

Case Study

OSPIDÉAL NAOMH SÉAMAS
ST. JAMES'S HOSPITAL



Transforming patient care with technology

St. James's Hospital; Dublin, Ireland

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Dr. Neil O'Hare
Medical Physics
and Bioengineering
Department

Client at a Glance

Name: St. James's Hospital

Location: Dublin, Ireland

Beds: 950

Staff: 4,500

Annual Turnover: €380m

Radiology Exams: 150,000 PA

Laboratory Tests: 2,000,000 PA

Cerner Solutions: Radiology, picture archiving, scheduling, *PowerChart* (Order Communications including Laboratory and Radiology)

St. James's Hospital, Dublin, Ireland's largest acute general teaching hospital has transformed patient care, substantially improved efficiency and laid the foundation for a full electronic patient record (EPR) after implementing Cerner technology.

Installed in June 2006, the Cerner EPR system enables St. James's to put patients at the heart of the clinical process by unifying radiology information systems, a picture archiving and information system, and electronic ordering and tracking results of pathology tests. The ability to access the complete patient profile from anywhere in the hospital enables doctors to make accurate diagnoses and prescribe appropriate treatment, thereby reducing the likelihood of clinical error and patient risk.

Experience and vision

St James's selected Cerner as its healthcare information technology (HIT) partner because of its experience in providing proven, hospital-wide, fully integrated, patient-centric systems.

Cerner has been established in the United Kingdom for more than 20 years. With more than 700 associates in the UK, the hospital is at the heart of the health service modernisation programme, increasing patient choice and improving the patient experience.

“While other systems have some of its component parts, the Cerner system is the most integrated solution,” said Dr. Neil O'Hare of the Medical Physics and Bioengineering department at St. James's and project implementation lead. “Cerner has an impressive EPR roadmap in place, and the company's proven track record in e-health gave us the confidence needed to implement this progressive project.”

Working together

For any HIT project to be a success, the hospital or trust and the technology supplier must forge a true collaboration. When the system was first launched at St. James's, Cerner staff spent time on the ground at the hospital training staff,



ensuring that the implementation ran smoothly and that workflow processes were streamlined.

“The implementation of the EPR system was smooth and the benefits we have received to date have been very substantial indeed,” said Dr. John Kennedy, Consultant Oncologist.

Cerner continues to build on its relationship with St. James's, listening to feedback and addressing any issues that arise. For instance, at the request of the Laboratory staff, Cerner is looking at the options of additional prompts to help get new doctors up to speed quickly with the system and avoid any incorrect orders.

Faster results and diagnosis

Through the integrated Cerner system, the time from X-ray to report has decreased significantly with patients receiving results within hours of having an X-ray, as opposed to several days under the old system.

The Cerner EPR system has also transformed the speed of reporting. “In the past you would only receive same day reporting for certain X-rays such as CAT scans or MRIs,” said Dr. Patrick Freyne, Consultant Radiologist. “Now, official reports on all X-rays can be completed within an hour.”

Increased efficiency

Film and paper are now obsolete in St. James's radiology department. Since the hospital went live with the Cerner system, there have been no



Key Benefits

- Lost film in radiology previously at 20 percent is eliminated
- 50 percent reduction in phone calls to microbiology lab
- Clinicians see results of X-rays within hours not days
- Increase in the number of patients in weekly trauma clinics by almost half
- Junior doctors no longer spend 20 percent of time looking for lost films

requests sent to the department's transcription queue, 8 million images have been stored on the PACS systems and more than 48,000 patients examined over a 12 month period.

Radiologists report that they are reviewing far more examinations than they ever could with the old system, and lost film which used to be up to 20 percent is now a thing of the past.

As well as saving hospital time, the system also improves the patient experience by ensuring that unnecessary X-rays aren't taken or additional appointments made.

Radiology Clinical Director Dr. Mary Keogan said the Cerner system has given St. James's a "substantially faster means of reporting and as a result our department's productivity has increased markedly."

Junior doctors used to spend about 20 percent of their time searching for films, Dr. Keogan said. "Now that X-rays are all easily retrieved via the system, doctors can get on with the job at hand."

The Cerner solution has reduced administrative burdens as well, cutting in half the number of phone calls the microbiology lab receives daily from doctors and nurses chasing results.

"The problem of missing X-rays has been eradicated," said Rachel Flannery, Clinical Nurse Manager Orthopaedics, "and the resulting time savings have enabled us to increase the number of patients in our weekly trauma clinics by almost half."

The EPR system has also made tracking specific bloods through the hospital quick and easy. Each container has a unique number attached to it, which, if entered into the system, will bring up the status of the patient's test. This has reduced the amount of telephone calls that Laboratory staff receive by almost half because doctors and nurses can check the status of tests directly themselves.

Reduced risk

By providing complete clinical information on patients in one place that is easily accessible, the Cerner system ensures that doctors have all the information needed to make accurate diagnoses and prescribe appropriate treatment, thereby reducing the likelihood of clinical error and patient risk.

"The very nature of this intuitive EPR system reduces the risk of misdiagnoses because doctors always have access to the X-ray images rather than having to rely solely on reports, which may contain transcription errors," Dr. Keogan said.

Looking ahead

Although the reality of a complete EPR is still a few years off, St. James's remains the most progressive hospital in the Republic of Ireland in terms of electronic records.

St. James's is in the process of implementing clinical documentation that will enable existing written reports to be added to the system, and doctors at the hospital are also pushing for additional departments, such as cardiology, to be added. The system will also support Multi-Discipline Team (MDT) conferences and Tele-Medicine.

With any transformational IT project, the benefits of the new system will take time to be realised and experienced by all staff. For example, the benefits were not immediately apparent for Brian Kelleher, St. James's Medical Scientist, Haematology Department, however, "we are now enjoying several benefits," Kelleher said, "including faster results tracking, a seamless audit trail and a reduction in the need for photocopying and other unnecessary duplication, all of which saves time and manpower."