CASE STUDY

CompuGroup Medical Polska

IT solutions for Healthcare

Synchronizing Healthcare

CGM CompuGroup Medical

v. 2/2013

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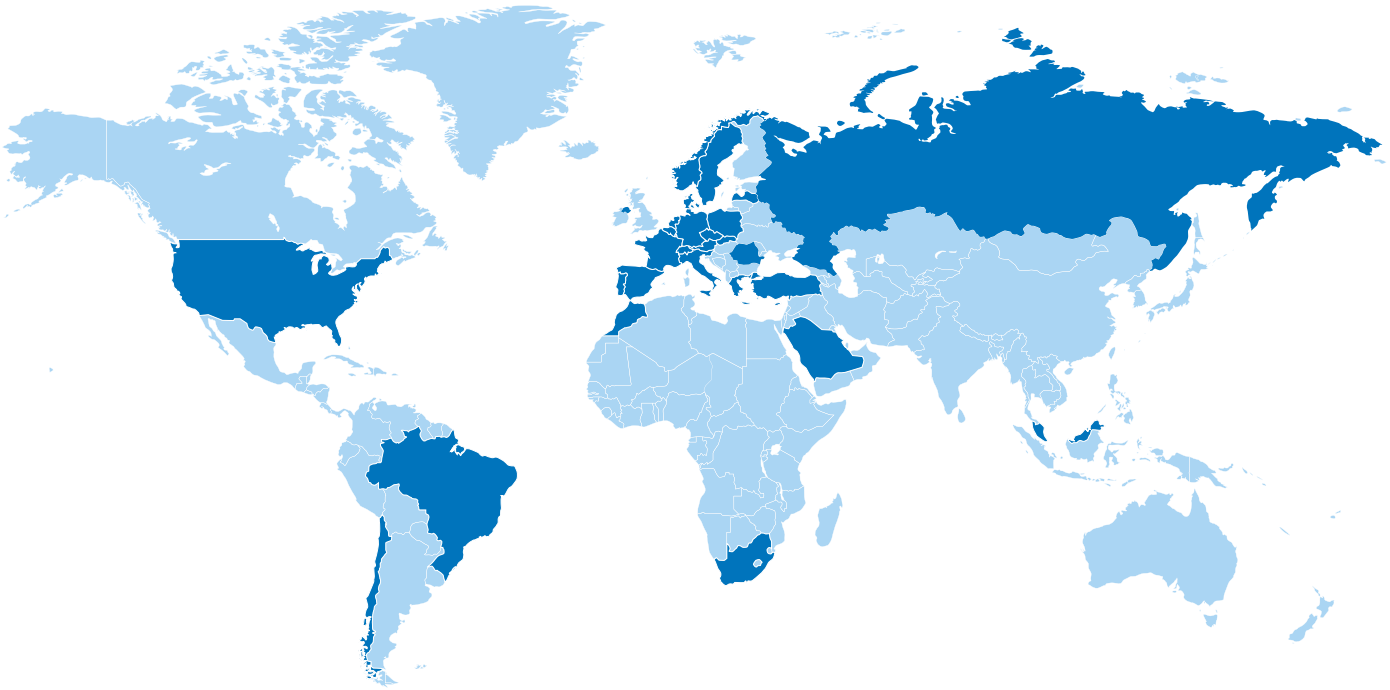
CompuGroup Medical

CompuGroup Medical is one of the leading companies of the eHealth sector in the world. It offers a range of software products designed to support all medical and organizational measures in doctors' offices and hospitals.
The services are based on a unique customer base that includes approximately 385 000 physicians, dentists and other service providers, as well as hundreds of hospitals and medical center networks. CompuGroup Medical boasts the largest territorial scope of its services among the eHealth industry providers. The company operates in 19 European countries as well as in Malaysia, Saudi Arabia and the United States. It currently employs approximately 3 600 staff.



CompuGroup Medical Polska Sp. z o.o.

A manufacturer of modern software for the healthcare sector. It owes its high market position to a comprehensive offer, including the multimedia Electronic Patient Record and innovative solutions based on web technologies. The solutions of CGM Polska are utilized by the largest private medical networks and over 150 hospitals in the country and abroad. Years of experience gained during the implementation of international projects and substantial investments in development have resulted in the creation of cutting-edge medical information systems to support the operation and management of healthcare units. In 2006, CGM Polska became part of CompuGroup Medical, operating on the market of IT products and services for healthcare around the world. Polish CGM complements the range of CompuGroup Medical with hospital and imaging systems in which it has specialized for over 18 years.

CLININET

59 830 system users
9 089 876 patients in the system
10 253 245 registered hospitalisations
41 002 794 outpatient visits

NETRAAD

48 178 system users
4 825 444 patients in the system
768 878 387 diagnostic images archived
9 865 406 diagnostic examinations performed

The data above is illustrative of the implementation of the selected CGM Polska systems as of 2013-09-19.

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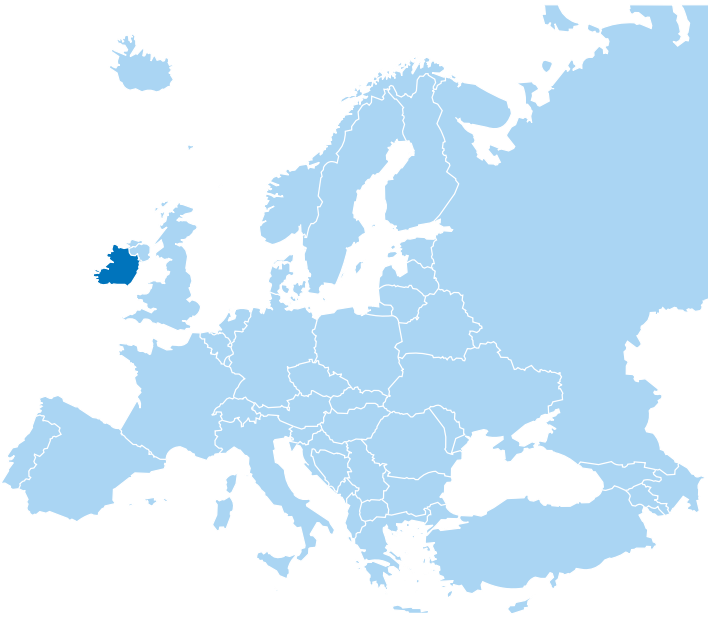


Beaumont Hospital in Dublin

Implementation of the EndoRAAD in Beaumont Hospital aimed at improving the flow of data, digitization of diagnostic imaging and the creation of a centralized system accessible from any location throughout the hospital. This resulted in improving the performance of the facility at various levels.

ENDORAAD

Activity profile:

Beaumont Hospital is a large academic teaching hospital that provides emergency and acute care services across 54 medical specialties. In addition, the hospital also operates a Designated Cancer Centre and the Regional Treatment Centre for Ear, Nose and Throat, and Gastroenterology as well as the National Referral Centre for Neurosurgery and Neurology, Renal Transplantation, and Cochlear Implantation. The hospital is the principal teaching hospital for the Royal College of Surgeons in Ireland and enjoys close links with Dublin City University in respect of training and research.

290 000 catchment population
3000 staff
820 in-patient beds

The project's objectives:

- facilitating and accelerating the work of staff by digitizing treatment rooms,
- increased efficiency and cost optimization, integrating new software with the existing IT system,
- connecting all diagnostic procedure rooms in a single network,
- improving the flow of medical data at the facility,
- archiving video examinations to support endoscopy procedure rooms.

Benefits:

EndoRAAD:

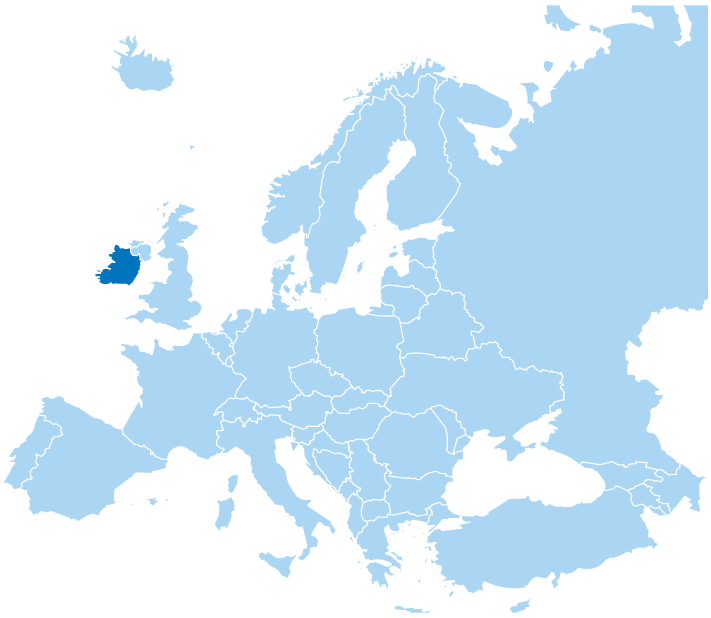
- allows collecting all medical patient data: treatment history, medical history and examination results,
- speeds up the process of entering, transmitting and sharing medical data,
- allows referring patients for examinations and viewing their results from any location throughout the hospital,
- facilitates recording, archiving and analyzing diagnostic images and video sequences,
- allows saving images on external media,
- allows creating accurate and legible medical reports,
- allows the exchange of data between individual departments and facilities.

Project description:

EndoRAAD implemented in Beaumont Hospital has been integrated with the existing hospital information system. This solution has allowed the users instant access to all patient information collected in one place.
One of the system features most appreciated by the users is the possibility of using predefined templates that allow a quick entry of descriptive data. It has a direct impact on the number of patients treated at the facility.

"In the 21st century computerised reporting is critical. The reports from EndoRAAD are accurate and legible. The Endoscopist has the ability to insert relevant endoscopic images into the report making it much more useful and informative for other medical personnel…"

Helen Ryan, Clinical Nurse Manager



Ireland

Public Health Service Executive Hospitals

EndoRAAD has been implemented as part of a government project organized by the Irish Health Service Executive. The project involved connecting separate Irish medical facilities into a single network, digitization of diagnostic procedure rooms and the development of a data exchange platform operating internally and externally.

ENDORAAD

Activity profile:

EndoRAAD has been implemented as part of the government's Health Service Executive encompassing the supply and installation of the system for clinical endoscopy in 17 hospitals across major cities in Ireland such as Dublin, Dundalk, Cavan, Clonmel, Galway, Tullamore, Roscommon, Wexford, Galway.

- over 500 EndoRAAD users
- 176 workstations
- 4740 in-patient beds

The project's objectives:

- computerization of diagnostic procedure rooms,
- improving the operation of endoscopic and ultrasound procedure rooms,
- creating a central network for all facilities participating in the project,
- facilitating the transfer of medical data between facilities and making patient data available,
- transfer of medical data to external medical platforms,
- integration with other systems (HIS, RIS),
- archiving diagnostic examination in DICOM and non-DICOM formats.

Benefits:

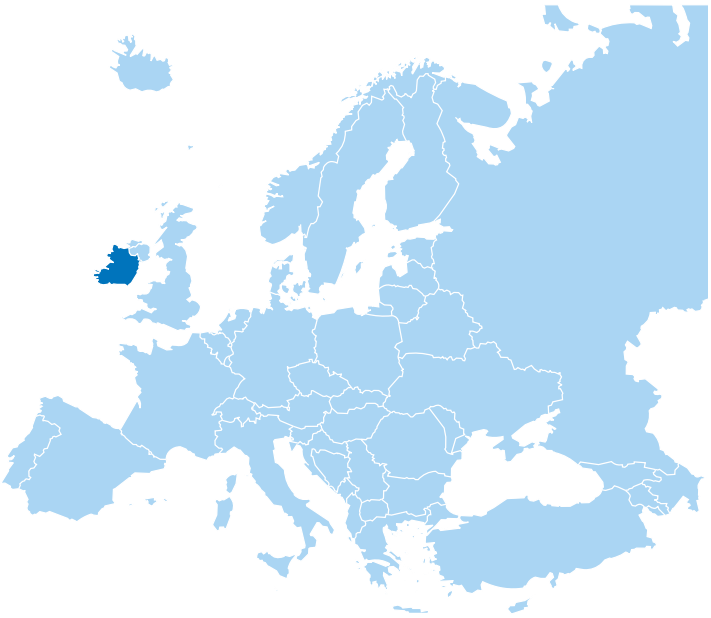
- archiving, recording and diagnosing video examinations in a non-DICOM format,
- integration with other systems used to date as well as with the national programs,
- improving the operation of diagnostic procedure rooms,
- auto-complete of an electronic patient record,
- access to the system from any network-connected location.

Project description:

Activities of CGM Polska implemented in Ireland within the framework of Health Service Executive merged all hospitals covered by the government programme to computerize public hospitals into a single network. In the facilities, a network was created to enable the exchange of medical data. EndoRAAD platform has been integrated with the National Cancer Screening Service, which enables the transfer of information on malignant tumors and the exchange of medical data with a national colorectal cancer screening programme and the national QA endoscopy (QA National Progamme in Gastro - Intestinal Endoscopy). Full digitization of endoscopy procedure rooms improved imaging and non - DICOM video examinations, as well as recording, transferring and reading them.

EndoRAAD is also fully integrated with the patient administrative system (PAS), laboratory information system (LIS) and radiology information system (RIS).

Implementation of the system was phased in two stages – the first one involved 12 medical facilities with a total of 3810 beds. The second stage of the project aims to implement EndoRAAD in five other hospitals with a total of 930 beds.



Ireland

St. Vincent's University Hospital in Dublin

St. Vincent University Hospital is another Irish facility in which CGM Polska has implemented EndoRAAD. Its greatest advantage is the improvement of the specialists' workflow who – thanks to user-friendly and intuitive tools, can easily create medical reports and gain instant access to all in-patient data.

ENDORAAD

Activity profile:

St. Vincent's University Hospital is a major academic teaching hospital, affiliated to University College Dublin. It has 479 in-patient beds and provides in excess of forty medical specialities as well as a front line emergency service. It provides national/regional medical care at inpatient and outpatient level.

479 in-patient beds

The project's objectives:

- computerization of the endoscopy procedure room,
- archiving of diagnostic images in a non-DICOM format,
- integration with the hospital information systems (HIS),
- facilitating and accelerating the creation of medical records by physicians,
- optimizing operational costs of diagnostic procedure rooms,
- full control of referrals for medical examinations.

Benefits:

- archiving endoscopic examinations in a non-DICOM format,
- easy interpretation of medical examinations by using the reports generator,
- instant access to patient information from any network-connected location,
- creating worklists for diagnostic equipment,
- creating a comprehensive patient record, collecting medical data from different stages of hospitalization.

Project description:

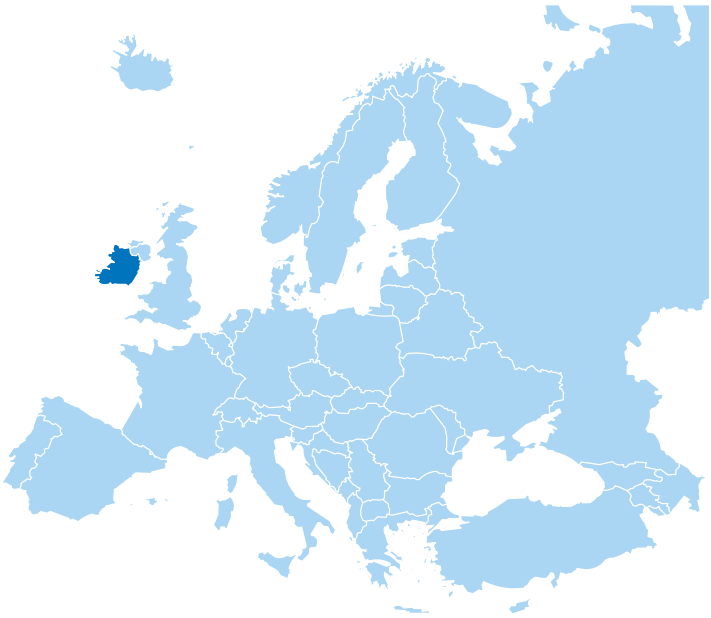
St. Vincent's University Hospital has introduced EndoRAAD in order to significantly improve the operation of treatment rooms where endoscopy and ultrasound procedures are carried out.

The system provides many features to help perform diagnostic examinations. It enables doctors to capture images and videos in the course of a procedure. Information from diagnostic equipment is transferred to the archive and then utilised in the creation of the electronic patient record. The resulting patient record is very clear for all system users, such as a general practitioner, referring doctor, medical records. It contains all the relevant information, including pictures, video and a PDF version of the patient's report.

Integration of the archive with the Hospital Information System, user friendly structured screens and intuitive tools greatly facilitate and accelerate the specialists' workflow. Doctors are presented with a worklist of patients scheduled for procedures on a given day and during the procedure digitally saved diagnostic images are correlated with patient information. This enables a comparison of examinations and a quick entry of interpretations and reports.

"EndoRAAD has a high user acceptance in the department due to its ease of use and compatibility with the local procedures. The ability to easily input and extract information is a major benefit. Since computerising our patient records we have saved on average 1 to 2 hours work every day searching through the paper records, now the information is available immediately at any terminal".

Richard Marshall, Clinical Nurse Manager



Ireland

Mater Misericordiae University Hospital in Dublin

EndoRAAD which has been implemented in the Mater Misericordiae Hospital enabled full digitization of endoscopy and ultrasound procedure rooms. It has also greatly improved such important areas of the facility as diagnosing and reporting.

ENDORAAD

Activity profile:

The Mater Misericordiae University Hospital is a charitable voluntary hospital. The hospital has two national specialties, i.e. heart and chest surgery, including transplantation and the treatment of spinal injuries. The regional specialties include ophthalmology, dermatology, early detection of breast cancer and oncology. The facility also partially provides services in the field of cardiology, kidney disease, general and vascular surgery, urology and orthopedics.

610 in-patient beds
185 000 catchment population

The project's objectives:

- digitization of diagnostic procedure rooms,
- development of a coherent system archiving medical data from various diagnostic procedure rooms,
- improvement in recording and archiving examinations,
- comprehensive integration with the hospital information systems (HIS),
- generating statistical reports to analyze the operation of procedure rooms.

Benefits:

EndoRAAD allows:

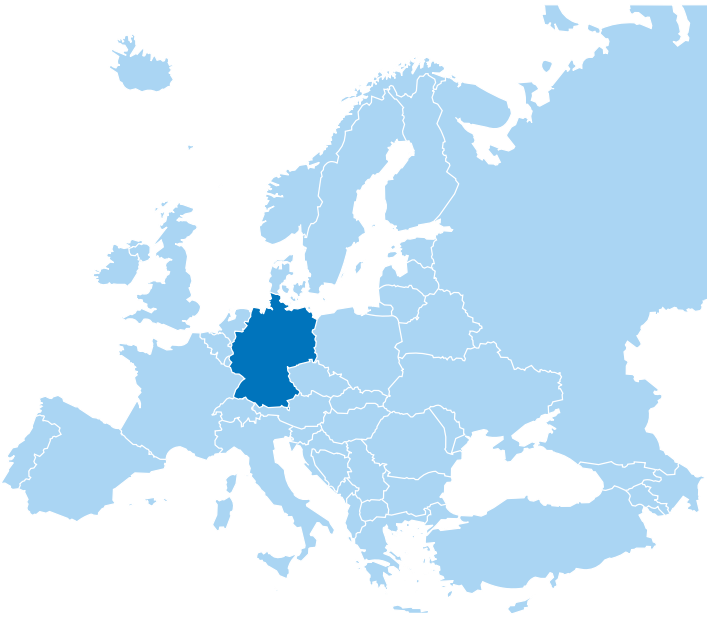
- fast access to information that can be utilised for reports, statistics, research purposes,
- automatic creation of reports in the course of the examination,
- storing examinations in long-term archives,
- collecting all medical data in one place,
- access to medical data from any network-connected location,
- comparing the results of examinations performed at different times.

Project description:

Doctors at the Mater Misericordiae University Hospital have utilized EndoRAAD since 2006 in all procedure rooms. It is used to record video sequences of a diagnostic procedure and further to create a patient report. This information is automatically stored in the form of an Electronic Patient Record, allowing doctors from different departments to access all patient information: medical history, the course of treatment and examinations.
System users are able to create reports while performing a medical procedure and access to pre-defined report generators greatly reduces the time needed to enter the interpretation of an examination.
With the ability to export data to popular programs such as Excel, Word, PPT, PDF, HTML, the system also meets the needs of standard reports, clinical audit, research and ongoing analysis.

"EndoRAAD has facilitated the development of a comprehensive, integrated and user friendly reporting system. Specific advantages include its ability to integrate with the hospital information system (HIS), histology as well as updating reports. The detailed database facilitates individual procedure recall, audit and clinical research".

Padraic MacMathuna, Gastroenterologist



Germany

Medinos medical facilities group in Thuringia

Implementation of NetRAAD in county hospitals of the Medinos group enabled the transition to fully digital diagnostics and the creation of a comprehensive medical database. Implementation of the system contributed to minimizing costs and provided for the exchange of medical information between hospital departments.

NETRAAD

Activity profile:

Medinos, i.e. a group of four companies, administers two county hospitals in Sonnenberg and Neuhaus. The hospitals provide inpatient and outpatient services in the field of gastroenterology, angiology/cardiology, diabetes, pulmonary disease, abdominal surgery, vascular surgery, thoracic surgery, gynecology and obstetrics, intensive care, rehabilitation, orthopedics, radiology, physiotherapy.

390 in-patient beds
650 staff

The project's objectives:

- digitization of diagnostic procedure rooms,
- storage of diagnostic images in a PACS archive,
- connecting two facilities to the central PACS archive,
- developing a coherent medical database,
- integration of NetRAAD with the hospital information system,
- optimization of services by reducing costs, increasing the efficiency of healthcare, eliminating deficiencies and errors.

Benefits:

NetRAAD allowed:

- creating a network accessible not only to hospital departments and procedure rooms, but also the two clinics owned by the Medinos group,
- access to a diagnostic image archive through web browsers,
- communication and exchange of medical data between different departments and hospital procedure rooms,
- consultations of diagnostic images at a distance,
- fast transmission of medical images directly to the hospital system.

Project description:

NetRAAD has been utilized in Neuhaus and Sonneberg hospitals in Thuringia as an archive of diagnostic images from November 4, 2002. The system stores examinations from both clinics, including X-ray, DSA, CAT scan, nuclear medicine and magnetic resonance imaging.
NetRAAD is fully integrated with the hospital information system which enables the creation of a patient medical record. Each order sent to a diagnostic procedure rooms is generated by the Schedule Module from which it is transferred to the system (including patient data). Following an examination, NetRAAD automatically associates diagnostic images with generated medical reports.
NetRAAD PACS module that serves as an archive, captures and makes images sent from diagnostic equipment and workstations available. Initially they are stored in a current archive and then transferred to a long-term archive. The system stores more than 320 000 examinations, including images imported from the previous radiology archive.
The system, and particularly the images can be accessed via web browsers such as Mozilla Firefox and Internet Explorer. Importantly, the system distributes NetRAAD images to all organizational units of both hospitals and enables teleconsultations.

Poland

The Maria Skłodowska-Curie Institute of Oncology in Warsaw

The successful computerization of the Oncology Institute in Warsaw has significantly raised the standards of service and performance and modernized the facility. The implemented systems have significantly enhanced an extremely important area of hospital diagnostics and prophylaxis.

CLININET, NETRAAD

Activity profile:

The Oncology Institute is one of the largest hospitals in Poland and one of the oldest facilities dedicated to cancer treatment in the world. Specialist clinics set up within the hospital are focused on comprehensive cancer treatment. Professional therapeutic facilities operate within the Institute as well. The hospital is currently a leading facility in the country. In 50 years of its operation more than 5 million patients have been hospitalized. The facility has been selected by the Ministry of Health as a center providing medical care to members of the government, parliament and diplomats.

776 in-patient beds

The project's objectives:

- delivery, configuration and commissioning of software for hospital and administrative purposes,
- digitization and computerization of diagnostic procedure rooms,
- creation of a comprehensive infrastructure that facilitates the circulation of medical information,
- optimization of services: reducing costs and increasing the efficiency of healthcare,
- creation of an electronic patient record.

Benefits:

CliniNET as well as PACS and RIS modules allow:

- archiving diagnostic images in a DICOM format,
- linking examinations to a patient automatically,
- distribution of various imaging examinations within one database,
- manipulating pictures and taking measurements,
- instant access to all patient information,
- access to all data from any network-connected location,
- streamlining administrative tasks.

Project description:

At the end of September 2010, the Oncology Insitute signed a contract with CGM Polska for the supply and implementation of the Comprehensive Hospital Information System.

CliniNET significantly improved the performance of the facility, both in terms of administration and direct medical services. First of all, it allowed for a consistent collection of all medical patient data, ranging from registration, though patient traffic in the hospital, clinics, operating rooms, wards, to diagnostic procedure rooms. This allowed for the creation of a comprehensive, multimedia Electronic Patient Record.

The imaging examinations system, NetRAAD PACS/RIS modernized and accelerated the process of archiving images. Now medical images are captured by the system directly from the device and diagnostic stations, then stored in the dedicated place on the server's hard disk. This way a comprehensive database is created that can be viewed from any location in the facility. Ultimately, the system which includes several functional modules will benefit hundreds of users simultaneously.

Poland

The Centre for Health Information Systems in Poland

Initiatives implemented as part of the P1 Project are aimed at improving public health by increasing the number of patients consciously involved in the treatment process and independently making decisions based on their own medical records they may access. The project contributes to the health security, reliability of medical data and improvement in the quality of services provided in health care. By optimizing the administrative work it improves the work of doctors and shortens the patient's waiting time for an appointment and test results.

Activity profile:

The Centre for Health Information Systems is a budget entity subordinate to the Ministry of Health. It performs the tasks of building the information society in areas such as organization and healthcare, harmonization with the European Union Structural Funds and e-health programmes. It also supports the Minister's decisions on matters relating to health on the basis of sociological, statistical and economic analyses. Through its actions, CSIOZ supports the development of information systems, especially the record-information ones.

The target recipients of the project:

- service users – 38 597 thousand people,
- medical staff – 511 610 people,
- service providers – 126 156 entities,
- pharmacies – 12 458 entities,
- public administration – 2.9 thousand entities,
- payers – the National Health Fund, entities providing departmental benefits (such as Ministry of Defense, Ministry of Interior, Internal Security Agency).

The project's objectives:

Implementation of the Internet Patient Account enables patients to:

- review personal medical records and orders,
- communicate with other users of the system, including medical staff,
- keeping a register of examinations,
- view and print prescriptions, orders, referrals and leave notes,
- access to information on medical events, such as appointments, hospitalizations, examinations, vaccinations.

Implementation of the Third Party Applications system enables:

- the publication of the Main Pharmaceutical Inspectorate's communications,
- authorizing service providers.

Benefits:

Online Patient Account:

- centralized access to medical information for patients,
- greater autonomy and patients' health literacy,
- access to critical data,
- possibility to lodge a primary health care declaration via the Internet,
- calendar administration with the possibility of sending appointment notifications to patients.

Third Party Applications:

- access to reports and statistics,
- monitoring the functioning of the healthcare system.

Project description:

In July 2012, CGM in collaboration with Hewlett-Packard Polska launched a nationwide P1 Project – "Electronic Platform for Collecting, Analysis and Access to Digital Data of Medical Events", funded by the Operational Programme Innovative Economy. As part of the project the following subsystems are created: Online Patient Account and Third Party Applications. Subsystems are implemented as part of the second stage of the P1 Project – "Design, implementation and warranty supervision of the Portal system".

P1 Project is currently the largest project in the framework of the Programme for Computerization of Healthcare in Poland and the total cost of its implementation amounts to PLN 712 640 000,00.

Poland

SCANLAB Teleradiological Center

Implementation of the Central Teleradiological Node in SCANLAB enabled commercial imaging reporting at a distance. The system has substantially improved the quality of services in the field of diagnostic imaging performed by the facility for a number of entities in the country and abroad.

CWT

Activity profile:

SCANLAB Sp. z o.o. has operated in the medical services market since 2008 and actively provides healthcare within two companies. The core business of SCANLAB is the provision of radiology diagnostics services. Through the Księży Młyn Medical Center of Diagnostic Radiology the Company performs magnetic resonance imaging, computed tomography and ultrasonography. In addition, SCANLAB operates as a provider of teleradiology - remote radiology reporting services.

Currently the facility interprets approximately 4 000 examinations per month on a 24 hour round the clock basis.

The project's objectives:

- creating a teleradiological network based on one universal IT system,
- enable consultations of imaging at a distance in SCANLAB Center,
- access to the system for an unlimited number of medical institutions in the country and abroad,
- enable consulting on examinations 24/7/365,
- ensure a safe workflow of medical electronic documents between institutions.

Benefits:

- enabling the provision of comprehensive teleradiology services for all medical facilities with access to the Internet,
- access to highly specialized medical staff,
- exchange of medical information between healthcare providers,
- improving the quality of medical services,
- access to a safe imaging PACS archive.

Project description:

In 2012, CGM Polska and SCANLAB signed a partnership agreement whereby CWT system enabling remote radiology reporting was implemented. The solution enabled provincial hospitals and imaging centers to benefit from diagnostic images consulting in SCANLAB reporting center. For some institutions it is often the only chance to gain access to specialized medical staff interpreting the full range of imaging. The installation of CWT system does not entail the purchase of specialized workstations. Diagnostic images are transferred via the Internet, so in order to send an order for an imaging consultation a standard PC a facility is equipped with will suffice. Moreover, connecting to a SCANLAN CWT teleradiological network is free of charge. Facilities only bear the costs related to an imaging report.

In addition, the implemented CWT system offers unlimited possibilities of its expansion by other facilities commissioning imaging consultations. The only requirement is an Internet connection with a speed that allows transmission of diagnostic images.

Poland

Institute of Tuberculosis and Lung Diseases in Warsaw

Implementation of CliniNET with additional specialist modules allowed for a reduction of the Institute's investment and administrative costs. A central network and user-friendly system modules enhanced user experience and improved the quality of services.

CLININET, NETRAAD, DRG OPTIMIZER

Activity profile:

The Institute of Tuberculosis and Lung Diseases in Warsaw is a major research institution of the Ministry of Health and Social Welfare dealing with respiratory diseases. It long operated primarily as a specialized TB treatment center. Over the years, its focus shifted towards other diseases such as cancer of the respiratory system, non-specific infections, interstitial disease, chronic bronchitis, emphysema, pulmonary embolism, pulmonary fungal infections and asthma. Since 1993, the Institute has been a reference center of the World Health Organization in the field of tuberculosis.

280 in-patient beds
700 staff

The project's objectives:

- the delivery of software to the hospital and administrative units,
- implementation of specialist modules which enhance the operation of the hospital's pharmacy and laboratory,
- digitization and computerization of diagnostic procedure rooms,
- integration of new systems with existing medical software,
- cost reduction and improvement of service quality,
- creation of an Electronic Medical Record of in-patients.

Benefits:

The benefits of CliniNET and specialist modules:

- collecting all patient data in one place - Electronic Patient Record,
- easy access to information and diagnostic images,
- access to the system via a web browser from any location,
- distribution of imaging examinations from different procedure rooms within a single database,
- streamlining administrative tasks,
- archiving diagnostic examinations,
- full integration with previous information systems.

Project description:

The implementation scope at the Institute of Tuberculosis and Lung Diseases has encompassed all major areas of the medical facility, including patient traffic in the clinic and hospital, medical orders, modules dedicated to the hospital pharmacy and laboratory, diagnostic imaging and a complete imaging PACS archiving system.
In addition, CGM Polska has delivered the system of cost analysis of medical procedures and settlement with the paying agent integrated with the administrative system. The system is based on a standard web browser and diskless computer terminals. This solution has allowed for the reduction of investment costs related to the purchase of workstations.

"The provision of DRG Optimizer by CGM Polska is the only consistently positive occurrence related to the introduction of homogeneous Patient Groups. Despite the flagrant negligence of the National Health Fund in preparing service providers for the new settlement system, with the grouper hospitals can test a variety of coding options, so as not to fail financially in the first few months. An elegant and clear interface, comprehensive information about the DRG and the help text system make the grouper an indispensable tool!"

Marek Ziegman, Deputy Chief Economic Officer

Poland

The Cardinal Stefan Wyszyński Institute of Cardiology in Anin

Long-term and multi-stage cooperation of CGM Polska with the Institute of Cardiology in Anin has led to the creation of a coherent, centralized information system. It has improved hospital management and enabled control over all of its units.

CLININET, NETRAAD

Activity profile:

The Institute of Cardiology in Anin is one of the best cardiology and cardiac surgery centers in Poland. It is also an important postgraduate educational center and a dynamically developing research center.
The Institute of Cardiology implements and disseminates a number of new treatment and diagnostic methods as well as trains cardiologists, thus significantly contributing to the development of Polish cardiology and cardiac surgery.

386 in-patient beds
nearly 29 000 diagnostic examinations anually

The project's objectives:

- improvement of hospital performance and merging all of its units in a single system,
- creation of a single, central system collecting data from the departments, registration, diagnostic procedure rooms,
- complete orders records,
- increased efficiency and cost optimization,
- computerization of diagnostic laboratories,
- archiving diagnostic examinations in a PACS archive.

Benefits:

- viewing diagnostic images and laboratory results from the level of a patient's medical record,
- digital archiving of images, automatic storage in the system and integration with the patient information,
- distribution of diagnostic images throughout the hospital and beyond,
- generating internal and external reports e.g. for the National Health Fund or the the National Institute of Public Health - National Institute of Hygiene.

Project description:

In cooperation with the Institute in Anin CGM Polska first implemented the radiology department system (RIS and PACS). In the following stages HIS modules were supplied to assist hospital management and handle e.g. patient traffic, medical orders and catering.
In 2008, CliniNET was extended by new modules: the central pharmacy, department pharmacies, medication orders, the clinic and the cost analysis system.
Positive results and effective cooperation resulted in implementing additional functionalities. They improved the workflow of:

- doctors in operating theaters, clinics, diagnostic procedure rooms,
- nurses, for example, through access to data at the patient's bedside,
- concierge desk staff - in the use of medical records or planning a patient's hospitalization.

CGM also provided equipment which was integrated with CliniNET, including 11 OCR scanners, 4 writsband printers, 4 label printers, an ID badge printer and 67 bar/matrix code readers, both stationary and mobile imaging scanners and 4 medical tablets.

Poland

The National Cancer Registry

The aim of the project implemented by CGM Polska was to create a modern system of data collection and a research platform offering extensive knowledge of oncological diseases. A modification of the cancer registration system ensures the supply of credible and comprehensive knowledge and the production of statistics useful in cancer prevention and treatment.

THE NATIONAL CANCER REGISTRY

Activity profile:

The National Cancer Registry which is part of the Cancer Center in Warsaw coordinates the collection of data on new cases of cancer in Poland. On this basis annual reports and analysis of morbidity and mortality in the country are developed. Moreover, papers devoted to risk factors, causes of morbidity, biological and environmental aspects in malignancies are published. Based on the statistics, the Center implements educational activities and organizes information campaigns.

The data is entered in the system based on Cancer Notification Forms and transmitted to 16 Regional Cancer Registries under the Vital Statistics Act. On that basis Provincial Cancer Registries perform their region-wide tasks similar to those of the National Cancer Registry.

The project's objectives:

- create a central platform for data collection and publication of information about cancer,
- implement the Platform for Advanced Statistical Analysis,
- centralize and improve coherence of different systems,
- improve the quality of data on malignancies,
- enable modern epidemiological research,
- create a research platform for access to knowledge about cancer, including descriptions of more than 60 types of cancer,
- improve the process of recording cancer-related data through the exchange of information in electronic form using the ESB services between physicians, health providers and the NCR,
- creation of a system for the construction of organ registers.

Benefits:

- consistent and complete cancer incidence data in Poland,
- collecting data on each new case of cancer and information on the continuation of treatment of cases reported earlier,
- enabling seamless transfer of knowledge on-line about the risks of cancer in Poland,
- creation of a common database for 16 Regional Cancer Registries and the National Cancer Registry,
- access to analysis, reports and statistics for analysts, statisticians and physicians,
- system integration with external systems (NHF registry, CSO registry, etc.) and hospital systems by other manufacturers,
- integration and analysis of data from various sources using modern Business Intelligence tools to enable comprehensive scientific research.

Project description:

In addition to the introduction of conditions enabling the exchange of electronic medical records, the act on the healthcare information system in force since January 2012 also assumed ordering medical registries, including the cancer registry. The aim of the project carried out by CGM Polska was to create a modern data collection system and a research platform offering extensive knowledge on cancer. As a result, a pioneering solution integrating informative functions of the cancer registry for scientific and research purposes was created. The National Cancer Registry incorporates a wide range of statistical reports to assess the risk of cancer among the Polish population, to keep track of morbidity and mortality time trends, geographic differentiation of the incidence of cancer and survival rates of cancer patients. Moreover, the National Cancer Registry cooperates closely with the World Health Organization (WHO).

Poland

John Paul II Specialist Hospital in Krakow

The project implemented for the Specialist Hospital in Krakow has helped to modernize diagnostic imaging procedure rooms through the implementation of NetRAAD.
The system has significantly improved the operation of all hospital diagnostic procedure rooms, provided for cost optimization and a transition to a fully filmless operation.

NETRAAD

Activity profile:

John Paul II Specialist Hospital in Krakow opened in 1917 as a public health care facility. It specializes in the treatment of infectious diseases, lung, heart and blood vessel diseases. The hospital has 526 beds, 17 departments, including 6 clinical ones, 26 outpatient units and 40 procedure rooms.

526 in-patient beds
1040 staff

The project's objectives:

- computerization of diagnostic imaging procedure rooms,
- access to diagnostic imaging unit wide,
- construction of a central images and data archive,
- complete orders records,
- optimization of the costs generated by diagnostic procedure rooms,
- integration of NetRAAD with other systems used in the unit via an HL7 interface.

Benefits:

NetRAAD allows:

- collecting all imaging examinations in one place in digital form, including patient information,
- web-based distribution of diagnostic images throughout the hospital and beyond,
- writing diagnostic images onto a CD or a DVD,
- simple server service – though a web browser,
- teleconsultations of diagnostic examinations.

Project description:

NetRAAD has been utilized in the Specialist Hospital in Krakow since 15 April 2000. NetRAAD PACS archive collects examinations performed by means of X-ray, CAT or MRI devices. Captured images are initially stored in a current archive, to enable users quick access, and then they are transferred to a long-term archive.
Diagnostic examinations archived on traditional radiographic film are digitized by means of the implemented ScanRAAD module which converts them to a DICOM format and saves them in an archive.
In turn, NetRAAD WEB module is used for their web-based distribution. The system distributes the images throughout the hospital and beyond via the Internet (SSL encryption). The system is operated through a standard web browser (Mozilla Firefox, Microsoft Internet Explorer). NetRAAD encompasses (distributes images to) all hospital units. The facility has also gained the opportunity to consult diagnostic images at a distance (teleconsultation).
Due to a large number of examinations, a DVD/CD duplicator whose task is to automate the process of writing disks for the patients has been connected to the system. Disks are marked with a uniform label identifying the patient and the examinations, the recording includes a digital examination result as well as its interpretation.

Poland

Optimization of Diagnosis Related Groups

Diagnosis Related Groups is a classification system for patients discharged from hospitals used in Poland by the National Health Fund since 2008 and mandatory for all health service providers settling accounts with the national payer. The creation of DRG optimizer by CGM Polska helped to reduce doctors' administrative workload and minimize the loss of revenue by medical units caused by incorrect coding of medical services in the DRG system.

DRG OPTIMIZER

Activity profile:

Classification of performed medical procedures in the DRG system is mandatory for all hospitals in Poland settling accounts with the national payer (NHF). After discharging patients, medical facilities create Diagnosis Related Groupings based on which accounts for health services are settled by the payer. Building on the experience gained in foreign markets, CGM Polska developed DRG Optimizer, a unique tool which calculates the point values of medical services and suggests coding changes to ensure more cost-effective groupings.

The project's objectives:

- increased coding profitability in the DRG system,
- grouping simulation and optimization of hospitalization,
- simultaneous access to the system of hundreds of hospitals across the country via a web browser,
- analysis of statistical data.

Benefits:

- full control over the coding of clinical cases,
- a benefit of optimal settlement with the NHF,
- education in the DRG cost accounting system and access to current NHF guidelines,
- work based on the payer's current regulations,
- streamlining administrative work,
- minimizing coding errors.

Project description:

The implementation of DRG optimizer in hospitals enables calculating the point values of medical services and their analysis. All grouped cases of hospitalization are stored in a national system accessible via a web browser. Users also gain access to a large knowledge base and a pooled analysis of clinical cases (statistics).

The principle of the system is based on the simultaneous analysis of the NHF guidelines (regarding the method of cost accounting in the DRG) and statistical data, which is formed on the basis of cases stored in the Optimizer's system.

"Surely the "aid tools" offered to hospitals are worth any price. Medical facilities will be able to quickly figure out the system and use it in a beneficial way. It will be easier to prepare a statement for the National Health Fund with much fewer errors."

www.mlodylekarz.pl – Young Doctor Portal

Poland

Specialist outpatient clinic at the Polish Mother's Memorial Hospital – Research Institute in Łódź

Implementation of the system of Internet patient registration to specialist outpatient clinics, developed by CGM Polska, was made possible by the financial support of the Norwegian Financial Mechanism. Improving the patient registration process measurably improved the quality of medical services.

A REGIONAL PROJECT – INTERNET PATIENT REGISTRATION SYSTEM

Activity profile:

The Polish Mother's Memorial Hospital – Research Institute in Łódź is one of the largest highly specialized medical centers in Poland. The Hospital comprises two major Gynaecological/ Obstetric and Paediatric units. The most complex cases of gynecological pathology and developmental disorders are diagnosed and treated at the institute. The facility provides comprehensive medical care for mothers and children under the age of 18. In addition, it conducts research as well as implements teaching and training activities.

24 clinics
6 diagnostic facilities
59 research staff

The project's objectives:

- streamlining the registration process,
- enabling patients to remotely register for an appointment,
- access to the registration system via a web browser,
- ensuring security of patient data,
- access to the system for patients from across the country,
- integration of the registration system with the hospital information system based on the HL7 interface.

Benefits:

- improving communication with patients,
- reducing patient queues in a facility,
- shifting some work related to making appointments to the patient,
- allowing patients to choose the date/time of an appointment and a specialist,
- availability of the system to patients from across Poland,
- improving the quality, accessibility and efficiency of health services.

Project description:

"The System of Internet Patient Registration to Specialist Outpatient Clinics at the PMMH – RI received funding from the Norwegian Financial Mechanism within the priority 2.5 Health and childcare.

The main objective of the project was to increase the availability of specialized medical services and to reduce the time spent by patients on registration to the institution's specialist outpatient clinics.

CGM Polska started to contribute to the project in 2007. Implementation activities and staff training were complete in December 2010 and the system itself was made available for patients' use the following year.

The Internet Registration System serves all residents of Poland. This solution is particularly beneficial for people living in rural areas where access to specialized medical services is often difficult. The system has streamlined the registration process, contributed to the increased availability of facilities for the inhabitants of other regions and improved the quality of medical services.

Currently, the Institute admits over 40,000 patients a year and the number of medical consultations in hospital outpatient clinics exceeds 180,000.

Poland

Independent Public Children's Teaching Hospital in Warsaw

At the Independent Public Children's Teaching Hospital in Warsaw, CGM Polska has implemented the imaging operating system and a hospital management support system. In this way, the existing software has been integrated and activities of both facilities have been fully coordinated.

CLININET, NETRAAD

Activity profile:

The Children's Hospital at Marszałkowska St. is a modern facility at the European level which boasts first-class equipment and employs well-trained staff.
At present, the main objective of the hospital is to provide highly specialized, comprehensive medical services in the following areas: anesthesia, surgery, endocrinology, cardiology, nephrology, ENT, oncology, hematology, psychiatry. The hospital comprises several diagnostic procedure rooms, a laboratory, pathology and radiology procedure rooms, a polyclinic and a number of emergency rooms at both locations.

384 in-patient beds
1147 staff

The project's objectives:

- full control over the operation of the hospital at two locations,
- construction of a single, coherent system for both locations,
- improving the system of collecting and sharing data,
- computerization of diagnostic procedure rooms,
- multiple users working simultaneously in the system in respect of the same patient record,
- optimization of the facility operation costs,
- control and management of administrative tasks.

Benefits:

Implementation of NetRAAD and CliniNET has allowed:

- access to an Electronic Patient Record including all medical data, examination results, diagnostic images, medical history, course of treatment,
- construction of a central diagnostic examinations archive available via a standard web browser,
- extensive distribution of medical images throughout the hospital,
- instant access to all patient information,
- access to an educational module enabling a review of examination results for research purposes.

Project description:

CliniNET Hospital System implemented by CGM Polska has encompassed such areas of the facility's activity as patient traffic, accounts settlement with the NHF, medical orders, diagnostic imaging, laboratory diagnostics, pathomorphology, operating theaters, infections and pharmacy.
In addition to medical software, both units have been supplied with management modules supporting the process of hospital management. The radiology procedure room has been digitized by implementing a PACS archive and a teleradiological system. As a result, both locations (several kilometers apart) represent a coherent and integrated telemedical system with an option to enter all the results, including X-rays, into the Electronic Patient Record accessible via the web.
CGM Polska has also conducted training for specific user groups such as server and network administrators, application administrators, doctors, nurses, and provided additional hardware: 100 terminals, 100 printers, 12 computers and 15 laptops.

Poland

Holycross Cancer Center

The implementation of the project for the Holycross Cancer Center resulted in the creation of an EHR (Electronic Health Record) system for fast and efficient exchange of electronic medical records (EMR) based on the HL7 v3 PL standard between selected medical centers in the świętokrzyskie province. The system also enables an exchange and interpretation of imaging in a DICOM format within the Regional Teleradiological Node.

A REGIONAL PROJECT

Activity profile:

The project encompassed the following facilities:

- **Holycross Cancer Centre in Kielce** – a modern, comprehensive oncologic facility admitting approximately 165 thousand patients annually. The center conducts lectures, research and issues specialized publications on cancer.
- **Provincial Hospital in Kielce**
- **Provincial Specialist Hospital in Czerwona Góra**
- **Center of Medical Rescue and Sanitary Transportation in Kielce**

The project's objectives:

- improve the quality of patient experience by providing clinicians reliable information on patient history supporting the process of diagnosis and treatment,
- enable a secure exchange of electronic medical records (EMR) between the participants of the project through the implementation of the Electronic Data Exchange Platform and the Regional Teleradiological Node,
- authentication and authorization of medical staff through the implementation of the Central Certification Center,
- enable other entities to join in by the use of open standards for the exchange of medical records,
- enable cost optimization of diagnostic and laboratory imaging with access to the results and mutual services.

Benefits:

- access to EMR and support for patient treatment processes by applying Evidence Based Medicine standards,
- lower costs of medical examinations through access to examination results in other units,
- interoperability of HIS domain systems for the exchange of medical records through the development of electronic services and communication adapters based on international HL7 v3 PL and IHE PIX standards,
- optimal use of the facilities' potential with the possibility of providing mutual services for the transmission of DICOM images, including their interpretations.

Project description:

In January 2013, the Holycross Cancer Center signed a contract with CGM Polska for the supply of a solution which comprised: an Electronic Data Exchange Platform, a Regional Teleradiologcal System and a Certification Center. The introduction of the systems and their integration with the established hospital information systems have enabled a free exchange of electronic medical records between the units. The project's implementation is an important step in building a comprehensive solution that requires interoperability of medical systems, enabling inclusion of all healthcare institutions in the świętokrzyskie region in the national "Electronic Platform for Collecting, Analysis and Access to Digital Data of Medical Events" in the future.
The project involves healthcare providers offering a variety of medical services, which is why the implemented solution will boost the comprehensiveness of patient treatment across multiple health problems, a market advantage over other facilities.
As part of the project, the first bus supporting HL7 v.3 PL protocol, an international standard for electronic information exchange in healthcare environments has been implemented in Poland.

Poland

Medicover Hospital in Warsaw

Implementation of CliniNET at the Medicover hospital in Warsaw was designed to computerize the facility. The successfully completed process translated into: cost optimization, increased efficiency of medical services and improved workflow of doctors, nurses and other users.

CLININET, NETRAAD

Activity profile:

Medicover Hospital, located in Wilanów, Warsaw, is Poland's first private medical facility with such an extensive range of hospital services and medical care that meets the highest international standards.
Medicover Hospital is the largest investment in the history of Polish private healthcare and one of the largest ones in this part of Europe.
The hospital comprises seven departments: Children's Health, Surgery, Internal Medicine, Cardiology, Anesthesiology, Intensive Care, Obstetrics and Women's Health.
The facility has its own rehabilitation and diagnostic center.

118 in-patient beds
400 staff

The project's objectives:

- support of hospital management,
- support of medical and non-medical staff's workflow,
- implementation of an effective system for the collection and processing of clinical administrative and cost-related data,
- implementation of an effective system of ordering and performing examinations,
- integration of CliniNET with the laboratory system.

Benefits:

- support of treatment procedures and patient care at the hospital,
- generating a wide range of data supporting the hospital planning and controlling,
- access to examination results, including interpretations and diagnostic images from any location in the hospital,
- auto-complete of an electronic patient record,
- improving the operation of diagnostic procedure rooms,
- integration with specialized third-party systems.

Project description:

CliniNET Hospital System is a proprietary product of CGM Poland, dedicated to modern, private and public medical facilities.The implementation of such an extensive IT infrastructure at Medicover hospital was associated with a multi-stage preparatory process. The project was preceded by an analysis of the requirements and adaptation of the CliniNET system to the specific nature of the facility. Analytical programming work took several months.
The system, which comprises 30 functional modules, has encompassed the hospital, diagnostic and administrative units. Its implementation has greatly facilitated the workflow of doctors, nurses and other users. Currently, the system benefits over 1 000 users.
CliniNET has also been fully integrated with the existing third-party hospital systems. It has significantly improved the flow of information and supported key processes of the hospital's operation with regard to the exchange of medical data. The systems integration has enabled multi-tiered update of patient data, medical history, consultations at a distance with doctors from any location in the world and a full exchange of data across the network of Medicover outpatient clinics and hospitals.

Poland

University Hospital in Krakow

The CWT teleradiological system that CGM Polska implemented at the University Hospital in Krakow has enabled the facility to carry out remote diagnostic consultations. As a result, the waiting time for a diagnosis was reduced and the quality of services increased.

CWT

Activity profile:

University Hospital in Krakow is the country's leading multidisciplinary medical center. The facility provides out-patient and in-patient medical services in the specialties represented by the departments, hospital facilities and clinics. During the year, the hospital admits nearly 75 thousand patients from across Poland and the number of consultations provided in outpatient clinics exceeds 380 thousand.

27 departments
60 out-patient clinics
1300 in-patient beds
3.9 thousand employees

The project's objectives:

- establishment of the Telemedicine Consultation Centre,
- consultations on diagnostic examinations by external entities,
- reducing the waiting time for a medical consultation,
- optimizing the costs generated by diagnostic procedure rooms.

Benefits:

- improved patient outcomes,
- ensuring constant twenty-four hour access to consultations,
- shortening the time of medical consultations,
- reducing the cost of delivering examinations for a consultation,
- increasing the quality of medical examination consultancy services.

Project description:

The main objective of the project implemented by CGM Polska was to create a Telemedicine Consultation Center based on the infrastructure of the University Hospital in Krakow. The system enables the transfer of diagnostic images to both Hospital Departments and external units.
Throughout the project's implementation stage over 12 000 highly specialized medical consultations for patients in 24 medical centers were carried out. The waiting time for a diagnosis and invasive treatment was shortened from 6 to 3 days for cardiac patients, and the waiting time for a neurological consultation is now 1, not 6 days.
The achievements of the project were presented at numerous scientific congresses of international and national importance.

Poland

University Clinical Center in Gdańsk

By implementing two original systems at the Clinical Center in Gdańsk, CGM Polska has improved all areas of the hospital's operation, in particular diagnostic imaging procedure rooms. Greatly facilitated work of the staff has been accompanied by a reduction of the operating costs and improvement of the quality of patient service.

CLININET, NETRAAD

Activity profile:

The University Clinical Center is one of the largest hospitals in Poland. The Center consists of 36 clinics with 1145 beds. Its leading position on the local healthcare services market is credited to experienced, professional staff, high standards of medical care and modern equipment.
On October 20, 2001 the Medical University of Gdańsk became the founding body of the UCC.

1145 in-patient beds
3 000 staff
70 000 patients anually

The project's objectives:

- support of control and management of all vital units in the facility,
- comprehensive computerization of diagnostic imaging facilities and procedure rooms,
- collecting all patient data in an Electronic Patient Record,
- digital archiving of imaging,
- optimization of the facility operating costs,
- improving the quality of medical services,
- generating internal and external reports,
- settlement with payers option (NHF).

Benefits:

Implementation of NetRAAD and CliniNET has allowed:

- development of a comprehensive, multimedia Electronic Patient Record,
- access to all patient data via a standard web browser,
- archiving imaging in one central archive,
- easy and fast management of medical information and diagnostic digital images,
- improving hospital management,
- optimizing the facility operating costs.

Project description:

The cooperation of CGM Polska with the University Clinical Center began in 2009. The hospital implemented HIS software which improved the operation of all the inpatient, outpatient and diagnostic units of the facility.
CliniNET has allowed for a creation of a more consistent database collecting all medical patient data in multimedia form. Employees access them through a standard web browser from any network-connected location in the hospital and beyond. This allows for much faster and more accurate diagnoses and teleradiological consultations.
NetRAAD has modernized and improved diagnostic procedure rooms in the facility. Its main module – PACS archive, retrieves images from all diagnostic equipment, saves, processes and provides them to users via a web browser.
As part of the project, CGM Polska has also provided the facility with necessary hardware, including servers and computer terminals.

Poland

Military Institute of Medicine in Warsaw

The successful implementation of the CliniNET system at the Warsaw Institute has enabled the construction of a research and diagnostic platform collecting all medical data in one place. This allows for efficient management of the facility and easy communication between the units.

CLININET

Activity profile:

The Military Institute of Medicine in Warsaw provides comprehensive medical care and operates as a research and development unit. With skilled medical staff, modern equipment and fully computerized medical diagnostic procedure rooms, the hospital provides the highest quality medical care. The facility also carries out clinical research, particularly with regards to military healthcare.

1016 in-patient beds
621 staff

The project's objectives:

- effective facility management,
- optimization of administrative tasks,
- computerization of diagnostic procedure rooms,
- archiving imaging in a PACS archive,
- maintenance of the patient's medical history in electronic form with an opportunity to view the entire course of treatment,
- full integration of systems responsible for managing the facility, medical data and diagnostic images,
- full integration with the RIS,
- provision of a dedicated payer billing module,
- improving the quality of medical services.

Benefits:

Implementation of CliniNET has allowed:

- the creation of a uniform system to collect and process medical data and make it available through a web browser,
- patient traffic control,
- smooth exchange of information between different units,
- orders system control,
- streamlining administrative tasks,
- comprehensive management of the entire facility,
- conducting financial and statistical analysis.

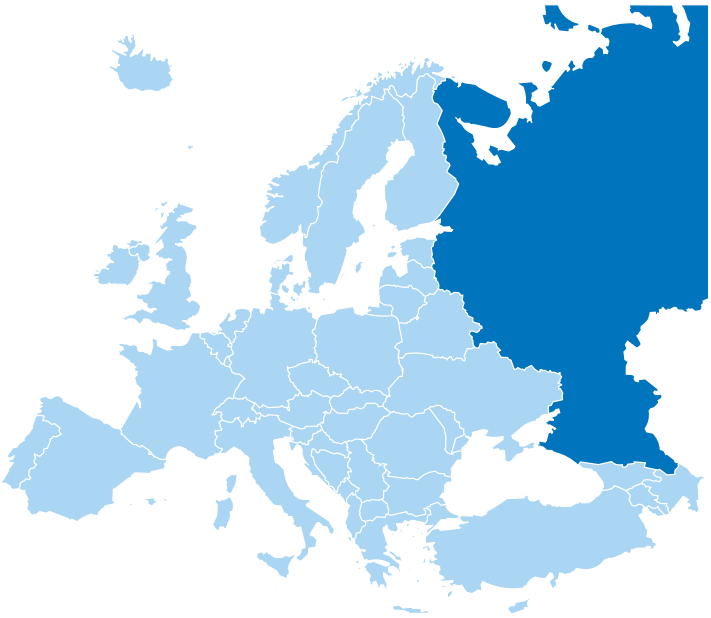
Project description:

Implementation of CliniNET at the Military Institute of Medicine in 2009 significantly improved the performance of the facility. Modules responsible for patient traffic, a pharmacy and a laboratory streamlined the process of collecting, processing and sharing data. The communication between the individual units: departments, procedure rooms, the laboratory, registration has become faster, and access to patient records easy and orderly.

Utilizing the module to settle the accounts with the National Health Fund and Management Information System (MIS) allowed for more control over the budget of the unit.

On the basis of long-term cooperation and the hospital requirements analysis, CliniNET is periodically updated with new functionalities and is subject to further extension.

In early December 2010, the Military Institute of Medicine in Warsaw signed another contract with CGM Polska for the expansion of the medical data collection system, HIS. This is the following stage of the TeleMedNet project – a medical research and diagnostic platform run by the Military Institute of Medicine in cooperation with the Regional Specialist Hospital in Wrocław.



Russia

Private network of medical Bud Zdarov facilities

NetRAAD implemented at the Bud Zdarov clinics network has enabled the digitization of diagnostic procedure rooms at the facilities located in major Russian cities. The creation of a central, comprehensive system has rapidly improved the quality of medical services and significantly contributed to the reduction of operating costs of Bud Zdarov clinics.

NETRAAD

Activity profile:

Bud Zdarov is a network of modern, multidisciplinary private clinics located in major Russian cities: Moscow, St. Petersburg, Saratov, Krasnodar, Ufa, Kazan, Novosibirsk, Nizhny Novgorod and Krasnoyarsk.
The clinics provide a wide range of medical services for both children and adults. They employ qualified professionals and utilize the latest diagnostic and laboratory equipment.

38 diagnostic devices
over 1000 NetRAAD users

The project's objectives:

- digitization of diagnostic examinations,
- archiving DICOM imaging and video examinations in local PACS archives,
- connecting 38 diagnostic devices that generate images in DICOM and NON-DICOM formats to the system,
- creation of a central PACS archive for the entire clinics network,
- option to transfer imaging examinations for consultation in external interpreting facilities,
- optimization of the clinics operating costs.

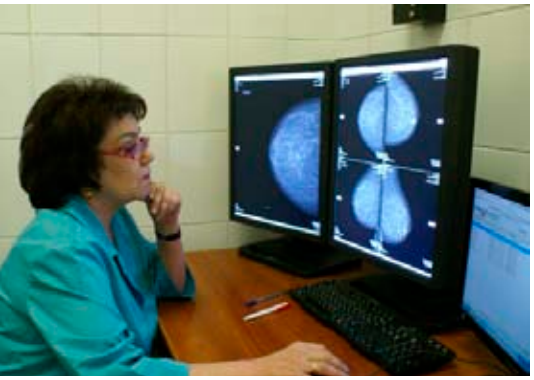
Benefits:

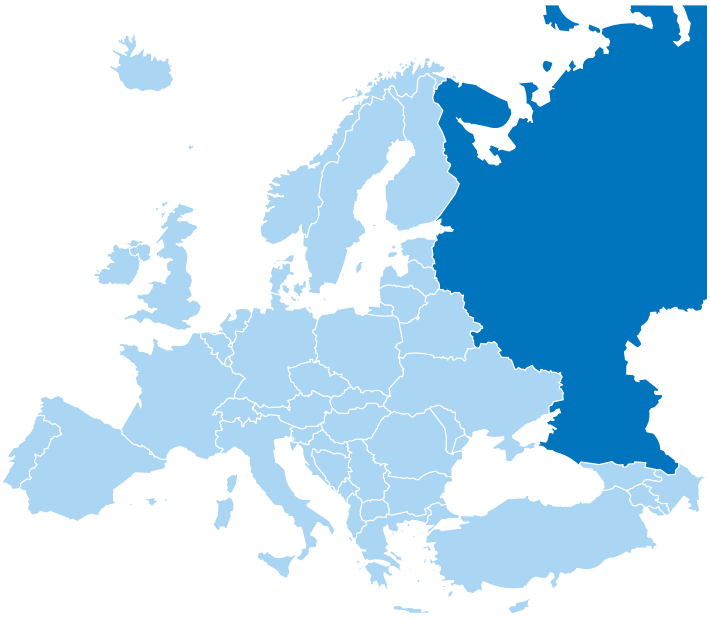
Implementation of NetRAAD has allowed:

- storing imaging examinations in DICOM and non-DICOM formats in local archives,
- creation of a central archive accessible to all facilities within a single network,
- connecting multiple devices to a single coherent archive,
- transfer of imaging for teleradiological consultation to specialists from other facilities,
- integration of diagnostic imaging medical data with the Infoclinica hospital system.

Project description:

In November 2012, CGM Polska successfully implemented NetRAAD in the Russian Bud Zdarov network of multidisciplinary clinics. Entering the medical services market in Russia is a major achievement in the history of the company.
38 diagnostic devices that generate imaging examinations in a DICOM format and video examinations have been connected to the system. This has allowed for the consolidation of local PACS archives from individual clinics and the creation of a central archive in Moscow accessible to all Bud Zdarov facilities.
Implementation of NetRAAD has also enabled specialized examinations to be centrally interpreted and consulted across Russia. Clinics have gained access to highly qualified specialists with whom they can consult diagnostic examinations at a distance.The solution has significantly increased the user experience in diagnostic procedure rooms of the clinics and enabled diagnoses at a previously unattainable level.





Russia

Public Polyclinics in St. Petersburg

DiagRAAD system implementation is the result of the Russian government's increased investments in diagnostic examinations, especially mammography. The integration of imaging devices with DiagRAAD has streamlined the diagnosing process, facilitated the workflow of professionals and improved the precision and accuracy of diagnosis.

DIAGRAAD

Activity profile:

DiagRAAD has been implemented in 26 public polyclinics located in St. Petersburg. These are large outpatient centers which are the core of the local medical care. They combine patient care with research and development activities, deal with general and specialized treatment, diagnosis, prophylaxis and provide medical consultations.
Providing effective, specialized care in St. Petersburg is one of the priorities set by the municipal authorities. Much attention is paid to the implementation of measures aimed at the prevention, early detection and treatment of cancer.

26 mammography devices
circa 2,5 million women in the city

The project's objectives:

- cost reduction by a transition to filmless operation,
- a possibility to view medical images in a DICOM format,
- availability of imaging examinations measurement tools,
- access to imaging examinations from different diagnostic stations connected to the system,
- allowing doctors to interpret mammograms using BIRADS scoring system.

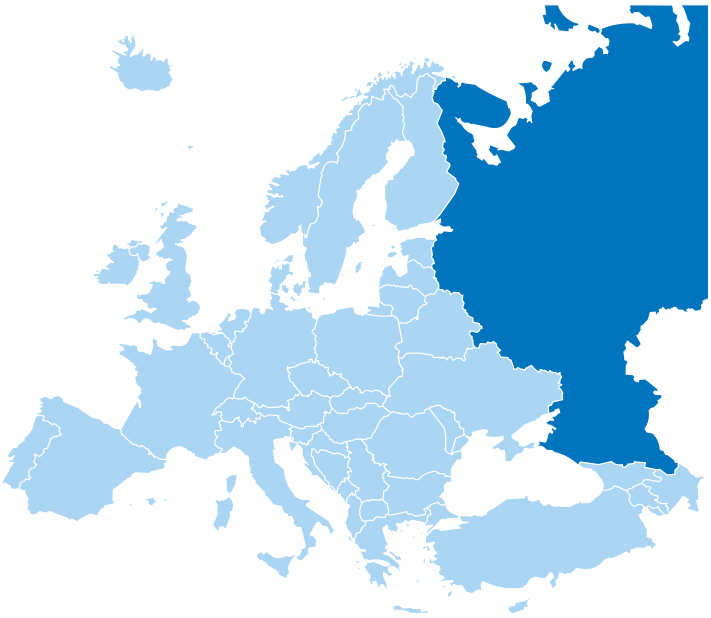
Benefits:

Installing DiagRAAD has allowed:

- displaying diagnostic images in any network-connected location,
- manipulation of diagnostic images: zoom, rotate, compare,
- access to specialized measurement tools to provide for a detailed diagnosis of imaging examinations,
- the possibility to interpret mammograms using BIRADS scoring system (Breast Imaging-Reporting and Data System) developed by the American College of Radiology (ACR).

Project description:

Installing DiagRAAD in 26 public polyclinics in St. Petersburg is one of the many projects implemented by CGM Polska in Russia in 2012. Its main task is to support breast cancer diagnostics.
Unsettling statistics and low detection of cancer prompted the Russian government to invest in diagnostic technologies and the implementation of modern systems enabling early detection in selected public polyclinics.
In polyclinics involved in the project modern mammography devices have been fully integrated with DiagRAAD – a DICOM image viewer. As a result, diagnostic images from the devices are transferred directly to the viewer. Users can view the images on any diagnostic station, manipulate and perform all necessary diagnostic measurements. This enables them to deliver a fast and accurate diagnosis.



Russia

Public hospitals in the Tula Oblast

Implementation of NetRAAD in public Tula Oblast hospitals involved integrating it with the information systems currently used in polyclinics and connecting multiple diagnostic devices to a single network.

NETRAAD

Activity profile:

9 hospitals provided with PACS/WEB/DiagRAAD software by CGM are public facilities located in the Tula Oblast. They provide medical care for about 500 000 local population. The Tula Oblast is located in the Moscow coal basin by the Upa river.

500 000 catchment population
18 diagnostic devices
over 2000 NetRAAD users

The project's objectives:

- computerization of diagnostic procedure rooms,
- connecting different types of diagnostic devices (CT, MRI, CR) generating images in a DICOM format to the network,
- archiving diagnostic examinations in digital form,
- performing advanced medical measurements by means of a DICOM image viewer,
- improving the circulation of medical data,
- integration of NetRAAD through the HL7 standard with other systems used in the facilities, including the HIS system – Infoclinica,
- improving the quality of medical services by creating electronic medical patient record accessed by doctors.

Benefits:

Implementation of the systems has enabled the facilities to:

- automatically archive imaging results,
- perform specialist measurements of diagnostic images,
- easily manage information and diagnostic images,
- create complete medical documentation in the form of an electronic patient record,
- archive, process, transmit and share data - from any location in the hospital,
- exchange medical information between IT systems, through integration using the HL7 standard.

Project description:

Under the contract, CGM Polska has delivered NetRAAD PACS and DiagRAAD diagnostic image viewer to 9 public hospitals in the Tula Oblast. 18 different types of medical devices generating images in a DICOM format with an option to archive the imaging from several diagnostic procedure rooms in one central archive have been connected to the system.
NetRAAD PACS has been fully integrated with the hospital Infoclinica system utilised in the facilities to date. The integration has enabled a full exchange of data between all areas in polyclinics and automatic completion of an electronic patient record. Doctors working in different departments have been granted access to all data archived in the system and given the opportunity to carry out diagnostics on a previously unattainable level.

Slovakia

Central Military Hospital in Ruzomberok

Implementation of NetRAAD at the Central Military Hospital in Ruzomberok is the first CGM's project run in Slovakia. The system has contributed to a comprehensive digitization of diagnostic procedure rooms and resulted in the full procedural automation.

NETRAAD

Activity profile:

Ruzomberok Central Military Hospital occupies an important position in the network of military healthcare. It is the largest military hospital in Slovakia owned by the budgetary organization of the Ministry of Defence of the Slovak Republic. The hospital provides medical services at the regional and national level for both military and civilian citizens. The facility provides in excess of 20 medical specialties and has 400 beds across five separate buildings.

400 in-patient beds
4 diagnostic devices

The project's objectives:

- digitization of diagnostic procedure rooms,
- archiving imaging from all units in a central PACS archive,
- access to examinations throughout the hospital,
- access to specialized DICOM format diagnostic image viewer,
- integration with the RIS/HIS,
- auto-complete of an electronic patient record with diagnostic data,
- optimizing the costs generated by procedure rooms.

Benefits:

- access to specialized measurement tools enabling a detailed diagnosis of imaging findings,
- automatic archiving of imaging results in a DICOM format,
- integration of diagnostic medical data with the HIS and RIS utilized in the facility,
- distribution of diagnostic images to any network-connected location,
- easy management of information and diagnostic images,
- creation of a complete medical documentation in the form of an electronic patient record,
- optimizing the costs generated by diagnostic procedure rooms.

Project description:

In 2010, CGM Polska completed the first implementation project in Slovakia intended to digitize all diagnostic procedure rooms in the facility.
The installed system, NetRAAD, archives diagnostic images in a DICOM format and makes them available for clinicians to process. Their detailed analysis is enabled by DiagRAAD module which provides a number of specialized tools required to perform medical measurements. Examinations and their accompanying reports can now be viewed effortlessly in all hospital network-connected locations.
Full NetRAAD integration with Clinicom, the hospital information system (HIS) and S4M Radiology, a radiology management system (RIS) enables a smooth flow of all medical information within the electronic patient record.

Slovakia

Hospital and Policlinic in Topolcany

The implementation of two IT systems at the Topolcany facility is another project conducted by CGM Polska in Slovakia. EndoRAAD and NetRAAD systems have significantly contributed to the staff work comfort, thanks to intuitive and easy-to-use tools and a central PACS archive which collects images from all diagnostic procedure rooms and manages them accordingly.

NETRAAD, ENDORAAD

Activity profile:

The hospital in Topolcany is a multi-specialty facility operating at a regional level with a specialist outpatient clinic complex. The hospital comprises 9 specialized departments: Anaesthesiology and Intensive Care, Gynecology, Surgery, Rehabilitation, Neurology, Orthopedics, Pediatrics, Internal Medicine and Traumatology.
The hospital provides medical care to patients from Topolcany and Banovce nad Bebravou.

370 in-patient beds
630 staff
160 000 catchment population

The project's objectives:

- providing the hospital with NetRAAD PACS, an integrated information system which enables archiving of DICOM and non-DICOM diagnostic images,
- providing access to diagnostic examinations in different locations throughout the hospital and beyond,
- improvement of professionals' workflow by providing easy-to-use and intuitive tools to perform measurements of diagnostic images,
- improving the quality of medical services by reducing the results waiting time.

Benefits:

NetRAAD and EndoRAAD software implemented at the Topolcany hospital allow:

- archiving of diagnostic examinations in DICOM and non - DICOM formats from all diagnostic equipment in the facility,
- access to a central archive encompassing all diagnostic procedure rooms,
- a possibility to distribute medical data, both throughout the hospital and beyond,
- capturing images and video sequences during the examination,
- fast and easy correlation of diagnostic images with patient data.

Project description:

At the end of the first quarter of 2013, CGM Polska implemented NetRAAD and EndoRAAD systems at the Topolcany hospital.
NetRAAD has enabled the full computerization of all diagnostic procedure rooms located at the facility. Users gained rapid access to diagnostic examinations performed and a number of tools to perform advanced medical measurements. The system makes it possible to archive images from all diagnostic devices utilized at the facility and distribute them freely through NetRAAD WEB browser.
Endoscopy and ultrasound procedure rooms have been equipped with EndoRAAD which allows digital recording of video examinations in a non-DICOM format. All examinations performed are recorded in the system and having been stored in an archive, they are made available to doctors for interpretation. The opportunity of using ready-made templates of examination results greatly reduces the time needed to create medical records and enhances the system user experience.

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Malaysia Malezja Francja
Hiszpania Spain
Italy Австрия Portugal
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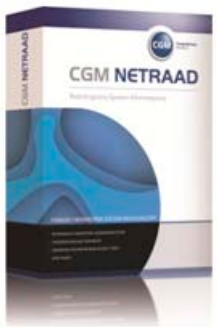
Malaysia Италия
Grenlandia Francja Czechy
Hiszpania Austria

CLININET

CliniNET is a proven solution for hospitals, various specialist outpatient clinics and Primary Healthcare facilities. It allows control and management of all relevant aspects of these facilities operation. CliniNET provides access to patient information in multimedia form via a standard web browser. The system allows for consistent collection of all medical patient data – from registration, patient traffic in the hospital, treatment rooms, operating theatres, wards, to diagnostic and radiology procedure rooms – and the creation of a comprehensive, multimedia Electronic Patient Record. As a result, access is gained to the patient's clinical data, course of treatment, and diagnostic and therapeutic results of medical procedures performed. Advanced security tools utilized guarantee safe storage of patient data.



NETRAAD

NetRAAD is an integrated information system dedicated to the comprehensive computerization of diagnostic imaging facilities and procedure rooms. The system allows management of medical information and digital diagnostic images, archiving them and creating and a complete medical documentation in the form of electronic patient record. Our solution improves the operation of a diagnostic imaging facility, provides for cost optimization and a transition to a fully filmless operation. NetRAAD allows connecting multiple devices and diagnostic procedure rooms within a hospital, an outpatient clinic or a large medical network. Scalability of the system allows for expansion tailored to requirements without having to modify and implement additional software. NetRAAD is efficient in both large and small facilities. The range of features and the number of modules depend on the expectations of Customers and individual needs of a healthcare facility.

ENDORAAD

EndoRAAD is a system designed to digitally record, archive and interpret diagnostic images and video examinations (e.g. endoscopy, laparoscopy, ultrasound, colonoscopy, gastroscopy, sigmoidoscopy, ERCP, bronchoscopy, EUS). Images or video sequences recorded during an examination are stored in a dedicated archive and made available to doctors for interpretation. The system supports high quality examinations in both DICOM and non-DICOM formats. EndoRAAD is a multi-module system which provides a number of features, including work in the treatment room, archiving of diagnostic examinations and diagnostic facility management. The system allows users to create reports (capture images and video sequences) in “real time” during the examination. After they are archived, all the images and reports can be viewed on hospital wards and in other locations via any web browser.

CWT

CWT (the central teleradiological node) is a teleradiology consultation platform. It provides for a quick transfer and interpretation of radiological examinations in reputable consultation centers. Imaging examinations are sent for a consultation via the Internet though a secured VPN (Virtual Private Network). The examination report is sent back in electronic form to the RIS where it is automatically displayed and available as part of an electronic patient record.

DRG OPTIMIZER

DRG (Diagnosis Related Group) Optimizer is a unique application which enables the calculation of medical services point values and suggests coding changes to ensure more cost-effective grouping. The tool is fully integrated with the hospital system, encompasses contracts with the National Health Fund and other paying agents and provides access to the statistics collected in the system. The application can be accessed via a standard web browser.

Synchronizing Healthcare

CompuGroup Medical

CompuGroup Medical Polska Sp. z o.o.,
ul. Do Dysa 9, 20-149 Lublin
tel.: +48 81 444 20 15, fax +48 81 444 20 18
www.cgmpolska.pl