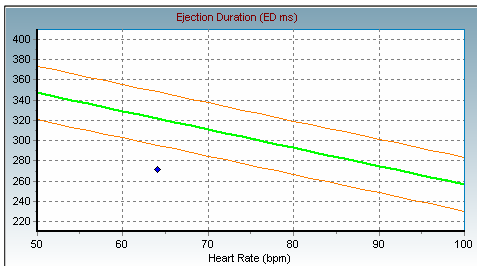
Graphs for the key parameters:



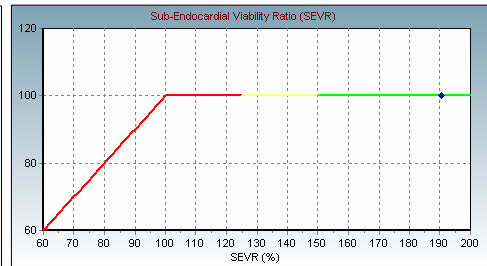
**Aortic Augmentation Index vs Age**



**Aortic Augmentation Pressure vs Age**



**Ejection Duration vs Heart Rate**



**Buckberg Ratio - SEVR**

On the Aortic Augmentation Index, Aortic Augmentation Pressure and Ejection Duration parameter graphs, the green line indicates the reference population mean and the red lines indicate the 90% confidence interval. On the Buckberg Ratio parameter graph, the green line indicates an SEVR greater than 150, the yellow line an SEVR greater than 125 but less than 150 and the red line an SEVR less than 125.

## WARNING

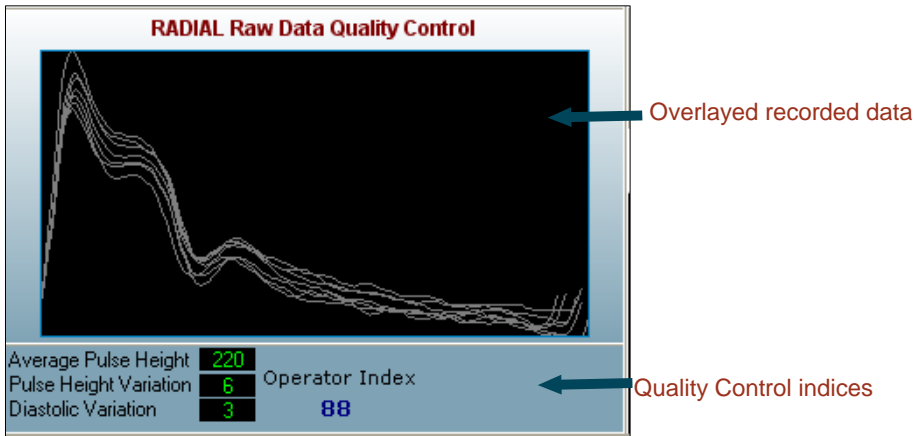
As a consequence of the above:

- The **SphygmoCor** process should not be used in persons with significant aortic valve stenosis (gradient >60mmHg),
- Parameters determined from ejection duration, when ejection duration values are outside the range 200-400msec, should be disregarded.
- Parameters determined from  $P_1$  and  $T_1$  should be viewed with caution when  $T_1$  is outside the range 80-133 msec.

## 12.2 QUALITY CONTROL

The **Quality Control Area** of the **Clinical Report Screen** shows the captured peripheral waveforms overlayed on one graph, the **Quality Control Indices** and the **Operator Index**.

Check the quality control values to ensure that the measurement is within the limits of the current quality control settings.



Check that the indices are displayed in **GREEN**, this indicates that they are within the quality limits. If they are displayed in **RED**, then the values are outside the limits. The Quality Control values of the **Report Screens** show information to help you ensure that the measurement you have recorded is of sufficient quality.

### 12.2.1 QUALITY CONTROL INDICES

Where the figures appear in **GREEN**, they are within the limits set using the Configuration Settings. Where the figures are in **RED**, they are outside these limits.

- The **Average Pulse Height** is the average of the heights of all the individual pulses.
- The **Pulse Height Variation** is the amount of variation present in the pulse heights.
- 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.
- Operator Index** is a number calculated from the three indices above.

## WARNING

If the Pulse Height Variation or Diastolic Variation is outside the limits (ie. displayed in red) the operator should examine the radial artery waveform trace to ensure no transients occurred during the averaging period that would make the averaging process invalid.

### 12.2.2 OVERLAYED RECORDED DATA

This area displays a visual guide to how well the individual pulses can be overlaid to form an averaged pulse. There should be as little variability in the pulses as possible.

It is recommended to also examine each individual pulse in the waveform for shape consistency, especially around the Sp peak.

### 12.2.3 OPERATOR INDEX

The **Operator Index** is an indicator of overall quality of the captured signal. It is calculated by assigning a weighting to each of the **Quality Control Indices** and then adding them to give a number as a percentage. The **Operator Index** appears in **RED** for values below 65.

Below is a guide that should be used to determine if a measurement is of sufficient quality:

95 – 100 %	Excellent
90 – 94 %	Good
85 – 89 %	Acceptable
75 – 84 %	Borderline
< 74 %	Un acceptable

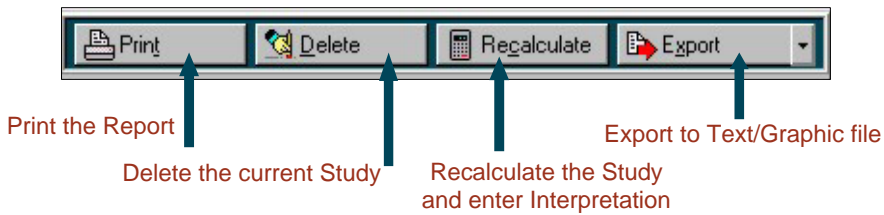
The table should be used as a guide to eliminate any reports that are not of acceptable quality. Measurements that are unacceptable should be repeated.


## NOTE:

Ensure you consider all the quality control data when making an assessment of data quality. Do not discard any measurements on the basis of the **Operator Index** alone. Visually inspect the waveform data to make a final decision. For example, some patients may have a low pulse pressure that will produce a low **Operator Index**, but if the waveform is consistent ie. individual pulses contain the same pulse shape, then it may still be acceptable.

## 12.3 REPORT TOOL-BAR BUTTONS

The tool-bar buttons are used as follows:



<p>Print the Report</p>	<p>Use this option to print the clinical <b>SphygmoCor Evaluation Report</b>. This is a summary report providing information concerning the study, on a single A4 page.</p>
<p>Delete the current Study</p>	<p>Use this option to delete the study. Note that the study that is deleted is the one currently highlighted in the <b>Report Browser</b>. Take care that you are deleting the Study you intended to delete.</p>
<p>Export to Text/Graphic file</p>	<p>Use this option to export the study values to a text or graphics file.</p> <p>Select <b>As Text</b> to import the data into a spreadsheet program.</p> <p>Select <b>As Graphic</b> to save the report as a JPG graphic file to import into your word processor or presentation software.</p> <p>See section 9.6.3 for more information on exporting.</p> <p>Use the drop down menu to access the export type.</p> 
<p>Recalculate the Study</p>	<p>Use this option to open the <b>SphygmoCor Recalculate Report</b> window. This window lets you change any of the study fields you originally entered in the <b>Study Screen</b> and also allows you to enter an <b>Interpretation</b>.</p>

### NOTE

As with interpretation of an electrocardiogram, the numerical values given need to be checked visually in deciding acceptability. See Caveats And Limitations (Appendix 10.1).

The accuracy of the derived parameters is within AAMI-SP10 standards for pressure values, or equivalent for timing values.

## 13. Working with the Detailed Report Screen

This section describes the on-screen reporting that is available in the system, and how to print and export results.



The Report Screen has the following key areas:

Report Tool-bar	Use this tool-bar to perform functions relating to the report which is currently being displayed. See Section 7.2 for more on these options.
Patient/Study Data	<p>This section summarises information about the patient and the study you have just performed. Check this section to ensure that the details you have entered for the patient and the study are correct. If the study data is not correct, click the <b>Recalculate</b> button on the <b>Report Tool-bar</b> to open the <b>SphygmoCor Recalculate Report</b> window. This window lets you change any of the study fields you originally entered in the <b>Study Screen</b> and also allows you to enter an <b>Interpretation</b>.</p> <p>This section displays a <b>Not Validated</b> label when the patient is not a fully-grown adult or a carotid measurement is performed.</p> <p>An <b>Inconclusive</b> label is displayed when calculated haemodynamic parameters are outside normal physiological ranges or the Operator Index is too low. The hint associated with the <b>Inconclusive</b> label will</p>

	<p>indicate the condition responsible.</p> <p>The current <b>Inconclusive</b> conditions are as follows:</p> <ol style="list-style-type: none"> <li>1. Central T1 &lt; 80ms OR Central T1 &gt; 150ms</li> <li>2. Peripheral T1 &lt; 80ms OR Peripheral T1 &gt; 150ms</li> <li>3. Correspondence of Aortic and Peripheral T1</li> <li>4. Operator Index &lt; 65</li> </ol>
<b>Quality Control</b>	<p>Check this area to ensure that the measurement conforms to the quality control settings. See Section 13.1 for more on <b>Quality Control</b>.</p>
<b>Report Browser</b>	<p>Use the <b>Report Browser</b> to examine other studies for the same patient. Notice that the current study (the one you have just performed) is at the bottom of the browser panel.</p>
<b>Peripheral Waveform</b>	<p>This section shows the peripheral waveform, obtained by taking an average of all the pulse waves that were captured in the reading. The waveform shown here is calibrated according to the pressure values entered in the <b>Study Screen</b>.</p>
<b>Aortic Waveform (Derived)</b>	<p>This section shows the derived <b>Averaged Aortic Waveform</b>. This waveform is obtained by the application of a generalised transfer function to the Peripheral Pulse Waveform.</p>
<b>Parameters</b>	<p>This section lists the derived haemodynamic parameters that will be written to the <b>SphygmoCor</b> database for this study. See the <b>Operator's Manual</b> for more information on the parameters.</p> <p>The typeface of some parameters are used as indicators of the confidence level of that particular calculation or feature extraction:</p> <p><b>Bold</b> - Strong or Very Strong  Normal - Weak or Very Weak  "n/c" - Not Calculated</p>

## WARNING

As a consequence of the above:

- a) The **SphygmoCor** process should not be used in persons with significant aortic valve stenosis (gradient >60mmHg),
- b) Parameters determined from ejection duration, when ejection duration values are outside the range 200-400msec, should be disregarded.
- c) Parameters determined from P<sub>1</sub> and T<sub>1</sub> should be viewed with caution when T<sub>1</sub> is outside the range 80-133 msec.

## 13.1 QUALITY CONTROL

The Quality Control section of the **Report Screen** shows information to help you ensure that the measurement you have recorded is of sufficient quality.



### 13.1.1 RECORDED AND PROCESSED WAVES

This section shows you the peripheral waveform (in white) and the processed waveform (in yellow). Ensure that the beat-to-beat pulses in each waveform are similar, and that there is no marked drift of the signals outside the boundary of the window in which they are displayed.

### 13.1.2 OVERLAYED RECORDED DATA

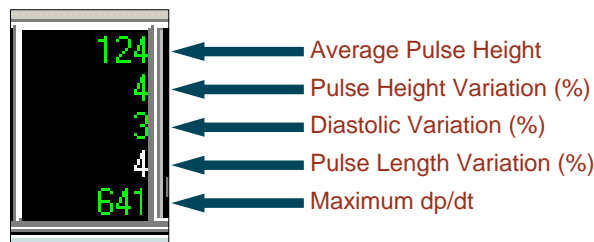
This section gives you a visual guide to how well the individual pulses can be overlaid to form an averaged pulse. There should be as little variability in the pulses as possible.

#### WARNING

If the Pulse Height Variation or Diastolic Variation is outside the limits (ie. displayed in red) the operator should examine the radial artery waveform trace to ensure no transients occurred during the averaging period that would make the averaging process invalid.

### 13.1.3 QUALITY CONTROL INDICES

These are as follows:

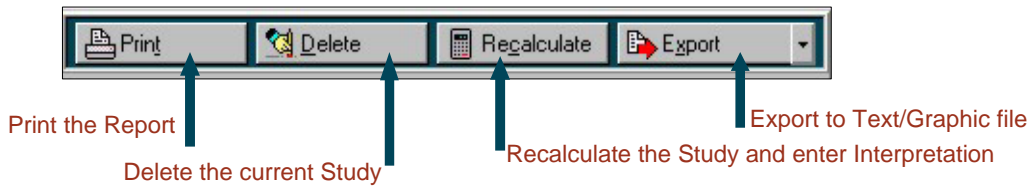


Where the figures appear in **GREEN**, they are within the limits set using the **Configuration Settings**. See Section 14.1 for more on the **Configuration Settings**. Where the figures are in **RED**, they are outside these limits.


- The **Average Pulse Height** is the average of the heights of all the individual pulses.
- The **Pulse Height Variation** is the amount of variation present in the pulse heights.

- 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.
- The **Pulse Length Variation** is the amount of variation in the length of the measured pulses. The **Pulse Length Variation** in white has no limit setting associated with it, because variations in pulse length are not data-acquisition related.
- The **Maximum dp/dt** is the maximum value of the first derivative, or the maximum rate of rise of the peripheral waveform. See **Caveats And Limitations (Appendix 10.1)**.
- **Operator Index** is a number calculated from the **Average Pulse Height**, **Pulse Height Variation**, and **Diastolic Variation**.

## 13.2 REPORT TOOL-BAR BUTTONS

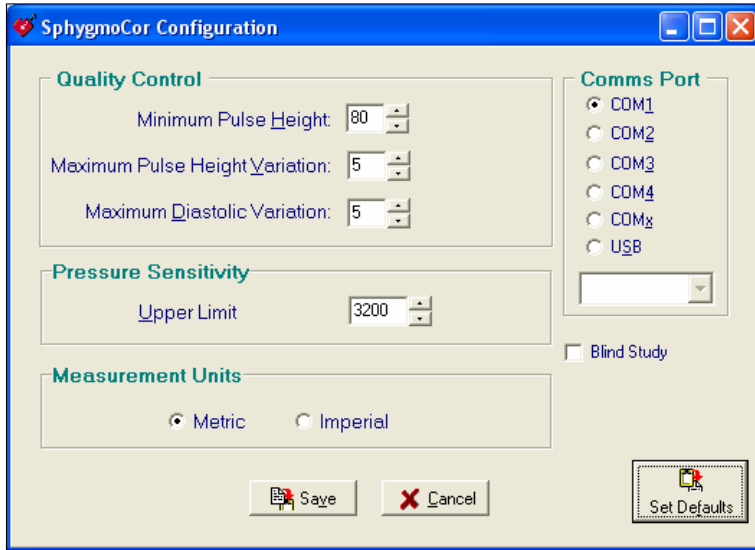


The tool-bar buttons are used as follows:

<p><b>Print the Report</b></p>	<p>Use this option to print the detailed <b>SphygmoCor Evaluation Report</b>. This is a summary report providing information concerning the study, on a single A4 page.</p>
<p><b>Delete the current Study</b></p>	<p>Use this option to delete the study. Note that the study that is deleted is the one currently highlighted in the <b>Report Browser</b>. Take care that you are deleting the study you intended to delete.</p>
<p><b>Export to Text/Graphic file</b></p>	<p>Use this option to export the study values to a text or graphics file.</p> <p>Select <b>As Text</b> to import the data into a spreadsheet program.</p> <p>Select <b>As Graphic</b> to save the report as a JPG graphic file to import into your word processor or presentation software.</p> <p>See section 9.6.3 for more information on exporting.</p> <p>Use the drop down menu to access the export type.</p> 
<p><b>Recalculate the Study</b></p>	<p>Use this option to open the <b>SphygmoCor Recalculate Report</b> window. This window lets you change any of the study fields you originally entered in the <b>Study Screen</b> and also allows you to enter an <b>Interpretation</b>.</p>





# 14. Advanced Topics

## 14.1 CONFIGURATION SETTINGS



The **SphygmoCor Configuration** window is used to set the Quality Control values for the system, select the correct Comms Port for the Electronics Module communication, select the Measurement Units and enable the Blind Study option. To access this window, click the **Settings** option under the **File** menu.

The following is an explanation of the settings:

- Enter the **Minimum Pulse Height** allowable, by entering the value from the keyboard, or using the spin control. Pulse heights smaller than this value are shown in the Quality Control section of the Report screen in red. 
- Enter the **Maximum Pulse Height Variation** allowable, by entering the value from the keyboard, or using the spin control. Pulse height variations greater than this value are shown in the Quality Control section of the Report screen in red. 
- Enter the **Maximum Diastolic Variation** allowable, by entering the value from the keyboard, or using the spin control. Diastolic variations greater than this value are shown in the Quality Control section of the Report screen in red. 
- Enter the **Pressure Sensitivity - Upper Limit** to allow greater range of signal scale for very sensitive Tonometers when capturing the waveforms. If the pulse signal is being clipped at the top of the screen while capturing, you may need to increase this value to allow the capture screen to display a greater scale. 
- To set the **Measurement Units**, select the **Metric** or **Imperial** radio button.
- Alternatively, to use the AtCor Medical default values click the **Set Defaults** button.
- To set the **Comms. Port**, select one of the radio buttons for **COM1** to **COM4** or select **COMx** and choose a **Comms. Port** from the drop down list. Select the **USB** option for the EM3 Electronics Module Only. If you are using a Serial to USB adaptor: select the

corresponding COM port. (See the Operator's Manual for USB Adaptor Installation and COM Settings).

- Check the **Blind Study** box to hide the Central Haemodynamic Parameters on the Report Screens.
- When you have completed the changes in this window, click the **Save** button to save the changes and close the window.

### 14.1.1 EXPORTED FIELDS

Below is a list of the fields that are exported when a complete database export is performed:

System ID	System Serial Identification Number	C_AP	Central Augmented Pressure
Database ID	Database Identification	C_AP_HR75	Heart Rate Corrected Central Augmented Pressure
Patient Number	Patient Number	C_MPS	Central Mean Pressure of Systole
Surname	Entered Patient's Surname	C_MPD	Central Mean Pressure of Diastole
First Name	Entered Patient's First Name	C_TTI	Central Tension Time Index
Sex	Entered Patient's Sex	C_DTI	Central Diastolic Time Index
Date Of Birth	Entered Patient's Date of Birth	C_SVI	Central Buckberg Sub-Endocardial Viability Ratio (SEVR)
Patient ID	Entered Patient' Identification	HR	Heart Rate
Patient Code	Entered Patient Code	C_PERIOD	Central Pulse Period
SP	Entered Systolic Pressure	C_DD	Central Diastolic Duration
DP	Entered Diastolic Pressure	C_ED_PERIOD	Central ED/Period %
MP	Entered Mean Pressure	C_DD_PERIOD	Period-ED/Period %
DATA_REV	Math's Data Revision	C_PH	Central Pulse Height
DATETIME	Date & Time of Study	C_AGPH	Central Aug/PH %
MEDICATION	Entered Medication	C_AGPH_HR75	Heart Rate Corrected Central Aug/PH %
NOTES	Entered Notes	C_P1_HEIGHT	Central Pressure at T1 - Dp
OPERATOR	Entered Operator	C_T1R	Time of the Start of the Reflected Wave
INTERPRETATION	Entered Interpretation	C_SP	Central Systolic Pressure
HEIGHT	Entered Height	C_DP	Central Diastolic Pressure
WEIGHT	Entered Weight	C_MEANP	Central Mean Pressure
BODY_MASS_INDEX	Body Mass Index	C_T1	Central T1
SAMPLE_RATE	Raw Data Sample Rate	C_T2	Central T2
SUB_TYPE	Entered Artery	C_AI	Central Augmentation Index
Inconclusive	Inconclusive Report (Yes/No)	C_ESP	Central End Systolic Pressure
P_MAX_DPDT	Peripheral Pulse Maximum dP/dt	C_P1	Central Pressure at T1
P_QC_PH	Peripheral Pulse Quality Control Pulse Height	C_P2	Central Pressure at T2
P_QC_PHV	Peripheral Pulse Quality Control Pulse Height Variation	C_T1ED	Central T1/ED %
P_QC_PLV	Peripheral Pulse Quality Control Pulse Length Variation	C_T2ED	Central T2/ED %
P_QC_DV	Peripheral Pulse Quality Control Diastolic Variation	C_QUALITY_T1	Central Confidence Level of T1 (3-Very Weak/2-Weak/1-Strong/0-Very Strong)
Operator Index	Calculated Operator Index	C_QUALITY_T2	Central Confidence Level of T2 (3-Very Weak/2-Weak/1-Strong/0-Very Strong)
P_SP	Peripheral Systolic Pressure	QUALITY_ED	Confidence Level of ED (3-Very Weak/2-Weak/1-Strong/0-Very Strong)
P_DP	Peripheral Diastolic Pressure	ED	Adjusted Ejection Duration (ES)
P_MEANP	Peripheral Mean Pressure	CalcED	Calculated Ejection Duration (ES)
P_T1	Peripheral T <sub>1</sub>	CalcED	Calculated Ejection Duration (ES)

P_T2	Peripheral T <sub>2</sub>
P_AI	Peripheral Augmentation Index
P_ESP	End Systolic Pressure
P_P1	Peripheral P <sub>1</sub>
P_P2	Peripheral P <sub>2</sub>
P_T1ED	Peripheral T1/ED %
P_T2ED	Peripheral T2/ED %
P_QUALITY_T1	Peripheral Confidence Level of T1 (3-Very Weak/2-Weak/1-Strong/0-Very Strong)
P_QUALITY_T2	Peripheral Confidence Level of T2 (3-Very Weak/2-Weak/1-Strong/0-Very Strong)

## 14.2 PATIENT LISTING

Using the **Patient Listing** feature you may obtain a list of patients in the current database with database statistics. To print a list of patients:

**Step 1** Go to the **Patient Screen** (F2).

**Step 2** Select **Patient Listing** by clicking on the **Patient** menu, then **Listing**, as shown below.



**Step 3** A confirmation window will appear to confirm if you would like to proceed with the listing. Answer **Yes** or **No**.

### NOTE

For large databases the listing may take some time to complete. Ensure that the printer is ready and you are prepared to wait for the Listing.

**Step 4** If you answer **Yes**, the patient listing will prepare a preview of the report.

 A screenshot of a software window titled 'Patient Listing'. The window has a toolbar at the top with icons for back, forward, print, and close. The main area displays a table with the following data:
 

SphygmoCor Patient Listing						Patients : 25 Studies : 35
<u>Surname</u>	<u>First Name</u>	<u>Date Of Birth</u>	<u>Studies</u>	<u>First Study</u>	<u>Last Study</u>	
Compliant	Artery	23 Jul 1977	2	23 Aug 1999	25 Oct 1999	
Patient	E	25 Dec 1943	2	29 Sep 1999	09 Jul 2001	
Patient	S	01 Jan 1964	1	29 Sep 1999	29 Sep 1999	
Patient	S	01 Jan 1967	1	30 Sep 1999	30 Sep 1999	
Patient	J	13 Jan 1937	1	30 Sep 1999	30 Sep 1999	

**Step 5** Click on the printer button on the tool-bar at the top to print.



### PATIENT LISTING USING WINDOWS XP

If you are using SphygmoCor on Windows XP, you may experience an error while trying to obtain the **Patient Listing**. The work-around for this is as follows:

1. Open your computers Desktop. Right-click "My Computer" and select "Properties".
2. Open the "Advanced" Tabsheet and select "Environment Variables".
3. Select the User Variable "TEMP" and click "Edit".
4. Change the Variable Value to "C:\Windows\Temp" and click "OK".
5. Select the User Variable "TMP" and click "Edit".
6. Change the Variable Value to "C:\Windows\Temp" and click "OK".

### DATABASE WARNING

Do not open the SphygmoCor database with Microsoft Access or any other program as it may corrupt your data. All database interactions should be performed using the SphygmoCor software. For further advice contact AtCor Medical Product Support.