

## Urgent global action is needed to combat antimicrobial resistance

A new Lancet Series calls for urgent global action on antimicrobial resistance (AMR) to prevent 750,000 deaths annually through available vaccines, water and sanitation, and infection control methods. Authors stressed the need for intensified efforts in promoting vaccination, ensuring access to safe water and sanitation, and implementing hospital infection control to reduce infections and antibiotic use.

The series highlights that nearly 5 million of the 7.7 million global deaths from bacterial infections annually are associated with antibiotic-resistant bacteria. To address this, expanding access to both existing and new antibiotics is crucial. Increased investment in affordable and accessible antibiotics, vaccines, and diagnostics is also essential.



Key recommendations include improving infection prevention methods, such as hand hygiene and equipment sterilisation, which could save up to 337,000 lives a year. Universal access to safe drinking water and effective sanitation could prevent around 247,800 deaths, while expanding pediatric vaccination programs could save 181,500 lives.

AMR disproportionately affects vulnerable groups, including infants, the elderly, and chronically ill patients. Without prioritising AMR now, the global death toll from resistant infections will continue to rise, threatening progress on sustainable development goals.

The series calls for ambitious global targets for 2030, including a 10% reduction in AMR-related mortality and reductions in inappropriate antibiotic use in humans and animals. An independent scientific body is also proposed to guide policy implementation and inform new targets. Immediate global action is essential to preserve the effectiveness of antibiotics and safeguard public health.

# PROTON BEAM THERAPY

## A leap in cancer treatment

### STAR HEALTH REPORT

Cancer treatment has evolved significantly over the past few decades, and Singapore General Hospital (SGH) stands at the forefront of this revolution with its novel proton beam therapy facilities.

Proton beam therapy represents a significant advancement in the field of oncology. Unlike traditional radiation therapy, which uses X-rays to destroy cancer cells, proton beam therapy employs protons—positively charged particles. The key advantage of protons is their ability to deliver a high dose of radiation directly to the tumor while minimising damage to surrounding healthy tissues. This precision reduces side effects and improves the quality of life for patients.

Dr Michael Wang, Chairman, Division of Radiation Oncology, National Cancer Centre Singapore, provided a comprehensive overview of the technology. “Proton beam therapy allows us to target tumours with sub-millimeter accuracy,” Dr Wang explained. “This is particularly beneficial for treating tumors located near critical structures, such as the brain, spine, and eyes.”

The facility itself is a marvel of modern engineering. The heart of the system is a cyclotron—a particle accelerator that generates protons and directs them toward the patient’s tumour. The beam is meticulously controlled using advanced imaging and computer systems to ensure precise delivery.

During my tour, I observed a session where a young boy named Paul (name disguised to protect identity) was receiving treatment for a brain tumour. His parents, visibly relieved by the

advanced care, shared their experience. “When we first learned about Paul’s diagnosis, we were devastated,” his mother recounted. “But the doctors here gave us hope. Proton therapy has been a game-changer for us.”

Paul lay still on a treatment table, surrounded by state-of-the-art equipment. The room was calm and quiet, a stark contrast to the anxiety often associated with cancer

physical treatment but also on the emotional and psychological well-being of our patients. Our multidisciplinary team includes oncologists, radiologists, nurses, and counselors who work together to provide comprehensive care.”

The implementation of proton beam therapy at SGH is part of a broader strategy to enhance cancer treatment in Singapore. The hospital collaborates with international institutions to stay abreast of the latest advancements and continuously improve its protocols. This global perspective ensures that patients receive the best possible care based on the latest scientific evidence.

However, proton beam therapy is not without its challenges. The technology is expensive, and the treatment facility requires significant investment. Dr Wang acknowledged these hurdles but emphasised the long-term benefits. “The initial costs are high, but the potential to improve patient outcomes and reduce long-term healthcare costs makes it a worthwhile investment.”

SGH’s dedication to innovation and patient care is a beacon of hope for countless individuals and families affected by cancer. Proton beam therapy is not just a technological advancement; it represents a new era of precision and compassion in oncology.

In a world where cancer remains one of the most formidable health challenges, facilities like SGH’s Proton Therapy Center offer a glimpse of a brighter future. With continued research and collaboration, the promise of more effective and less invasive cancer treatments is becoming a reality, one proton at a time.



treatment. The proton beam moved silently, guided by the expertise of the medical team. In just a few minutes, the session was over—another step in Paul’s journey toward recovery.

SGH’s commitment to patient care goes beyond the technical aspects. Prof Tan Hiang Khoon, Deputy CEO, SGH, highlighted the hospital’s holistic approach. “We focus not only on the



## Protecting youth from tobacco and nicotine industry

The World Health Organisation (WHO) and Stopping Tobacco Organisations and Products (STOP), a global tobacco industry watchdog, have launched “Hooking the next generation,” a report highlighting how the tobacco and nicotine industry targets youth through product design, marketing campaigns, and policy manipulation.

Ahead of World No Tobacco Day on May 31, the report reveals that 37 million children aged 13-15 years globally use tobacco, with adolescent e-cigarette use often exceeding adult rates. In the WHO European Region, 20% of 15-year-olds reported using e-cigarettes in the past month.

Despite progress in reducing tobacco use, e-cigarettes and new nicotine products pose a grave threat to youth. Studies show e-cigarette use increases the likelihood of conventional cigarette use among non-smoking youth by nearly three times. The industry markets products with candy-like flavors to attract children, contributing to nicotine addiction.

WHO calls for strong regulations to protect youth, including smoke-free public places, bans on flavored e-cigarettes, higher taxes, and increased public awareness. Youth advocates globally are exposing these deceptive practices and advocating for a tobacco-free future.

By uniting efforts, governments, public health organisations, civil society, and empowered youth can protect future generations from tobacco and nicotine addiction.

Source: World Health Organisation

## Managing ovarian cancer in young women

### STAR HEALTH DESK

Women aged 55 to 63 are most likely to get ovarian cancer, but it can also occurs in younger women. About one-third of cases are in women under 55, and 1 in 10 are under 45. Younger women face unique challenges, such as impacts on careers, children, and future family planning. Fortunately, they often have better long-term outcomes with the most common type of ovarian cancer compared to older women.

**Why ovarian cancer happens:** Ovarian cancer is more common after menopause. The exact cause is often unknown, but risk factors include:

- Being overweight or obese
- Smoking
- Having children later, or not having children
- Previous breast cancer
- A family history of ovarian, breast, or colorectal cancer
- Inherited cancer syndromes

About 25% of ovarian cancers are linked to inherited gene variants. These genes can increase cancer risk and are inherited from parents. Talk to your doctor if you have a family history or genetic concerns.

**Symptoms and diagnosis:** Symptoms of ovarian cancer can include unusual vaginal discharge, bloating, loss of appetite, feeling full quickly, abdominal or back pain, frequent or urgent urination, and constipation. Persistent symptoms for more than two weeks should be discussed with a doctor.

Diagnosis involves reviewing medical history, performing a pelvic exam, and conducting tests like ultrasounds, CT scans, MRIs, laparoscopy, biopsies, and blood tests.

**Types and stages of ovarian cancer:** Most ovarian cancers (epithelial cancers) start on the ovary’s surface and are less common in younger women. Other types affecting younger women include:

- **Borderline tumours:** slow-growing, treated with surgery only.
- **Germ cell tumours:** start in egg cells, often treated with surgery and chemotherapy.
- **Granulosa and Sertoli-Leydig cell tumours:** rare, develop in supportive ovarian tissue, usually treated with surgery and sometimes chemotherapy.

**Treatment for younger women:** Treatment typically involves surgery, possibly including a hysterectomy (removal of the uterus, ovaries, and fallopian tubes) and chemotherapy. For less advanced cancers, fertility-sparing surgery may be possible. This involves removing only one ovary and fallopian tube, allowing for future pregnancies. If fertility-sparing surgery is not an option, freezing eggs or embryos before treatment can preserve fertility.

Some chemotherapy can induce early menopause, so discussing fertility preservation options with specialists is crucial.

**Other considerations for younger women:** Younger women with ovarian cancer may face financial, career, and family concerns. Social workers can provide financial assistance and work-related support. Communicating simply and honestly with children about the diagnosis helps them cope. Counselling for the patient and family can be beneficial.

Keeping open lines of communication with loved ones and seeking support from those in similar situations can ease the emotional burden. Remember, everyone’s coping mechanisms are different, so be patient and seek help when needed.



## Free medical camp in Cumilla

### STAR HEALTH REPORT

Evercare Hospital Dhaka, the first JCI-accredited hospital in the country, conducted a free medical camp to provide free heart treatment to children in Cumilla district, says a press release.

Dr Tahera Nazrin, a Senior Consultant, Coordinator, and Founder of the Paediatric Cardiology Department of Evercare Hospitals, provided free treatment to the children in the outpatient department by conducting diagnostics and echocardiograms. The initiative is dedicated to providing world-class cardiac medical care to children in need.

The free medical camp was held at Al-Islam Hospital and Diagnostic Centre at Debidwar in Cumilla district on Friday, May 17, 2024. The free medical camp was inaugurated by Md Abul Kalam Azad, honourable Member of the Parliament of Cumilla Debidwar 4 constituency.

Dr Tahera Nazrin, Senior Consultant, Coordinator, and Founder of the Paediatric Cardiology Department of Evercare Hospitals is renowned for her expertise in paediatric cardiology. She is making a pioneering and special contribution to the treatment of heart diseases in underprivileged children in society.

Evercare Hospital Dhaka is a 425-bed multi-disciplinary super-specialty tertiary care hospital, offering all types of healthcare with state-of-the-art medical, surgical, and diagnostic facilities. Built on an area of 4 lakh 35 thousand square feet, the hospital has been ensuring the highest quality of services to patients of all levels in Dhaka with the latest technology-rich medical services and medical professionals.

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