Telemedicine Adds Value to Emergency Ambulance Services

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Aerotel Medical Systems (Israel)

Med-e-Tel
Luxembourg, 16 April, 2010

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www.aerotel.com

Aerotel Medical Systems

- A global supplier of personal telemedicine systems
- Modular, mobile & home based solutions
- Technology powering many successful telemedicine services
- Based in Israel
- A client base in 50+ countries

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Abstract

- We present three case studies describing the use of tele-cardiology devices by ambulance services
  - Product description
  - Service description
  - Benefits
  - Conclusions

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HeartView™

12-Lead ECG Recorder/Transmitter

- User-friendly, ECG transtelephonic recorder/transmitter.
- Transmits 12-lead ECG data from any place and at any time over the phone to the HRS for immediate diagnosis.

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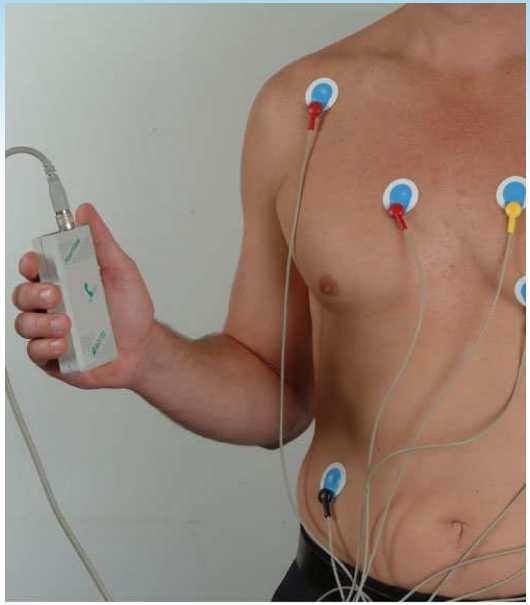
Acoustic Transmission of ECG



Taking ECG with HeartView™

Acoustic transmission of ECG via phone

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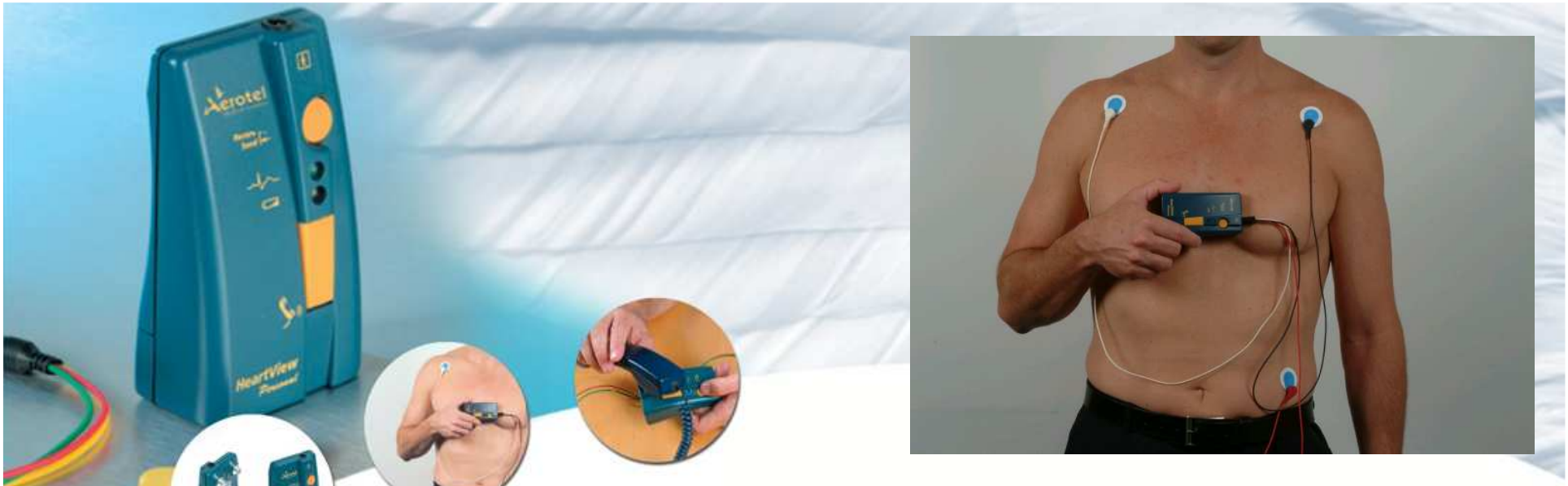

HeartView P-12/8 Plus™

12/8-Lead ECG Personal Recorder/Transmitter
Digital, Bluetooth® & Acoustic

- Small, easy-to-operate, 12 or 8 lead ECG monitor.
- Patient records ECG using 3-wire patient cable and four embedded electrodes.
- Gives physicians a clear, comprehensive 12 lead ECG.
- Recorded ECG is transmitted through phone (fixed or mobile) to the HRS for immediate diagnosis.

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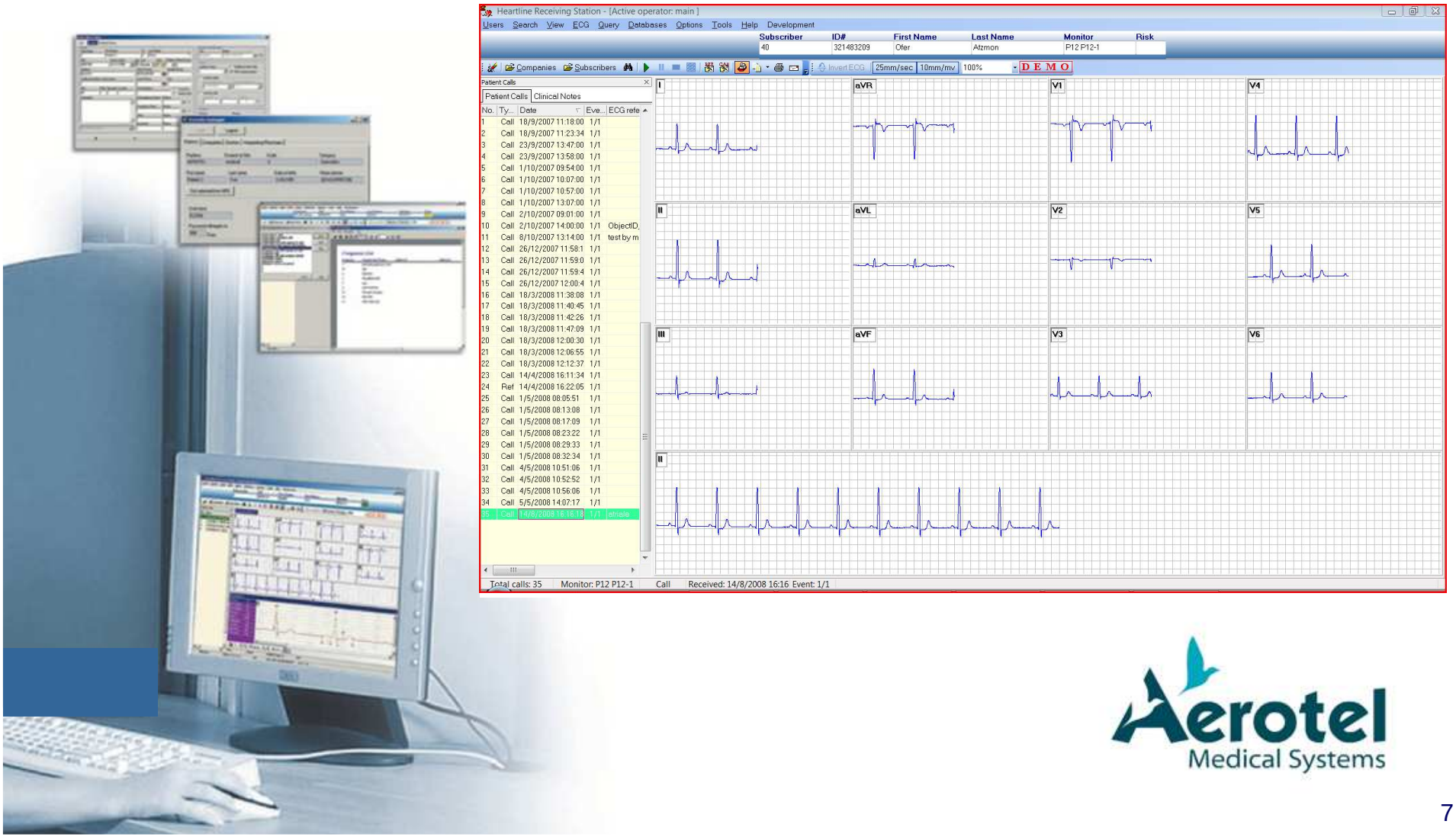
Heartline™ Receiving System (HRS™)



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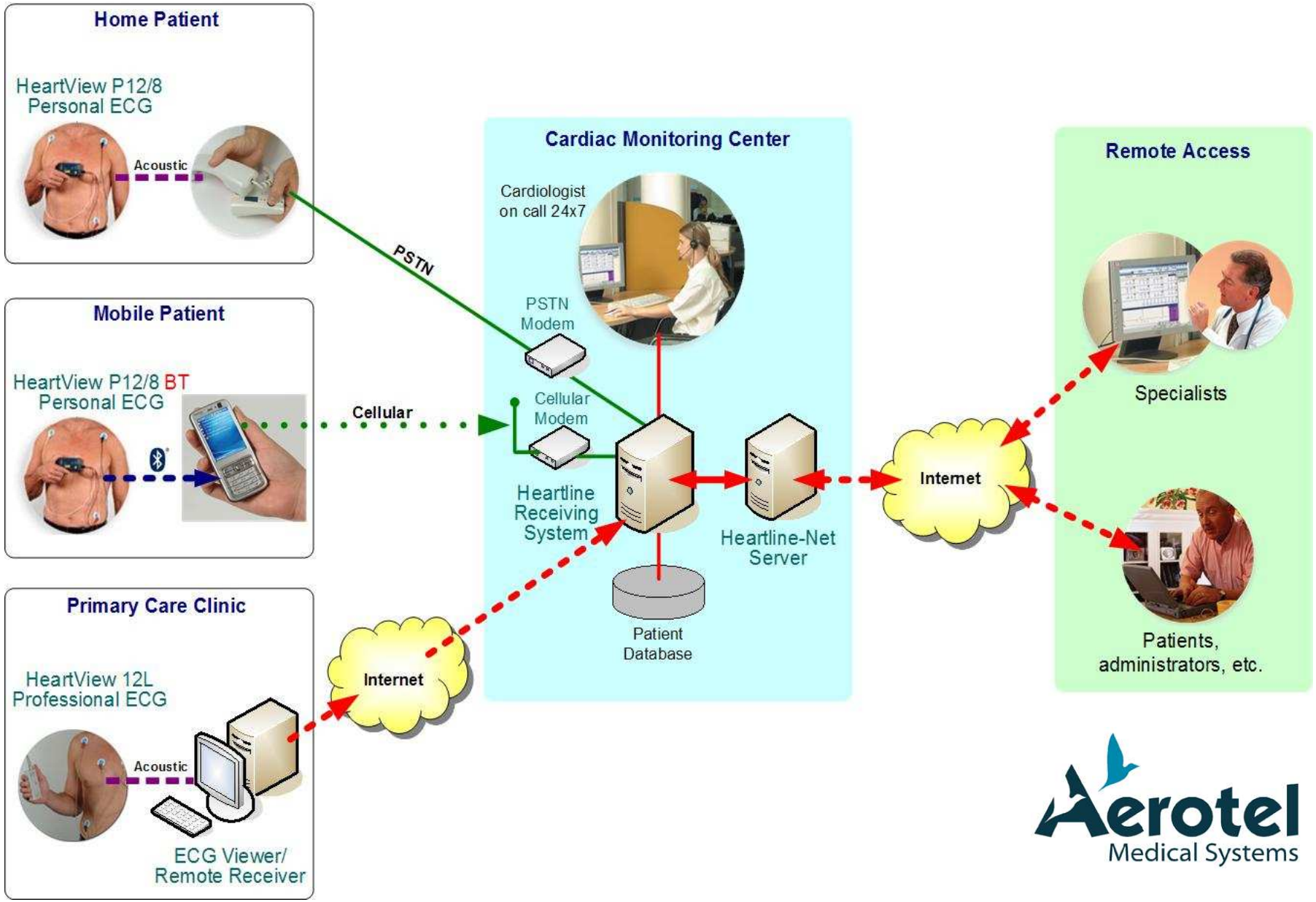
HeartView™ Tele-Cardiology System



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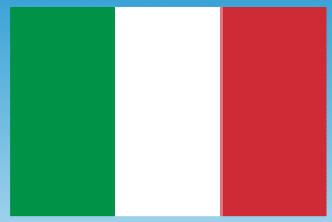
Case study 1: Italy



- Tele-Cardiology service for 118 (emergency service) in the region of Puglia, Italy
- Service operated by: Cardio On Line Europe
- Equipment and software provided by: Aerotel Medical Systems
- Service started: October 2004
- Data for the period Oct 2004 – Feb 2010

Regione Puglia ARES Agenzia Regionale Sanitaria

REGIONE PUGLIA

118 Puglia

Cardio On Line Europe

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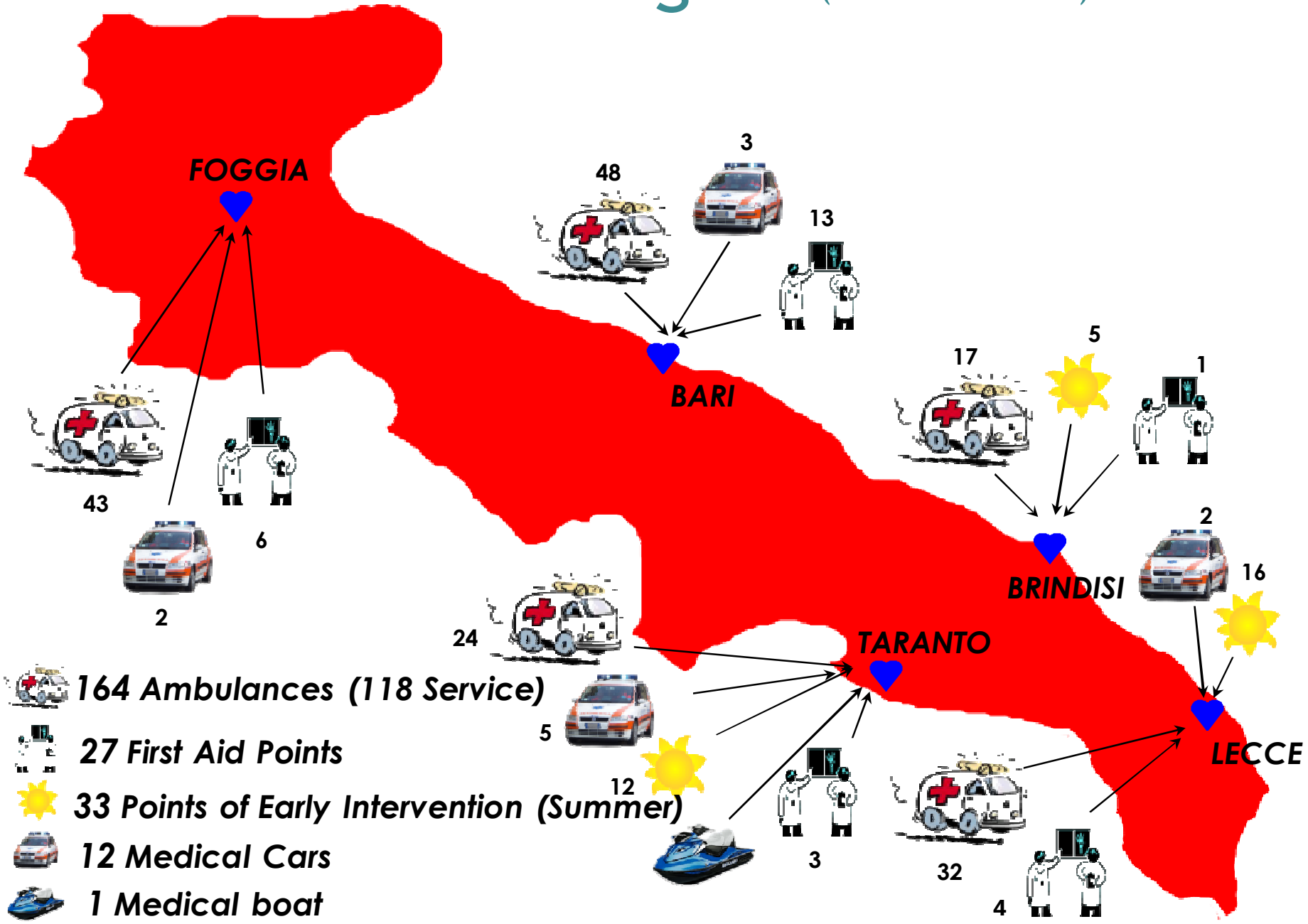
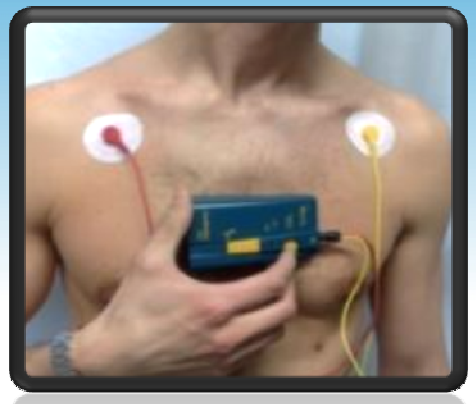
End Users in the Region (as of Feb 2010)

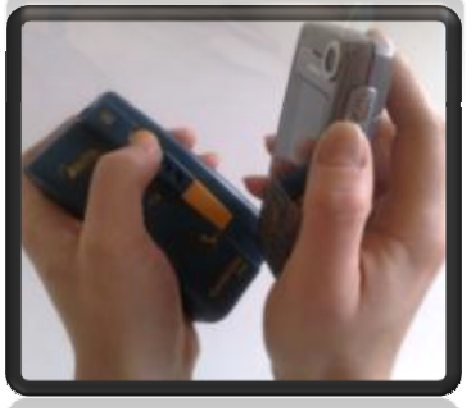


Service Operation



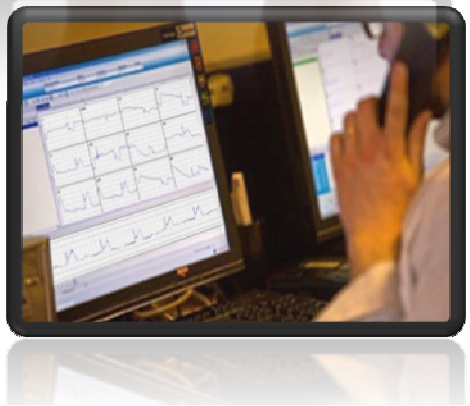
1

The operator is using the ECG device to record the ECG of the patient in 50 seconds



2

The operator transmits the recorded signal by telephone to the 24x7 Tele-cardiology center

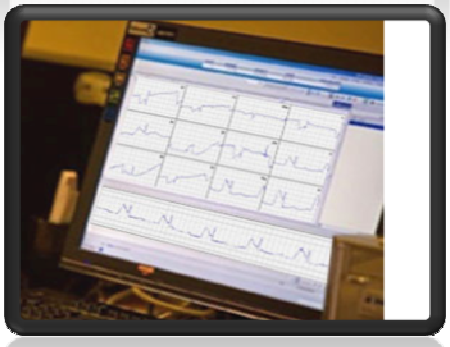


3

The receiving center analyzes the ECG trace providing a real-time phone consultation between a specialist doctor and the ambulance staff

4

An ECG report is faxed to the 118 center



5

The ECG is displayed in real time via the Internet to all authorized parties

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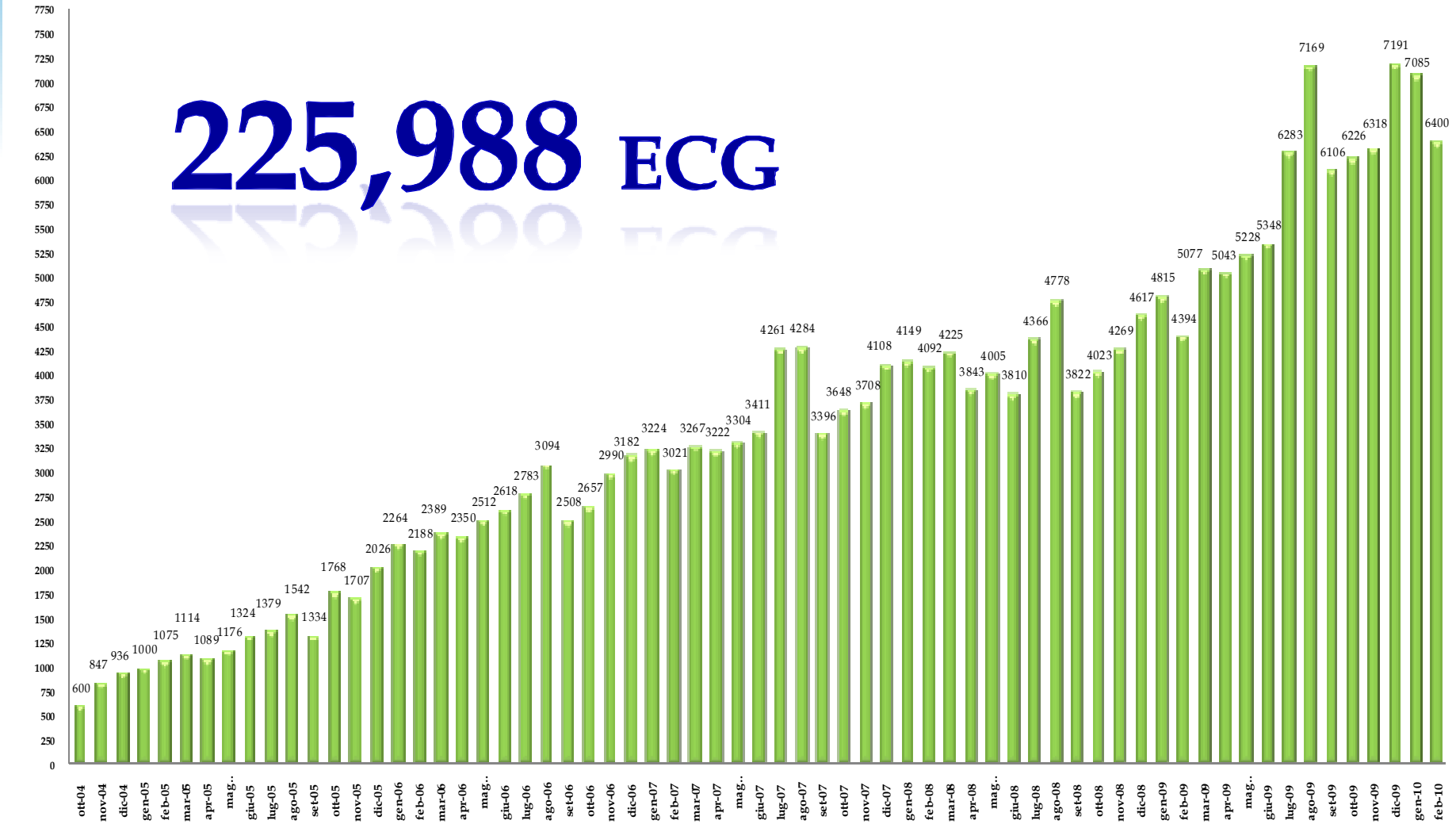
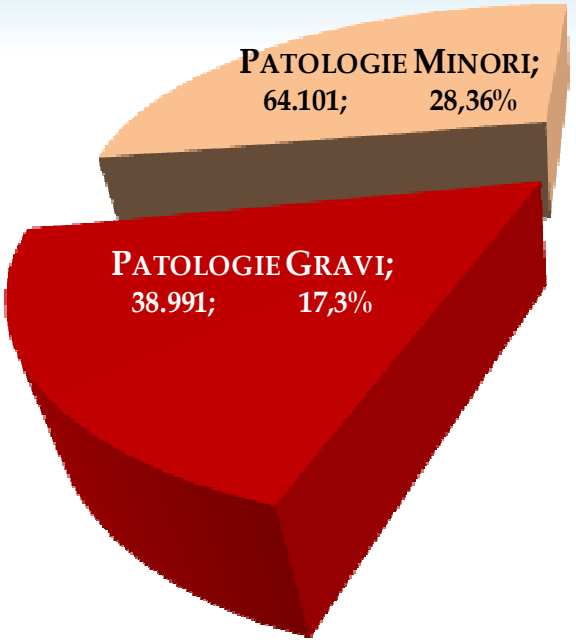
ECG Transmissions by Month

(Oct 2004 – Feb 2010)

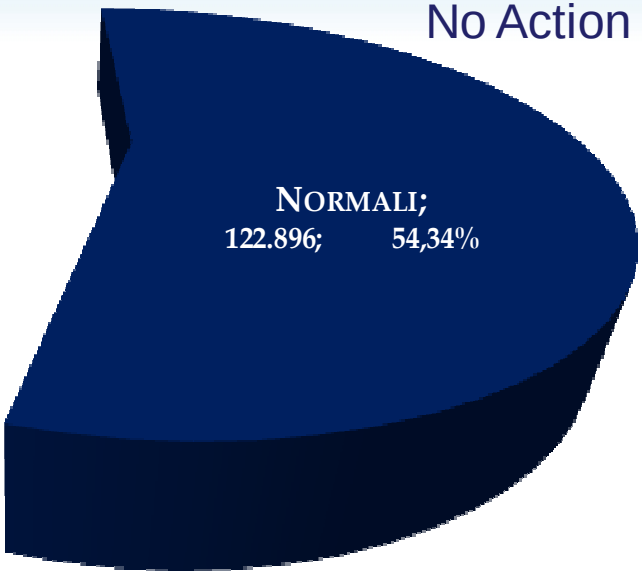


Breakdown of ECG Results

28% Minor Pathology –
No Immediate Action Needed



54% Normal –
No Action Taken



**17% Serious Pathology –
Immediate Hospital Admission**

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Reported Benefits

- Empowerment of ambulance staff
- Immediate professional response in case of acute conditions
- Avoid unnecessary hospital admissions
- Immediate identification and treatment of critical conditions

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Case Study 2: Brazil

- Device used: Aerotel HeartView™ 12L Professional 12-Lead ECG
- ECG Interpretation provided by St. Paul Heart Hospital in Sao Paulo
- Software provided by ITMS (Brazil)
- Devices installed in national emergency service ambulances(SAMU)
- Service started end of 2009
- The service is available in 37 cities in nine states and the Federal District (Brasília)

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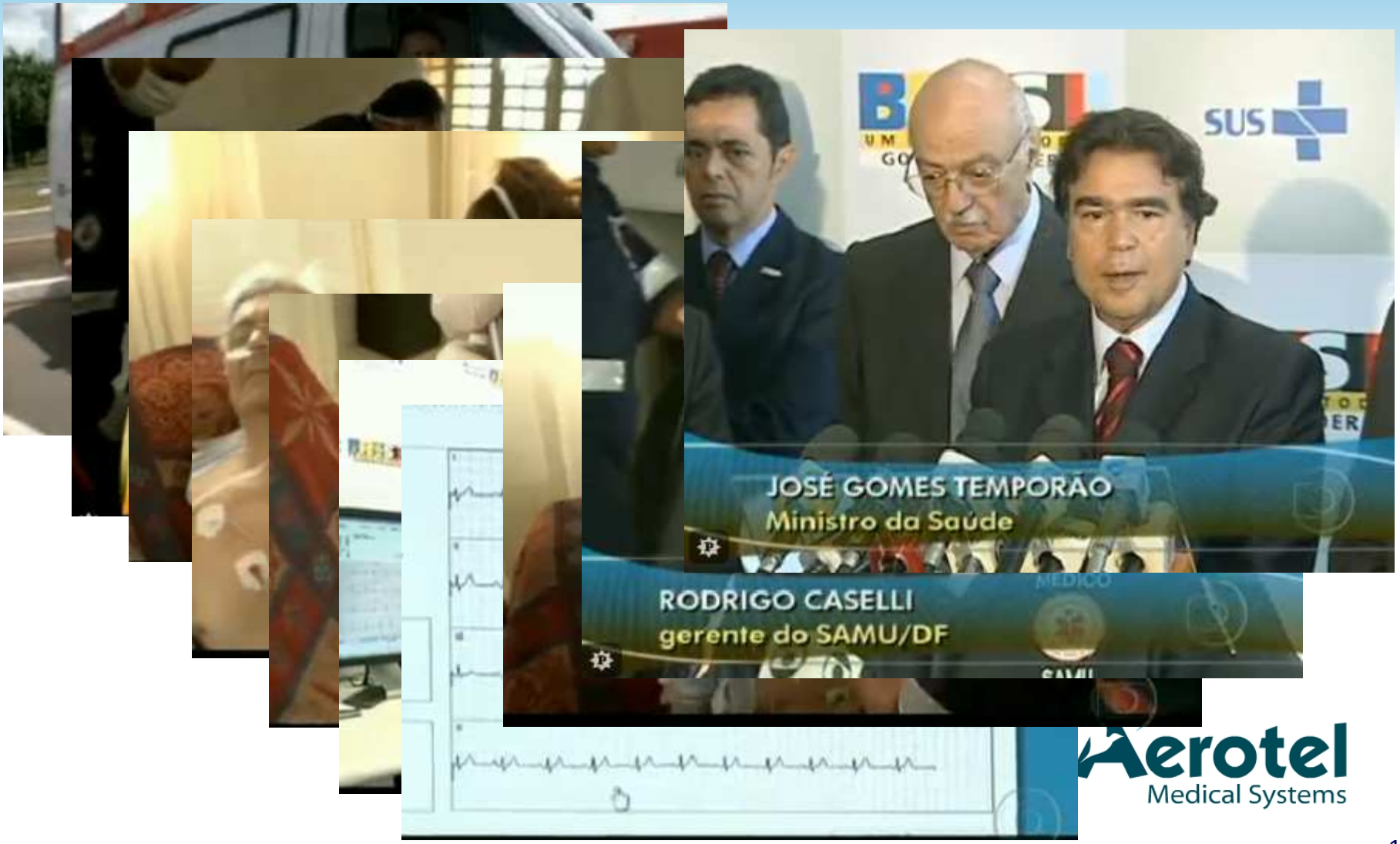
Service Description

Courtesy of Globo TV, Brazil (28 January 2010)



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Reported Benefits

- Half of stroke victims die within two hours after cardiac arrest
- Every 30 minutes of delay in treatment, the risk of death from heart attack increases by 7%
- With new service - In five minutes the ambulance crew knows exactly what to do
- Significant time savings translates to life savings
- Specific statistical data not yet available

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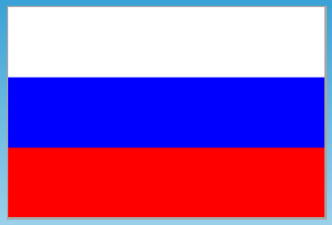
Case Study 3: Russia



- Tele-Cardiology service in the city of Perm (Ural Region)
- Similar services available in other Russian cities
- Device used: Aerotel HeartView™ P8/12 – personal 12-Lead ECG
- Device originally designed for self-use by patients, but preferred by professionals thanks to ease of use
- 60 devices used in ambulances
- 10 devices used in small regional clinics

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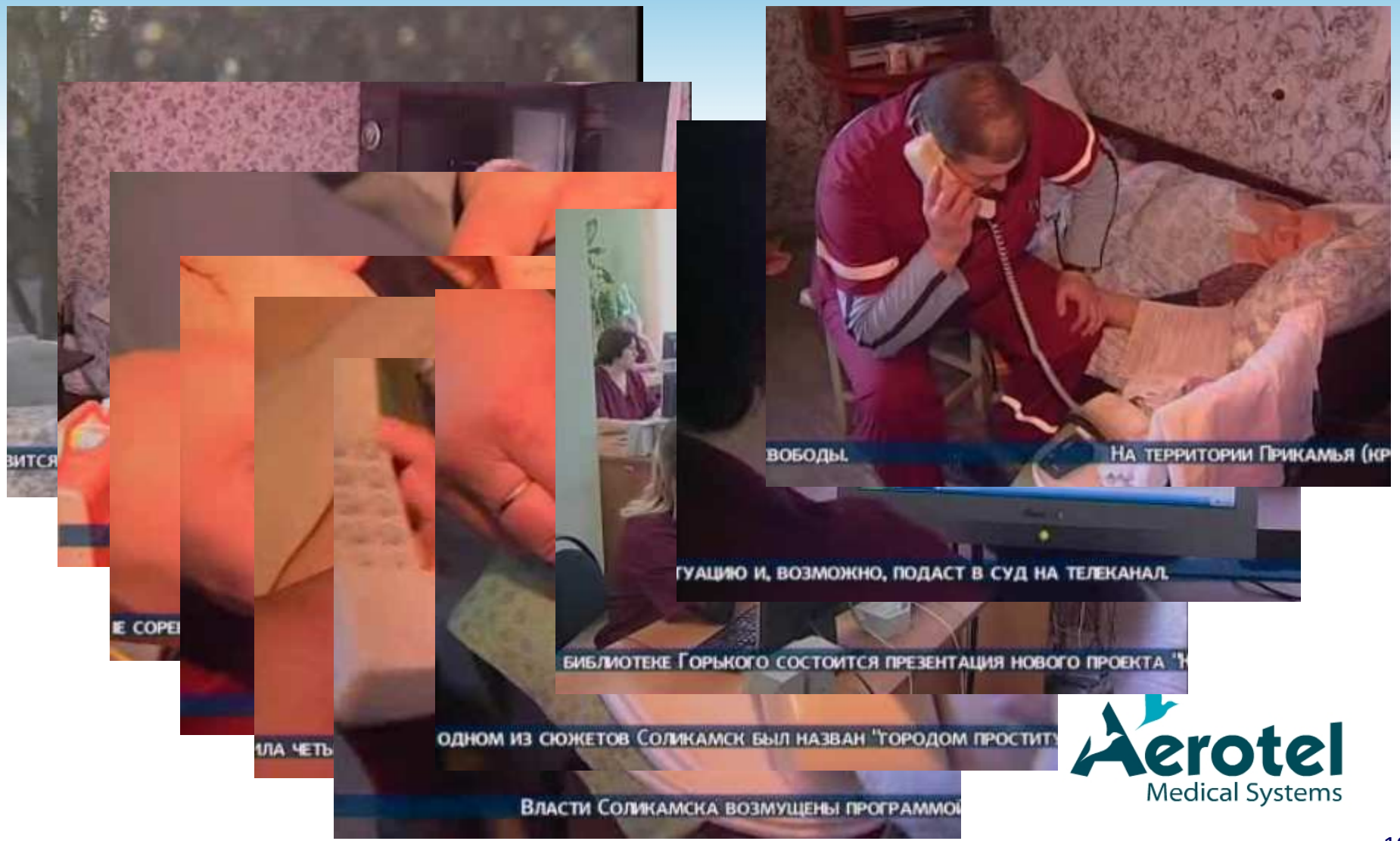
Service Description

Courtesy of UITV – Ural Inform TV, Russia (18 Feb 2010)



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Reported Benefits

- Very easy to learn and use by doctors, paramedics or even patients
- Reduces the time of diagnosis
- Urgent medical care provided to the patient reduces the risk of complications

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Conclusions: Summary of 3 Cases

- Low cost solution is highly affordable
- Devices are easy to learn and use by paramedics and medical staff
- Brings advanced medical service to the point of need
- Wins race against time - speeds diagnosis of myocardial infarction
- Immediate hospital admission without waste of time
- Reduce unnecessary hospital admissions
- Reduce mortality rates and save lives

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Thank You
Obrigado
Спасибо
Grazie
Merci

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