UPMC Shares Cancer Expertise to Improve Patient Outcomes: Establishing Second-Opinion Pathology Consultations in China
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UPMC SHARES CANCER EXPERTISE TO IMPROVE PATIENT OUTCOMES: ESTABLISHING SECOND-OPINION PATHOLOGY CONSULTATIONS IN CHINA

China experiences some of the highest rates of cancer and associated mortality in the world, with the incidence of certain forms of cancer ranging from a third to nearly half of all cases reported globally. To counter this serious health threat, experts in China agreed that improving the quality of pathology services, particularly in rural areas, through education and collaboration was essential. KingMed Diagnostics, the largest independent medical diagnostic laboratory in China, partnered with UPMC to bring international pathology expertise to rural areas across the country to enhance cancer diagnoses, guide clinical treatment teams and improve cancer care outcomes.
To address China’s unprecedented cancer rates, many experts agreed that better treatment needed to begin with better medical diagnosis.

“It is critical to achieve an accurate tissue diagnosis from the beginning to make sure the right treatments are selected,” said Dr. George Michalopoulos, chairman of the Department of Pathology at UPMC and professor of pathology at the University of Pittsburgh School of Medicine. The problem is that in China, expertise in certain pathology subspecialties is lacking, especially in rural areas and smaller hospitals. This can result in “mis-diagnoses or under-diagnoses,” said Dr. Michalopoulos.

Dr. Chengquan Zhao, associate director of cytopathology at UPMC, professor of pathology at the University of Pittsburgh School of Medicine and coordinator of UPMC’s telepathology program with KingMed, agreed. “Accurate diagnosis is paramount,” he said.
SHARING UPMC’S CLINICAL EXPERTISE

“We take the time to develop collaborative relationships and understand the people we’re working with, understand their vision and the obstacles they face. ... We want our services to help continuously improve patient care in our partners’ countries.”

Charles Bogosta, President of UPMC International Services

KingMed operates the largest independent clinical laboratory network in China. Established in 1996 and headquartered in Guangzhou, KingMed runs 22 facilities, employs more than 5,000 people and serves 9,000 hospitals nationwide.

Because the organization’s leadership understood the benefits of improving diagnostic pathology to better guide treatment selection for patients, KingMed reached out to UPMC for a collaboration that would enhance the capabilities of local pathologists. In addition to being recognized for having one of the most comprehensive pathology departments in the world, UPMC has a proven record of successful global partnerships, including its telepathology consultation model that makes subspecialty experts available worldwide.

In 2011, UPMC formalized its partnership with KingMed to provide remote, second-opinion pathology consultations. Following a thorough assessment of KingMed’s needs, the teams designed a quality-controlled process for exchanging tissue specimen information and a timely expert review to guide clinical decision making and achieve optimal patient care. Next, UPMC worked with KingMed to procure, install and operationalize equipment, as well as provide advanced training to staff.
“Information technology (IT) obviously was — and remains — a critical piece of the equation,” Dr. Michalopoulos said. “Not surprisingly, one of the biggest hurdles we faced involved technology, including challenges with digital imaging, internet speed and firewalls. But those matters were relatively easy to overcome, particularly considering the size and expertise of the IT departments on both sides.”

Dr. Michalopoulos added that approximately 30 IT professionals were devoted to establishing and maintaining the technology and communications behind the KingMed and UPMC relationship.

“Everyone saw the potential of the partnership, but we knew from experience that these pioneering international ventures take time,” said Charles Bogosta, president of UPMC International Services. “While we are focused on bringing best practices from the United States, we take the time to develop collaborative relationships and understand the people we’re working with, understand their vision and the obstacles they face. We work to ensure that things run smoothly, and we want our services to help continuously improve patient care in our partners’ countries.”
RESOLVING CHALLENGES

By 2012, KingMed began sharing digital microscopy files with UPMC pathologists. Because tissue cannot be exported from China, KingMed’s image storage system was designed to allow enormous encrypted electronic files to be accessible to UPMC pathologists in the United States.

When a case was ready for review, UPMC’s pathology department — available 24 hours per day, seven days per week — was immediately notified. The appropriate pathology specialist was then called to examine the KingMed pathology images and offer a precise diagnosis. Typically, the UPMC pathologists involved in the consultation discussed the case with both the referring pathologists and the patients’ physicians in China.

Cases steadily grew over each month of the collaborative relationship. During the partnership’s second year, there were four times more total cases referred for second-opinion services than during the first year.
In 2014 — three years into the partnership — almost half of the cases being referred to UPMC came with no prior diagnosis at all. In these cases, UPMC pathologists provided the primary diagnosis.

Of the remaining cases, which were referred with a primary diagnosis already attached to them, UPMC pathologists significantly modified the diagnosis in 53.8 percent of the cases. This allowed patient treatment plans to be completely changed or adjusted as needed.

“The prescribed treatment is only as good as the pathology,” said Dr. Michalopoulos.

“With the remote pathology consultation service, the pathologists at UPMC were able to provide more accurate and faster diagnosis for Chinese patients,” added Dr. Zhao. “In other words, I believe that we helped save a lot of lives.”
"UPMC’s remote consultation system makes it possible for me to provide a pathologic diagnosis for any patient in the world."

Dr. Chengquan Zhao, Associate Director of Cytopathology at UPMC, Professor of Pathology at the University of Pittsburgh and Coordinator of UPMC’s Telepathology Program with KingMed
Today, UPMC and KingMed are focused on expanding the Chinese population’s awareness of KingMed’s enhanced capabilities available through this collaborative relationship, increasing the number of second-opinion consultations, improving diagnostic accuracy and optimizing treatment decisions and patient care for a greater number of patients.

In addition, the partnership’s clinical teams continue to benefit by learning from each other. UPMC and KingMed employees regularly participate in formal educational initiatives and collaborate on academic projects.

The KingMed relationship demonstrates the skill and capacity in health care consultation that UPMC can provide to ensure the best possible care where patients live.

“UPMC’s remote consultation system makes it possible for me to provide a pathologic diagnosis for any patient in the world,” said Dr. Zhao. “The technology is always improving and getting faster, helping us to meet the needs of doctors and patients around the world.”
ABOUT UPMC

UPMC’s objective is to share our clinical, technological and managerial knowledge and expertise with partners around the world, customizing solutions so that patients and regions benefit and thrive. We believe everyone should have access to the best possible care, without having to leave their country or region.

About Us

UPMC, an academic medical center affiliated with the University of Pittsburgh, is a recognized leader in providing health care services in the United States and internationally.

Through UPMC International Services, we are able to offer a full range of health consulting services. By collaborating with UPMC, our multi-disciplinary team can provide customized solutions, on-the-ground support and direct access to deep clinical expertise and operational knowledge.

Our goal is to work side-by-side with our partners from start to finish, until we both agree that the work is done. We can assess needs, build the right hospital and infrastructure, provide education and design customized clinical programs. We can also work with our partners’ doctors and staff to ensure that entire team understands their roles in building and maintaining an excellent health care system.

By working with UPMC to identify and implement customized solutions, our partners’ give patients in their area access to the best possible health care, become a magnet for patients from other regions and support growth of their local economies.

You can learn more about the services we offer here: www.UPMCIternational.com.