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# Using a Standardized Clinical Assessment and Management Plan (SCAMP) reduces the rate of non-indicated cesarean sections in pregnancies affected by gastroschisis

# Authors

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***On behalf of the University of California Fetal-Maternal Consortium (UCfC)***

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# Background

- The incidence of gastroschisis is approximately 5/10,000 live births and is increasing worldwide.
- The prevalence of cesarean section (CS) and preterm birth (PTB) among gastroschisis-affected pregnancies remain high, yet the reasons are unclear.
- The University of California Fetal-Maternal Consortium collected data from their 5 university systems and developed a SCAMP aimed to provide consensus guidelines regarding best practices for timing of delivery and mode of delivery for gastroschisis pregnancies.

# Objective

- We aimed to evaluate the effect of a multi-center Standardized Clinical Assessment and Management Plan (SCAMP) on the rate and indications for CS and preterm birth (PTB) in gastroschisis-affected pregnancies.

# Study Design

- Retrospective cohort study.
  - We collected data on **mode of delivery**, **PTB rates** and **indications for CS** in gastroschisis-affected pregnancies from the five institutions of the University of California Fetal-Maternal Consortium (UCfC: UC Davis, UC Irvine, UC Los Angeles, UC San Diego, UC San Francisco) from 2007-2012 (period 1, historical comparison).
  - We compared these outcomes to those after implementation of the fetal gastroschisis SCAMP consensus guidelines from 2015-2019 (period 2) using chi-square test and student's t-test as indicated by sample size.

# Results

- In period 1, there were 191 neonates with gastroschisis born within the UCfC, and 116 in period 2.
- No significant difference was found between the groups with respect to gestational age at delivery or PTB rate.
- *A decrease in the overall CS rate was observed from period 1 to period 2 (34% to 23.9%), although this difference did not reach significance (p=0.065).*
- *The rate of non-indicated CS was lower during period 2 (0%) than period 1 (17.2%) (p=0.008).*

# PreSCAMP and PostSCAMP Indications for Cesarean Section

- Non-indicated CS were lower after the implementation of the SCAMP.

	PreSCAMP	PostSCAMP	p value
Median GA	36 3/7 +/- 1.8	36 5/7 +/- 1.7	0.336
Cesarean Section	65 (34.0%)	26 (23.9%)	0.065
NRFS*	35 (54.7%)	14 (53.8%)	0.147
Malpresentation	10 (15.4%)	7 (26.9%)	0.905
Repeat CS	8 (12.3%)	5 (19.2%)	>0.999
<b>Non-indicated</b>	<b>11 (16.9%)</b>	<b>0 (0%)</b>	<b>0.008</b>

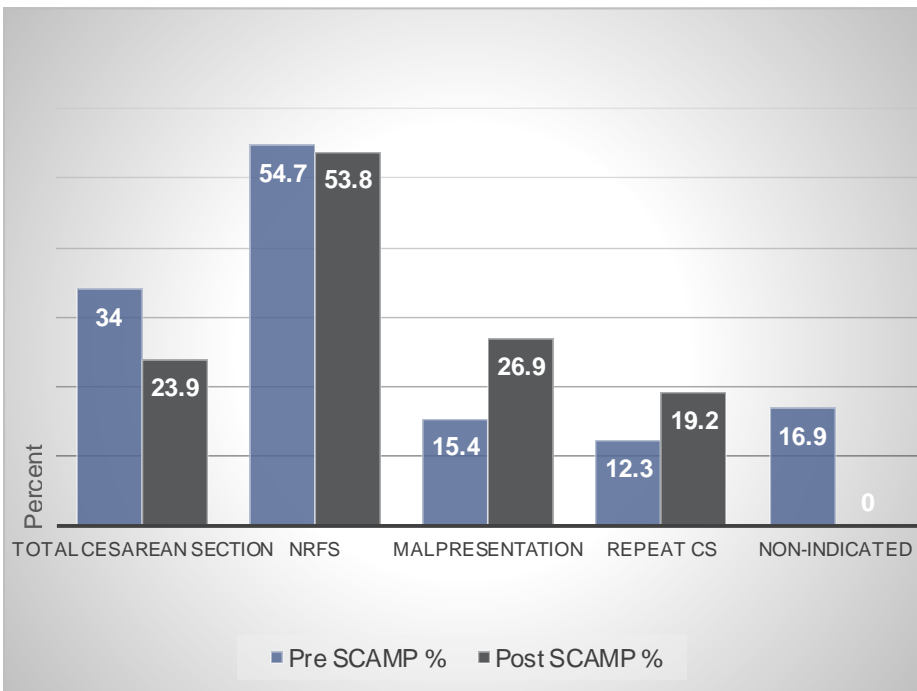


# Comparison of PreSCAMP and PostSCAMP Indications for Preterm Delivery

- There was no difference in PTB rates for any indication.

	PreSCAMP	PostSCAMP	p value
Median GA	36 3/7 +/- 1.8	36 5/7 +/- 1.7	0.336
Delivery <37 weeks	115 (60.2%)	63 (62.4%)(n=101)	0.718
NRFS	54 (47.0%)	24 (38.1%)	0.137
Preterm Labor/PPROM	50 (43.5%)	37 (58.7%)	0.833
Other/Unknown	11 (9.6%)	2 (3.2%)	0.081

# Indications for Cesarean Section



- The total rate of CS was lower in the PostSCAMP group, but the difference was not statistically significant.
- The rate of non-indicated CS was significantly lower in the PostSCAMP group.

# Conclusions

- While implementation of a SCAMP in gastroschisis-affected pregnancies had no significant impact on PTB rates or overall CS rate, it was associated with a significantly lower rate of non-indicated CS.
- A SCAMP model may promote adherence to best practices in obstetric management of gastroschisis-affected pregnancies.



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