

Accepted Manuscript

Title: Identifying Heart Failure using EMR-based algorithms

Authors: Geoffrey H. Tison, Alanna M. Chamberlain, Mark J. Pletcher, Shannon M. Dunlay, Susan A. Weston, Jill M. Killian, Jeffrey E. Olgin, Véronique L. Roger



PII: S1386-5056(18)30680-4
DOI: <https://doi.org/10.1016/j.ijmedinf.2018.09.016>
Reference: IJB 3752

To appear in: *International Journal of Medical Informatics*

Received date: 15-6-2018
Revised date: 14-8-2018
Accepted date: 15-9-2018

Please cite this article as: Tison GH, Chamberlain AM, Pletcher MJ, Dunlay SM, Weston SA, Killian JM, Olgin JE, Roger VL, Identifying Heart Failure using EMR-based algorithms, *International Journal of Medical Informatics* (2018), <https://doi.org/10.1016/j.ijmedinf.2018.09.016>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Article Type: Research and Applications

Identifying Heart Failure using EMR-based algorithms

Short Title: Tison EMR Algorithms for Heart Failure

Geoffrey H. Tison, MD, MPH^{*}; Alanna M. Chamberlain, PhD, MPH[†]; Mark J. Pletcher, MD, MPH[‡];
Shannon M. Dunlay, MD, MS^{†,§}; Susan A. Weston, MS[†]; Jill M. Killian, BS[†]; Jeffrey E. Olgin, MD^{*};
Véronique L. Roger, MD, MPH^{†,§,||}

^{*}Division of Cardiology, University of California, San Francisco, [†]Department of Health Sciences Research, Mayo Clinic, Rochester, MN, USA [‡]Department of Epidemiology and Biostatistics, University of California, San Francisco, USA, [§]Department of Cardiovascular Diseases, Mayo Clinic, Rochester, MN, USA, ^{||}Robert D. and Patricia E. Kern Center for the Science of Health Care Delivery, Mayo Clinic, Rochester, MN, USA.

Correspondence: Geoffrey H. Tison, MD MPH; University of California, San Francisco; 555 Mission Bay Blvd South, Box 3120, San Francisco, CA 94158; Telephone 415-502-0992; Fax (415) 502-7949; Email: geoff.tison@ucsf.edu

Highlights:

- We developed multiple algorithms to identify heart failure from medical record data
- Various algorithms have tradeoffs between sensitivity and positive predictive value
- Simpler algorithms have high sensitivity but lower positive predictive value
- Additional components, like medication or BNP, impact the algorithm similarly
- Algorithm choice should be guided by the goals of the research application

Download English Version:

<https://daneshyari.com/en/article/11020979>

Download Persian Version:

<https://daneshyari.com/article/11020979>

[Daneshyari.com](https://daneshyari.com)