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 January 2, 2019.

Commission File Number: 001-38524

Titan Medical Inc.

(Exact Name of Registrant as Specified in Charter)

170 University Avenue, Suite 1000 Toronto, Ontario M5H 3B3 Canada

(Address of principal executive offices)

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 🖾

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): X_

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

SIGNATURE

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.

TITAN MEDICAL INC.

(Registrant)

Date: January 2, 2019 By: /s/ Stephen Randall

Name: Stephen Randall
Title: Chief Financial Officer

Titan Medical Affirms Timeline for U.S. and EU Regulatory Submissions by Year-End 2019 for Its Sport Surgical System

TORONTO--(BUSINESS WIRE)--January 2, 2019--**Titan Medical Inc. (TSX: TMD) (Nasdaq: TMDI) ("Titan" or the "Company")**, a medical device company focused on the design and development of a robotic surgical system for application in minimally invasive surgery ("MIS"), affirms its regulatory filing timeline with a 510(k) submission expected by the end of 2019 as a result of discussions with the U.S. Food and Drug Administration ("FDA"). The Company plans to complete the required human confirmatory studies under an Investigational Device Exemption ("IDE") during the second half of 2019 in support of its 510(k) filing. Additionally, the Company confirms that it also expects to file for the CE mark by year-end 2019. Based on the timing of anticipated approvals, Titan plans to commence commercialization of its single-port robotic system in the U.S. and Europe in 2020, as previously announced.

"We are encouraged by the collaborative nature of our correspondence and conversations with the FDA, and are confident that with their guidance, our confirmatory studies will be designed and executed to meet their standards. Under the leadership of Curtis Jensen, our Vice President of Quality and Regulatory Affairs, and with expert guidance from trusted surgeon advisors, planning meetings have already been held with qualified hospitals in preparation for our IDE study," said David McNally, president and chief executive officer of Titan Medical. "Based on our close interaction with regulatory bodies in the U.S. and the EU during 2018, we believe we have a clear understanding of the requirements to support our respective regulatory submissions. In parallel with planning for our IDE study in the U.S., we are preparing to complete the necessary audit and required documentation for the CE mark. We are well positioned to execute on a sound regulatory plan for our initial target markets."

Mr. McNally added, "During the past year, we have significantly improved the capabilities and performance of our product platform. The focus in the first half of 2019 will be on completing verification and validation testing along with meeting ISO 13485 requirements for certification in support of the regulatory filings. Our efforts in the second half of 2019 will be directed toward preparing and implementing the IDE study and filing our 510(k) submission by the end of the year. We remain confident in our highly experienced team to meet our aggressive timeline, just as they have been doing during the past two years."

About Titan Medical Inc.

Titan Medical Inc. is focused on computer-assisted robotic surgical technologies for application in minimally invasive surgery. The Company is developing the SPORT Surgical System, a single-port robotic surgical system comprised of a surgeon-controlled patient cart that includes a 3D high-definition vision system and multi-articulating instruments for performing MIS procedures, and a surgeon workstation that provides an advanced ergonomic interface to the patient cart and a 3D endoscopic view inside the patient's body. Titan intends to initially pursue focused surgical indications for the SPORT Surgical System, which may include one or more of gynecologic, colorectal or general abdominal procedures.

For more information, please visit the Company's website at www.titanmedicalinc.com.

Forward-Looking Statements

This news release contains "forward-looking statements" which reflect the current expectations of management of the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate", "potential for" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of the Company's Annual Information Form dated March 31, 2018 (which may be viewed at www.sedar.com). Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this news release. These factors should be considered carefully, and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the news release are based upon what management currently believes to be reasonable assumptions, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

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