**A FRAMEWORK FOR WEARABLE TECHNOLOGIES IN CARDIOLOGY**

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**Background:** The field of cardiology has long used wearable medical devices to monitor heart rate and rhythm. The past decade has seen the emergence of many new wearable devices, including some that have been widely adopted by both physicians and consumers.

**Objective:** The objective is to discuss existing and forthcoming devices designed to measure activity, heart rate, heart rhythm, and thoracic fluid. Additionally, frameworks to classify and better characterize and understand wearable devices will be proposed. These frameworks may help to classify data and its usefulness in patient management and clinical decision support with the hope of providing a benefit in improving healthcare on an individual and population level.

**Results and Conclusions:** A wearable data feedback loop model for acquiring, analyzing, and influencing therapeutic/behavioral modification has been created to assess possible utilities of actionable wearable data. A taxonomy for the collection of wearable data has been formulated. A taxonomy for the use of wearable data in clinical decision support has been created. A cellular to ecosystem model for visualizing opportunities for leveraging data inter-relatedness is proposed.