Hospital Equipment includes basic medical technology, and the specific focus is on ensuring that all devices communicate using international HL7 standards. This will enable seamless information exchange, such as the transfer of laboratory results, both within hospital departments and between hospitals on national and international levels. The **European Union is preparing to implement HL7 standards**, and the hospital will already be equipped for this transition.

Key HL7 Standards:

- **HL7 v2** – the most widely used standard since 1987. It enables the exchange of messages between systems (e.g., ADT, ORM, ORU messages) using text segments separated by special characters.
- **HL7 v3** – a more modern standard based on object-oriented design and XML. It uses a **Reference Information Model (RIM)** to define clinical concepts.
- **CDA (Clinical Document Architecture)** – a standard for sharing clinical documents such as summaries, reports, and medical histories. These documents are structured and human-readable.
- **FHIR (Fast Healthcare Interoperability Resources)** – the newest standard, combining the benefits of HL7 v2, v3, and CDA. It uses modern web technologies (REST API, JSON, XML) to exchange data.
- **CCOW (Clinical Context Object Workgroup)** – a standard for visual integration of applications, now replaced by FHIRCast.

🎯 Why HL7 Standards Matter:

- Ensure **interoperability** between different systems (e.g., laboratory, radiology, EHR)
- Enable **automation of workflows** in hospitals
- Reduce **administrative errors** and improve **clinical efficiency**
- Promote **international collaboration** and data exchange among healthcare organizations

Device for Supportive Cancer Treatment – Oncotherm: The Oncotherm device has no equivalent in Bulgaria, despite there being **180 installations in Germany**.

Thanks to this project, patients in Bulgaria will have the opportunity to benefit from the most advanced approaches to cancer treatment.

2) Apendix No 2

A Series Ultrasound system

Overview

A series is a **premium ultrasound system** designed for cardiology and other clinical applications. It combines **high-resolution imaging**, **advanced visualization technologies**, and **ergonomic design**. Key features include:

- **Superb Micro-vascular Imaging (SMI)** – for detailed microvascular visualization
- **Precision+ and ApliPure+** – enhancing contrast and reducing noise
- **iDMS Beamforming** – for precise beam shaping
- **QuickScan** – automatic image optimization
- **DICOM compatibility** – for seamless integration with hospital systems

This system is suitable for a wide range of applications including **cardiology, gynecology, abdominal, and vascular imaging**. Its intuitive interface and flexible configuration make it ideal for busy clinical environments

3) Apendix No 3

Ultrasound I Series Overview

I series offers **premium ultrasound systems** designed for cardiology, vascular, and general diagnostics. Key features include:

- **iBEAM architecture** – revolutionary signal processing for exceptional image clarity
- **Precision Imaging and ApliPure+** – enhanced contrast and reduced noise
- **Superb Micro-vascular Imaging (SMI)** – detailed visualization of microvasculature
- **Advanced 3D/4D cardiac imaging** – precise anatomical visualization
- **Automated measurements** – including Ejection Fraction, GLS, Wall Motion Tracking
- **Ergonomic design and intuitive interface** – ideal for busy clinical environments
- **DICOM compatibility** – seamless integration with hospital systems

4) Apendix No 4

18 pcs EKG SP-12G

The SP-12G is a **12-lead electrocardiograph** capable of **simultaneous signal acquisition** and **automatic ECG analysis**. Key features include:

- **Color LCD screen** with touch operation
- **Thermal printer** for ECG waveform output
- **Automatic measurement and interpretation** of parameters such as HR, PR, QRS, QT/QTc, heart axis
- **Selectable rhythm lead** for arrhythmia monitoring
- **Built-in memory** for storing up to 4000 cases
- **Dual power supply** (AC and rechargeable battery)
- **Multilingual interface** including

5) Apendix No 5

8 pcs x Transport Ultrasound System

C**ompact and portable ultrasound system** featuring an 8-inch touch screen, designed for fast diagnostics in both field and clinical settings. Key highlights:

- **Lightweight (1.2 kg)** – ideal for mobile use
- **Replaceable Li-ion battery** – minimum 1-hour runtime, hot-swappable
- **Dual-slot battery charger** – extends operational time
- **Intuitive interface** – smart gestures, fast boot-up
- **High image clarity** – optimization tools like Auto-IMT and Auto PW tracking
- **Connectivity** – DICOM, Wi-Fi, Bluetooth, USB-C, HDMI
- **Imaging modes** – B-mode, M-mode, Color Doppler, Power Doppler, PW/CW Doppler
- **Suitable for home care, emergency medicine, vascular and abdominal exams**

6) Apendix No 6

1 pcs x Oncothermia EHY-2030

The Oncothermia EHY-2030 is a **locoregional electro-hyperthermia system** designed for adjuvant tumor treatment, especially glioblastoma, in combination with chemotherapy or radiotherapy. Key features include:

- **Smart Electrode System (SES)** – intelligent electrodes with LED indicators and ID tracking
- **Patient Management System (PMS-100)** – integrated patient monitoring
- **Touchscreen display** – intuitive control and real-time treatment monitoring
- **New RF generator** – impulse mode with up to 800 W peak power
- **Automatic impedance tuning** – fast adjustment via step motor
- **Robotic electrode arm** – precise positioning
- **Interchangeable textile electrode** – flexible adaptation to treatment area
- **Emergency stop button for patients** – enhanced comfort and safety

Technical data:

- RF output: max. 350 W (effective) / 800 W (peak)
- Carrier frequency: 13.56 MHz
- Dimensions: 1320 × 2500 × 1150 mm
- Weight: approx. 200 kg
- Operating temperature: +15 °C to +30 °C

7) Apendix No7

200 pcs x Hospital Beds

- **Classic hospital beds** – basic beds with manual or electric adjustment, designed for general inpatient care.
- **Surgery hospital beds** – tailored for post-operative recovery, often featuring anti-decubitus mattresses and adjustable sections.
- **Orthopedic hospital beds** – equipped with special supports and limb positioning, ideal for trauma or musculoskeletal surgery patients.
- **Resuscitation beds (ICU)** – highly adjustable beds with integrated weighing systems, CPR function, side rails, and emergency care features.
- **Hospital beds for hemodialysis** – ergonomic design with adjustable tilt, arm support, and comfort for long procedures.
- **Hospital beds for children (ages 2–14)** – safety features, adjustable side rails, colorful design, adapted to child's size and needs.

8) Apendix No8

2 pcs x **Refrigerated and Freezing Mortuary Boxes**

These units are designed for hospitals, funeral homes, and crematoria to store deceased bodies short-term or long-term. Key features:

- **Temperature range**:
  - Refrigerated boxes: +0 °C to +2 °C (up to 7 days post-mortem)
  - Freezing boxes: −10 °C to −18 °C (beyond 7 days)
- **Construction**:
  - Sandwich PUR panels with stainless steel or coated sheet metal
  - Insulated swing doors (800 × 1950 mm)
  - Modular design – expandable configurations
- **Capacity**:
  - Standard (S): up to 130 kg, 3–4 tiers
  - Robust (R): up to 220 kg, larger trays, suitable for coffins
- **Interior equipment**:
  - Rack system with roller tracks
  - Lifting trolley with 24 V motor, up to 260 kg load
  - Option to interconnect multiple boxes
- **Cooling unit types**:
  - Block (compact ceiling-mounted)
  - Central (shared condenser for multiple boxes)

9) Apendix No9

3T MRI

Premium 3 Tesla MRI system designed for advanced diagnostics in neurology, cardiology, oncology, and musculoskeletal imaging. Key features include:

- **Short 3T magnet with 71 cm bore** – enhances patient comfort
- **Pianissimo™ technology** – significantly reduces acoustic noise during scans
- **AiCE (Advanced intelligent Clear-IQ Engine)** – deep learning-based image reconstruction
- **PiQE** – boosts resolution and removes noise
- **Compressed SPEEDER** – accelerated 2D/3D scanning
- **Auto Scan Assist** – automated slice alignment and sequence setup
- **ForeSee View** – predictive image planning
- **DICOM compatibility, mobile Tablet UX control**
- **Support for non-contrast applications (e.g., Time-SLIP)** – safer imaging options

Vantage Galan 3T

Quiet Intelligence

10) Apendix No10

CT/ INSIGHT Edition

- **320-row detector** – enables full organ imaging (e.g., heart or brain) in a single rotation
- **Super Resolution 1024 matrix** – ultra-high image clarity
- **AiCE (Advanced intelligent Clear-IQ Engine)** – deep learning-based image reconstruction
- **Deep Learning Spectral Imaging** – spectral CT without dual-energy source
- **INSTINX workflow** – intuitive interface with automated scan setup and optimization
- **vHP 3-Phase** – three-phase scanning in one acquisition (e.g., cardiac, chest, abdomen)
- **SEMAR (Single Energy Metal Artifact Reduction)** – minimizes artifacts from metal implants
- **DICOM compatibility, mobile tablet control**
- **Low radiation dose** – optimized algorithms for safer diagnostics