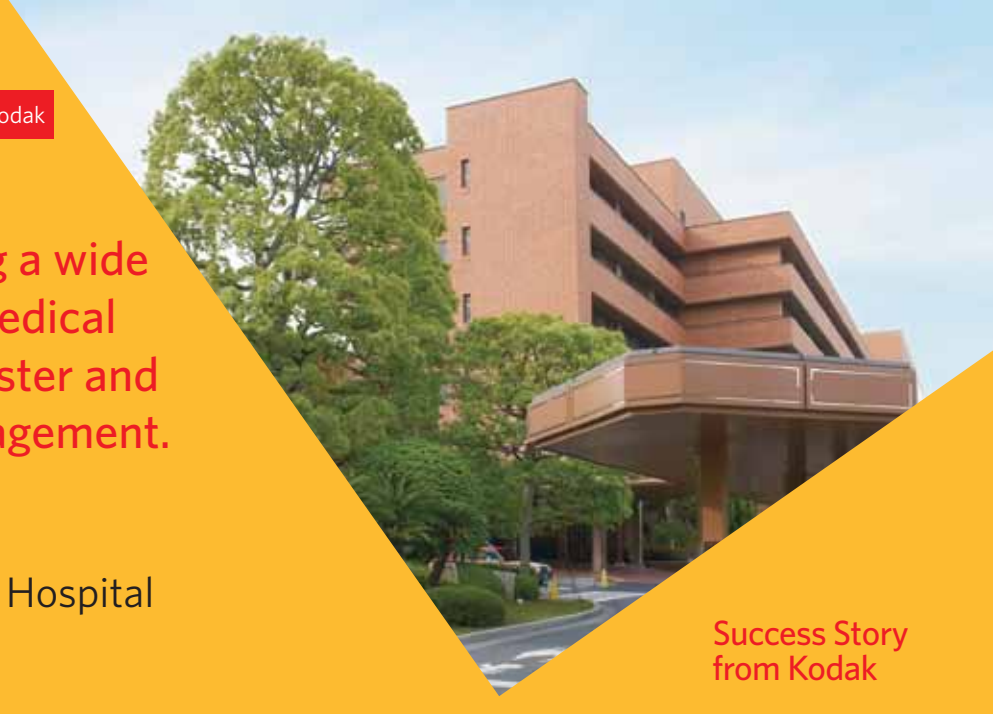
Kodak Document Scanner

Saving space by digitizing a wide variety of paper-based medical records; update allows faster and more accurate data management.



Juntendo University Urayasu Hospital

Success Story from Kodak

Juntendo University Urayasu Hospital

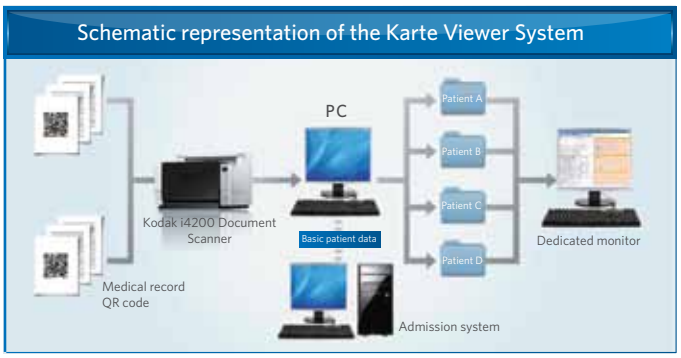
- Address: 2-1-1 Tomioka, Urayasu-shi, Chiba-ken
- Established: 1984
- Number of beds: 653 general beds; 23 beds in specialty departments
- Http://www.hosp-uraysu.juntendo.ac.jp/

Juntendo University Urayasu Hospital opened in 1984 as a local general hospital, on the invitation of the city of Urayasu. The Urayasu Hospital is a university hospital that strives to apply Juntendo University's motto, "Knowing that one exists because of others, showing consideration and care for others — this is the true meaning of 'virtue', in providing medical care. In March 2011, the hospital acquired a Kodak i4200 Document Scanner with a view to optimizing the digitization of medical records which it had been pursuing in order to save storage space. We talked to Kuniko Satoh, Section Chief in the Medical Records Department, and Naeko Arai, a clerk in the department, who were responsible for the acquisition, Asako Kitahara, who is responsible, on a full-time basis, for the actual work of recording the data from paper medical records, and Hosho Sasaki, President of Keiyo Electron Industry Inc. (Head office: Edogawa-ku, Tokyo; http://www.karteviewer.com), which implemented and sold the system.

Juntendo University Urayasu Hospital
Medical Records Department
Section Chief, Ms Kuniko Satoh

Digitizing paper records saved space and made long-term storage possible

The i4200 was acquired for the purpose of digitizing paper medical records in the Medical Records Department, which manages all of the hospital's inpatient and outpatient medical records and films. "We had already digitized all paper records up to 2003 on a Kodak DS3590C color scanner, which we used from 2002 until 2010," said Ms Satoh. "Apart from the basic management of inpatient and outpatient records, because this is a university hospital, the doctors often need to refer to medical records when they are preparing papers for conferences. If we kept everything on paper, we would run out of space, but, thanks to digitization, we don't need any more space for inpatient records than we did in 1984 when the hospital opened. If we hadn't come across the DS3590C, we would have given up on the idea of digitization. That's how revolutionary the DS3590C was. By the time we replaced it, we had scanned a total of 95,090 records." Ms Satoh was involved in the acquisition of both the DS3590C and the new i4200. The DS3590 had performed well for nine years, but because the period for which the maintenance service could be provided was coming to an end, the new i4200 had become available, and because the system server itself was growing old and prone to connection failures, the department decided to look into buying a replacement.



A trustworthy system that responds flexibly to the typical problems associated with medical records and an extensive support system were the decisive factors

Many companies make document scanners but, once again, Kodak was the department's choice. "We looked at scanners from three companies this time, but as we were used to entering data on a Kodak scanner, the familiar feel was reassuring," said Ms Satoh. "A single patient's medical record can be made up of sheets of paper of different sizes and thicknesses, and some sheets may have other pieces of paper stuck to them with glue; only the Kodak scanner was able to cope with that. The fact that Keiyo Electron offered to convert the records we had scanned with the DS3590C to the new format was a major factor, too." Mr Sasaki said, "We recommended the Kodak i4200 because we felt the people who would actually be doing the work would find it easiest to use the machine whose functions were closest to the one they were already using. It is virtually paper jam-free, and we felt the support service was also an important factor." Indeed, the selection of the i4200 was partly based on the department's experience of Kodak's service, which had never hindered the smooth functioning of the hospital; support staff had always called back or come over right away to fix any faults; they had also responded appropriately to proposals made by the hospital.

Scanning paper records using the i4200

The i4200 features a new QR code-reading functionality

Faster and more accurate, giving greater processing capability
QR code reader further improves usability

Hand-written medical records are collected from the doctors and taken to the Medical Records Department, where they are stored on shelves. The records are then digitized in chronological order, by year, by Ms Kitahara, who checks them against a list and pre-processes them before entering the data in batches. "With the last machine," said Ms Kitahara, "before scanning, you had to set the operating mode yourself, according to the quality and size of the paper, but the new machine is much faster. If you do your pre-processing correctly, the processing speed is almost doubled. I'm just getting used to how accurate and fast it is."

Using the i4200 in the Medical Records Department　Ms Asako Kitahara

"With the previous machine, it took about a year to enter 18 months' worth of records, but now we can do two years' worth in the same time," said Ms Satoh. The QR code function it uses for automatic processing is working well, too. The LED light also means that the image is brilliantly sharp. QR code reading is a new function, introduced in March this year. This allow the patient's ID and the number of times they have been admitted to the hospital to be recorded automatically, where this information previously had to be entered by hand every time. In conjunction with the replacement of the scanner, the application software was replaced with Kodak Capture Pro Software. This has improved usability, making it quicker to find the desired page and generally more convenient. "The browser screen has become easier to use, too. The target record and thumbnails are displayed at the same time, so it's easy for the doctors to see which page they need to look at, and the system can be operated intuitively," said Ms Arai.

Paper medical records waiting to be digitized

3 decisive factors
behind the choice of the Kodak scanner

1. Paper jam free
2. High processing speed and accurate data capture
3. Excellent support service

Diligent service that doesn't stop at delivery and repair has built up a strong relationship of trust

"In fact, since we switched to the new scanner, the interface with the PC has worked well, and we have had virtually no trouble," said Ms Arai. "If we have a problem with the scanner, first I discuss it with Ms Kitahara, then we check with the Section Chief. If we can't deal with it in-house, we ask Mr Sasaki at Keiyo Electron and Kodak. They are really easy to talk to." Throughout the interviews, what came across was the trust that Urayasu Hospital places in Keiyo Electron and Kodak. Ms Satoh said, "We are very satisfied with the functions and the support environment. When the new system was installed, I tried out all the functions myself, so I know how good it is. Another decisive factor was that not only do Kodak offer a very rapid response, but Keiyo Electron are close by too, in Nishi-Kasai, so we could get them to respond right away." Kodak agents Keiyo Electron also showed themselves keen to support the smooth operation of the i4200. Mr Sasaki said, "When we were developing the system, we focused on how it would be used. And we got everyone to suggest ideas."

Juntendo University Urayasu Hospital
Medical Records Department
Clerk, Ms Mitsuko Arai

The growing possibilities offered by scanning, and the growing need for scanning in the digitization of medical records and other documents

Ms Satoh expressed a representative view of the benefits of reliable qualityand extensive support: "So far, the new scanner meets all our needs, and leaves nothing to be desired. Our first priority is to scan as many of the paper records as we can. We believe that, even if digital medical records are introduced, paper will still be generated, and will be used in parallel. It may be that, if we scan all past records and get to a stage where we can scan records when a patient is discharged, the way we use digitized medical records will change. When that time comes, we may be consulting about a new system." Medical institutions have just started using digital medical records. But, as paper documents such as referral letters, medical referral letters, and medical insurance-related documents are always generated, the need for scanning apparently remains high. Ms Satoh said, "At Shizuoka Hospital, which is another Juntendo University hospital, they keep all of their inpatient and outpatient records on paper, so we have recommended the i4200." Regarding his company's stance for the future, Mr Sasaki said, "Service doesn't stop when the system is delivered. Our policy is to reflect good ideas in the software right away, and make it easier to use." At Juntendo University Urayasu Hospital, digitized medical records will not only solve the problem of storage space but also contribute to the smooth operation of the hospital. And the strong support provided by maker and sales agent will continue to promote further development.

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