Brief Summary

The objective of providing healthcare is not just the reduction of medical cost but to provide high quality healthcare services to all patients. Institute of Medicine states that health care reform should focus on improving the patients' health as well as health care values that they think are important. In the 21st century, this viewpoint, together with insight from health economics, has been the first priority in the field of medicine and healthcare. “Quality improvement initiative,” therefore, needs to adjust the healthcare systems to accommodate the fee-for-service perspectives while improving the clinical environment for both patients and providers.

Research Activities

Department of Healthcare Quality Assessment (HQA) has been actively collaborating with healthcare professionals and various clinical committees as they play key roles in the quality improvement initiatives in the field. In such positive environment driven by the patient-centered philosophy, the patients receive more satisfying care, physicians are rewarded for their excellence, and healthcare costs are sustained. To accomplish this goal, there are 3 principles that navigate us through the journey: (a) the topmost value should always be on that of patients, (b) all medical practices should be organized around medical conditions as well as the care cycles of the patients, and (c) the results---risk-adjusted outcomes and medical costs
spent—must be scientifically measured and evaluated.

HQA, in the joint research activity with Japan Cardiovascular Surgery Database (JCVSD), has developed risk models for different groups of surgical procedures that help us implement several practical tools aimed for medical professionals. One of those tools is JapanSCORE, which allows a user to calculate a patient’s post-operative risk of mortality and morbidities. Another tool called RiskCalculator returns a medical professional the calculated risk of mortality and morbidity in a real-time manner after s/he inputs a minimum number of pre-operative risk information. Both tools can be used in medical team meetings as well as in sessions with patients to reach better informed consent.

HQA also has conducted evidence-based policy analysis to help federal and local government to develop better healthcare policy-making. It is an academic activity that contributes in a different angle to the endeavor of healthcare quality improvement than those with healthcare professionals in the field, described above. In 2012, HQA started participating in a series of research to evaluate the validity of Japan’s cancer control policy framework using various stakeholders’ perspectives. Interview as well as questionnaire studies were conducted in accordance with the Basic Plan for Implementing Cancer Control administered by the Japanese Government.

In April 2010, the Japan Society of Surgery and 10 related surgical societies founded the National Clinical Database (NCD), which is an all-Japan endeavor that aims to build a large-scale, comprehensive clinical registry that utilize the “big data” to improve the quality of surgery as well as surgical sciences in Japan. HQA has been playing important academic roles in the project since its birth. The actual data entry started from January 1st, 2011, and since then NCD has been collecting approximately 95% of all surgical operations across Japan in the collaboration with the clinical societies. NCD is also connected with the participating societies’ board of certification systems, which makes it unique among other large-scale clinical registries in the world.

Today more than 4,500 hospitals and clinics are participating in NCD with the accumulated data of 6.5 million cases (approximately 1.2 million each year). Just like JCVSD’s JapanSCORE and RiskCalculator, feedback tools based on the NCD data have been provided to different subspecialty areas. All of these activities help Japan’s healthcare quality initiatives in various places, and HQA is proud of being part of it.

**Future Directions**

Clinical databases like NCD are the core components of quality improvement initiative in many healthcare services such as in the field of thoracic surgery. HQA supports NCD’s systematic data collection,
data management, practical analyses, and the development of useful feedback systems. Recently, non-surgical fields such as clinical oncology are also joining NCD and this trend becomes stronger. Our benchmarking projects backed up by NCD’s big data will keep driving the quality improvement activities in many healthcare fields.

Increasing numbers of clinical research output has been coming out of the detailed analyses on NCD data in the collaboration of each specialty field. Beside professional societies, pharmaceutical companies as well as medical device firms are now start operating their post-marketing surveillance databases in relation with NCD. Working in between NCD, the firms, PMDA (Pharmaceuticals and Medical Devices Agency), and the related medical societies, HQA helps the project moving forward by giving academic support. Furthermore, HQA has been involved with international research collaboration such as American College of Surgeon’s NSQIP and Asian Cardiac Database while contributing to the quality improvement activities in different regions of the world.

Publications

Articles (in English)


18. Kohsaka S, Miyata H, Ueda I, Masoudi FA, Peterson ED, Roe MT, Fukuda K, Rumsfeld JS. An international comparison of patients undergoing percutaneous coronary intervention: A collaborative study of the National Cardiovascular Data Registry (NCDR) and Japan Cardiovascular Database—Keio interhospital Cardiovascular Studies (JCD-KiCS). Am Heart J 2015;


