



MCOT PATCH[®]

MOBILE CARDIAC OUTPATIENT TELEMETRY

AFTER TAVR
**HE'S GOING HOME
WITH A NEW VALVE
AND THE RIGHT
CARDIAC MONITOR**



Superior, arrhythmia
detection of MCOT[™] – in a
convenient, wearable patch

BioTel[®]
HEART

CardioNet & LifeWatch



HEART BLOCK AFTER DISCHARGE

IN PATIENTS UNDERGOING TAVR WITH LATEST-GENERATION VALVES

Case Study:

Implementing Routine Use of Near Real-Time Cardiac Monitoring Post-TAVR

During the Pilot Study...

Patients undergoing index TAVR at our institution from October 2016–May 2017, without a preexisting pacing device and without pre-discharge high-grade atrioventricular block (H-AVB) necessitating permanent pacemaker (PPM) implantation, were discharged with 30-day mobile cardiac telemetry (MCT). Baseline, procedural, and follow-up data were collected, comparing those with and without subsequent need for post-discharge PPM.¹

Results...

Among 59 patients undergoing TAVR, 11 had prior PPM or implantable cardioverter defibrillator (ICD), and 6 required pre-discharge PPM implant for H-AVB; 40 were discharged with 30-day mobile cardiac telemetry. Six (15%) developed H-AVB (3 Mobitz II second-degree AVB, 3 complete AVB) at a median (range) of 5 (4–24) days post-TAVR.¹

Conclusion...

Delayed high-grade atrioventricular block occurred in 15% of patients discharged after TAVR and was identified as late as 24 days post-discharge.¹

Characteristics of patients discharged following TAVR with mobile cardiac telemetry based on need or lack of need for permanent pacemaker (PPM) implantation¹

	No Pacemaker N=34	Post Discharge Pacemaker N=6	P-value
Age, years	79.3 ± 7.1	78.0 ± 8.1	0.69
Male, n (%)	20 (50)	5 (83)	0.20
TAVR type			
Sapien3	20 (59)	4 (67)	1.00
Evolut-R	14 (35)	2 (33)	1.00
Baseline ECG			
Normal	24 (71)	2 (33)	0.16
RBBB	0 (0)	2 (33)	0.02
LBBB	3 (9)	0 (0)	1.00
Bifascicular Block	1 (3)	0 (0)	1.00
IVCD	1 (3)	2 (33)	0.05
Discharge ECG			
Normal	12 (32)	1 (17)	0.65
RBBB	1 (3)	2 (33)	0.06
LBBB	19 (56)	1 (17)	0.18
Bifascicular block	1 (3)	0 (0)	1.00
IVCD	1 (3)	2 (33)	0.02
Change from Baseline Conduction at Discharge	18 (53)	2 (33)	0.40

Continuous data are reported as mean ± standard deviation, and proportional data are reported as N (%).

Abbreviations: TAVR = transcatheter aortic valve replacement; RBBB = right bundle branch block; LBBB=left bundle branch block, IVCD = interventricular conduction delay; Pre-DC PPM = Pre-Discharge Permanent Pacemaker

“Heart block after transcatheter aortic valve replacement (TAVR) continues to be a concerning complication—requiring pacemaker implantation, necessitating long-term device monitoring, and contributing to higher 30-day mortality²”

MCOT™ MOBILE CARDIAC OUTPATIENT TELEMETRY

CARDIAC MONITORING SOLUTION FOR POST-TAVR PATIENTS

Simple to Use. Easy to Wear.

- Small, lightweight patch and sensor (< 1 oz)
- Water-resistant – patients can shower or exercise
- Easy-to-use touchscreen, with built-in patient diary
- No battery changes or daily sensor charging required
- Multi-language capability
- Simple set-up process can be shown to patient post-discharge
- Flexible enrollment process with customizable notifications



Near Real-Time Wireless Transmission. For Rapid Notification and Diagnosis.

- Notification of emergent and urgent events
- Bluetooth-enabled data transfer
- Two channels of ECG data
- Up to 30 days of continuous monitoring and data storage
- Certified Cardiac Technicians at BioTel Heart review data and contact physician and/or patient per physician-approved criteria



Proprietary MCOT Algorithm. Unsurpassed Arrhythmia Detection.

- Only monitoring device proven to detect atrial fibrillation with 100% sensitivity and 100% positive predictivity in the detection of ≥ 30 -second AF episodes*
- Automatic detection with rate, rhythm, AF with p-wave analysis and QRS morphology algorithm
- Wireless transmission



MCOT is contraindicated for use in patients with life-threatening arrhythmias who require inpatient monitoring.

* Based on MIT-BIH (Massachusetts Institute of Technology-Beth Israel Hospital) Arrhythmia Database testing of ≥ 30 -second AF episodes. (FDA 510k submission)

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CONVENIENTLY SUPERIOR

Proprietary MCOT Algorithm.

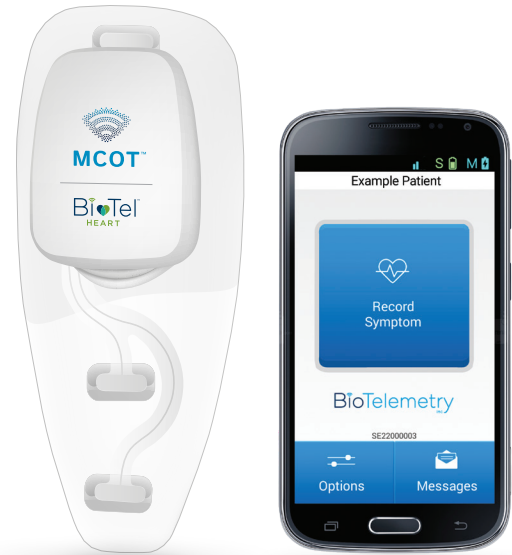
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CPT Codes[†]

Technical: 93229 Professional: 93228

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T = Mobile Cardiac Telemetry E = Wireless Event



To learn more, please visit gobio.com



CardioNet & LifeWatch



Accredited by The Joint Commission

References: 1. Ream K, et al. Use of Ambulatory Event Monitoring in Identifying Patients With Delayed Presentation of High-Grade Atrioventricular Block Following Transcatheter Aortic Valve Replacement. *American Heart Association abstract*. 2018 (Results and claims adapted from study). 2. Fadahunsi OO, Olowoyeye A, et al. Incidence, Predictors, and Outcomes of Permanent Pacemaker Implantation Following Transcatheter Aortic Valve Replacement: Analysis From the U.S. Society of Thoracic Surgeons/American College of Cardiology TVT Registry. *J Am Coll Cardiol Intv*. 2016;9(21):2189–99.

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