

Maternal and Neonatal Morbidities and Co-Morbidities Related to Induction of Labor

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Background

- Rising rates of labor inductions
- Elective vs. therapeutic
- Maternal and neonatal morbidities and co-morbidities rising as well?



Purpose of Study

- The purpose of this study was to explore maternal and neonatal morbidities and co-morbidities related to induction of labor.



Design and Sample

- Retrospective and prospective comparative descriptive study
- Women admitted to the hospital for induction of labor and spontaneous labor.
- A total of 1,602 subjects included in the study (408 induction group and 393 spontaneous labor group and their newborns)

Setting

- Sharp Grossmont Hospital:
 - Largest health care facility in East San Diego County
 - 481 licensed beds
 - Women's Center-3,800 deliveries per year
 - Malcolm Baldrige National Quality Award Recipient
 - Magnet Designation in 2007





Methods

- Medical records reviewed
- Data collected over six months
- Inclusion:
 - Women admitted for spontaneous labor or induction of labor
- Exclusions:
 - Augmented with oxytocin
 - Scheduled for cesarean section
 - Multiple gestations



Data Analysis

- Descriptive statistics and frequencies
SPSS for Windows Version 15.0
(SPSS, Inc, Chicago, Ill)
- ANOVA was used to calculate data
between groups
- Two-tailed alpha level of .05 was
utilized for all statistical tests



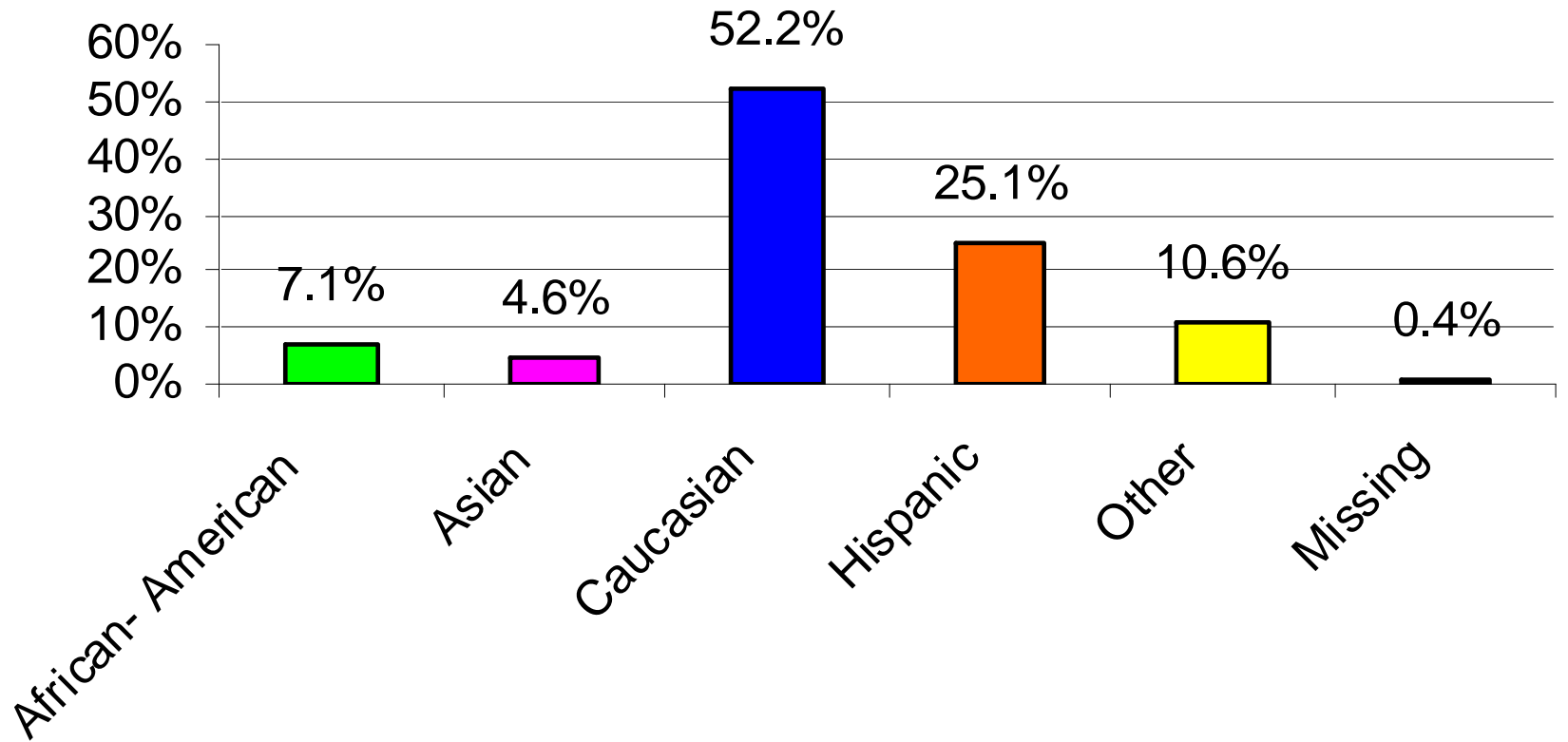
Results



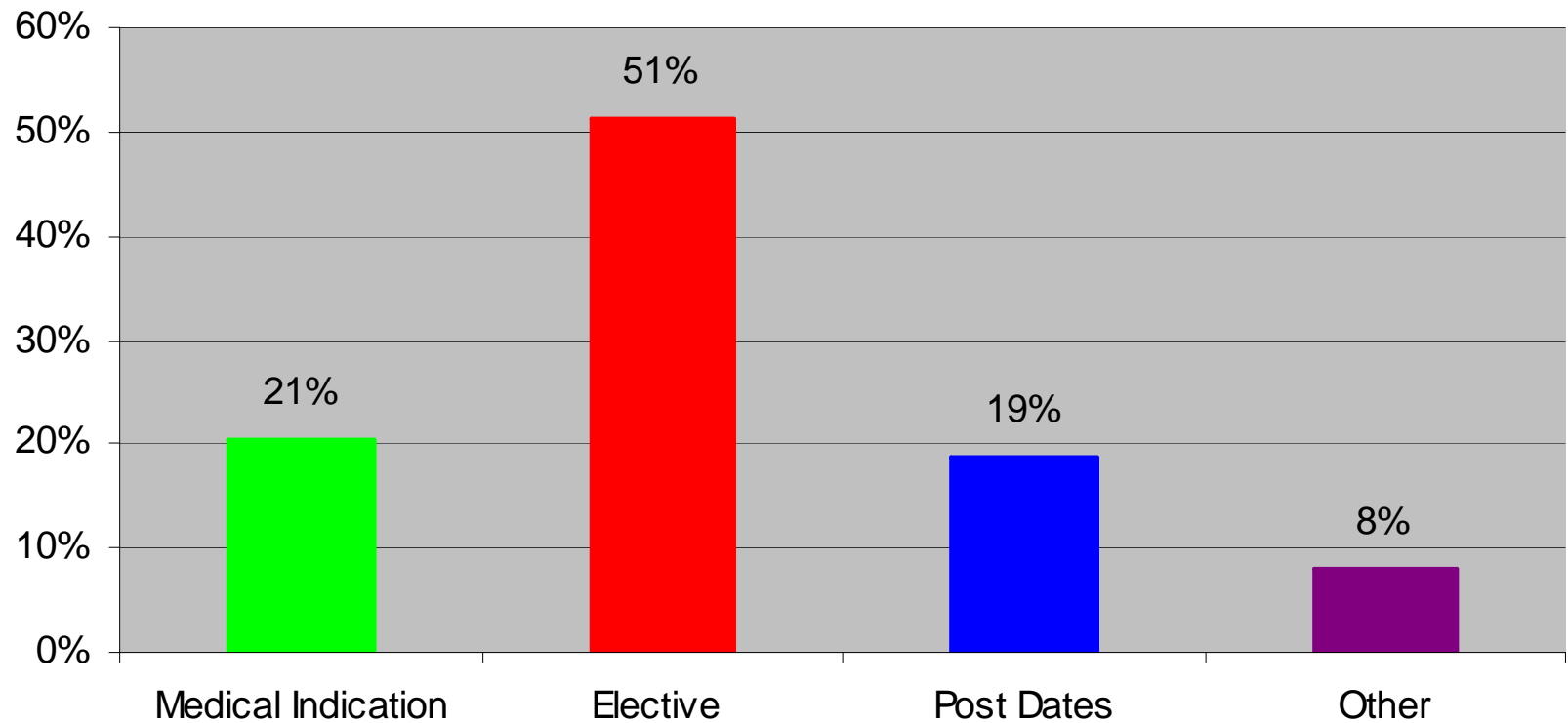
Demographics of Sample

- Mean Age: 27.24
- Mean Gravity: 2.82
- Mean Parity: 1.9

Ethnicity



Reasons for Induction of Labor





Mode of Delivery

	Vaginal Delivery	Cesarean Section	Assisted Delivery: Vacuum	Assisted Delivery: Forceps
Spontaneous Labor	93.4%	6.6%	14.2%	1.5%
Induction	80.6%	19.4%*	13.8%	2.9%
Total	86.9%	13.1%	14%	2.3%

* Clinically Significant

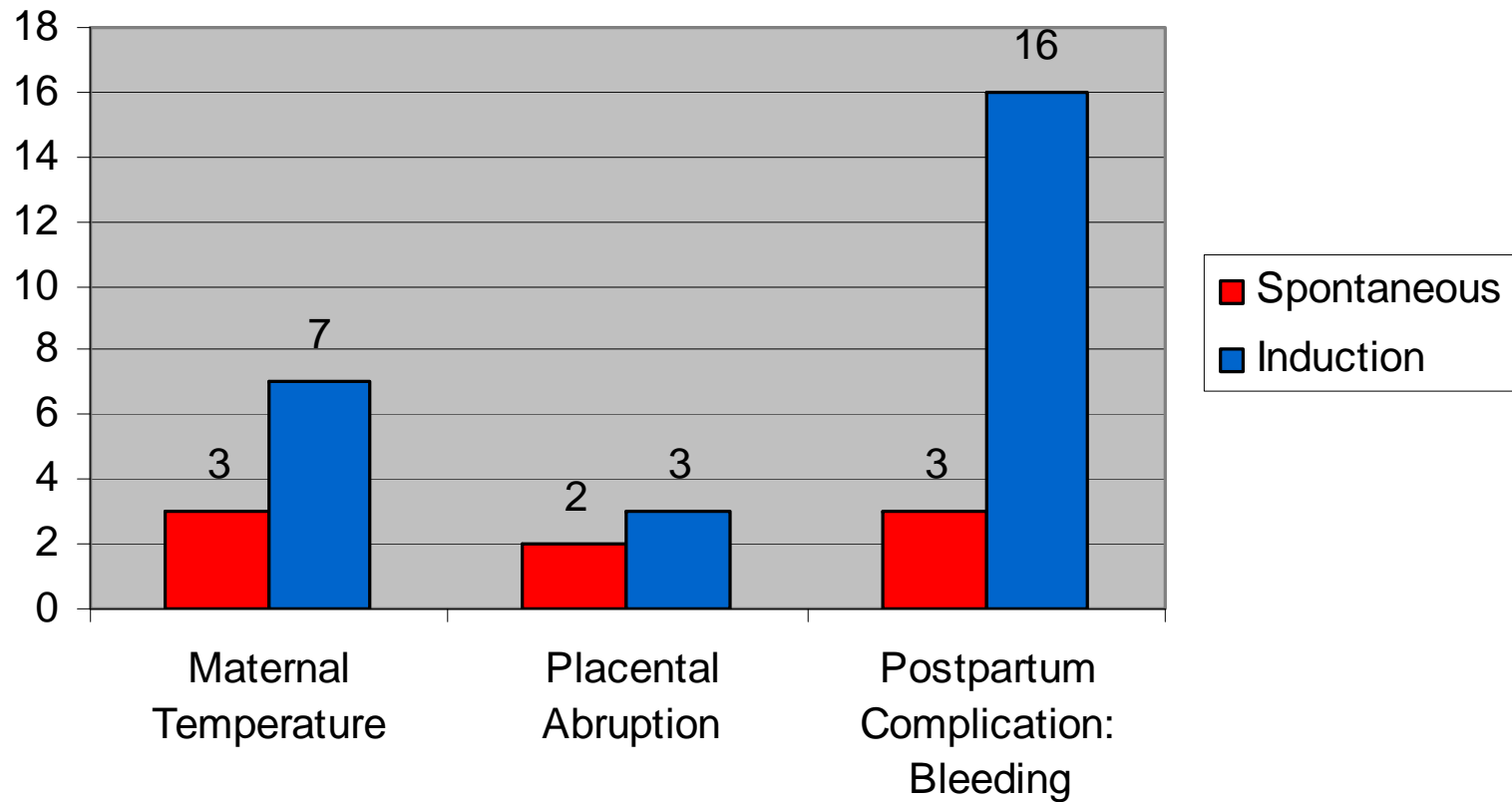


Maternal Morbidities

	Maternal Temperature	Placental Abnormality: Partial Abruptio	Postpartum Complication: Bleeding
Spontaneous labor	3 (.8%)	2 (.5%)	3 (.8%)
Induction	7 (1.7%)	3 (.7%)	16 (3.9%) *
Total	10 (1.3%)	5 (.6%)	19 (2.4%)

* Statistically Significant p=.003

Maternal Morbidities



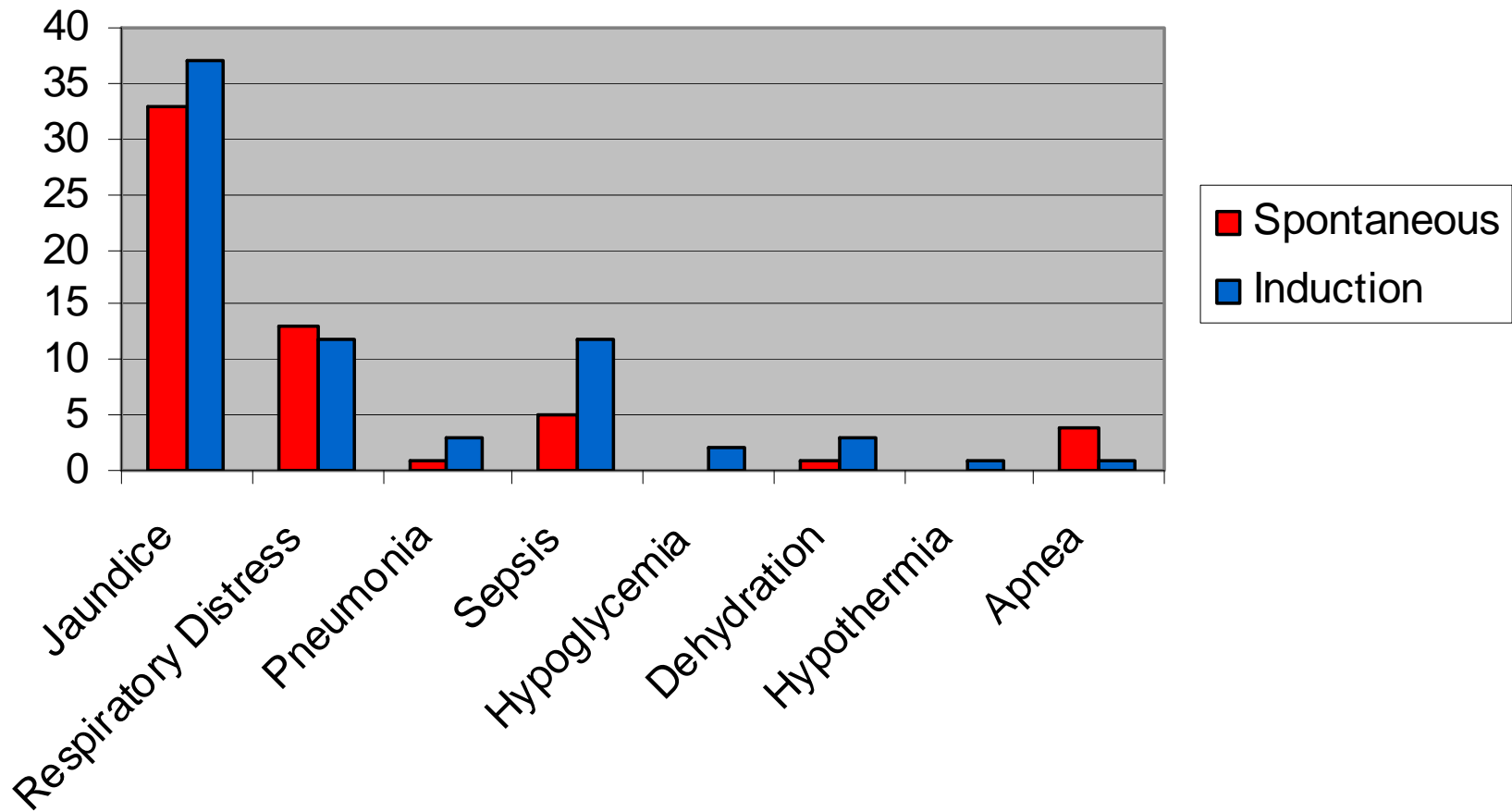


Length of Stay

	N	Mean Days	Mean Hours
<u>Vaginal Delivery</u>			
Spontaneous Labor	367	1.91	45.82
Induction of Labor	328	2.11*	51.51*
<u>Cesarean Section</u>			
Spontaneous Labor	26	4.36	104.68
Induction of Labor	79	3.78	90.56

* (P<.05)

Neonatal Morbidities





Discussion

- Bleeding as postpartum complication statistically significant ($p = .003$)
- Higher incidence of cesarean section (19.6%) with induction of labor group
- Elective inductions 51% of inductions
- There were no significant differences in relation to neonatal complications between the two groups.



Conclusion

- Women who are contemplating elective induction of labor must be fully informed of the risks and adverse effects that may arise as a result of induction of labor. After all, this decision will impact the health of the mother and the health of the newborn.



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Thank You....