



**GE HEALTHCARE  
SPECIAL SUPPLEMENT**

Cover Story:

# The Future is Digital

102 **Prof. Boris Brkljačić:** ECR 2020: Leadership and Collaboration

107 **John Nosta:** The Convergence of Technology and Health

112 **Prof. Daniel Drucker:** Advancing the Understanding and Treatment of Type 2 Diabetes

126 **COVID-19:** What Can Healthcare Learn?

162 **Leontios Hadjileontiadis:** Novel Interventions for Early Parkinson Detection

171 **Paul Timmers:** Hotspot: AI and Ethics in Health Innovation

182 **Wilfried & Maximilian von Eiff:** Digitalisation in Healthcare

188 **Peter Dierickx:** The Inner Workings of a 'Smart' Hospital



# From Breast Cancer Diagnosis to Treatment Plan in the Same Place, Same Team, Same Day

The time between a suspicious screening mammogram and a diagnosis and treatment plan can be weeks, leading to stress and anxiety for women. A hospital in France developed a unique one-stop breast cancer clinic that can confirm a positive finding, including biopsy, and provide a treatment plan, in one day, in one place, for most women with suspicious scans. The concept is now being exported to other countries.



Gustave Roussy is a cancer-research institute and European Cancer Centre. It is the first dedicated One-Stop Clinic for Breast Cancer in France

Approximately half of all women receiving screening mammograms over 10 years will have a false positive result, which can cause considerable anxiety.<sup>1</sup> Understandably, then, women want to confirm the

diagnosis (or negative findings) and obtain a treatment plan as soon as possible. But this requires meeting with a variety of clinicians for tests and consultations, a process that could take four weeks,



up to seven if a biopsy or other exams are required.<sup>2</sup> Such delays lead to considerable stress and anxiety and may even affect prognosis.<sup>3</sup>

In a world in which a click of the button can bring a package to your door within a few hours, in which nearly everything we need to know resides in a device smaller than a purse, such delays may seem archaic. However, it is possible to offer a much faster option to the traditional pathway.

The proof lies in one of Europe’s top cancer center, which decided to tackle this challenge more than a decade ago after realizing its patients had to wait up to two months to confirm a questionable scan. “Sometimes there are images that are hard to read, and these women do not know whether they have cancer or not,” said Dr. Corinne Balleyguier, radiologist and head of the imaging department at Gustave Roussy Cancer Center in Villejuif, France. “This is too long. The clock is ticking, and we have to move as quickly as possible and start treatment early.” Otherwise, she said, “the uncertainty can be nerve-wracking, and we want to reduce it as much as possible.”

“We started seeing younger patients with dense

**“The clock is ticking, and we have to move as quickly as possible and start treatment early”**

breasts and more complex lesions,” Dr. Balleyguier said. “We wanted to develop a multidisciplinary approach that would deliver high-quality care and reduce the time between screenings, primary evaluations deemed positive, and diagnosis.” The concept was revolutionary at the time, said Dr. Suzette Delalogue, associate professor of medical oncology, founder of the One-Stop Clinic and head of the breast cancer department at Gustave Roussy, “at least on a scale as large as we were planning.”

**From Screening to Treatment Plan in 1 Day**

Today, the One-Stop Clinic Delalogue developed enables women with abnormal or unclear findings to go from screening to confirmed diagnosis and treatment plan or confirmed negative result in just one

day. The clinic operates with a multidisciplinary team including surgeons, radiologists, oncologists, pathologists, nurses, patient navigators, and social workers; a comprehensive suite of mammography equipment and applications; and clinical pathways designed to speed diagnosis and treatment planning.

The team is a critical component, with evidence that such a multidisciplinary approach may improve outcomes in patients with breast cancer.<sup>4</sup> Communication between the team members, and the ability for a patient to interact with the team in a single day or two rather than having to return for multiple appointments, speeds diagnosis and treatment planning and, overall, may result in a better outcome.

The women start arriving at Gustave Roussy around 8 am every Monday. A coordinating nurse divides them into three groups based on their referrals and schedules them to see one of three specialists for examination and screening. Women with unclear scans see a radiologist for consultation; those with suspicious lesions smaller than 10 mm visit a surgeon for a biopsy; and those with confirmed cancers see an oncologist to discuss a treatment plan. “The majority of patients who come to our facility don’t have to worry about false positives or callbacks which, as you know, are an issue in breast cancer diagnostics,” Delalogue said.

At the end of the day, patients have a final consultation to discuss the diagnosis and plan their treatment. “The results are remarkable and truly unlike anything we’ve seen happening anywhere else in the world,” said Dr. Delalogue.

To date, more than 20,000 women have passed through the clinic.

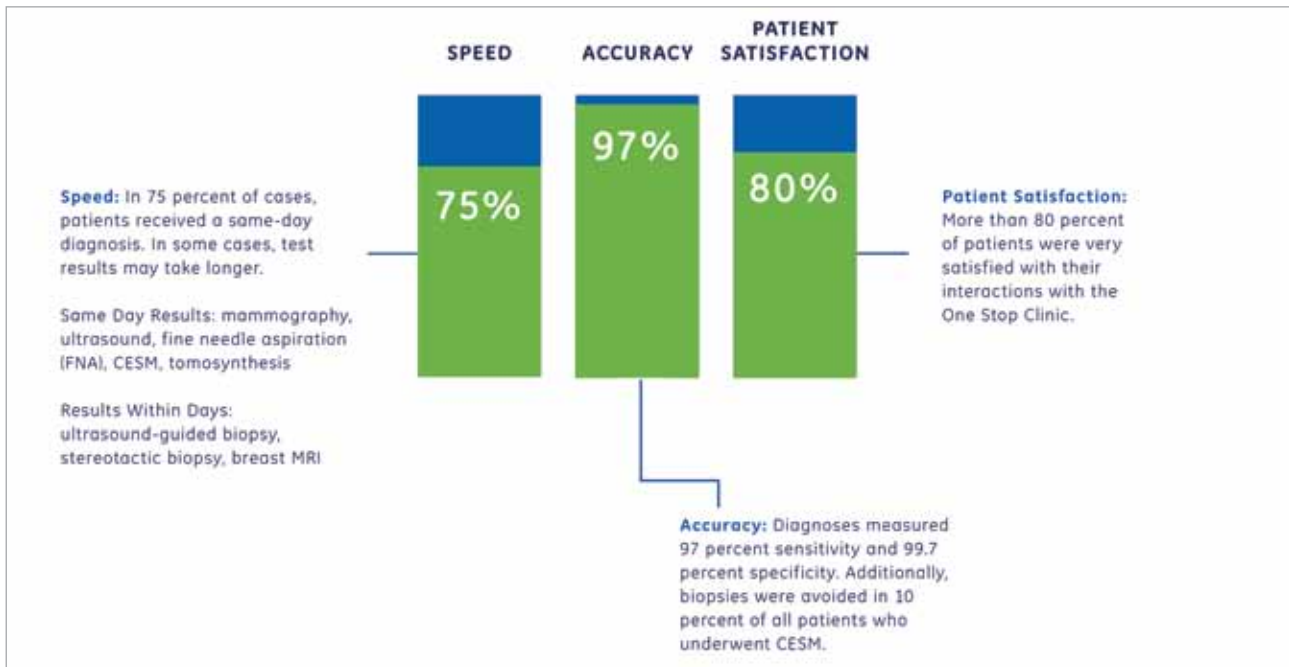
**Study Results Demonstrate Success**

An independent analysis of 11,000 patients seen at Gustave Roussy over eight-and-a-half years found that that 75 percent with suspicious breast findings received an exact diagnosis (97 percent sensitivity and 99.7 percent specificity) and treatment plan the same day. Overall, 80 percent said they were “highly satisfied” with the process and the care they received. Ten percent evaluated with GE Healthcare’s Contrast-Enhanced Spectral Mammography (CESM) were able to avoid biopsies.

**Replicating the One-Stop Clinic Around the World**

The One-Stop Clinic model is easily replicable, said

©For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu.



With Gustave Roussy Cancer Campus, a study was performed with ~11,000 women over 8 years and proved One Stop Clinic provides unprecedented patient benefits.

Delaloge. “When you combine the right people, process, and technology, you can deliver excellent clinical, operational, and financial outcomes with increased value.”

Thus, Gustave Roussy and GE Healthcare are now internationalizing the concept with the first One-Stop Clinic open in Medellin, Colombia. Representatives from Dynamica Medellin spent two years working with the team at Gustave Roussy to develop its clinic. Today, the Colombian clinic sees about 17 women a day, five days a week.

In the United States, Premier Inc. is working with GE Healthcare to develop the model for the One-Stop breast cancer diagnostic centers to give US women the same-day results. To support the effort, Premier conducted a Rapid Evidence Review, one of the first comprehensive evaluations of expedited diagnosis for patients with breast cancer. Based on the results of the first phase of the collaboration, GE Healthcare and Premier will next evaluate the potential and merits

associated with adopting the One-Stop Clinic model in the US.

The companies have also convened an advisory board to provide insight on the One-Stop Clinic model, as well as guidance and counsel on best approaches to redesign it for the U.S. market. Such clinics, said Annemijn Eschauzier, Chief Marketing Officer, Women’s Health at GE Healthcare “would set a facility apart from other clinics in the region by enabling the clinical team to provide a higher, more cost-effective, less stressful level of care for patients.” ■

**REFERENCES**

<sup>1</sup>American Cancer Society. Limitations of Mammograms. Available at: <https://www.cancer.org/cancer/breast-cancer/screening-tests-and-early-detection/mammograms/limitations-of-mammograms.html>. Accessed November 10, 2017

<sup>2</sup>Olivetto IA, Bancej C, Goel V, et al. Waiting times from abnormal breast screen to diagnosis in 7 Canadian provinces. CMAJ. 2001 Aug 7;165(3):277-83.

<sup>3</sup>Chiarelli AM, Muradali D, Blackmore KM,

et al. Evaluating wait times from screening to breast cancer diagnosis among women undergoing organised assessment vs usual care. Br J Cancer. 2017; 116, 1254-1263.

<sup>4</sup>Bensenhaver J, Winchester DP. Surgical leadership and standardization of multidisciplinary breast cancer care: the evolution of the National Accreditation Program for Breast Centers. Surg Oncol Clin N Am. 2014 Jul;23(3):609-16.

©For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu.