THE FIRST RUSSIAN TELEMEDICAL CENTRE IN A CORRECTIONAL INSTITUTION

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Need for Telemedicine in Prison

- Greater demand for medical services due to poor health of prison inmates (infections including TBC, hepatitis, AIDS; drug abuse; alcoholism, etc.)
- Lack of possibilities to provide conventional medical services, esp. in distant areas)
- Existing experience of prison telemedicine in Western countries (USA, GB, etc.)

Prison Telemedicine in East Carolina University, NC

Store & Forward Telemedicine

- Budget equipment, cheaper communication cost
- Easier to implement, esp. in case of financial difficulties in correctional system
- Suitable for teledermatology, teleradiology, telecardiology
- Not suitable for telepsychiatry!

Project in the Correctional Facility UZ-62/9

(30 km from Nizhny Novgorod)

- Teledermatology (skin images)
- Telecardiology (electrocardiogram images)
- Teleradiology (chest X-ray images)

Digital camera was used to acquire the images

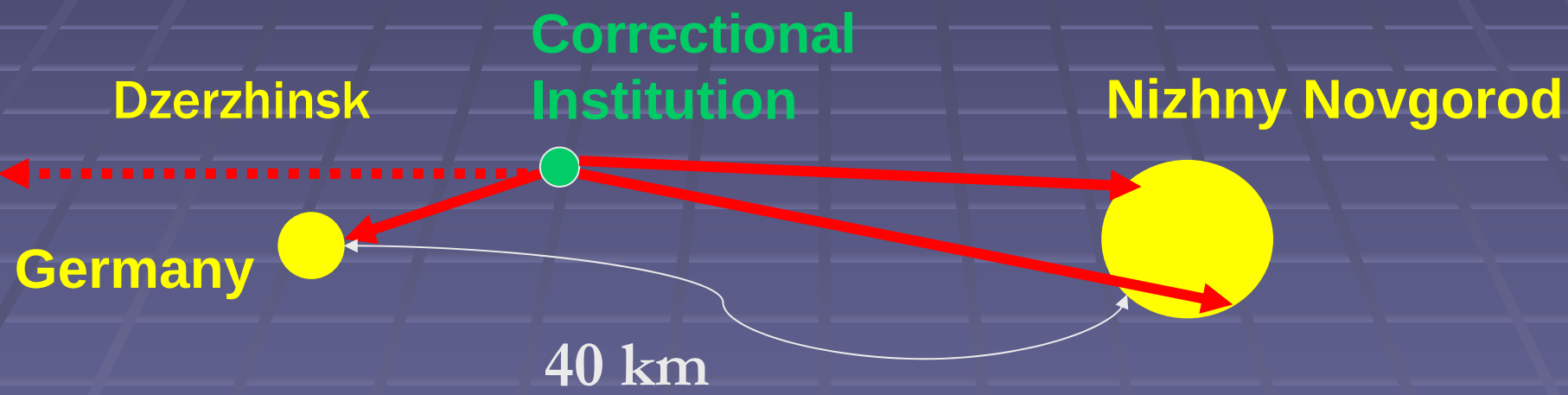
In 2002 the project was sponsored by The Project Harmony Inc (USA)

Nizhny Novgorod – Where It Is

Moscow

450 km

The Consulting Institutions



The Consulting Institutions

- Nizhny Novgorod Research Inst. for Hygiene and Occupational Pathology ("The Consulting Hub", dermatology)
- Nizhny Novgorod Regional Hospital (cardiology)
- Dzerzhinsk city TB clinic (pulmonology)

The Consultants in Prison

Teledermatology

Teledermatology

Teledermatology

Teledermatology

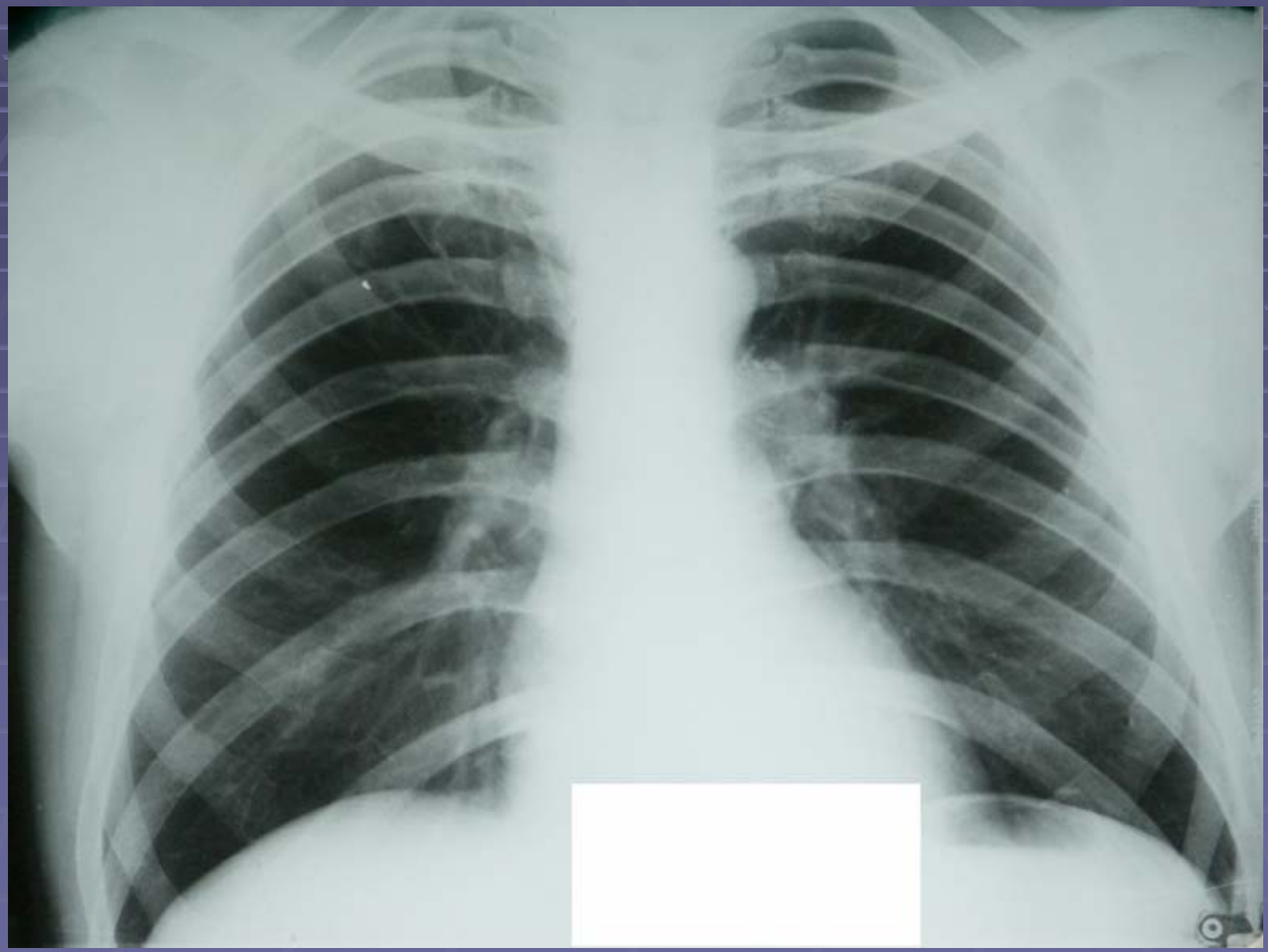
Skin infections – 83%

Eczema –11%

Psoriasis – 4%

Syphilis – 2%

Teleradiology



Teleradiology

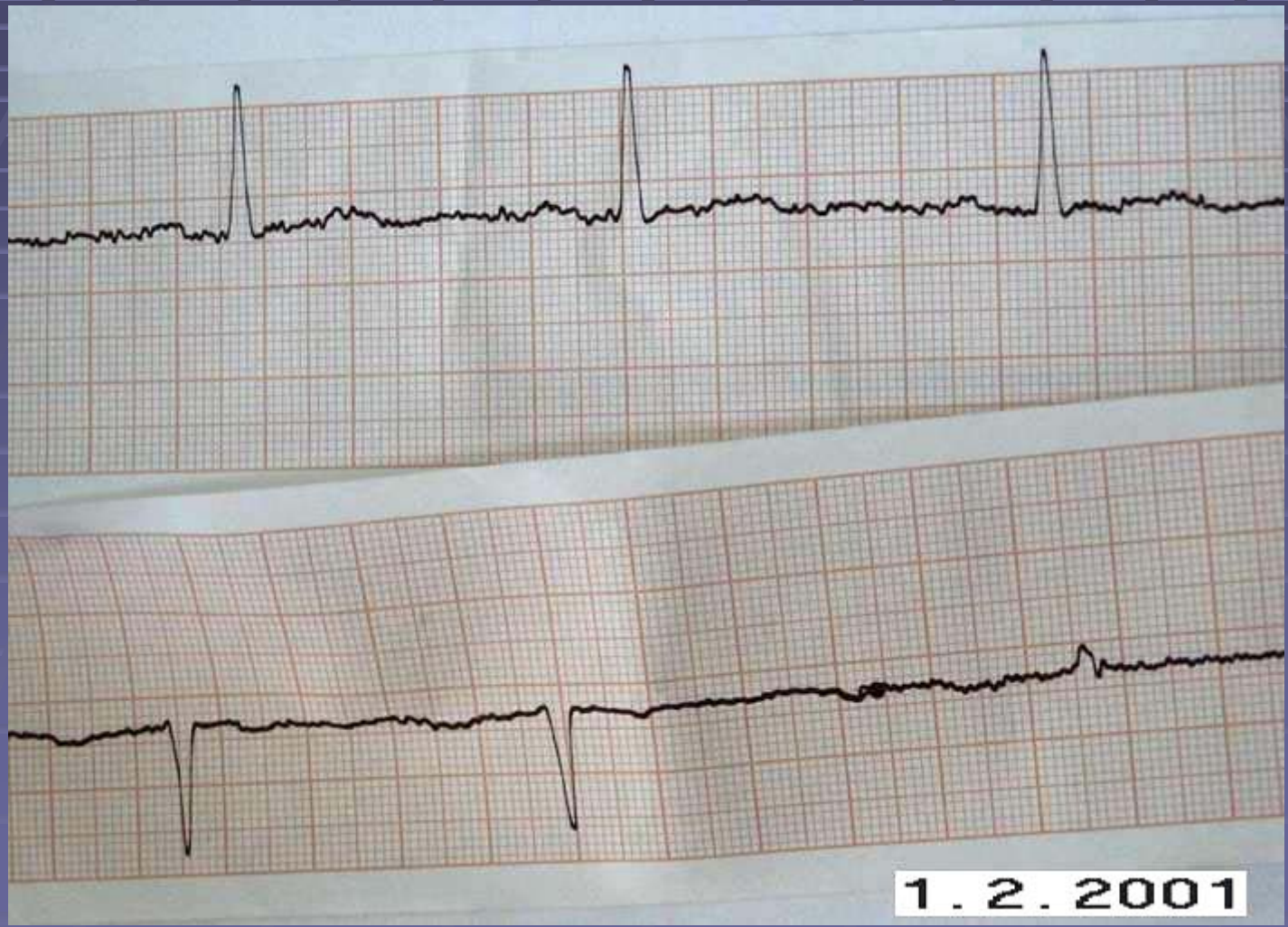
Tuberculosis – 41%

Pneumonia – 29%

Bronchitis – 8%

Pneumothorax – 2%

Telecardiology



The course of treatment was corrected in 57% patients due to TM consultations

The Results

- Principles of digital cameras selection for telemedicine were elaborated
- The forms for transferring the data are elaborated (for dermatology, cardiology, pulmonary disorders)
- The physicians of the correctional facility were taught to use the equipment properly, to obtain the images acceptable for the distant consultants.

The Conclusions

- Store-and-forward telemedical consults can be effectively used in practice of the Russian correctional system to diagnose diseases of skin, respiratory system (including TB), and heart.
- To make the consults effective, the medical staff of the correctional institutions should be taught both basics of computer usage and basics of telemedical technologies.

The Plans for the Future

- The distribution of our experience
- Communication with colleagues in other countries
- Further promotion of telemedicine in the mentioned correctional institution:

  - broadband line installation

  - telepsychiatry (videoconferencing)

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