

# Dexmedetomidine for Maternal Shivering During Cesarean Delivery: Impact on Maternal Core Temperature

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## SOAP Consensus Statement and Recommendations for Enhanced Recovery After Cesarean

- Maintain normothermia by utilizing active warming
  - In-line IV fluid warmer
  - Forced air warming
  - Keep the OR temperature ideally  $>72^{\circ}\text{F}$  or  $23.0^{\circ}\text{C}$  (Joint Commission guidance)

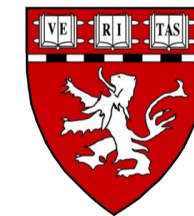
### Hypothesis

Shivering is a heat-generating phenomenon.

→ *Does blunting maternal shivering with IV dexmedetomidine increase the risk of hypothermia during cesarean delivery?*



Estimated incidence of shivering while under a neuraxial anesthetic: 40-55%\*



## Study Group

10/2021 – 09/2022

n = 219

## Control Group

09/2022

n = 196

### Inclusion Criteria

Neuraxial anesthetic  
Cesarean delivery

### Exclusion Criteria

Propofol sedation  
>3L IV fluid  
Blood transfusion  
Bladder irrigation  
Lack of continuous  
temperature monitoring

n = 160

n = 139

Stratified for Baseline Normothermia

n = 117

n = 99

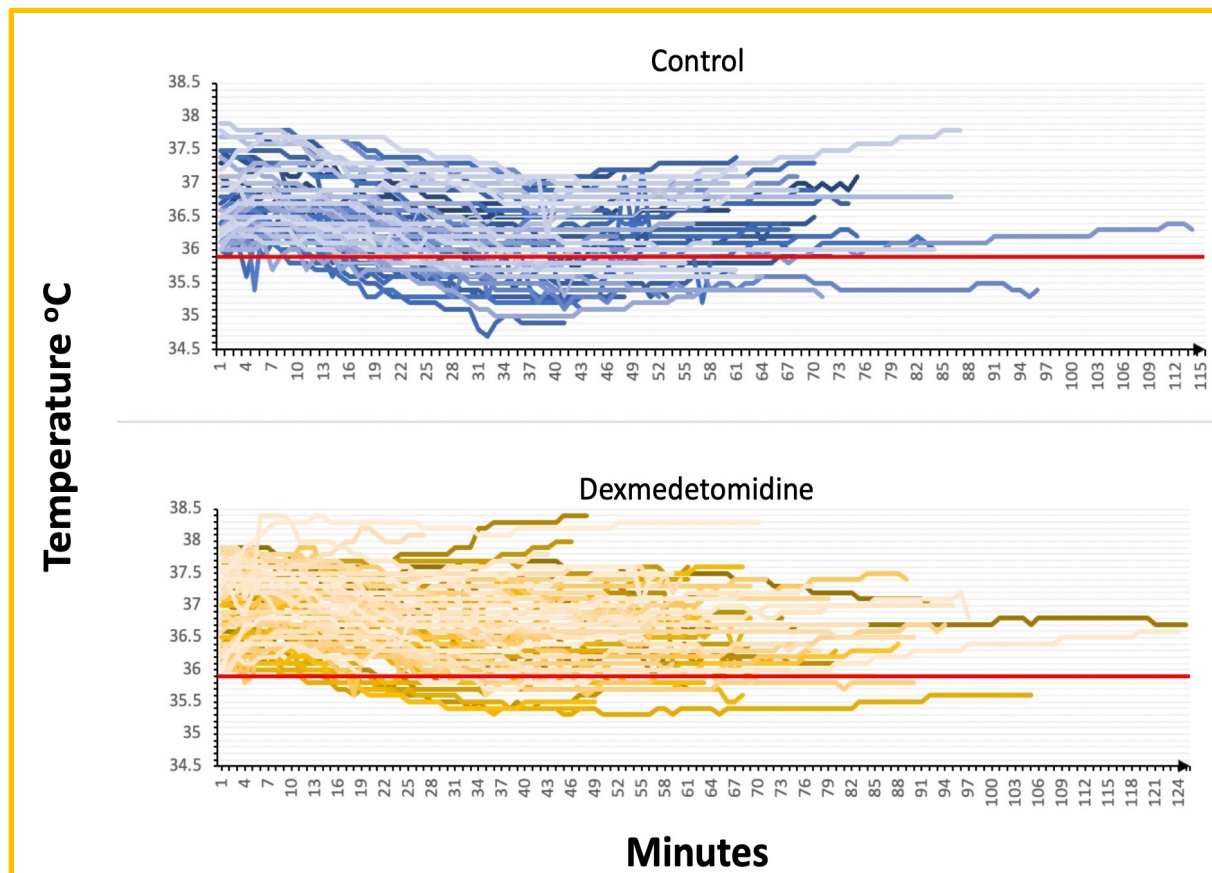
Data analysis

**Study Group:** Shivering patients that received dexmedetomidine

**Control Group:** Non-shivering patients who did not receive dexmedetomidine

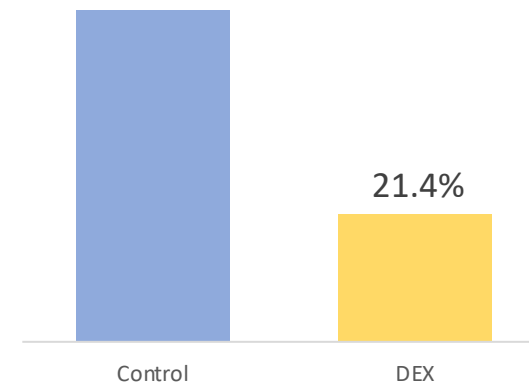
### Assumption verified via survey of 12 OB Anesthesiologists:

- When dexmedetomidine is used as the sole agent, it is used for treatment of shivering
- When dexmedetomidine is used in conjunction with propofol, it is used as an adjunct to sedation



### Incidence of hypothermia

55.0%



### Proportion of intraoperative time in hypothermia

DEX 41.4%

Control 45.0%



### Conclusions

- Dexmedetomidine **does not increase** the incidence or duration of hypothermia
- Patients who were **not shivering** and **did not receive dexmedetomidine** had a significantly higher risk of developing hypothermia.
- This patient subgroup may require more vigilant warming during cesarean delivery