

# Clinical laboratory Division

## Introduction

The Clinical Laboratory Division consists of clinical pathology laboratories, a physiological laboratories and anatomical pathology laboratories. There are five clinical pathology laboratories devoted to biochemistry, serology, hematology, urinalysis, and bacteriology and blood banking. The physiological laboratories consist of four sections in which ultrasonography (US), electrocardiography, electroencephalography and respiratory function tests are performed. Three physicians and 2 technicians manage these sections. These laboratories assist internists and surgeons by providing reliable data rapidly.

The anatomical pathology laboratories, staffed by 3 consultant pathologists and 6 technicians, deal with surgical, cytological and autopsy specimens. All the data gathered by this section are computer-filed, and accessible to physicians at any time.

## Routine Activities

The Clinical Laboratory Division has 6 doctors, 18 technicians and 2 assistants. Data quality control and laboratory management are discussed in monthly meetings attended by doctors and the chief technicians. Several weekly conferences in each section are held to monitor data quality control.

The most important role of the clinical pathology

laboratories is rapid and highly reliable data provision to support prompt therapeutic decision-makings by doctors. We employ a bar-code system for specimen identification and an automatic analyzing system.

The bacteriology laboratory plays an important role in infection control at the hospital, reporting not only routine data but also monthly, quarterly and yearly statistical data of hospital infections. We have introduced MGIT, a new culture system for acid-fast bacilli to provide rapid data which are active in the control of hospital infection.

The roles of the blood banking section are typing blood, screening for irregular antibodies, and supplying blood at the request of doctors.

In the physiological laboratory, US is an important screening examination for malignancies in the neck and abdomen. Cardiac US provides valuable information on preoperative patients with cardiac disorders and on patients who underwent chemotherapy with cardiac toxicity. The US filing systems have been introduced.

The anatomical pathology laboratories are engaged in the routine works of evaluating surgical, cytological, and autopsy materials, and is responsible for making histological and cytological diagnoses. To examine specimens in detail, immunohistochemical approaches and/or genetic analyses are frequently employed.

● Y. Nishiwaki, Y. Sugisawa ●

Number of Laboratory Tests Examined in 1996-2003

Section	1999	2000	2001	2002	2003
Urinalysis	148,862	164,676	160,144	144,272	157,962
Hematology	355,947	360,565	417,329	410,833	429,745
Biochemistry	1,063,769	1,141,489	1,230,971	1,242,320	1,255,013
Serology	77,189	84,414	116,446	109,711	112,936
Bacteriology	21,920	18,120	17,364	16,352	16,953
Surgical Pathology	8,198	10,037	10,256	11,214	11,868
Cytology	6,692	7,066	6,938	6,015	6,082
Blood Banking	24,224	22,652	22,203	18,180	18,412
Physiology	40,292	39,532	39,338	35,894	37,051
Total	1,747,093	1,848,551	2,020,989	1,977,611	2,027,610

Number of Examinations in the Anatomical Pathology in 1996-2003

Examinations	1999	2000	2001	2002	2003
Biopsy	6,702	8,402	7,813	9,151	9,930
Operation	1,496	1,635	1,806	2,063	1,938
Cytology	6,692	7,066	6,938	6,015	6,082
Autopsy	22	16	13	24	24