

Division of Clinical Research and Development

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General Summary

Clinical study is a strategy and a science for implementing 1) efficient diagnosis/treatment/prevention, 2) discovery of etiology, and 3) understanding pathophysiology. Baron Kanehiro Takaki prevented beriberi by a change in diet based on evidence obtained from clinical study. Thus, we at The Jikei University have a responsibility to carry on and expand his passion using epidemiology and biostatistics to save lives and maintain peace in the world. However, most clinicians are busy treating patients. In addition, modern epidemiology and biostatistics have been changing along with computer science. Therefore, we have launched the Division of Clinical Research and Development as project base to support clinical studies at The Jikei University School of Medicine. Our mission is to find *veritas* in a complicated clinical world and to contribute to society with our findings. To accomplish our mission, education and promotion are major strategies.

Research Activities

The Jikei clinical research course

From September 2006 through March 2007, we held 13 seminars about strategies for clinical studies for health-care practitioners at The Jikei University School of Medicine. In 2006, small-group study courses targeting postgraduate students will be started from the principles of epidemiology and biostatistics by reading textbooks and analyzing real clinical data using STATA software and designing clinical studies. Our goal is for postgraduate students to develop the skills to construct hypotheses, design protocols, monitor trials, and analyze data.

Consulting for clinical studies

1. Inside The Jikei University School of Medicine: Most clinical departments
2. Outside The Jikei University School of Medicine: Tokyo Women's Medical University

As shown in the publications section, we published several original articles in English by collaborating with clinical departments. For fiscal year 2004, we accelerated the process from consultation to paper submission. Next year, we are planning to launch a clinical data-pooling system in our division to support high-quality prospective clinical studies.

Umbilical cord blood study

We hypothesized that exposure of fetuses to low concentrations of hazardous heavy

metals during pregnancy can cause changes in the behavior and intelligence of children. We have started to collect umbilical cord blood to measure heavy metals and have sent a questionnaire to ask about daily habits and the conditions of children after birth. We have finished enrollment, since we could collect more than 1,000 samples of umbilical cord blood. We have finished measuring levels of heavy metals in umbilical cord blood and questionnaires when the children were 2 years of age. In addition, we are performing a study of twins to examine the genetic and environmental effects on children's behavior.

Diagnosis of complication in diabetes mellitus

We could draw receiver operating characteristics curves with high sensitivity and high specificity in diagnosing complications of diabetes mellitus.

Global environmental change and human health

We have been dedicated to research on global environmental change and human health with the Japanese government.

Homeland security

Prevention is one of our missions. An extreme example of prevention may be homeland security. We attended a workshop on "G8 Forensic Epidemiology" in London. We have held a series of lectures on National Security Affairs and Crisis Management for the Cabinet and have advised the Deputy Chief Cabinet Secretary for Crisis Management.

Publications

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