

Department of Clinical Engineering

Director USUI, Akihiko (Associate Professor)

Rapidly responding to troubles with artificial respirators and operating room equipment

The department makes a profound study to provide safe and high quality medical services. This is our department's basic objective.

Operation System

Total of 20 members consisting of 13 full-time employees and seven fixed-term employees provide support for circulatory and metabolic medical treatment and manage the controlling equipment. In addition, the department introduced 24-hour system so as to react in an emergency at night and on holidays.

Scope of Medical Services

The scope of business includes hemocatharsis, artificial heart lungs, cardiac catheter tests, pacemakers, and central management of ME equipment. In addition, the department supports the ward round checks of artificial respirators, or equipment trouble in the intensive care unit or operating rooms.

Features

The features of the department include many cases of cardiac surgery for large vessels using an artificial heart and lung apparatus, as well as supporting medical treatment by skillfully applying advanced medical equipment such as catheter ablation and a pacemaker, or implantable cardioverter defibrillator for circulatory system.



Medical Service Results

The department's medical treatment support in fiscal year 2011: hemoperfusion services (3,383 cases); artificial heart lung machine services (257 cases); percutaneous transluminal coronary angioplasty (184 cases); catheter ablation services (358 cases); pacemaker services (145 cases); and pacemaker follow-up services (1,974 cases).



Other Undertakings

The department positively participates in academic conferences or study sessions relating to hemocatharsis, extracorporeal circulation, and so forth, to collect information on cutting-edge medicine, in an effort to provide high-quality medical treatment support.



Stroke Care Managing Center

Director MIZUNO, Masaaki (Clinical Professor)

Targeting establishment of an association medical care system and enhancement of the quality of stroke care

The department targets to link together with medical institutions in the Tokai region using information technology and establishing stroke association medical care centering on the patients and citizens.

Operation System

The doctor in charge of stroke medical care plays a central role in establishing new diagnostic measures and medical treatment for strokes and verifying their effectiveness.

Scope of Medical Services

The center supports stroke medical care both from a diagnostic and therapeutic aspect in the related institutions, and so forth, through the operation of a network of medical institutions supported by electronic engineering, establishes stroke association medical care system, and targets enhancing the quality of stroke medical care.

Strong Fields

The center developed the standardization of medical information on an electronic basis (HL7, CDA, DICOM) and the technology of sharing (XDS) technology intended for the stroke medical field to demonstrate the effectiveness of the stroke association medical care system as a first in Japan.

Medical Service Results

The system for transmitting CT and MRI images to a cellular phone to support acute care for strokes has been utilized more than 1,000 times. In addition, the standardization and sharing of medical information developed by our center is becoming a Japanese national standard specification.

Other Undertakings /Advanced Medicine

NAGOYA-RHIE (Regional Health Information Exchange) of our center is highly evaluated from overseas and useful for constructing a Japanese version of EHR.

