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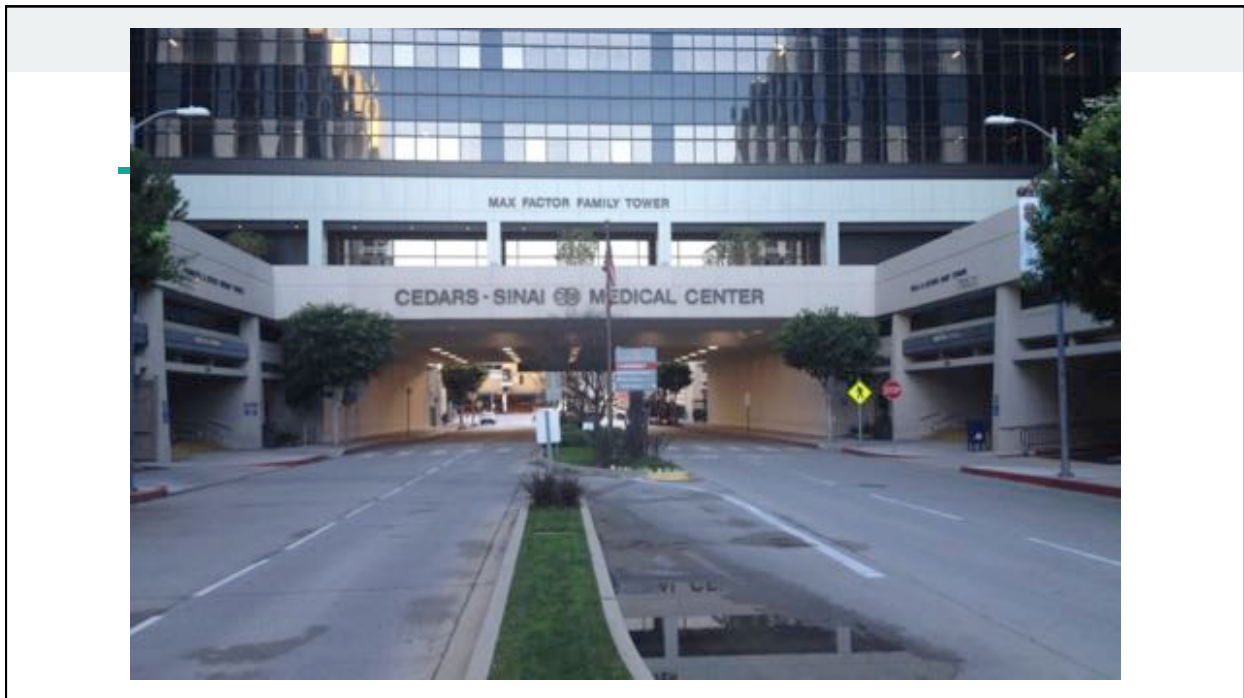
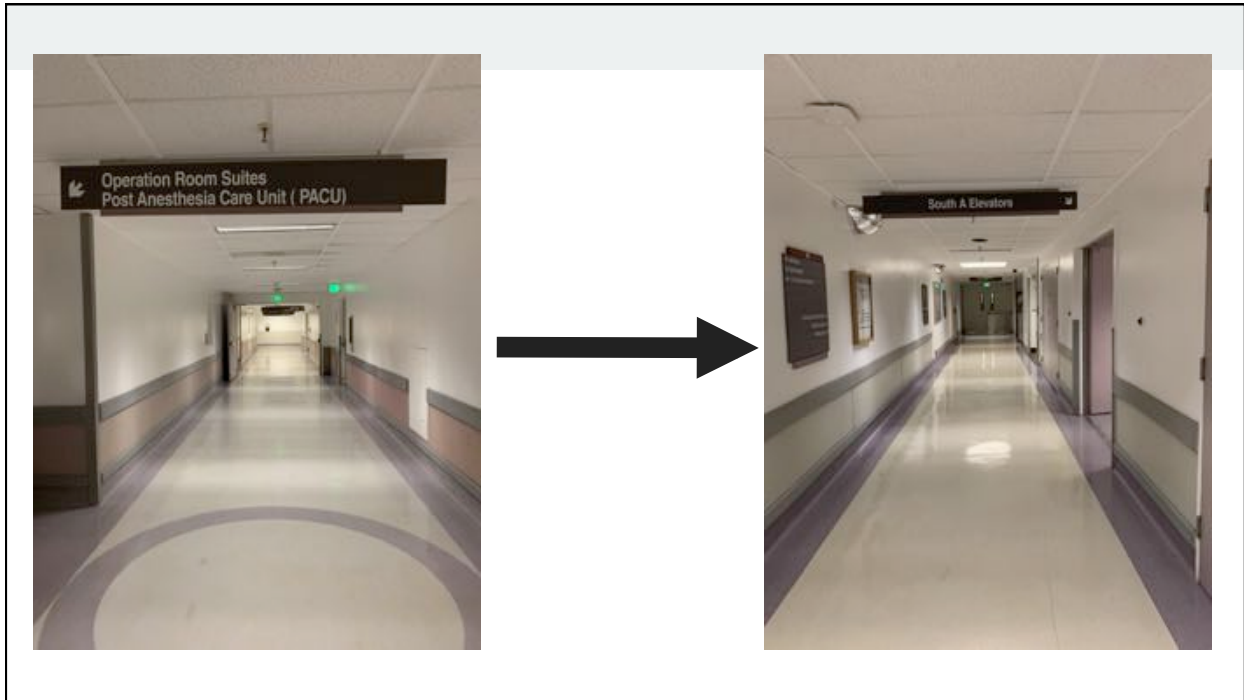
A Trainee-Led QI Study: Reducing Environment-Associated Temperature Instability During Transports to Nursery

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- 7000+ deliveries/year at Cedars Sinai Medical Center
- After birth, babies transferred from L&D to nursery
- 5-10 min walk in cold hallway







- Temperature drops upon arrival to nursery
- 3 temperature drops → sepsis workup (CBC, blood cx, abx) and/or transfer to NICU
- Environmental vs neonatal sepsis?

Resident-led Initiative

- Identify the problem (2 residents)
- Gather data x 2 weeks (4 residents)
- Seek out mentors (NICU hospitalist/neos)
- Develop a feasible preventative protocol - double hat/
double blanket
- Meet with nursing leadership (MD/RN collaborative)
- Nurses trained in protocol

Objectives

- Establish an easy, preventative intervention to prevent these “environmental” temperature drops
- Educate nurses to implement protocol
- Decrease number of iatrogenically cold babies; prevent unnecessary sepsis evaluations

	Infectious	Non-Infectious
Etiology of temperature drops	<ul style="list-style-type: none"> ● Neonatal sepsis (GBS, E coli, Listeria) ● Risk factors: ROM, GBS status, chorio, GA 	<ul style="list-style-type: none"> ● Environmental ● Physiologic (IUGR/SGA)

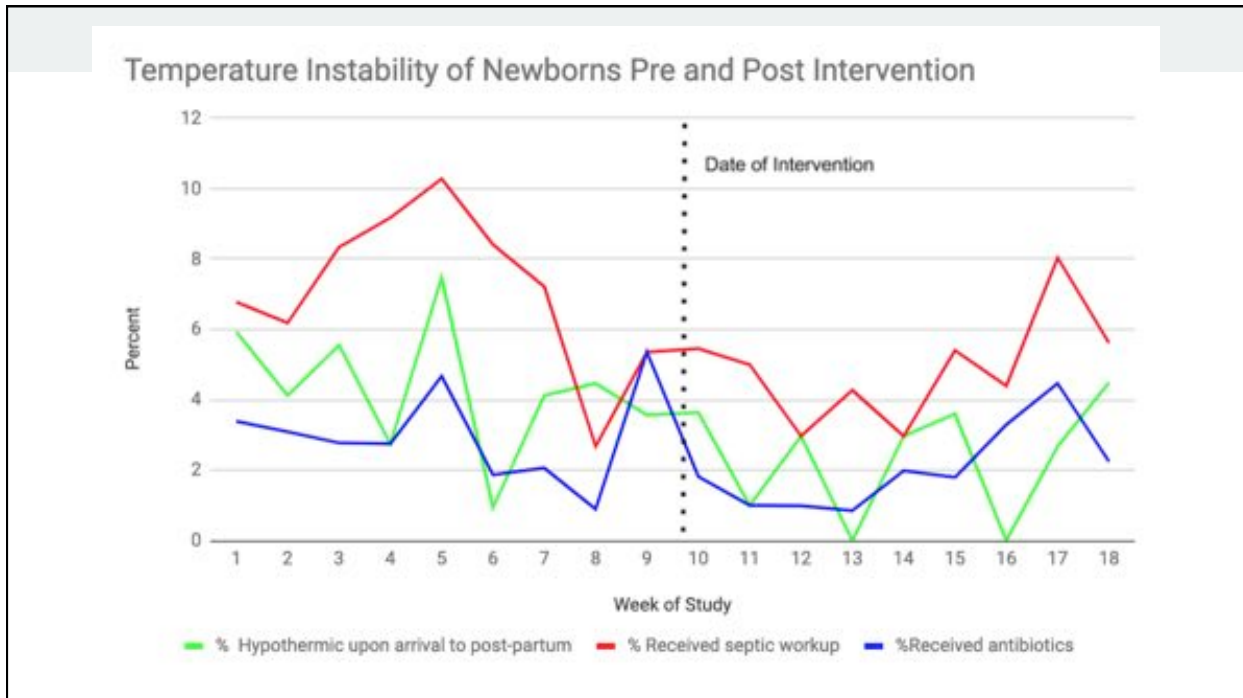
Methods

- Pre-intervention data collected 2/12-4/11/18
- Post-intervention data collected 4/12-6/12/18
- *Excluded preterm/babies directly admitted to NICU
- Data collected on:
 - Date and time of temperature drop notification
 - Temperature prior to transfer and temperature after transfer
 - Sepsis risk factors
 - Septic work up performed? Antibiotics given?

	Pre-Intervention (n=911)	Post-intervention (n=933)
Mean GA (wks)	39.4	39.3
Sepsis risk factors (%)	158 (17.3%)	143 (15.3%)
# of newborns SGA/IUGR (%)	67 (7.4%)	55 (5.9%)

	Temperature prior to transfer	Temperature after transfer	p-value
Pre-intervention (n=911)	98.5±0.6	98.2±0.6	p < 0.01
Post-intervention (n=933)	98.4±0.6	98.2±0.6	p=0.14

	Pre-Intervention (n = 911)	Post - Intervention (n = 933)	p-value
Number of hypothermic babies upon arrival (%) T < 97.5F	58 (6.4%)	37 (4%)	p = 0.015
Number of septic workups (%)	66 (7.3%)	46 5%	p < 0.01
Number received antibiotics (%)	26 (2.9%)	19 (2%)	p < 0.01



Limitations

- Limited time frame
- Did any babies get too hot?
- No study of adherence to intervention
- Variability in timing of vitals
- No stratification by gestational age

Future Direction



- Increase the number of babies studied
- Improve protocol (ie minimum temp)
- Protocol re-implementation
- Study other variables (stratify by gestational age, study length of hospitalization)
- Clinical outcomes

Conclusion



- Resident-led initiatives can be effective
- Our clinical intervention led to a decrease in environment-associated temperature instability (due to initial transfer)
- Overall number of septic workups and antibiotics given decreased

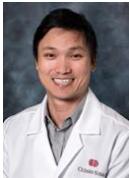
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Questions?