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 August, 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 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: August 26, 2019

By: */s/ Stephen Randall*
Name: Stephen Randall
Title: Chief Financial Officer

EXHIBIT INDEX

99.1	News Release dated August 26, 2019.

Exhibit 99.1

Titan Medical Announces Successful Completion of Human Factors Evaluation for Its Single-Port Robotic Surgical System, Provides Development and Regulatory Update

TORONTO--(BUSINESS WIRE)--August 26, 2019--**Titan Medical Inc. ("Titan" or the "Company") (TSX: TMD) (Nasdaq: TMDI)**, a medical device company focused on the design, development and commercialization of a robotic surgical system for application in minimally invasive surgery ("MIS"), announces that the human factors evaluation ("HFE") required to support its planned Investigational Device Exemption ("IDE") filing with the U.S. Food and Drug Administration ("FDA") was completed successfully and received a highly favorable assessment from the surgeon investigators.

Commenting on the HFE, Arnold Advincula, M.D., Vice-Chair of Women's Health & Chief of Gynecology at the Sloane Hospital for Women, Columbia University Medical Center/New York Presbyterian Hospital, and the Company's Medical Advisor on Clinical Education and Hospital Economics, said, "It was exciting to see the latest improvements with the system during my recent participation in the summative human factors studies. For any novel surgical approach to gain a strong foothold in gynecology and other surgical specialties, the system must be user-friendly without compromising technical efficacy and surgical experience.

"During the summative studies, the procedural workflow that highlighted a simple yet sophisticated design approach of the system without reinventing the wheel, was easy to learn for myself and my surgical team. The streamlined design of the system made surgical assisting seamless and safe," he added. "I was particularly impressed with innovative features like a dual-view camera system consisting of a flexible 3D high-definition camera along with an integrated 2D high-definition camera, and insightful overlays providing valuable spatial information for the multi-articulating instruments. These features are vital for simplifying single-port robotic surgery for the surgical community predominantly familiar with multi-port approaches. I remain enthusiastic with all the progress I am seeing toward making single-incision robotic surgery a reality that will become a standard part of our minimal access surgical armamentarium."

In addition, based on a reassessment of ongoing preparations for the IDE filing and planned human confirmatory studies, and to optimize resources while maintaining its goal for best-in-class product quality and reliability, the Company is in the process of revising its product development and regulatory timeline. Titan now expects to file and receive FDA approval for its IDE submission during the fourth quarter of 2019, and to file its 510(k) application with the FDA during the first half of 2020, compared with previous published projections which included filing the application by year-end 2019.

David McNally, Titan's chief executive officer, added, "We have now successfully completed all GLP and HFE studies, which have further demonstrated our single-port system's best in-class potential. Having achieved the expected results, we are compiling the associated reports from independent experts in preparation for our IDE submission with the FDA to begin human studies. In addition, we have engaged a top contract research organization to manage our human studies. We will now take additional time to perfect our system and implement all planned system and sterile instrument interface components, software enhancements and training tools, in order not only to further de-risk our IDE studies, but also to introduce a more refined product in the marketplace. This more measured development schedule will allow us to better manage workflow and associated payments to our contractors, resulting in a reduction of our anticipated third quarter cash burn and a smoother overall quarterly cash burn through to the filing of our 510(k). By extending our resources and milestones, we can ensure the highest likelihood of success for our single-port robotic system from clinical, regulatory and commercial perspectives, and enable a robust and careful examination of our future funding options, which may include strategic sources."

Chad Zaring, Titan's chief commercial officer, commented, "In the short time I have worked at Titan Medical I have become ever more excited about the potential for our single-port robotic surgical system, once it is fully developed, to compete successfully in a very large market. I have already met with a number of experienced robotic surgeons and hospital administrators, and based on their feedback I believe the single-port market has the potential to develop rapidly. I also believe Titan Medical can deliver a product with differentiated features of value to the surgeons who utilize it, ultimately benefitting their patients."

About Titan Medical Inc.

Titan Medical Inc. is focused on computer-assisted robotic surgical technologies for application in MIS. The Company is developing 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 gynecologic surgical indications for use of its single-port robotic surgical system.

For more information, please visit the Company's website at www.titanmedicalinc.com and on EDGAR at www.sec.gov.

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, and include, without limitation, statements regarding; the Company’s capacity to complete the scheduled milestones on the path to anticipated regulatory filings; the Company’s intention to complete human confirmatory studies as part of its IDE application to the FDA; the Company’s submission of its IDE application and anticipated approval of such application; the Company’s expected timeline for the submission of its 510(k) application with the FDA and technical file for the CE mark; the Company’s expectations regarding research and development costs in the future; the Company’s timeline for its transition from product development to manufacturing to product launch and planned commercialization and the ability of its new employees and board members to assist with this process. 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 29, 2019 (which may be viewed at www.sedar.com and at www.sec.gov). 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 current or prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements.

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