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A Characterization of Induction of Labor Practices in Primiparas at a Northern California Academic Tertiary Care Center

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INTRODUCTION

- Induction of labor (IOL) is the process by which medications or other methods are used to initiate labor in pregnant patients.
- Approximately 1 in 4 women in the United States are induced, up to 1 in 10 being induced for elective reasons.
- There are several approaches to IOL, which can vary based on the clinical context, the institution, as well as provider preference.
- It is unclear whether some methods or method combinations of IOL are of more benefit than others.
- At UC Davis, guidelines for approaching IOL are outlined but not completely standardized, leaving room for variabilities in practice, particularly in primipara patients (those giving birth for the first time).

Objective: To describe the utility of various IOL approaches as well as their effects on different parameters of labor time for primipara patients presenting to UC Davis between October 2018 and May 2020.

PATIENT CHARACTERISTICS

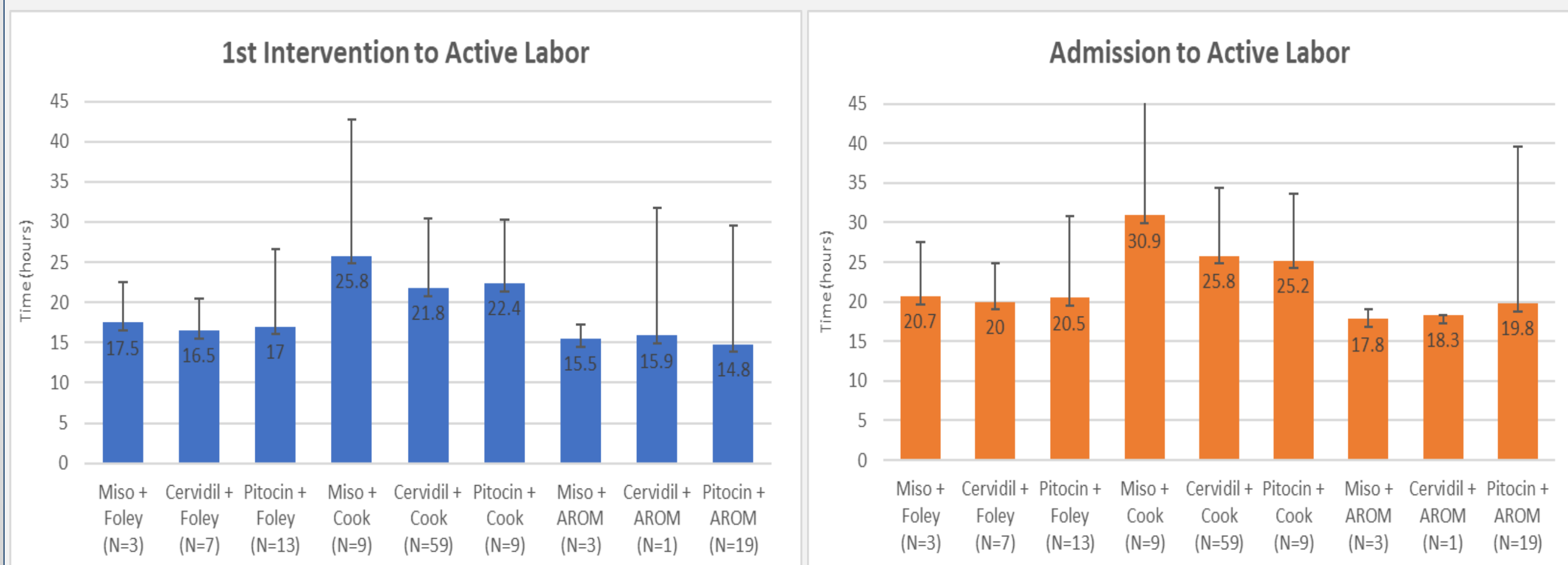
Table 1. Characteristics of Primipara Patients Admitted for Induction

| | One Intervention (N=8) | Two Interventions (N=162) |
|-----------------------------------|------------------------|---------------------------|
| Patient Demographics | | |
| Age (Mean, SD) | 35.12 (2.1) | 28.9 (6.5) |
| Race/Ethnicity | | |
| White Non-Hispanic (%) | 75 [6/8] | 41.9 [72/162] |
| Black (%) | 25 [2/8] | 7.6 [13/162] |
| Asian (%) | 0 | 17.4 [30/162] |
| Hispanic/Latino (%) | 0 | 15.1 [26/162] |
| Native American (%) | 0 | 1.2 [2/162] |
| Middle Eastern (%) | 0 | 1.2 [2/162] |
| Other (%) | 0 | 4.7 [8/162] |
| Unknown (%) | 0 | 5.2 [9/162] |
| BMI (Mean, SD) | 34.14 (7.1) | 32.6 (7.1) |
| Pre-intervention (%) | 67.5 [5/8] | 40.7 [66/162] |
| Antepartum characteristics | | |
| Elective (%) | 25 [2/8] | 31.5 [51/162] |
| Bishop score (Mean, SD) | 0.62 (0.74) | 0.65 (0.89) |
| >=5 (%) | 0 | 0 |
| 4 (%) | 0 | 1.2 [2/162] |
| 3 (%) | 0 | 0 |
| 2 (%) | 12.5 [1/8] | 20.4 [33/162] |
| 1 (%) | 37.5 [3/8] | 19.1 [31/162] |
| 0 | 50 [4/8] | 59.3 [96/162] |
| Labor Characteristics | | |
| Gestational age at delivery (%) | | |
| 37-37 6/7 | 12.5 [1/8] | 11.7 [19/162] |
| 38-38 6/7 | 0 | 12.3 [20/162] |
| 39-39 6/7 | 62.5 [5/8] | 42.0 [68/162] |
| 40-40 6/7 | 0 | 21.0 [34/162] |
| 41-41 6/7 | 25 [2/8] | 13.0 [21/162] |
| 34-36 6/7 | 0 | 0 |

TABLES – TIME TO DELIVERY



TABLES – TIME TO ACTIVE LABOR



Miso = misoprostol, Cervidil = dinoprostone, Foley = foley balloon, Cook = cook catheter, AROM = artificial rupture of membranes, N = # patients

METHODS

- We conducted a retrospective chart review of patients that gave birth at UC Davis between October 2018 and May 2020.
- We examined the method of IOL chosen for primiparas specifically and its impact on various parameters of labor time.

RESULTS

- There were 9 different approaches to IOL that were utilized over the study period.
- Most IOL approaches involved two interventions (162 cases out of 170).
- Response to the selected IOL approach varied widely within each group.
- Labor time measured the highest from 1st intervention to delivery with use of Miso + Cook, followed by Cervidil + Cook

CONCLUSION

- The approach selected for IOL varied widely without a standardized protocol and usually involved at least two interventions.
- There are some approaches that may be associated with a shorter labor course but this also varied widely.

FUTURE DIRECTION

- These initial findings will allow us to next assess the impact of implementing a standardized protocol of IOL in primipara patients.
- These findings may also serve as a baseline to later evaluate the outcomes of outpatient-initiated pre-IOL (recently introduced to UCD).

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