



LUX-Dx II+™ ICM System

Dual-stage PVC Burden Algorithm: A Real-world Patient Example*

The novel PVC Burden dual-stage algorithm provides a daily burden percentage, advanced programming, and the first and only actionable PVC burden alert from an insertable cardiac monitor (ICM).** In this example, a patient was inserted with a LUX-Dx II+ ICM for palpitations. They had a known history of PVCs.



1

PVC Burden



Monitoring Duration: **Continuous**

Cardiac monitor battery life will be reduced. Select Short-term to minimize battery impact.

☒ Alert for PVC Burden ≥ Threshold
Yellow Alert
 Threshold per day: **10** %
 Send alert after **3** day(s) ≥ Threshold

Upon insertion, the **PVC Burden algorithm was enabled to continuous** monitoring duration and set to alert after 3 days above a 10% PVC burden threshold.

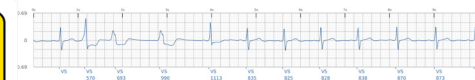
2

Shortly after insertion, a **yellow alert** was sent through the LATITUDE Clarity™ Data Management System. Visual PVCs were observed on **presenting S-ECG**.

Daily Value

11.0

%



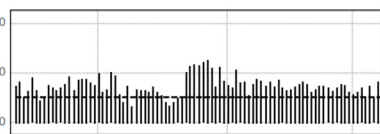
3

The **PVC burden daily trend** was used to assess pharmaceutical intervention. After no considerable stabilisation of the burden, a PVC ablation was scheduled.

Daily Value

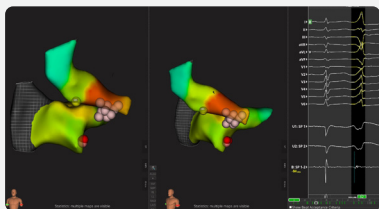
17.8

%



4

The patient underwent a **successful PVC ablation** with procedure mapping provided by the OPAL HDx™ Mapping System.



5

PVC Burden



Monitoring Duration: **Short-term**
 for **7** days
 Repeat every: **month**

☒ Alert for PVC Burden ≥ Threshold
Yellow Alert
 Threshold per day: **10** %
 Send alert after **3** day(s) ≥ Threshold

Post-ablation, **monitoring duration was changed to Short-term**, where PVC burden was monitored for 7 consecutive days each month.

Advanced programming capabilities

To learn more about the dual-stage PVC Burden algorithm and its programmability, scan the QR code to view the PVC Burden Algorithm Programming Guide.



A PVC Burden algorithm that's focused on what matters

The novel algorithm monitors for changes in R-R intervals and R-wave amplitude during the detection stage to detect potential PVCs. A patient-specific morphology assessment in the verification stage verifies the potential PVC sequence types like couplets and triplets. The advanced programmability of the LUX-Dx II+™ PVC Burden algorithm lets clinicians customise settings to meet the needs of each patient. Whether you are looking for a new diagnosis or focused on long-term monitoring, the daily burden percentage, advanced programming, and unique actionable PVC burden alert help care teams **focus on what matters**.

The LUX-Dx II+ ICM PVC Burden algorithm demonstrated strong performance when identifying patients with a PVC burden $\geq 10\%$.^{1†}



100%
PPV



84%
sensitivity

*Results from case studies are not necessarily predictive of results from other cases. Results in other cases may vary.

**As of 4.1.2025: Reveal LINQ™ Clinician Manual, LINQ II™ Clinician Manual, BIOMONITOR III™ Technical Manual, BIOMONITOR III™ Technical Manual, BIOMONITOR IV™ Technical Manual, Merlin Patient Care System for SJM Confirm™ ICM, Confirm Rx™ ICM and Jot Dx™ ICM Help Manual, and Merlin Patient Care System Assert-IQ™ ICM Help Manual.

†In silico testing of algorithm performance on 12-lead Holter data.

1. Siejko KZ, Kupfer M, Rajan A, Herrmann K, Nair D. Premature ventricular contraction detection and estimation of daily burden by an insertable cardiac monitor. Heart Rhythm O2. 2025;6:528–536.
[doi: https://doi.org/10.1016/j.hroo.2025.01.004](https://doi.org/10.1016/j.hroo.2025.01.004).



**LUX-Dx II™ and LUX-Dx II+™
Insertable Cardiac Monitor Systems
Indications, Safety and Warnings**

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