

“A” Score Received from Chest X-Ray Examination Quality Control Survey! High Marks for Image Quality



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Supporting the Health of Local Citizens and Corporate Employees

Ever since our clinic opened in the Aoba ward of Sendai in 1984, we have been providing general internal medicine services, such as managing lifestyle diseases (diabetes, hypertension, etc.) and other chronic conditions and treating respiratory disorders. In addition, as an occupational health screening center, we are also involved in diagnosing and treating conditions assumed to be caused by work (occupational illnesses), supporting the application process for receiving worker' compensation and the corresponding recovery, providing advice for reintegration into society, and so on.



In Addition to Fluoroscopic Screening of the Stomach, Also Very Actively Involved in Chest Radiography

Originally, the clinic was operated from a two-story wooden building, but we moved to the current building as a tenant in 2015.

The main issue at the time, when we were moving, was how to prepare a one-floor environment where we could perform respective examinations as efficiently as possible. The FLEXAVISION F3 (“F3” below) R/F system’s small number of components, space-efficient design, and ability to perform chest radiography with a portable FPD were a good fit for the space limitations of our clinic.

Rather than introducing a general radiography system, we use the F3 to perform about 400 fluoroscopic stomach screening examinations and 1700 chest X-rays per year. Given that a single radiological technologist performs both types of examinations, the system layout was optimized to ensure examinations can be performed smoothly.



Chest Radiography Accomplished in a Limited Space

The F3 offers an X-ray tube swiveling mechanism that enables 90 degrees of rotation (optional), which we use in combination with a Bucky stand, so that the system can be operated similar to a general radiography system. Since the layout at our clinic eliminates the need to move the Bucky stand, it is easy to set up and there is no worry about misalignment. Even when I am not available, doctors can perform chest radiography without any inconvenience. Of



course, chest radiography could also be performed on the R/F table, by using the functionality for extending the SID value to 1.5 m, but pneumoconiosis screening requires an SID of 1.8 m or more, which made it essential to use the system in combination with the Bucky stand. Chest radiography using the Bucky stand enables contact radiography with the shoulder blades in a sufficiently open position, which offers the advantage of positioning the patient in a stable posture that places less burden on the patient.

X-ray tube longitudinal movement switches are provided on the collimator, so that even without a local control console, the tube can be positioned easily while also providing patient care. Given that a single technologist performs the setup process at our clinic, the switches have increased our examination efficiency, which has been very helpful.

Furthermore, we are very satisfied with the image quality, which has been adjusted for pneumoconiosis screening.

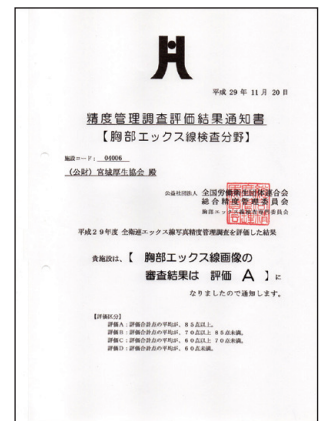
※These switches on the collimator operate the imaging unit (X-ray tube and FPD).



■ “A” Score Received from Chest X-Ray Examination Quality Control Survey

The Chest X-Ray Examination Quality Control Survey is conducted each year by the National Federation of Industrial Health Organization for the purpose of evaluating chest X-ray radiography technique and image reading skill. It involves submitting images for three patients. If two of the three sets of images receive an “A” score, then an overall “A” score is given.

Our clinic submitted images for the first time in 2017, which resulted in an “A” score for all three sets of images.



■ Fully Utilizing the Large 14 × 17-inch Size FPD

In addition to screening exams, we also perform radiography of the cervical spine and lumbar spine as part of group health screenings for new recruits before they start working at companies.

For such examinations, where we use the oblique projection function with the patient lying on the R/F table, the fact that the exposure position can be confirmed with fluoroscopy before starting radiography is quite convenient. The system also enables radiography of the abdomen, paranasal sinuses, and hands, where the large 14 × 17-inch field-of-view provides flexibility for accommodating a wide variety of exposure situations without worrying about insufficient field-of-view size.

Advice to Doctors Considering Introducing This System

In addition to the compact design that fits easily even in confined spaces, the great image quality that is comparable to a dedicated system, and user-friendly functionality for general radiography, function it also offers simple operability that ensures it can be operated easily by anyone in an emergency. Furthermore, it is comforting to know that the image quality can be adjusted to user requirements, such as for pneumoconiosis screening at our clinic.