

## Touro Scholar

---

NYMC Faculty Posters

Faculty

---

Spring 3-3-2017

### In-Hospital Outcomes and Hospitalizations for Acute Rheumatic Heart Disease: A United States National Study

Srikanth Yandrapalli

Abdallah Sanaani

*New York Medical College, sanaania@wcmc.com*

Zeeshan Solangi

*New York Medical College, zeeshan\_solangi@nymc.edu*

Merita Shehu

*New York Medical College, ShehuM@wcmc.com*

Sachin Sule

*New York Medical College*

*See next page for additional authors*

Follow this and additional works at: [https://touro scholar.touro.edu/nymc\\_fac\\_posters](https://touro scholar.touro.edu/nymc_fac_posters)



Part of the [Cardiovascular Diseases Commons](#), and the [Health and Medical Administration Commons](#)

---

#### Recommended Citation

Yandrapalli, S., Sanaani, A., Solangi, Z., Shehu, M., Sule, S., & Aronow, W. S. (2017). In-Hospital Outcomes and Hospitalizations for Acute Rheumatic Heart Disease: A United States National Study. Retrieved from [https://touro scholar.touro.edu/nymc\\_fac\\_posters/33](https://touro scholar.touro.edu/nymc_fac_posters/33)

This Poster is brought to you for free and open access by the Faculty at Touro Scholar. It has been accepted for inclusion in NYMC Faculty Posters by an authorized administrator of Touro Scholar. For more information, please contact [daloia@nymc.edu](mailto:daloia@nymc.edu).

---

**Authors**

Srikanth Yandrapalli, Abdallah Sanaani, Zeeshan Solangi, Merita Shehu, Sachin Sule, and Wilbert S. Aronow

# In-hospital Outcomes and Hospitalizations for Acute Rheumatic Heart Disease: A United States National Study

Srikanth Yandrapalli, Sohaib Tariq, Venkat Vuddanda, Abdallah Sanaani, Zeeshan Solangi, Viswajit Reddy Anugu, Pratik Mondal, Shehu Merita, Sachin Sule, Wilbert S. Aronow.

New York Medical College at Westchester Medical Center, Valhalla, New York.



## Background

- Acute rheumatic heart disease (ARHD) is a serious manifestation of acute rheumatic fever (ARF) and can result in long-term cardiac complications.
- Literature suggests that the incidence of ARF is declining in the United States (US).
- However, the secular variation of ARHD has not been investigated in the United States.

## Methods

- Nationwide Inpatient Sample databases from 2003 through 2012 were queried for hospitalizations with a primary discharge diagnosis of ARF or ARHD using ICD-9 codes (390, 391.x, 392.x).
- Hospitalizations primarily for ARF which also had a secondary diagnosis of ARHD were identified and analyzed as a separate cohort.
- Regression analysis was used to analyze outcomes.

## Results

- Hospitalizations for ARHD represented a **very small proportion (0.002%)** of the total hospitalizations in the US between the years 2003-2012.
- Hospitalizations primarily or secondarily for ARHD have **decreased by around 50%** between 2003-2012 ( $P_{trend} < 0.005$ ).
- Of the 11,186 hospitalizations for ARF (mean patient age  $46 \pm 28$  years; 53.8% women; 50.4% white), a primary or secondary diagnosis of ARHD was present in 6,866 (61.4%) (mean patient age  $55 \pm 27$  years; 57.4% women; 54.2% white). **ARHD in ARF patients decreased from 63% in 2003 to 55.9% in 2012 ( $P_{trend} < 0.005$ ).**
- Among patients hospitalized for ARF, the likelihood of having ARHD is increased in **female sex and white race** (both  $P < 0.005$ ).
- ARHD is more common (28%,  $P < 0.005$ ) in patients in the **lowest quartile of median household income (US \$ 1-38,999)**.

	2003	2012	
Hospitalizations for ARHD (primary and secondary)	1700 hospitalizations	1240 hospitalizations	$P < 0.005$
ARHD in patients hospitalized for ARF	63%	55.9%	$P < 0.005$

## Results

Among patients hospitalized for ARF, **ARHD is an independent predictor of increased length of stay** ( $8.4 \pm 9.9$  vs  $6.8 \pm 8.5$  days in patients with and without ARHD, respectively,  $P < 0.005$ ), **increased total hospital charges** (US \$  $62,926 \pm 107,516$  vs  $46,482 \pm 88,796$ ,  $P < 0.005$ ), and **increased in-hospital mortality** (4.7% vs 3% in patients with and without ARHD, respectively,  $P < 0.005$ ).

## Conclusion

- ARHD is uncommon in the US and hospitalizations for ARHD have decreased between 2003 and 2012.
- ARHD is common in patients with ARF and is associated with an increased length of stay, hospital charges, and in-hospital mortality.
- More aggressive preventive interventions in low-income areas might help further reduce the burden of this disease.

## Disclosures

- None of the authors have any relevant disclosures.