

Broadening the scope of cancer control

SHIZUOKA CANCER CENTER and its surrounds are creating an advanced cancer treatment and care hub to maximize quality of life in line with longevity.

With a million cancer diagnoses each year and the fastest ageing population in the world, the Japanese government is looking at ways to better co-exist with cancer. Shizuoka Cancer Center (SCC) is one of the most cutting-edge models showcasing how Japan intends to realize this goal.

"Cancer control strategies are now undergoing a paradigm shift," explains Ken Yamaguchi, president of the SCC and chairman of the Council for Cancer Control, a body that advised the Japanese government on the implementation of its Third Basic Plan to Promote Cancer Control in 2018. "We are moving towards a holistic approach to treat and support cancer patients and their families," says Yamaguchi, a challenge that hasn't yet been fully addressed by any other institute in Japan.

Comprehensive care

In Japan 38% of those diagnosed with cancer will die of the disease. The idea at the SCC is to help build a society in which people with cancer, or affected by it, are fully

supported in their efforts to leading fulfilling lives.

Specialists at the SCC are coordinating efforts to provide comprehensive and compassionate consultation to help improve quality of life (QOL) for patients and families. These cover four main realms: physical pain, mental distress, anxieties related to treatment, and the burden on livelihoods.

THE SUPPORTIVE CARE CENTER PROVIDES TREATMENTS FOR CANCER SYMPTOMS, SIDE EFFECTS, COMPLICATIONS AND TREATMENT AFTER-EFFECTS

Each year, the SCC accepts roughly 6,000 new cancer patients. It is recognized for its minimally invasive procedures including endoscopic, laparoscopic and robot-assisted surgery. Among its non-surgical tools is proton beam therapy, in use at SCC for the last 16 years. This advanced form of radiation therapy requires huge accelerator



Shizuoka Cancer Center is located in the foothills near Mount Fuji.

machinery, and has been deemed safe enough to treat pediatric patients.

In terms of ongoing care, the SCC's Supportive Care Center is the first of its kind in Japan. It provides treatments for cancer symptoms, side effects, complications and treatment after-effects, and rehabilitation. "At the time the centre opened in 2002, few facilities either in Japan, Europe or the US offered the type of rehabilitation care we have. Afterwards, we extended our approach to look specifically at the needs of elderly patients and patients in the adolescent and young adult generation," says Yamaguchi. The SCC's adolescent and young adult

ward was Japan's first, opening in 2015. "We recognized early on that younger patients require specialized care that differs from care for older people," says Yamaguchi.

Palliative care is also important to the SCC's approach. About 1,200 patients each year spend their final days, weeks or months at the centre's general and palliative care wards, where every effort is made to relieve a patient's suffering. The SCC is pioneering end-of-life care, or quality of death (QOD), explains Yamaguchi. The centre focuses on managing regrets, reducing burdens, and helping families come to terms with

death. The idea is that they will be able to share lessons from this work with other care facilities nationwide.

Robots and genomes

The SCC's expertise in caring for patients who are no longer able to live autonomously is playing a pivotal role in the Fuji Pharma Valley project, a multi-sector initiative aimed at medical and healthcare innovations. The Fuji Pharma Valley Center is located close to the SCC, in the foothills near Mount Fuji.

For example, the SCC supports collaborative development of related nursing and welfare equipment. Preparations are now underway

to design a futuristic model room for the care of the elderly based on the SCC's experience in understanding patient needs. It is expected to be unveiled within the year.

"There is no doubt patient rooms 20 years from now will incorporate AI and robotics," Yamaguchi says. "We envisage new possibilities of bringing robotics to the bedside, for example, in the form of voice-activated commands and power-assistive robotic beds to enhance comfort and support. Also, round-the-clock care could be significantly improved using AI."

The SCC is also collaborating on predictive and preventive healthcare for ageing-related



Ken Yamaguchi is president of the Shizuoka Cancer Center and chairman of the Council for Cancer Control, an advisory body consulted by the Japanese government.



Specialists coordinate to provide comprehensive consultations to patients.

diseases. Since 2014, through an initiative called Project HOPE (High-tech Omics-based Patient Evaluation), the SCC has been building a genomic data repository based on genomic and clinical data collected from more than 6,000 cancer patients. The aim is to contribute to research on personalized treatment strategies based on genomic profiling.

In 2018, the number of people aged over 65 in Japan topped 28% and it's estimated that half of the people born from the year 2000 onward will become centenarians. Shizuoka prefecture and the neighboring Yamanashi

prefecture are embracing this with an agreement to establish centres for affluent, ageing populations, in an effort to support medical device research and development projects. The aim is to create a hub, which will surround the SCC, that develops cutting-edge technologies for an ageing and a shrinking workforce, and helps patients achieve autonomy, and a sense of dignity, well-being and hope. ■



Shizuoka Cancer Center
1007 Shimonagakubo, Nagaizumi-cho,
Sunto-gun, Shizuoka Prefecture
411-8777 Japan
www.sccchr.jp/en