



NEMS-A Users Guide

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NEMS-A Users Guide**For software version: 2.7.1**

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Standards Compliance

The interference generated by the device was tested according to the EMC 89/336/EEC and found compliant with the standard.

The software complies with *Standards for Analysis of Ventricular Late Potentials Using High Resolution or Signal Averaged Electrocardiography*, published in 1991 by the *Task Force Committee of the European Society of Cardiology*, the *American Heart Association*, and the *American College of Cardiology*.

The PC-ECG conforms to MDD 93/42 EEC Annex II, EC11 and EN 60601-1-2.



US Federal Law restricts this device to sale by, or on the order of, a physician

Caution

The PC-ECG 1200 is tested and certified for the following standards:

EN60601/1: International

EN60601/2/27: International

Disclaimer

This system is intended as a decision support system for persons who have received appropriate medical training, and should not be used as a sole basis for making clinical decisions pertaining to patient diagnosis, care, or management. Any application of medical information from the program, other than the original design or intended use thereof, is not advised and considered a misuse of the software product.

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CHAPTER 1: INTRODUCTION

Manual Organization

This manual explains in detail how to install and use the NEMS-A.

At the beginning of each application chapter, there is a **Quick Start** section, which is a brief explanation of how to carry out a study, including the keyboard short-cuts for the main functions. If you are familiar with ECG procedures, you can use this Quick Start section to get up and running quickly.

The software must be installed before the hardware. See Software Installation.

Document Conventions

Notes and Cautions

Pay particular attention at specific points in a procedure when one of the following messages appears:



WARNING

Warnings call attention to possible hazards involving potential damage or injury to persons.



Caution

Cautions refer to practices necessary to protect against potential damage or loss to equipment. Pay careful attention to instructions.







Note

Notes provide pertinent information to help obtain optimum performance from the software or signify an important step or procedure that requires special attention.

Abbreviations and Acronyms

Abbreviation	Meaning
BP	Blood pressure
ECG	Electrocardiogram
EMS	ECG Management System
HRV	Heart Rate Variability
ID	Identification
LP	Late Potential
LQTS	Long QT Syndrome
METS	Metabolic Stress Estimation
SN	Serial Number
USB	Universal Serial Bus

Equipment Symbols

Symbol	Description
	Type BF equipment
	Type CF equipment
	Class II equipment
	Complies with the Medical Device Directive of the European Union

CHAPTER 2: OVERVIEW

Package Contents

The NEMS-A package contains the following elements:

- Software installation media including:
 - ◊ NEMS-A software installation package
 - ◊ Operating Manual
 - ◊ Readme.txt
- Software key

Software

The NEMS-A is main software application.

Compatible Devices and Applications

- PC-ECG 1200
- NECG cardiograph
- NM-700 Telemetry
- NH-301 Holter ECG
- NBP One and Oscar ABPM
- NBP-24NG ABPM
- NSPIRO spirometry

Indications for Use of the NEMS-A

NEMS-A Intended Use

ECG is intended to disclose either normal condition or patterns of arrhythmia, myocardial ischemia, rate abnormalities, or features of prognostic value in the following cases:

- ◇ Patients with suspected cardiac abnormalities
- ◇ Populations of patients at an age or period in which a routine baseline evaluation of ECG characteristics is desired.

QT Analysis is useful in the assessment of long QT syndrome (LQTS). In some instances, LQTS can be corrected by pharmacological therapy. QT analysis is also used to measure QT dispersion, the difference between maximal and minimal QT values. QT dispersion is a measure of the inhomogeneity of ventricular repolarization.

The PC-ECG 1200 has been tested to measure Heart Rate Variability to within 1 millisecond tolerance. The clinical significance of Heart Rate Variability measures should be determined by a physician.

The PC-ECG 1200 has been tested to measure Late Potential to a tolerance of within 1 millisecond, and 1 microvolt. The clinical significance of Late Potential measures should be determined by a physician.

Stress Testing Intended Use

Angina pectoris (chest pain) is a clinical syndrome resulting from myocardial ischemia, indicative of reduced blood supply to the cardiac muscle. The electrocardiogram may establish the diagnosis of ischemic heart disease if characteristic changes are present. Stress testing is the most widely used method to decide whether this chest pain is related to myocardial ischemia, and thus to coronary artery disease. In stress testing, the contractile capability of the heart muscle is monitored via ECG during patient exercise. Patients exercise by bicycle, treadmill, or other means, while the ECG is monitored continuously. Exercise loads are determined by predefined protocols. The ECG signals are recorded for the resting, exercise, and recovery phase portions of the exercise protocol. The changes in ECG waveforms are compared to the resting ECG records. Most of the commercial stress test systems control the bicycle or treadmill automatically according to the requirements of the chosen protocol, although this is not essential.

ST segment monitoring is intended as an aid in the evaluation of myocardial ischemia in patients with known or suspected coronary artery disease. The ST segment algorithm has been tested for accuracy of the ST segment data, and a database is used as a tool for performance testing.

The significance of the ST segment changes **must** be determined by a physician.

Contraindications for Use and Adverse Effects

The device has no contraindications or adverse events

.

CHAPTER 3: SOFTWARE INSTALLATION

System Requirements and Prerequisites

PC Minimum Configuration

Operating System	Additions	RAM Memory (GB)	Disk Space (GB)	Number of Free USB or LAN ports
MS Windows 8/10	.NET Framework v4	2	8	1

Table 1: Minimum Computer Configuration

Installing or Updating the NEMS-A Software

The software package works under Windows 8/10 operating systems.

1. Insert the installation media.
The installation program starts automatically.
2. Follow the instructions on-screen.

After you have completed installation, an icon NEMS is added to the desktop.


Icon	Explanation
	Norav ECG Management System

Table 2: Program Icon

CHAPTER 4: ECG MANAGEMENT SYSTEM (NEMS-A)



Note

Full functionality requires a NEMS-A license (HASP Key marked as D1).
Without D1 license, only ABPM devices and records are supported.

Keep and manage ECG studies in a catalog organized according to patient name or ID.

In a network, users can share the database (save it in the server). Data acquisition for all applications can be initiated either in the application itself or from the database main screen.

Select field values for query of displayed list of patients

List of patients according to query definitions (selected patient highlighted)

The screenshot displays the NEMS-A Main Screen interface. On the left is a sidebar with icons for Records, Patients, Manage, and Devices. The main area is divided into several sections:

- Patient Details:** Includes fields for Patient ID, MRN, Last Name, First Name, Group, Birth Date (From/To), Gender (Male, Female, Undefined), and a Search button.
- Actions:** Buttons for Edit, New, Delete, Move, and New Test.
- Patient List:** A table with columns: Patient ID, MRN, Last Name, First Name, Birth Date, Gender, Weight, Height, Group, Phone 1, Phone 2, Fax, E-mail, Address, Medications, Other, and Indications. The first row is highlighted.
- Test List:** A table with columns: Type, Test Date, Technician, Referring MD, Referring Dept, Site, Category, Reported, Reporting MD, Rep. #, Report Date, Printed, Exported, Uploaded, Order, Duration, Estimated..., Analyze Center, and Analyzing Te... The first row is highlighted.

At the bottom left, there is a status bar showing "Patients : 1 Tests : 5" and an Exit button.

List of tests referring to selected patient

Figure 1: NEMS-A Main Screen

First Time Use

When you first start NEMS-A, you are prompted to confirm the location of the database.

- Choose **New** if no database exists
- Choose **Open** to work with an existing database

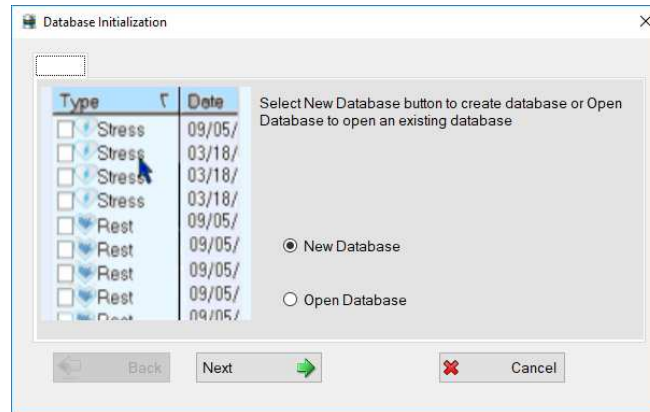


Figure 2: Connect Database

NEMS-A Setup

Click Setup on the Toolbar to access the following parameters:

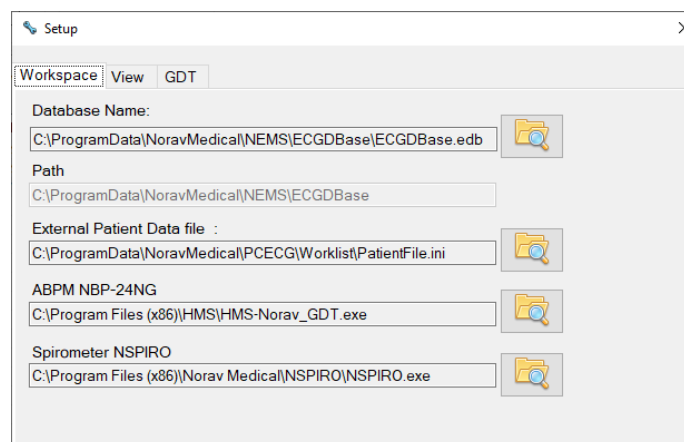


Figure 3: NEMS-A setup

"Workspace" tab	Description
Name	NEMS-A database data file.
Path	Default data directory.
External Patient Data file	Location of the external patient data file for PatientFile.INI file).
PDF Reader	Location of main executable of PDF Reader program.
ABPM NBP-24NG	Location of main executable of NHMS blood pressure monitor program.
Spirometer NSPIRO	Location of main executable of NSPIRO spirometry program.

Table 3: NEMS-A Setup options

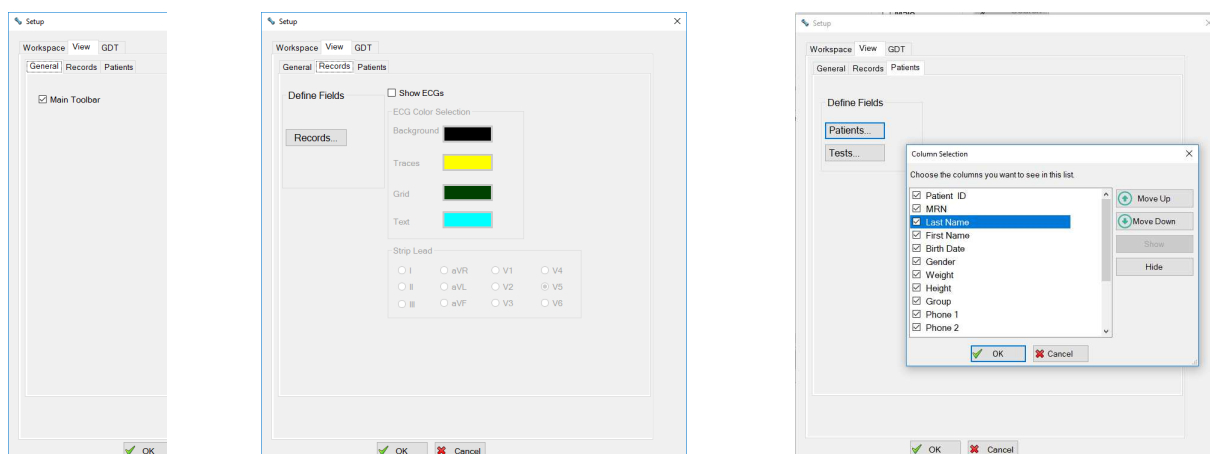


Figure 4: NEMS-A setup

“View” tab		Description
General	Main Toolbar	Show the main toolbar buttons.
Records	Show ECGs	Preview waveforms of Resting ECG examinations.
	ECG Color Selection	Set color scheme of the ECG waveforms preview panel.
	Strip Lead	Set default strip lead on the ECG waveforms preview panel
	Define Fields	Select and arrange data columns on the Records panel
Patients	Define Fields	Select and arrange data columns on the Patients panel

Table 4: NEMS-A Setup. “View” tab options

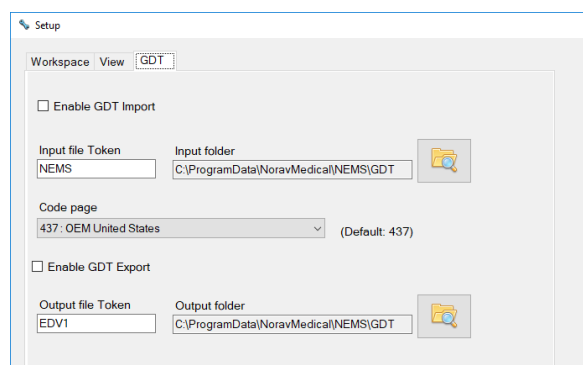


Figure 5: NEMS-A setup. “GDT” tab

“GDT” tab	Description
Enable GDT Import	Activate to receive GDT commands from EMR.
Input file Token	First four characters expected in filename of GDT inbound files generated by EMR.
Input Folder	Inbound folder to accept GDT inbound files received from EMR.
Code page	Select the character set for GDT data fields
Enable GDT Export	Activate to send GDT reports from NEMS-A to EMR (for NBP-24NG reports only).
Output file Token	First four characters in filename of GDT report files generated by NEMS-A.
Output Folder	Output folder for place the GDT report files generated by NEMS-A.

Table 5: NEMS-A Setup. “GDT” tab options

Local Configuration File

Some parameters are adjustable in the local configuration file Settings.XML located in C:\ProgramData\NoravMedical\NEMS folder.

Configuration tag name	Description
<InboxFileDirectory>	Inbound folder for automatic data import
<OutboxFileDirectory>	Outbound folder for automatic PDF reports export
<SQL_ACCESS>	Database mode. The value is always "0" for NEMS-A system
<StressPdfFolder>	PCECG software main folder path in Program Files
<NBP_database>	NHMS system database file name (for "H2 Client" database mode only)
<NSpiro_GDT>	GDT exchange folder path for the NSPIRO spirometry program

Table 6: NEMS-A configuration Settings.XML file

Interfacing with Information Systems

There are several ways to exchange information between NEMS-A and Hospital Information Systems (HIS). These are described below.

Patient Demographic Data Import

This feature uses a formatted text file called PatientFile.ini. The file location is defined in the NEMS-A setup "*External Patient Data File*" parameter.

HIS can prepare the PatientFile.ini file containing the relevant patient names and then place it in a location defined in the NEMS-A setup. The imported patient list is available in the NEMS-A interface on create new patient or on edit an existing patient.

PatientFile.ini Format

[PatientDataXXX] - a Section name. XXX is a number from 001 to 999.

ID=
 LastName=
 FirstName=
 BirthDay=
 BirthMonth=
 BirthYear=
 Sex=
 Weight=
 Height=
 Address=
 Phone1=
 Phone2=
 Fax=
 E-Mail=
 Medications=
 Other=

At least one of the keys **ID**, **LastName**, or **FirstName** must be filled. If all these keys are empty, section of this patient will be ignored.

Example: [PatientData001]
 ID=1234567890
 LastName=Smith
 FirstName=Worker
 BirthDay=11
 BirthMonth=6

```

BirthYear=1959
Sex=1
Weight=59
Height=170
Address=523 Main st. Tacoma Mexico
Phone1=702-8765643
Phone2=702-8743031
Fax=702-8743032
E-Mail=nkir@sympo.ca
Medications=none
Other=none

[PatientData003]
ID=123456789
LastName=Smith
FirstName=Worker3

```

Import ECG Recordings with Patient Data Validation

When importing ECG recordings is containing only the patient ID or the Order number the NEMS-A system can retrieve the patient name by getting it from the database.

To setup the ECG recordings import with patient data validation - edit the Settings.XML configuration file:

- 1) Set the <ValidatePatient enabled="TRUE">
- 2) Then set the validation key field:
 - to check patient data by the ID set


```
<CheckID>TRUE</CheckID>
<CheckOrderID>FALSE</CheckOrderID>
```

Import PDF Reports

NEMS-A is able to accept PDF reports created by external system. The patient and test information should be included in the PDF filename.

External PDF reports should income to the NEMS-A database Import folder. The import folder path is described in <*InboxFileDirectory*> parameter of Settings.XML configuration file.

There are three filename formats available for PDF reports import.

PDF Report Filename Format #1

Filename format: **ORDER_ID_LAST_FIRST_DOB_DATE_TIME_TYPE.PDF**

where **ORDER** is examination identifier (order number, accession number or other)
ID is patient ID number
LAST is patient last name
FIRST is patient first name
DOB is patient birthdate in format DD-MM-YYYY
DATE is examination date in format DD.MM.YYYY
TIME is examination hour in format HH~MM~SS
TYPE can be "REST", "STRESS", "HOLTER", ABPM or "SPIRO"

Example:

0001_12345_Vivaldi_Antonio_04-03-1978_15.07.2015_12~15~21_STRESS.PDF

PDF Report Filename Format #2

Filename format: **ORDER_ID_FIRST_LAST_DOB_SEX_DATETIME_TYPE.PDF**

where **ORDER** is examination identifier (order number, accession number or other)
ID is patient ID number
FIRST is patient first name
LAST is patient last name
DOB is patient birthdate in format YYYYMMDD
SEX is patient gender. 'M' for male, 'F' for female, 'U' for undefined
DATETIME is examination date in format YYYYMMDDHHMMSS
TYPE can be "REST", "STRESS", "HOLTER", ABPM or "SPIRO"

Example:

000987_123_Mary_O'Hara_19691129_F_20131008094317_HOLTER.PDF

PDF Report Filename Format #3 (for ABPM Reports only)

Filename format: **ID_LAST_FIRST_DOB_DATE_TIME_TYPE.PDF**

where **ID** is patient ID number
LAST is patient last name
FIRST is patient first name
DOB is patient birthdate in format YYYY-MM-DD
DATE is examination date in format YYYY-MM-DD
TIME is examination hour in format HH-MM
TYPE can be "24hABPM" or "OfficeBP" or "HomeBP" or "24hPWA"

Example:

999999_Doe_John_1945-08-02_2007-05-29_12-18_24hABPM.pdf

Export PDF Reports

NEMS-A is able to export the PDF reports to be accepted by external system. The patient and test information is included in the PDF filename.

The export folder path is described in *<OutboxFileDirectory>* parameter of Settings.XML configuration file.

PDF reports export filename format is according to *Format #2*, as described above.

PDF Filename Format of Exported PDF Reports (Format #2)

Filename format: **ORDER_ID_FIRST_LAST_DOB_SEX_DATETIME_TYPE.PDF**

where **ORDER** is examination identifier (order number, accession number or other)
ID is patient ID number
FIRST is patient first name
LAST is patient last name
DOB is patient birthdate in format YYYYMMDD
SEX is patient gender. 'M' for male, 'F' for female, 'U' for undefined
DATETIME is examination date in format YYYYMMDDHHMMSS
TYPE can be "REST, STRESS, HOLTER, ABPM or SPIRO"

Example:

000987_123_Mary_O'Hara_19691129_F_20131008094317_SPIRO.PDF

GDT Interface

The GDT interface enables NEMS-A system to communicate with or Electronic Medical record systems (EMR). The patient is always selected in the EMR program. NEMS-A should be called after the patient's electronic recording file in the EMR program is selected. Patient data management is done in the EMR program, whereas the medical signals (ECG, ABPM, spirometry data, etc.) are handled in the NEMS-A. New procedures are created via NEMS-A. Existing procedures can be edited via NEMS-A. Upon new procedure is completed or after review of the existing procedure the EMR program adopts the most important data of all new and edited procedures.

Calling the NEMS-A from EMR via GDT

Adjust the EMR configuration to call the NEMS-A Client with “/GDT” command line switch.

Example: *C:\Program Files (x86)\Norav Medical\NEMS\EMSApplication.exe /GDT*

Functionality:

1. EMR prepares a GDT command file and then places it to the GDT Inbound folder.
2. Launch the NEMS-A Client application with “/GDT” command line switch.
3. NEMS-A starts and performs the procedure defined in the GDT command file.
4. After the procedure is completed the GDT report is generated in the GDT Outbound folder.
5. Exit the NEMS-A Client application (which can be done automatically or by operator).

To open a patient data in NEMS-A interface via GDT

1. Initiate EMR program, select a patient.
2. Perform OPEN PATIENT HISTORY whatever command in the EMR program interface.
3. NEMS-A starts with patient record selected or automatically creates a new patient record.
4. Then do new procedure or review existing recordings in appropriate software application.
5. Upon the action is completed the software application sends results to the EMR.
6. The EMR program automatically adopts the updated data.





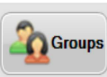
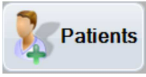
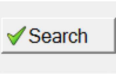


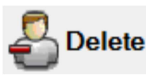
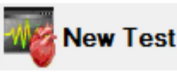

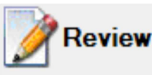
To perform a new test via GDT

1. Initiate EMR program, select patient
2. Start the desired procedure in the EMR interface that initiates a NEMS-A application.
3. The NEMS-A displays the initiated procedure details to be validated by operator. Operator must confirm the selected procedure either can select another procedure type for the patient.
4. Upon procedure type is confirmed NEMS-A starts the appropriate software application.
5. Perform the procedure (acquire ECG, do a spirometry test, prepare ABPM recorder etc.)
6. Upon the procedure is completed the software application sends results to the EMR.
7. The EMR program automatically adopts the new results.

To display an existing procedure via GDT

1. Initiate EMR program, select a patient then select the existing procedure in the list.
2. Perform REVIEW or OPEN whatever command in the EMR interface.
3. That will activate the NEMS-A which displays the study details to be validated by operator.
4. Operator opens the selected study record, review and then saves the study record.
5. Upon review is completed the software application sends results to the EMR.
6. EMR program automatically adopts the updated review report.

Toolbar and Menus

To do this	Click this icon	Select this menu	Description
Connect to Database		File > Initialization Wizard	Creates a new database or retrieve path for an existing one.
Import tests to database		File > Import	Adds studies recorded and saved outside the database. To select all patient data files within a directory, press CTRL + A and verify that all files are checked.
Define Workspace Preferences		File > Setup	Defines the location of default workspace, patient identification, and a special file called External File. This file (Windows.INI format) allows the user to prepare a list of patients that can be read by PC-ECG 1200 applications.
View Application Information		Help > About	Displays version number; licenses; Norav contact info; memory size and free disk space; HASP ID number (is used for identification of the software key for adding software options).
Edit Groups	 	Manage panel > Groups	Defines different patient groups, such as Private, HMO, Military, etc.
Find a Patient	 	Patients panel > Search button	Allows the user to find a patient by entering a string in any or all of ID, Last Name, and First Name fields.
Open Patient Detail		Patients panel > Edit	Allows the user to check or change patient information before performing a study on a patient.
Add New Patient to Database		Patients panel > New	Inserts a new patient. You are prompted to enter partial or complete patient details. Enter ID, Last, and First Name at least. If patient details match an existing one you cannot add this patient to the list. The existing patient matching the details will be checked to allow the user to add a study.
Delete a Patient		Patients panel > Delete	Deletes an entry. If the entry is not empty of studies, you will be asked to confirm deletion.
Perform a New Test		Patients panel > New Test	Starts the application and starts recording.
Move Patient		Patients panel > Move	Move patient to another Group.
Open a Test for review			Allows the user to view and edit study results.

To do this	Click this icon	Select this menu	Description
Compare Rest tests			On a Patient's records panel. Select several Resting ECG tests from the records list then click Compare .
Search for a Test		Records panel > Search button	Allows the user to find a test by entering test type or time period of the test
Copy a Test		Records > Copy	Makes a backup copy of selected tests.
Move a Test		Records > Move	Moves a study and deletes it from the database. The default option is to leave the study's properties in the database: upon completion of the operation. The study remains in the list with an X sign. You can choose to remove the entire study instead.
Delete a Test		Records > Delete Test	Deletes a study from the database. The default option is to leave the study's property in the database: upon completion of the operation, the study remains in the list with an X sign. You can choose to delete the entire study instead.
Print Test Report		Records > Print	Print report of selected Resting ECG or Stress ECG study record.
Generate PDF Report		Records > Export	Create PDF report file of Resting ECG or Stress ECG study.
View Test Properties		Record > Properties	Displays study properties.
Download ECG recordings from the recorder		Devices > Scan recorder	Get the data file from ECG recorder.

Table 7: NEMS-A Toolbar and Menus

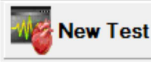
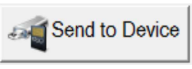
CHAPTER 5: OPERATION

Working with the NH301 Holter Analysis System


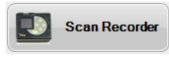
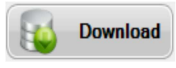
Following operations are specific for operating the NEMS-A together with the NH301 Holter systems:

- Prepare the holter recorder for the new patient.
- Download the ECG recording from the holter recorder.
- Open the ECG recording to analyze it in the NH301 software interface.
(the NH301 Holter software license is required).

To prepare the holter recorder for a new examination


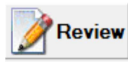
1. Check that the holter recorder is connected to the computer, or the Flash Card of the recorder is connected to the computer via the Card Reader device.
2. Select patient on Patient panel, click  button. Starting in Patient panel - then select “**Holter**” test type. Patient details panel will appear.
3. Validate the patient information on screen then click the  button.
4. Disconnect the holter recorder or the Flash Card from the computer.

To download the ECG recording from the holter recorder

1. Check that the holter recorder is connected to the computer, or the Flash Card of the recorder is connected to the computer via the Card Reader device.
2. Select the  in the left side panel then click the  button.
3. Validate/Edit the patient information then click the  button.
4. After the “**Download Complete**” message appears disconnect the holter recorder from the computer.

To open the holter ECG recording for analysis

(the NH301 Holter software and license are required)

1. Select the holter recording in the  list then click the  button in the records list tool bar. Selected recording will be opened within the NH301 program interface.


Working with the PC-ECG 1200 System

(the PC-ECG software is required)


Following operations are specific for operating the NEMS-A together with Norav PC-ECG system:

- Launch a new ECG examination with the patient name selected in a list.
(the appropriate PC-ECG software license is required).
- Open the ECG recording to analyze it in the PC-ECG software interface.
- Download ECG recordings acquired by the NR-1207-3 recorder in the ECG+ mode.


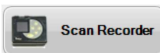





To begin new ECG examination

1. Select patient name in Patient panel, click  button then select an appropriate test type in a drop down menu list.
2. When the PC-ECG application screen appears validate the patient information then click the OK button to start the examination.
3. After finish the ECG recording procedure exit the PC-ECG application. The ECG recording will be automatically imported in the database and appears in the patient's recordings list.

To open the ECG recording for review

Select the ECG recording in the recordings list then click the  button in the tool bar. The ECG recording will be opened within the PC-ECG program interface.

Downloading “ECG+” recordings from a NR-1207-3

1. Connect the NR-1207-3 recorder containing the data acquired in the ECG+ mode to the computer with a USB cable or inserting the recorders' SD card into the card reader.
2. Select  on the left side panel then click the  button. The system will show the list of ECG records collected in the recorders' memory card.
3. Validate/edit one-by-one the records in the download list. After editing the patient data click the  button to apply the changes in the download list.
4. Select the records to download by mark the ☒ check box and click the  button.
5. Wait until the procedure ends. The successfully downloaded records will be marked  ; any unsuccessful downloads will be indicated  in the list.
6. Disconnect the recorder or the SD card from the computer.
7. Open the  tab and validate that all new Resting ECG records appear in the list.

Working with the NBP One ABPM recorder

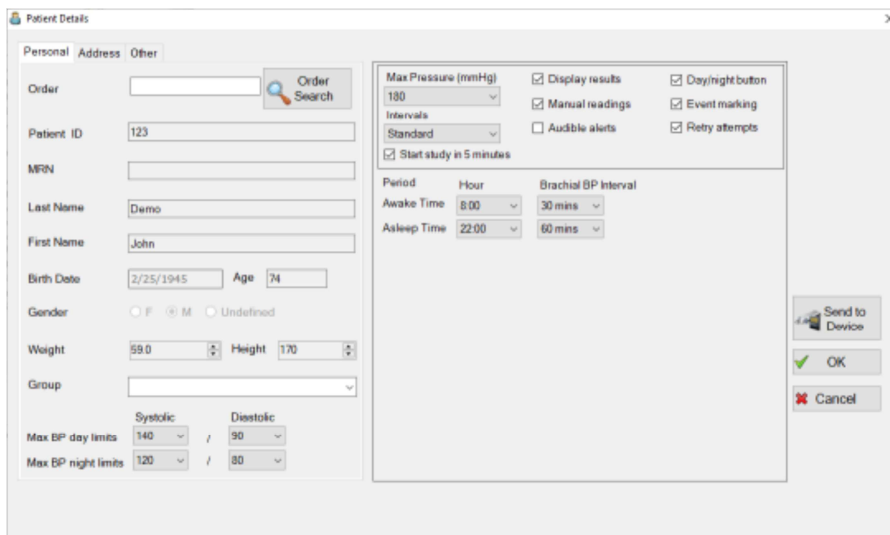
Following operations are specific for operating the NEMS-Q with the NBP One ABPM recorder:

- Prepare the NBP One recorder for the new patient.
- Download the ABPM recording from the NBP One recorder.
- Open the ABPM recording to review and print report.

To prepare the NBP One recorder for a new ABPM examination

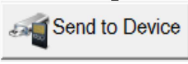
1. Check that the NBP One recorder is connected to the computer USB port.

2. Select patient on Patient panel then click  button and select the “**ABPM**” test type. Patient details panel will appear.


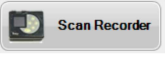
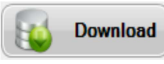


The screenshot shows the 'Patient Details' window with two tabs: 'Personal' and 'Other'. The 'Personal' tab is active, displaying fields for Patient ID (123), MRN, Last Name (Demo), First Name (John), Birth Date (2/25/1945), Age (74), Gender (F), Weight (59.0), Height (170), and Group. The 'Other' tab contains ABPM protocol settings, including Max Pressure (180 mmHg), Intervals (Standard), Start study in 5 minutes, Display results, Manual readings, Audible alerts, Day/night button, Event marking, and Retry attempts. It also includes a table for Brachial BP Interval with Awake Time (8:00) and Asleep Time (22:00) for 30 and 60 minutes. At the bottom right, there are buttons for 'Send to Device', 'OK', and 'Cancel'.

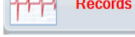
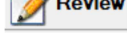
Figure 6: Prepare the NBP One recorder for new study

3. Validate the patient information, configure the ABPM protocol settings and then click the  button.
4. Disconnect the NBP One recorder from the computer.

To download the ABPM study from the NBP One recorder

1. Check that the NBP One recorder is connected to the computer USB port.
2. Select the  in the left side panel then click the  button.
3. Validate/Edit the patient information then click the  button.
4. After the “**Download Complete**” message appears disconnect the NBP One recorder from the computer.

To review the NBP One ABPM study

1. Select the NBP One recording in the  list then click the  button in the records list tool bar. ABPM Review screen will appear.

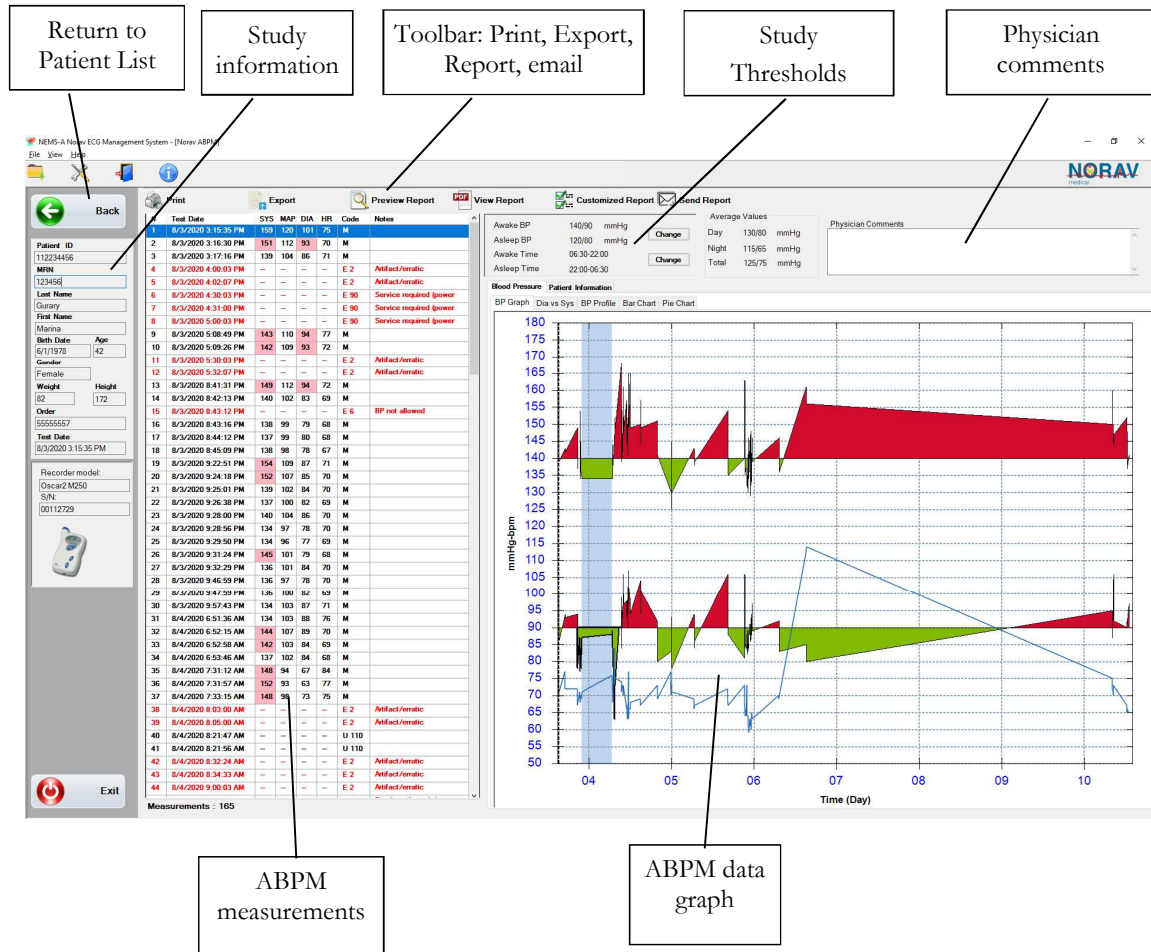
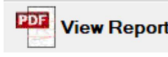

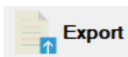



Figure 7: ABPM Review screen

2. Review the BP measurements, write physician comments.
3. To generate the report preview click the  button above the BP measurements list.
4. To print the report, click the  button.
5. Optionally, click the  button to export the BP measurements table to Excel file.
6. Finally, click the  button to return to the Patient List main screen.

APPENDIX: TROUBLESHOOTING

Fail to Connect Database

Problem

On attempting to perform an action, an error message appears on screen to indicate there is a failure in connecting database.

Solution

Consult your system administrator if you are working on the network then check network connection if so.

File not Found when selecting a file from NEMS

Problem

When selecting a file on the NEMS interface, appears an indication that the file is not found.

Solution

1. Open Setup dialog.
2. Set the path folder for maintaining the ECG files.