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## Background

- Induction of labor (IOL) is considered one of the most common interventions performed during pregnancy.
- The rate of IOL has dramatically increased over the past decade in the United States to roughly 24.5% as of 2016.
- While studies have evaluated the overall success of IOL, few have evaluated maternal perspective and understanding of the overall process.

## Objectives

1. Assess maternal IOL knowledge and counseling preferences
2. Use results to inform quality improvement intervention to address any knowledge gaps
3. Assess maternal IOL knowledge following an educational intervention and satisfaction with the intervention

## Methods

### Baseline Data:

- Anonymous patient surveys completed at time of admission
- Inclusion criteria:
  - ≥18 years old
  - English speaking
  - >28 weeks gestation
  - Admitted to SSUH for scheduled IOL

### Educational Intervention:

- Based on baseline data and identified knowledge gaps, patient IOL education sheet developed
- Incorporates ACOG and AAFP's IOL patient educational materials
- Patients emailed IOL education sheet 2-3 days before scheduled induction

### Post-Intervention Data:

- Patients who received education sheet completed survey upon admission for scheduled IOL

## Patient IOL Education Sheet

### Induction of Labor – Patient Information Guide

#### What is an induction of labor?

- Labor induction means inducing (starting) labor, rather than waiting for labor to begin on its own.
- When labor is induced for a nonmedical reason, it's called an elective labor induction.
- When labor is induced for a medical reason—such as for blood pressure, diabetes, fetal growth restriction, low/high fluid around the baby—it's called a medically indicated labor induction.

#### How is Labor Induced?

##### How does the cervix change before labor begins?

- To prepare for labor and delivery, the cervix begins to soften (ripen), thin out, and open. These changes usually start a few weeks before labor begins. Sometimes when labor is going to be induced, the cervix is not yet "ripe" or soft. This means that labor cannot progress. Your obstetrician-gynecologist (ob-gyn) will check to see if your cervix has started this change.

##### What is "ripening the cervix"?

- Ripening the cervix is a process that helps the cervix soften and thin out in preparation for labor. Medications or devices may be used to soften the cervix so it will stretch (dilate) for labor.
- Ripening of the cervix can be done with medications or with special devices-e.g., cervical balloon used to mechanically dilate cervix.

##### What medications are used to ripen the cervix?

- Prostaglandins are medications that can be used to ripen the cervix. They are forms of chemicals produced naturally by the body. These medications can be inserted into the vagina or taken by mouth. Some prostaglandins are not used in women who have had a previous cesarean delivery or other uterine surgery to avoid increasing the possible risk of uterine rupture (tearing).

##### How can rupturing the amniotic sac bring on labor?

- When your water breaks, the fluid-filled amniotic sac that surrounds the baby has ruptured (burst). Most women go into labor within hours after their water breaks. If the sac hasn't burst already, breaking it can start contractions. Or if the contractions have already started, breaking the sac can make them stronger or more frequent.
- To rupture the amniotic sac, an ob-gyn makes a hole in the sac with a special device. This procedure, called an amniotomy, may be done before or after a woman has been given oxytocin. Amniotomy can be performed to start labor when the cervix is dilated, and the baby's head has moved down into the pelvis.



## Conclusions

- Despite IOL counseling in the office, baseline data indicated that patients admitted to the hospital for IOL have knowledge gaps surrounding IOL indications, risks and benefits, and process.
- Post-intervention data showed that the majority of patients who received an IOL education sheet via email 2-3 days before their IOL reported reading the entire sheet.
- The education sheet was rated as helpful to very helpful in fostering understanding of IOL indications, preparation, and process. Some rated the education sheet as only somewhat helpful in understanding IOL risks and benefits.
  - Though median IOL knowledge score was higher post-intervention, the difference was not statistically significant.
- Most patients reported a preference for IOL counseling via video format.
  - Explore additional modalities (e.g., social media) for providing IOL education.

## Limitations

- Pre/post-intervention samples were independent and unmatched
- Small post-intervention sample size
  - Study not sufficiently powered to detect change in post-intervention knowledge
- Staff availability to survey all eligible patients

## References

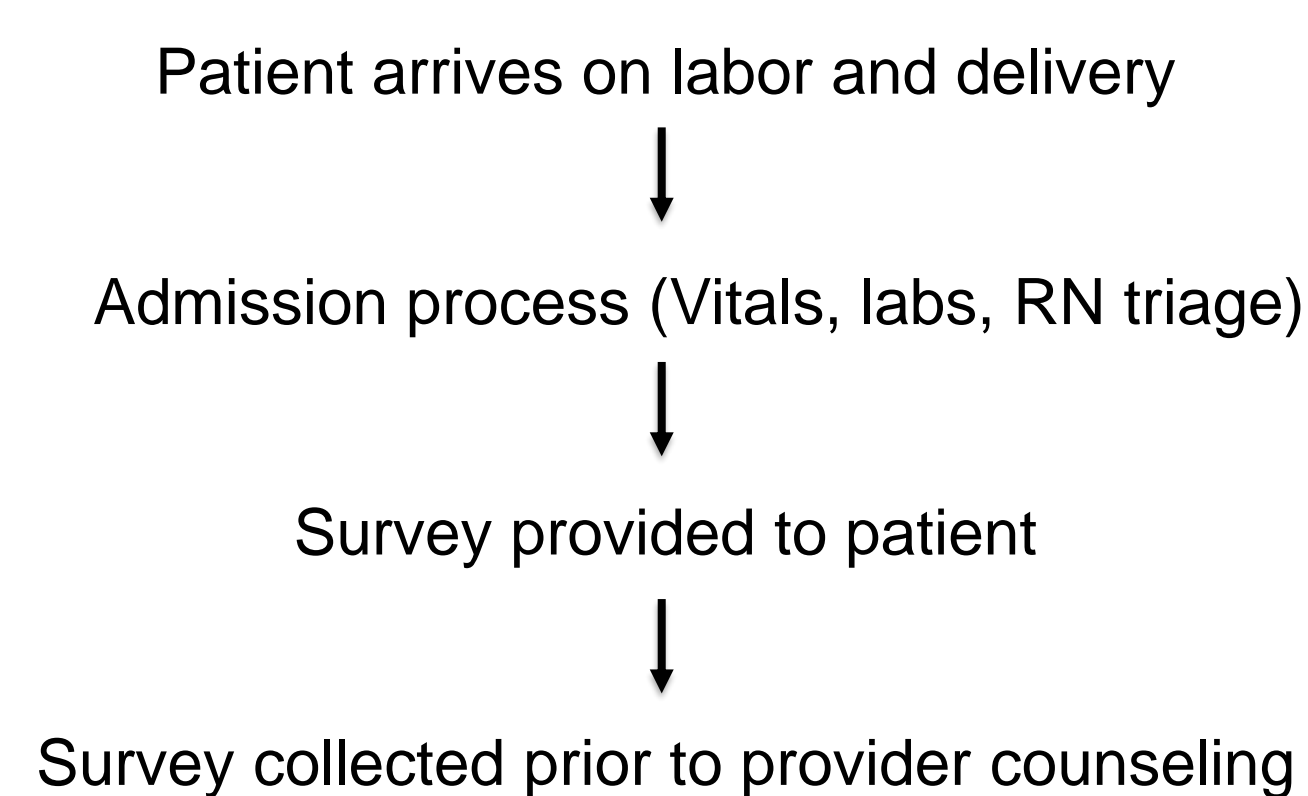
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## Contact Information

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## Patient Survey

### Process



### Survey Sample Items

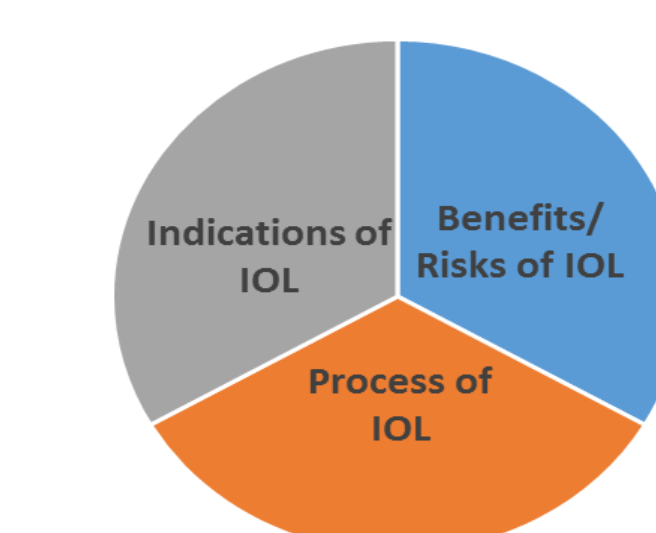
I think it is OK to have an induction of labor before the due date if... (please check one item for each line)

	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
A patient is tired of being pregnant				
A patient has a history of fast labor				
A patient is pregnant with a large baby				
A patient is having signs of early labor				
A doctor is concerned about the mother's health				
A doctor is concerned about the baby's health				
A certain date is more convenient for me or my family				
A certain date is more convenient for my doctor				
Labor induction before your due date should always be an option				
Labor should not ever be induced before your due date				

## Results

Patient Demographics	Baseline Data (n=46)	Post-Intervention Data (n=16)	Patient Ratings of IOL Education Sheet	n=16
<b>Age</b>			<b>Read the IOL education sheet</b>	
<18	1 (2.2%)	0 (0.0%)	Yes	14 (87.5%)
18-24	7 (15.2%)	3 (18.8%)	Partially	2 (12.5%)
24-29	12 (26.1%)	5 (31.3%)	No	0 (0.0%)
30-34	18 (39.1%)	8 (50.0%)	<b>Helpfulness in understanding possible reasons for IOL</b>	
35+	7 (15.2%)	0 (0.0%)	Very helpful	9 (56.3%)
Not reported	1 (2.2%)	0 (0.0%)	Helpful	7 (43.75%)
<b>Race</b>			Somewhat helpful	0 (0.0%)
Asian/Pacific Islander	2 (4.4%)	1 (6.3%)	Not helpful	0 (0.0%)
Black/African-American	6 (13.0%)	2 (12.5%)	<b>Helpfulness in understanding preparation for IOL</b>	
Hispanic	12 (26.1%)	4 (25.0%)	Very helpful	10 (62.5%)
White	24 (52.2%)	9 (56.3%)	Helpful	6 (37.5%)
Not Reported	2 (4.4%)	0 (0.0%)	Somewhat helpful	0 (0.0%)
Not helpful			Not helpful	0 (0.0%)
<b>Total Pregnancies</b>			<b>Helpfulness in understanding what to expect during IOL</b>	
1	22 (47.8%)	9 (56.3%)	Very helpful	9 (56.3%)
2	13 (28.3%)	5 (31.3%)	Helpful	7 (43.8%)
3	3 (6.5%)	2 (12.5%)	Somewhat helpful	0 (0.0%)
4+	8 (17.4%)	0 (0.0%)	Not helpful	0 (0.0%)
Missing	2 (4.4%)	0 (0.0%)	<b>Helpfulness in understanding risks and benefits of IOL</b>	
<b>Prior induction</b>			Very helpful	7 (43.8%)
Yes	10 (21.7%)	1 (6.3%)	Helpful	3 (18.8%)
No	31 (67.4%)	13 (81.3%)	Somewhat helpful	6 (37.5%)
Unsure	3 (6.5%)	1 (6.3%)	Not helpful	0 (0.0%)
Missing	2 (4.4%)	1 (6.3%)		

Baseline Data:  
IOL Knowledge Gaps Identified



IOL Knowledge Score*	Baseline Data (n=46)	Post-Intervention Data (n=16)	P
IOL Knowledge Score*	12 [11, 14]	15 [11.5, 16]	0.07
<b>Preferred Means of Counseling</b>			0.92
Audio format	6 (13.0%)	1 (6.3%)	
Video format	26 (56.5%)	9 (56.3%)	
Written format	13 (28.2%)	5 (31.3%)	
Missing	1 (2.2%)	1 (6.3%)	

\*Score out of 20