As a specialised third-line hospital, the Antwerp University Hospital (UZA) stands for innovation and excellence in medical care, pioneering the latest techniques and treatments. The hospital is also a trusted partner for collaboration with other healthcare providers and medical companies, while conducting groundbreaking scientific research with a strong international dimension.

With 593 beds, around 690,000 consultations per year, and 5,300 day admissions, UZA is a midsize hospital by Belgian standards. As a university hospital, it offers a wide range of specialised treatments. Much of its added value lies in its top-level expertise in complex and rare syndromes. In doing so, UZA plays a pioneering role in the wider region, both in diagnosis and treatment.

Clinical studies

“When we conduct research, we immediately translate the results into clinical practice – to improve patient care, but also to enrich education. The ‘bench to bedside and back’ principle applies here to the fullest. The time and resources needed for continuous training and research are structurally embedded in our organisation. Furthermore, our staff take on social responsibility from their clinical, educational, and scientific expertise.”

In 2024, 5574 clinical studies were registered at the Clinical Trial Center. 12 UZA employees defended their PhDs in medical sciences at the University of Antwerp. That same year, the hospital participated in 20 externally funded projects and conducted 342 academic and 232 commercial studies.

UZA is expanding home treatments and home monitoring for various patient groups. © Frank Toussaint

ATM@home

UZA recently began offering certain cancer treatments directly at patients' homes. This includes chemotherapy for people with acute myeloid leukaemia (AML) and immunotherapy for HER2-positive breast cancer patients. Treatments are administered by a UZA nurse. With this initiative – ATM@home (AntiTuMour agents at home) – UZA aims to reduce the burden on patients. AML patients receive the anticancer drug azacitidine, while patients with HER2-positive breast cancer receive subcutaneous injections of trastuzumab at home.

UZA@home is a digital platform offering guidance before, during, and after treatment, with easy access to healthcare professionals. © Frank Toussaint

This project fits within a broader evolution in healthcare. UZA continuously explores how to best organise care for people who need highly specialised treatment. More and more patients are asking whether home treatment is possible. Therefore, the hospital is training nurses specifically for this type of care. The nurse measures the patient's vital signs such as heart rate and blood pressure, and can also take blood samples at home if

needed.”

In addition to administering medications at home, UZA is also expanding home monitoring for various patient groups. This important service is made possible through UZA@home, a digital platform that supports patients before, during, and after their treatment — providing reassurance that caregivers are always within reach.

Citizen-Study on Ambient Noise

In September 2025, UZA published the results of ‘De Oorzaak,’ the largest citizen study on ambient noise ever conducted in Flanders. Carried out in collaboration with the University of Antwerp and a Flemish daily newspaper, the study provided a detailed map of the sounds people encounter in their daily lives, identifying which are the loudest and how they affect health.

A total of 4,665 participants took a Sound Walk, 10,138 people completed the Big Sound Survey, and sound sensors at 1,452 locations in Antwerp, Ghent, and Leuven recorded all ambient noise for six weeks. In addition, 101 Antwerp residents took part in a sleep and hearing study, and 128 citizen scientists shared data from their Apple Watches.

One of the findings was that people exposed to intense noise pollution are more likely to suffer from health problems such as sleep deprivation and stress. An AI-driven model mapped the sources of noise.

Road traffic is the dominant source of noise pollution in urban environments. Elevated scores for hyperacusis (heightened sensitivity to sound) were found in about three in ten participants, who reported significantly more annoyance and stress. Saliva analyses from Antwerp participants also showed that people with hyperacusis had higher cortisol levels – a biological marker of increased stress. “Hyperacusis shows that noise doesn’t affect everyone the same way,” says audiologist Prof. Laure Jacquemin (UZA/University of Antwerp).

Social Differences

Residents of apartments or studios, and lower-income households, reported significantly higher levels of noise annoyance. This confirms that noise pollution is not only an environmental problem but also a social inequality issue.

Natural sounds, on the other hand, were consistently perceived as positive. They bring calm, reduce perceived stress and annoyance, and contribute to greater satisfaction with one’s living environment. The findings confirm that investing in green spaces and quiet areas is not only ecologically and aesthetically valuable but also directly beneficial

for health and well-being.

Lung Cancer Screening

In 2025, UZA and the University of Antwerp jointly launched the ZORALCS research project, which uses low-dose CT scanning to detect lung cancer earlier in high-risk groups. As an added benefit, participants who smoke receive free smoking cessation counselling.

Earlier research had already shown that comprehensive low-dose CT screening can reliably and safely detect early-stage lung cancer. The current project investigates the feasibility of a wider rollout in Flanders. It targets 25,000 residents aged 55 to 74 from municipalities near UZA. Radiologists, supported by AI software, assess the images.

Low-dose CT scanning for lung cancer in high-risk groups. © Frank Toussaint

“Thanks to AI, we can not only detect lesions but also determine their volume, allowing us to track tumour growth more quickly,” explains principal investigator Prof. Dr. Annemiek Snoeckx, head of radiology at UZA. If abnormalities are found, participants undergo additional tests or follow-up scans. If no issues are detected, they are invited for a new low-dose CT scan a year later.

Ten Years of Leading Mother and Child Care

In 2025, the Queen Mathilde Mother and Child Centre at Antwerp University Hospital celebrated its tenth anniversary in the presence of Queen Mathilde. Since its opening in 2015, more than 12,000 babies have been welcomed into the world at the centre.

As an academic referral centre, it treats the most complex conditions in pregnant women, newborns, and children, and serves as an expertise hub for complicated and multiple pregnancies. In 2024, the centre recorded over 73,000 outpatient visits – almost double the number since its founding.

10 Years Queen Mathilde Mother and Child Centre. © Frank Bahnmuller

The centre's strength lies in close collaboration between medical genetics, gynaecology, neonatology, and paediatrics – including an extensive paediatric neurology department – all under one roof. This multidisciplinary approach enables personalised care from preconception to long-term follow-up, in line with the principle of family-integrated care. "We don't just treat illnesses; we care for the child and support the family," says Prof. Dr. Stijn Verhulst, head of paediatrics.

Gentle Caesarean

Since 2018, UZA has been one of the first hospitals in Flanders to offer the 'gentle caesarean' – a procedure allowing parents to consciously experience the birth in calm surroundings, with immediate skin-to-skin contact. "This benefits both the parents' experience and the child's health," says Prof. Dr. Yves Jacquemyn, head of gynaecology. "Around 150 babies are born annually at UZA after intrauterine transfer, when mothers are urgently referred from other hospitals before delivery due to complications."

UZA

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