

With the Sensitive Sigma™ paddle, the patient becomes central to the quality of her own mammogram



It was at the Institut Curie in 2017 that the Sensitive Sigma™ compression paddle was installed and used for the first time in France. This technological innovation, developed by the company Sigmascreening, optimizes breast compression during mammography. This is achieved

using pressure sensors which take into account the size of the breast being examined. Mrs Claire Lamy, principal technician, and Dr Pascal Cherel, radiologist, give us their impressions.

Could you describe your department?

Claire Lamy: Our Medical Imaging department carries out 12,000 mammograms per year, which is about 80 per day on 3 mammography systems. A large number of mammograms are taken as part of the first visit to our breast clinic, which allows us to optimise patient's course of care. We also perform follow-up mammograms for women in high-risk groups and screening.

What was the impact of using the Sigmascreening compression paddle on the image quality and dose?

Dr Cherel: There has been an improvement in the quality of images with a decrease in blur, a reduction in breast thickness and an increase in compression force. Using "Dose Watch" dose monitoring software, we have also seen a decrease in the doses being delivered.

Is it important for you to have a reproducible compression protocol, based on pressure?

Dr Cherel: Being able to have a reproducible compression protocol is useful to standardize our practices within the department, and obtaining results of identical quality over time (about 50% of our patients come to us for annual check-ups following cancer treatment).

How do you use the Sensitive Sigma™ compression paddle on a day-to-day basis?

Claire Lamy: Technically, the Sensitive Sigma™ paddle is used in exactly the same way as a traditional paddle, but what makes all the difference is the compression indicator located on top of the compression paddle. These are bright

purple LEDs distributed in the form of a wave that indicate the level of compression. When I position the patient in front of the mammography system, I explain to her that with regard to the level of compression, the goal is to reach "the bottom of the wave". This means we obtain an optimal compression, and therefore the best image quality, with less radiation. As a result, the patient is more involved, she focuses on monitoring the indicator and therefore taking responsibility for achieving a good level of compression. It is an excellent tool to provide the patient with a goal and distracting her from her anxiety. The patient becomes central to the quality of her own mammogram.



Claire Lamy
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How has this changed how you work?

Claire Lamy: The use of the new paddle has changed our approach to compression. In fact, previously we compressed a patient's breast according to quite vague criteria, and we



Sensitive Sigma™ Paddle
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often only stopped compressing when the patient experienced discomfort and was tense. Now, being able to rely on

an objective visual indicator and able to share the the compression goal with the patient, it's easier for us to encourage the patient to gain "a few more LEDs" when needed. This interaction is very positive and makes the examination less stressful for the patient and the technician.

What is the experience of the patient?

Claire Lamy: The feedback of patients has been very positive. They appreciate the ability to visualise the level of compression to be achieved. Even though we know that the new paddle allows us to compress more, it does not result into an increase in pain for the patient. This observation has also been confirmed by the results of a study we carried out in our facility (83% of patients found their examination equal or more comfortable than before).

What has been the impact on workflow?

Claire Lamy: We were surprised to learn that the exam takes less time when using the paddle developed by Sigmascreening. Indeed, even if we have to explain to the patient how the LEDs work (which takes only a moment), we actually spend less time "negotiating" to compress a bit more or solving situations where the patient will "go no further". I think



Optimising compression
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the fact that the examination is a more "interactive" experience, thanks to the compression indicator lights, it decreases patient anxiety. The examination proceeds in a more fluid way.

After using it for more than 6 months, what is your feedback on the Sensitive Sigma™ compression paddle?

Claire Lamy: In short, I would say that the Sensitive Sigma™ paddle gives the technician a true indication of the level of compression and this can be shared with the patient. The patient then becomes central to the quality of the mammogram. Communication is made easier, the patient is involved, and the examination is less stressful, better quality and taking less time.



Sensitive Sigma™ Paddle installed on a mammography equipment - ©Sigmascreening-2017

About Sigmascreening

Sigmascreening is an Amsterdam-based medical device company focusing on the development of new innovative products in the area of digital mammography and breast cancer screening. Sigmascreening is established as a spin-off company from the Academic Medical Centre Amsterdam (AMC Amsterdam). For more information: <http://www.sigmascreening.com>

About the Institut Curie

A leading player in the fight against cancer, Institut Curie brings together an internationally-renowned research centre and a state-of-the-art hospital group, treating patients suffering from all types of cancers, including some of the rarest. Founded in 1909 by Marie Curie, Institut Curie has over 3,300 researchers, physicians and caregivers collaborating on its three missions: treatment, research and teaching. A private foundation recognised as a public-interest institution authorised to receive donations and bequests, Institut Curie can, thanks to its benefactors, accelerate new discoveries and therefore improve treatments and the quality of life of patients. For more information: [curie.fr](http://www.curie.fr)

About the Institut Carnot Curie Cancer



Institut Curie was certified as an "Institut Carnot Curie Cancer" in 2011. The Carnot name is a badge of excellence given to academic research bodies whose quality and commitment to research partnerships is proven. Curie Cancer offers industrial partnerships the ability to set up research collaborations which benefit from the expertise of Institut Curie teams, for the development of innovative cancer treatment solutions from therapeutic target through to clinical validation.

For more information: <http://www.instituts-carnot.eu/fr/institut-carnot/curie-cancer>