UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the Month of: September 2025

Commission File Number: 001-40753

ICECURE MEDICAL LTD. (Translation of registrant's name into English)

7 Ha'Eshel St., PO Box 3163

Caesarea, 3079504 Israel (Address of principal executive office)
Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:
⊠ Form 20-F ☐ Form 40-F
<u>CONTENTS</u>
On September 4, 2025, IceCure Medical Ltd. (the "Company") issued a press release titled "IceCure's ProSense® Substantially Reduces Abdominal Wall Endometriosis Pain with High Procedural Efficacy," a copy of which is furnished as Exhibit 99.1 with this Report of Foreign Private Issuer on Form 6-K.
The press release attached herewith as Exhibit 99.1, excluding the fourth paragraph thereof, is incorporated by reference into the Company's Registration Statements on Form F-3 (Registration Nos. 333-258660 and 333-267272) and Form S-8 (Registration Nos. 333-270982, 333-264578, 333-262620 and 333-281587), filed with the Securities and Exchange Commission, to be a part thereof from the date on which this Report of Foreign Private Issuer on Form 6-K is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.
EXHIBIT INDEX
Exhibit No.
99.1 Press release dated September 4, 2025 titled "IceCure's ProSense® Substantially Reduces Abdominal Wall Endometriosis Pain with High Procedural Efficacy
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<u>SIGNATURES</u>
Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.
ICECURE MEDICAL LTD.
Date: September 4, 2025 By: /s/ Eyal Shamir
Date: September 4, 2025 By: /s/ Eyal Shamir Name: Eyal Shamir Title: Chief Executive Officer
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IceCure's ProSense® Substantially Reduces Abdominal Wall Endometriosis Pain with High Procedural Efficacy

Independent study reports pain scores declined from a median of 8 on a scale of 0-10 to a median of 0 for patients who had ProSense® cryoablation procedures

ProSense® is FDA cleared and approved in the European Union for gynecological indications

CAESAREA, Israel, September 4, 2025 – IceCure Medical Ltd. (Nasdaq: ICCM) ("IceCure", "IceCure Medical" or the "Company"), developer of minimally-invasive cryoablation technology that destroys tumors by freezing as an alternative to surgical tumor removal, today announced encouraging findings from a recently published, independently conducted study evaluating the efficacy and safety of personalized percutaneous single-probe liquid-nitrogen cryoablation with ProSense® in treating symptomatic abdominal wall endometriosis ("AWE").

AWE is a debilitating condition, often occurring in surgical scars after caesarean sections. It is characterized by cyclic pain and a palpable mass, significantly impacting the quality of life of the individual. Traditional treatments, including hormonal therapy and surgery, have their limitations, which has prompted interest in minimally invasive techniques such as cryoablation.

The peer-reviewed study, published in Journal of Personalized Medicine, titled "Efficacy and Safety of Percutaneous Single-Probe Cryoablation Using Liquid Nitrogen in the Treatment of Abdominal Wall Endometriosis," was conducted at Nîmes University Hospital in Nîmes, France. The study enrolled 14 patients with a total of 23 AWE lesions, who were treated between September 2022 and April 2025.

"We are very pleased to share the results of this independent study which concluded that percutaneous cryoablation with ProSense® is a safe and effective minimally invasive cryosurgical tool for abdominal wall endometriosis, offering significant pain relief and excellent cosmetic outcomes," stated IceCure's Chief Executive Officer, Eyal Shamir. The researchers went on to state it should be considered as part of multidisciplinary care for women with AWE. Evidence of ProSense®'s efficacy in multiple gynecological indications further supports its commercial potential and momentum.

Key Study Highlights include the following:

- Substantial Pain Relief: Median pain scores declined from 8/10 (range: 6–10) pre-treatment to 0/10 (range: 0–2) at 3-month follow-up (p < 0.0001)
- High Procedural Efficacy: MRI confirmed complete coverage of the ablation zone and disappearance of hemorrhagic inclusions in all cases
- Streamlined Procedure: Median ablation and overall procedural times were 15 minutes and 93 minutes, respectively
- Safe and Excellent Cosmetic Outcomes: No peri- or post-procedural complications were reported; no visible scars were observed
- Low Retreatment Rate: Only two patients (14%) required a second treatment using the same modality, both achieving satisfactory outcomes

According to the World Health Organization, endometriosis affects about 10% of women who are at reproductive age globally, or 190 million people. Endometriosis is a chronic disease associated with severe, life-impacting symptoms. AWE has a reported incidence rate of 0.03% - 3.5% of women.

About ProSense®

The ProSense® Cryoablation System provides a minimally invasive method to destroy tumors by freezing them. The system uniquely harnesses the power of liquid nitrogen to create large lethal zones for maximum efficacy in tumor destruction in benign and cancerous lesions, including breast, kidney, lung, and liver.

ProSense® enhances patient and provider value by accelerating recovery, reducing pain, surgical risks, and complications. With its easy, transportable design and liquid nitrogen utilization, ProSense® opens that door to fast and convenient office-based procedures for breast tumors.

About IceCure Medical

IceCure Medical (Nasdaq: ICCM) develops and markets advanced liquid-nitrogen-based cryoablation therapy systems for the destruction of tumors (benign and cancerous) by freezing, with the primary focus areas being breast, kidney, bone and lung cancer. Its minimally invasive technology is a safe and effective alternative to hospital surgical tumor removal that is easily performed in a relatively short procedure. The Company's flagship ProSense® system is marketed and sold worldwide for the indications cleared and approved to date including in the U.S., Europe and Asia.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 and other Federal securities laws. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements. For example, IceCure is using forward looking statements in this press release when it discusses: the benefits of percutaneous cryoablation with ProSense®; that ProSense® is a safe and effective minimally invasive cryosurgical tool for abdominal wall endometriosis, offering significant pain relief and excellent cosmetic outcomes; and the belief that ProSense®'s efficacy in multiple gynecological indications supports its commercial potential and momentum. Historical results of scientific research and clinical and preclinical trials do not guarantee that the conclusions of future research or trials will suggest identical or even similar conclusions. Important factors that could cause actual results, developments and business decisions to differ materially from those anticipated in these forward-looking statements include, among others: the Company's planned level of revenues and capital expenditures; the Company's available cash and its ability to obtain additional funding; the Company's ability to market and sell its products; legal and regulatory developments in the United States and other countries; the Company's ability to maintain or protect the validity of its patents and other intellectual property; the Company's ability to expose and educate medical professionals about its products; political, economic and military instability in the Middle East, specifically in Israel; as well as those factors set forth in the Risk Factors section of the Company's Annual Report on Form 20-F for the year ended December 31, 2024 filed with the SEC on March 27, 2025, and other documents filed with or furnished to the SEC which are avail

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