



# Connected

Philips HeartStart connectivity and data management for ALS professionals

**PHILIPS**

# Flexible and reliable,

Philips offers a wide choice of dependable networking and software solutions for capturing, transmitting, and managing the event data collected by your HeartStart monitor/defibrillators and automated external defibrillators (AEDs). We are committed to helping you systematically improve the quality of your rescues. All of our applications are designed and developed in close cooperation with ALS professionals, like you, who have helped us adapt them to the realities of everyday use in the field.

## **STEMI management from discovery to balloon**

With the HeartStart MRx monitor/defibrillator, you can take a 12-lead ECG at your patient's side—on the scene or in the ambulance—and transmit it wirelessly to one or more facilities. This allows you to focus on the patient while the emergency department gains time to confirm a STEMI diagnosis and ready the cath lab before your patient even comes through the door. This practice has the potential to reduce door-to-balloon times.

## **Choose the 12-lead transmission option that works best for you:**

### **Over the Internet**

- Via cell phone with a packet data transmission plan, the MRx can use Bluetooth Dial-Up Networking (BT-DUN) to make the cell phone an Internet modem
- Via cellular air card in a mounted gateway device to go from Bluetooth to broadband

### **Over 2-way public safety radio**

- Via General Devices Rosetta-Lt<sup>®</sup> and CAREpoint system (Only Philips can send patient vitals data along with the 12-lead this way to provide remote caregivers with a more complete clinical picture.)

You can also use a Bluetooth connection to upload event summary data to a laptop and then to Event Review Pro or a third-party ePCR system. The clock times of the MRx and computer are automatically synced.

The HeartStart 12-Lead Transfer Station can be located in a hospital (where it might be shared by several facilities), or at the emergency dispatch center. And from there, a patient's 12-lead can be distributed to email addresses, fax machines, printers, PDAs, and ECG management systems, including Philips TraceMasterVue.

Each hospital may want 12-lead ECG reports delivered differently. The 12-lead Transfer Station allows you to create and manage different delivery preferences easily so that 12-leads can be sent simultaneously to multiple destinations without any extra work on the EMT's end.



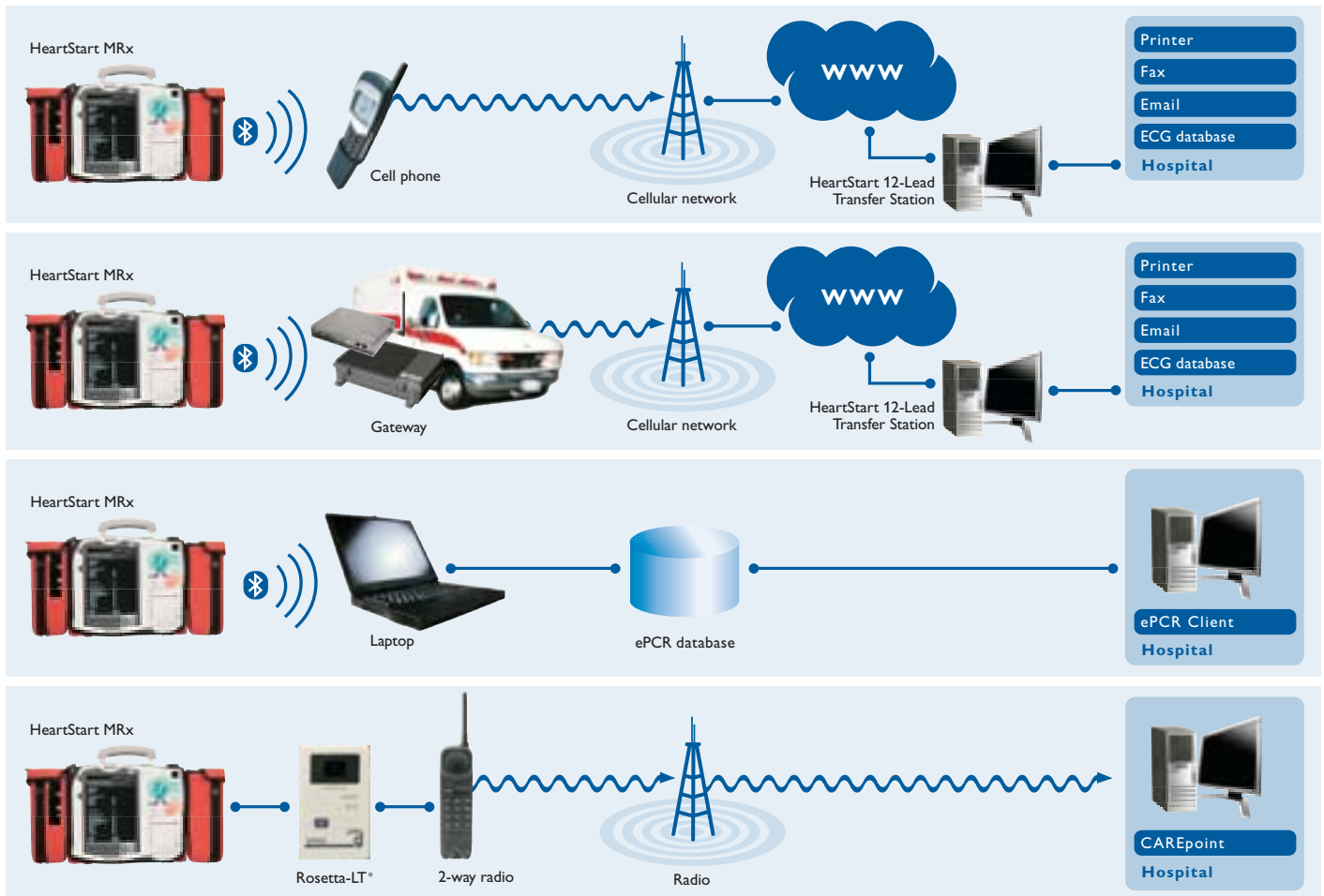
\* Only available in the US.

# like you



View diagnostic-quality 12-lead ECGs from the HeartStart MRx in the emergency department.

## Your choice of 12-lead transmission methods



# Data Collection and









Philips HeartStart Event Review Pro addresses every element of disciplined emergency response—real-time data capture, documentation, debriefing, and analysis.

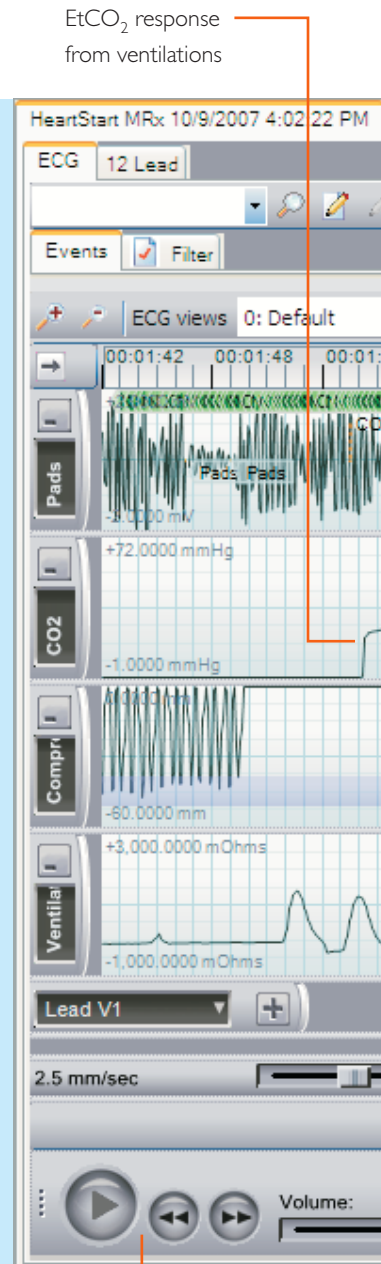
It captures complete case data whenever the monitor/defibrillator is turned on, whether it's for the rare resuscitation or for patient assessment and vital signs monitoring. You can round out any clinically interesting case record with notes and annotations. Event Review Pro provides picklists for most fields, which speeds data entry and also ensures cases are described consistently and thus can be compared.

With Event Review Pro, the complete story of a code can appear in one powerful display that correlates ECG, CPR, CO<sub>2</sub>, and shock data, as shown in the diagram.

## The story of a code in one

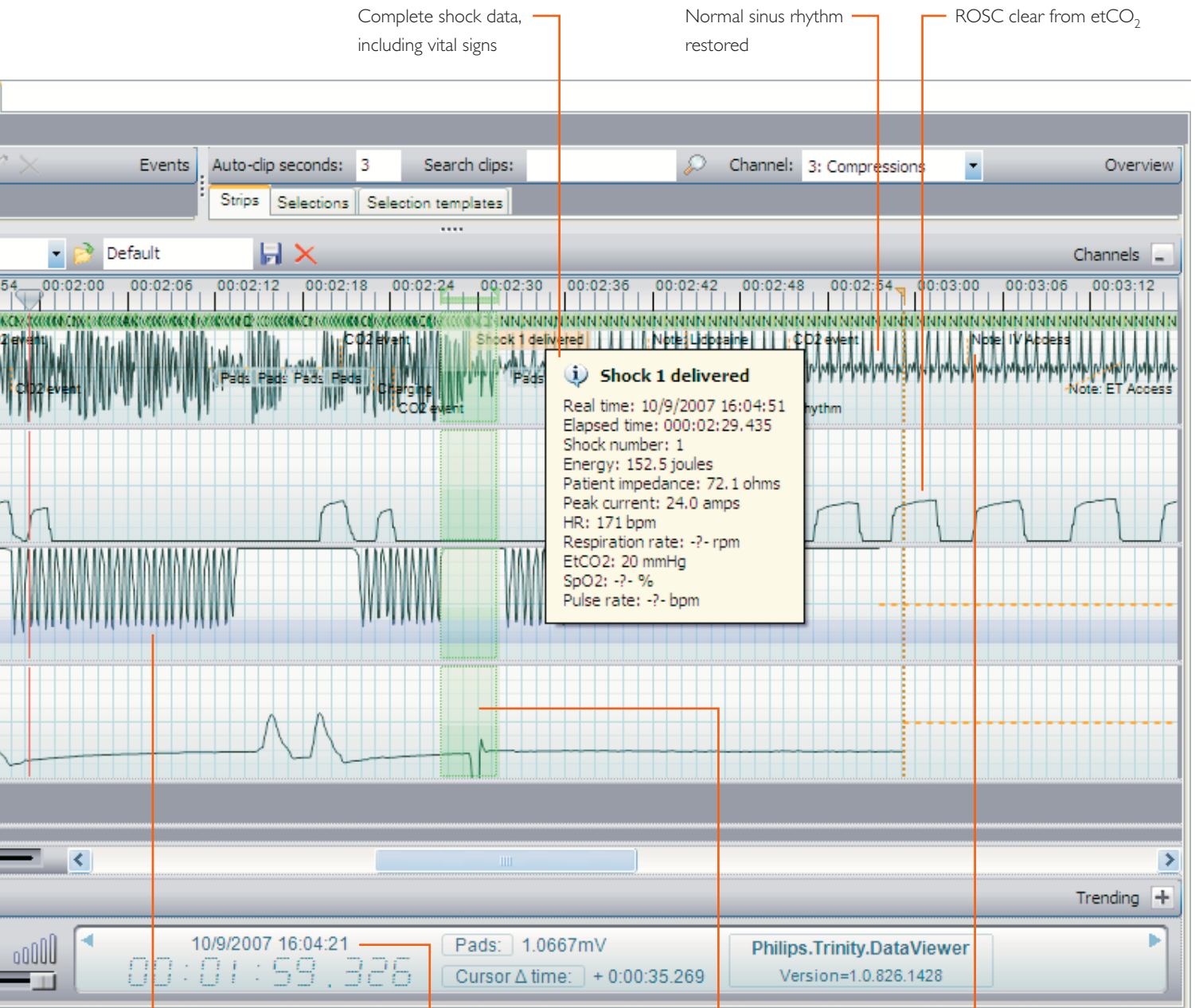


-  **3:54 pm**  
911 call received
-  **3:55 pm**  
Ambulance in transit
-  **4:01 pm**  
EMTs at patient's side
-  **4:02 pm**  
MRx monitor/defibrillator turned on
-  **4:02-4:04 pm**  
2 minutes CPR
-  **4:04 pm**  
Shock delivered
-  **4:05 pm**  
Patient begins breathing
-  **4:06 pm**  
Transport to hospital



# Analysis

## powerful display



Complete shock data, including vital signs

Normal sinus rhythm restored

ROSC clear from etCO<sub>2</sub>

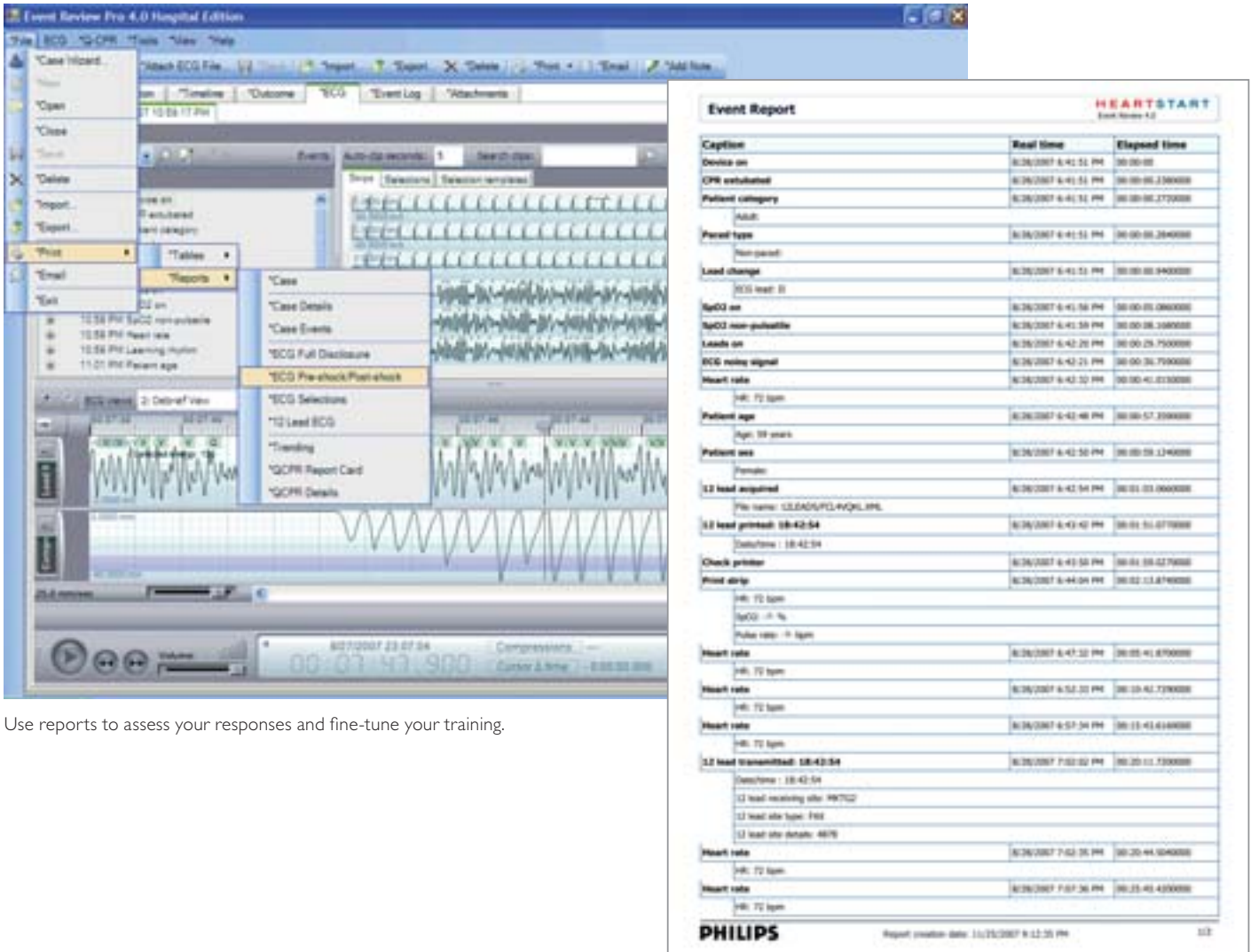
Frequency and depth of compressions; blue shaded area indicates ideal depth

Actual time and elapsed time displays

Automatic highlighting of key events

Event markers to note IV access, etc.

# Reporting



Use reports to assess your responses and fine-tune your training.

## Reporting

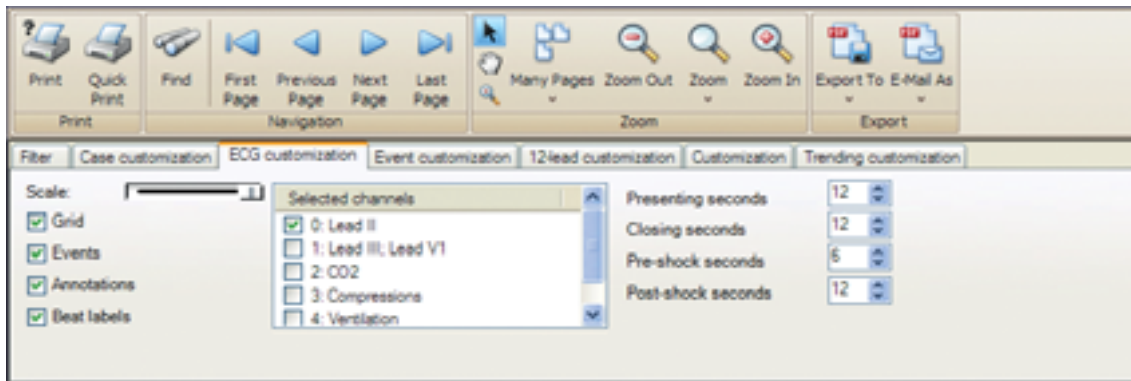
Event Review Pro makes it easier than ever to generate, customize, print and export a wide range of reports. You have the flexibility to choose parameters and adjust settings, including the scale for waveforms, time intervals for trends, and much more. You can even refine your report while you preview it using the convenient Reports Toolbar. Event Review Pro also stores your custom settings for the next time you call up the report.

## Email Reports

Email a report to superiors or wherever else you need to. Text reports, such as case reports, can be sent in a number of formats. ECG reports can be emailed as PDF documents that can be read by anyone with Adobe Acrobat Reader.

## Export and Share Cases

You can export text reports, such as Case Details and Trending reports, in a number of formats, including text/CSV/Excel for analysis and graphing. You can also export cases as Event Review Pro files for sharing with other Event Review Pro users.



Use the Reports Toolbar to edit your report in Preview mode.



### Reports included in Event Review Pro

- Case reports
  - Case details
  - Case events
- ECG reports
  - ECG full disclosure
  - ECG pre-shock/post-shock
  - ECG selections
  - 12-lead
- Q-CPR report card
- Trending reports
- Response times reports
  - Average response times - total system
  - Percentile response times - total system
  - Average response times
  - Percentile response times
- Utstein reports
  - Unwitnessed cardiac arrests with bystander CPR
  - Witnessed cardiac arrests with bystander CPR
  - Witnessed cardiac arrests without bystander CPR

# Interoperability with third-party software

The HeartStart Data SDK, or software developer's kit, provides the tools to map data from HeartStart MRx monitor/defibrillators and HeartStart FR2+ defibrillators to your electronic patient care record (ePCR).

Because Philips embraces open data management and interoperability, we do not require you to run Event Review Pro on every tablet in your fleet. The Data SDK includes viewing and printing utilities for your ePCR to work with the Philips data within its native application. This means one less application to use on your computers.

HeartStart Data SDK uses industry-standard technologies such as C#, .NET, and XML. It runs on Windows 2000 and XP. The development

environment contains everything a software developer needs to build and test code, including DLLs, a developer's guide, sample code, and sample data for testing. A runtime component allows HeartStart event summary data to be parsed and incorporated into a run report. This is how Philips HeartStart defibrillator data, including vitals and ECG waveforms, can appear seamlessly in a Patient Care Record.

More and more ePCR companies are also using HeartStart Data SDK to make their systems compatible with HeartStart defibrillators out of the box.

For a complete list of ePCR vendors participating in the Data SDK program, visit the Philips web site at [www.philips.com/epcrpartners](http://www.philips.com/epcrpartners).

## Event Review Pro is part of a suite of data solutions

### Event Review Suite

Event Review Pro is the ALS central data station of the Event Review Suite, which includes software for AED configuration and case capture, downloading and forwarding tools. For managing BLS data only, we offer Event Review.



With HeartStart Configure installed on a Pocket PC or on a palmOne handheld PDA, you can change the settings on your HeartStart FRx and OnSite Defibrillators.



With HeartStart Case Capture installed on a palmOne handheld PDA, you can download event data from your HeartStart FRx and OnSite Defibrillators without removing them from service.



Review Express Connect is a perfect solution for satellite fire stations that need to download, print out, and forward code cases to a central medical authority.



© 2008 Koninklijke Philips Electronics N.V.

All rights are reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright holder.

Philips Medical Systems Nederland B.V. reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.

Philips Healthcare is part of Royal Philips Electronics

[www.philips.com/healthcare](http://www.philips.com/healthcare)  
healthcare@philips.com  
fax: +31 40 27 64 887

Printed in The Netherlands  
4522 962 30411/861 \* JAN 2008

Philips Healthcare  
Global Information Center  
P.O. Box 1286  
5602 BG Eindhoven  
The Netherlands