Special Report: Induction of Labor and Cesarean Birth

INTRODUCTION
Since 2018 and through 2019, there have been at least 8,000 papers, posters and publications published that describe Induction of Labor (IOL) through multiple lenses—elective, medical indication, advanced maternal age, high-risk, low-risk, multiple gestation and many others. The long-awaited results of the ARRIVE Trial (labor induction at 39 weeks + 0-4 days gestation versus expectant management in low risk nulliparous women) were published in the New England Journal of Medicine on August 9, 2018¹ and created additional discussion surrounding elective induction of labor, particularly induction of labor at 39 weeks gestation. The overarching findings within this particular study population revealed a lower frequency of cesarean delivery and hypertensive disorders of pregnancy in elective induction at 39 weeks versus expectant management (p. 521-522). Since then, there has continued to be considerable discussion surrounding induction of labor and cesarean delivery within NPIC’s membership, and several requests to explore this information in more detail.

SPECIAL REPORT
For this Special Report, NPIC wanted to be responsive to recent requests for additional data related to induction of labor and cesarean delivery, particularly trended data over time. Why both of these care measures?

1) Induction of labor continues to generate important conversations within healthcare organizations, and it is important to utilize data to assure resource availability that can provide a successful labor and delivery outcome (skill/expertise, human and capital resources, room availability, throughput, etc.).

2) In July 2020, The Joint Commission will begin to report cesarean section rates > 30% on their QualityCheck® site (https://www.qualitycheck.org/). These rates are based upon a hospital’s core measure data submission for PC-02 Cesarean Birth. The first reporting will include 2018-2019 data, and organizations will be asked about their cesarean reduction strategies during accreditation surveys effective July 2020.

You will note that NPIC uses an Estimated Rate of Inductions. To better understand this report, it is important to reference how induction of labor is calculated for this measure (see Appendix for measure definition and associated ICD-10 coding). Induction ICD-10 procedure codes are important to
Clinical care teams responsible for coding can be a tremendous asset to an organization for tracking of induction and supporting a more accurate estimate of induction rate. The Data Team at NPIC is eager to assist you with developing a strategy to better track both estimated induction and cesarean delivery rates.

**DESCRIPTION OF GRAPHS**

The Special Report includes graphs for two measures, *NPIC Estimated Rate of Inductions* and *AHRQ IQI 33 Primary Cesarean Delivery Rate, Uncomplicated*, a primary cesarean delivery rate for low risk multiparous women (see Appendix for additional measure information). Quarterly rates for your hospital, peer subgroup and the NPIC Database are displayed for the period Q1 2017 – Q2 2019 (10 quarters). The vertical dashed line on each graph represents the publication of the ARRIVE Trial study in Q3 2018.

Below the graphs for each measure there is a table which includes your hospital’s data by quarter (numerator/ denominator counts and rate), and another table with peer subgroup and NPIC Database comparisons (average rates) by quarter. Please note, a sizeable drop appears in the *Estimated Rate of Inductions* comparison rates displayed for Q4 2017. We suspect this may be related to confusion regarding the use of a new ICD-10 PCS induction code that became effective for discharges in this quarter.

**REFERENCES**

Induction of Labor and Primary Cesarean Birth, 2017 – 2019 (Q2)

NPIC ID: SA1

Estimated Rate of Inductions

IQI 33 Primary Cesarean Delivery Rate, Uncomplicated

Hospital SA1

Comparisons

Subgroup: AR – Academic Regional

ARRIVE Study publish date: AUG 9, 2018

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APPENDIX

Estimated Rate of Inductions
This rate reflects all women who delivered and were coded with induction of labor

**Numerator**
Total cesarean deliveries with a labor of induction code

**Denominator**
Total deliveries with a labor induction code
Excludes deliveries coded with artificial rupture of membranes (AROM) only

ICD-10-PCS Coding:

**AROM – Artificial Rupture of Membranes**
10907ZC: Drainage of amniotic fluid, therapeutic from product of conception, via natural or artificial opening

**Labor Induction**
Cervical Dilators: 0U7C7ZZ – Dilation of cervix, via natural or artificial opening
Cervical Dilators: 0U7C7DZ – Dilation of cervix with intraluminal device, via natural or artificial opening
Oxytocin/Pitocin: 3E033VJ – Introduction of other hormone into peripheral vein, percutaneous approach
Cervical Ripening: 3E0P7GC/3E0P7VZ – Introduction of other therapeutic substance/hormone into female reproductive via natural or artificial opening

Alliance for Innovation on Maternal Health (AIM) ICD-10-PCS Coding Guidelines for Labor Inductions v7-15-2016 were used to develop the NPIC Induction Rate. [https://safehealthcareforeverywoman.org/aim-data/](https://safehealthcareforeverywoman.org/aim-data/)

**AHRQ IQI 33: Primary Cesarean Delivery Rate, Uncomplicated**
First-time Cesarean deliveries without a hysterotomy procedure per 1,000 deliveries. Excludes deliveries with complications (abnormal presentation, preterm delivery, fetal death, multiple gestation diagnoses, or breech procedure)