



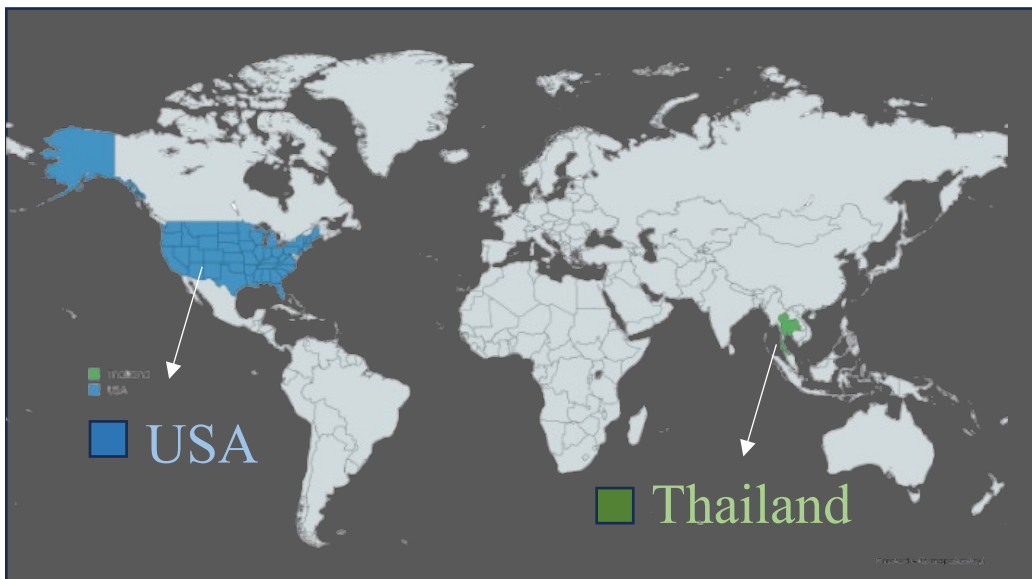
Obstetric Anesthesia for Parturients with Acquired or Congenital Heart Disease

A Comparison of Management and Outcomes between Thailand and United States Tertiary Hospitals



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- Cardiovascular disease is a leading cause of global maternal mortality and morbidity
- Physiological demands of pregnancy can exacerbate severe decompensation



Level of maternal care

- Standardize maternal care
- Promptly, risk-appropriate care
- Give birth safely at the appropriate level

Pregnancy Heart Team

- A specialized multidisciplinary care team
- Anesthesiologist: Ensuring safe anesthetic care

Objective: Compare maternal cardiac complications and anesthetic management in parturients with cardiovascular disease at Siriraj Hospital (SIR) in Thailand and Brigham and Women's Hospital (BWH) in the United States.

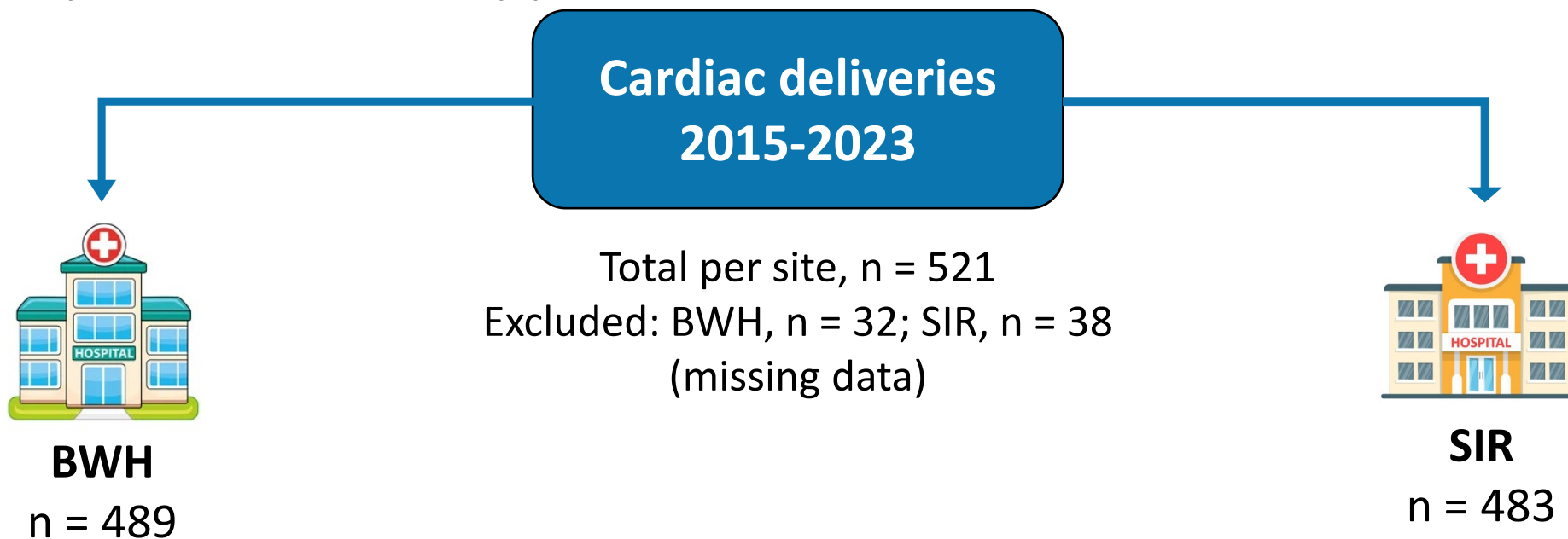
Hypothesis: Differences in care and resulting outcomes may inform best practices to enhance management for obstetric patients with cardiovascular disease.

Lead Investigator

- Cardiac anesthesiologist doing a research fellowship at BWH, 2023-2025

Study details

- Retrospective cohort study performed at BWH in collaboration with SIR



- Disease phenotype and severity, mode of delivery, mode of anesthesia, interventions, morbidity outcomes, and complications were compared

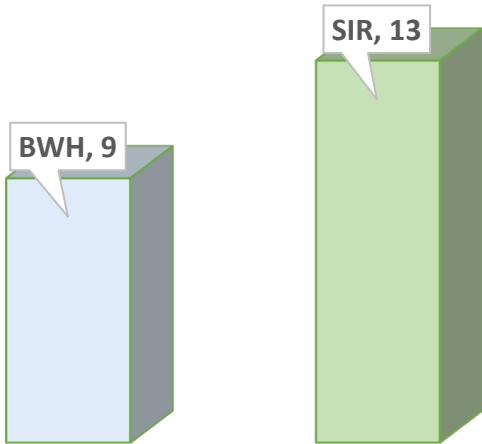
Baseline characteristics

	BWH	SIR
CHD	26.8%	18.2%
BMI > 30	48.5%	26.6%
ASA II	32.1%	60%
ASA III	66.7%	36.9%
Preterm	12.7%	21.3%
CD	34.8%	55.9%

Cardiac events

BWH 44 (9%) SIR 66 (13%)
p = 0.044

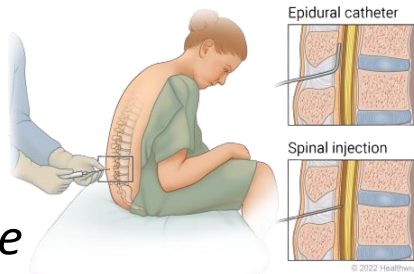
	BWH	SIR
Arterial line placement	8 (1.6)	55 (11.4)
<i>Vaginal delivery</i>	301 (94.4)	23 (10.8)
Neuraxial labor analgesia		
<i>Scheduled CD</i>		
General Anesthesia	0	12 (14.1)
<i>Unscheduled CD</i>		
General Anesthesia	5 (5.1)	50 (27)
Epidural (in situ or new)	70 (70.7)	14 (7.6)
Single shot spinal	16 (16.2)	119 (64.3)
LOS	3 ± 1	5 ± 2
Postpartum ICU	1 (0.2)	53 (11)



- ❑ **Maternal cardiac events** were more frequent at SIR compared to BWH
- ❑ Obstetric and anesthesia management **was disparate**
- ❑ Modification of obstetric and anesthesia practices at SIR may enhance outcome

Higher vaginal delivery rate

Higher epidural analgesia/anesthesia rate



Lower rate of general anesthesia