

PHILIPS

Cardiologists

Case Study: Accelerating cardiac diagnostics and developing Holter analysis partnerships



The “Institut Cardiovasculaire Paris-Sud” (ICPS)

The ICPS in France is a renowned center for the diagnosis and treatment of heart diseases. Part of the French group Ramsay Générale de Santé, it is made up of the Hôpital Privé Jacques Cartier in Massy and the Hôpital Privé Claude Galien in Quincy-sous-Sénart, in the south of Paris.



**INSTITUT
CARDIOVASCULAIRE
PARIS
SUD**

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Electrophysiologists

Drs Mina Aït-Saïd, Laurent Fiorina, Jérôme Horvilleur, Jérôme Lacotte, Vladimir Manenti, Fiorella Salerno, Salem Younsi and Charlène Coquard.

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fellow Electrophysiologists

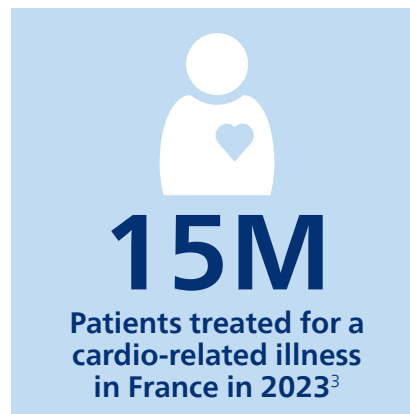
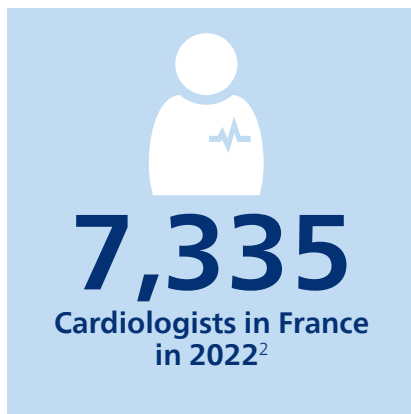
Annual volume of activity

1,100	ablations
800	pacemaker and defibrillator implantations
300	Implantable loop recorders implantations
2,000	Holter exams
10,000	consultations, including remote monitoring

Overview

In France, medical demographics challenges are increasing due to the number of cardiac patients seeking care on one hand and the decreasing number of physicians, on the other. This means that for patients, "access to a cardiologist and therefore to a diagnosis is increasingly difficult and takes too much time" says Dr. Lacotte, as confirmed by a recent survey.¹

By streamlining the patient pathway thanks to Artificial Intelligence, the team at ICPS was able to increase diagnostic activity by 4.5x and further develop Holter analysis partnerships.



Impact of Cardiologs Holter Platform on the ICPS practice

Pain points before using cardiologs

Logistic constraint

2 doctors sharing one computer to analyze Holters on proprietary installed software.

Patient diagnostic backlogs

Report turnaround times would go up to 2 weeks for ICPS patients, and up to 2 months for referrals.

Limited diagnostic activity

Unable to develop new partnerships with other hospitals due to workload.

Time-consuming tasks

Sorting out the significant events in noisy recordings was time-consuming.

Outcomes after using cardiologs

Flexible workflow

8 doctors can read Holters at the same time from anywhere at any time while secretaries can manage Holters recordings and reports.

Faster patient diagnostic response Report turnaround times for ICPS patients and referrals is 1 day alike.⁵

Increased diagnostic activity by 4.5x⁴

Developing partnerships with peripheral hospitals and neurology dpts. using Cardiologs ShareSpace to share recordings and reports.

AI-assisted analysis

Analysis time reduced by 42% thanks to noise detection and automatic event and beat morphologies sorting.⁶

Time saved translated directly into +4 days of EPs time saved per month

Using Cardiologs to develop partnerships



Dr. Fiorella Salerno

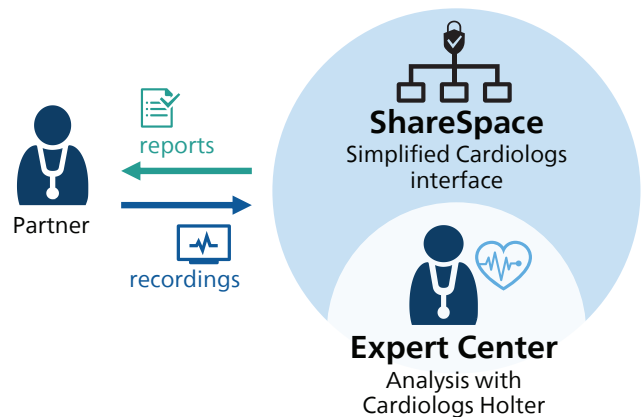
Cardiac Electrophysiologist at ICPS

“ We have developed partnerships, whether with neurology departments that needed to screen for atrial fibrillation for post-stroke assessments, or also with peripheral hospitals, for which we carry out Holter readings remotely. They are equipped with their own Holter devices and upload the recordings via Cardiologs ShareSpace. We access them directly in the Cardiologs platform, where we interpret them. Our partners have automatic access to the reports as they are completed.”

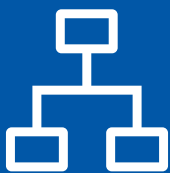
Cardiologs Holter platform offers a dedicated optional feature to facilitate partnerships: ShareSpace

Your partners can manage their recordings and transfer them to you for analysis through a simplified platform. Once reviewed, they have direct access to the patient reports.

ShareSpace can be accessed through a web browser, therefore, it doesn't require any software installation. This made it really easy to implement and scale for the medical teams at ICPS as well as for the referral sites. Holter analysis software infrastructure, maintenance and security related questions are managed by Cardiologs.



Cardiologs ShareSpace helps ICPS



Strengthen their network

- Share data in the cloud, helping consolidate and increase their network of referrals
- Increase their volume of Holter interpretations by 50% and offer holter interpretation services
- Diagnose patients located outside of their initial catchment area



Increase access to care

- Offer peripheral hospitals and clinics including geriatric clinics and stroke centers a simple solution for telediagnosics
- Improve the patient experience by reducing the need to travel



Improve efficiency

- Focus on AI-assisted interpretation of Holters while Holter recorders are managed by partners
- Collaborate freely and securely in the Cloud without the burden of on-premise infrastructures

Outlook

"We need to continue training paramedical staff in order to upskill them and give them more responsibilities by delegating a number of tasks. **Artificial intelligence can help supporting these new practices and removing redundant work**" said Dr. Lacotte.

Dr. Salerno added "**The future of Holter analysis lies in the development of telemedicine hub and spokes networks** with a large referral hub that receives and analyzes all the Holters from peripheral spokes, so that there is no longer a 2-to-3 months wait for patients to have access to a diagnostic result."



Dr. Jérôme Lacotte

Cardiac Electrophysiologist at ICPS

// We cannot compare an examination which analysis has been facilitated by Cardiologs with everything we were doing before, neither from an economic point of view, nor from a medical or organizational point of view. We can, however compare our activity over a month, over a year and realize that now everything is much easier and we save so much time and energy. //



Dr. Laurent Fiorina

Cardiac Electrophysiologist at ICPS

// At ICPS, the cumulative time saved equates to four days of work saved per month, time that we were able to reinvest to diagnose more patients by increasing our Holter volumes, but also by having more quality time in doing consultations and treating more patients. //

¹ <https://www.ipsos.com/sites/default/files/ct/news/documents/2024-03/ipsos-fhf-acces-aux-soins-2024-rapport-complet.pdf>

² <https://www.profilmedecin.fr/contenu/chiffres-cles-medecin-cardiologue/#:~:text=En%202020%2C%20on%20comptabilise%207,l%C3%A2ge%20moyen%20par%20sexe.>

³ <https://sante.gouv.fr/soins-et-maladies/maladies/maladies-cardiovasculaires/article/maladies-cardiovasculaires>

⁴ https://www.fmfpro.org/wp-content/uploads/2023/12/20231207_Support_Focus_Autres-specialites-cliniques.pdf

⁵ Based on ICPS performance analyses of report turnaround times and Holter volumes processed

⁶ Fiorina L. et al. AI- based strategy enables faster Holter ECG analysis with equivalent clinical accuracy compared to a classical strategy. EHRA 2020.

Medical Device

The Cardiologs Holter Platform is a medical device intended for use by qualified healthcare professionals for the assessment of arrhythmias using ECG data. It is CE marked and cleared by the FDA under 510(k).

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