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Cervical Ripening for Induction of Labor

Deb Sepulveda
Maine Medical Center

Michael G. Pinette
Maine Medical Center

Heidi Morin
Maine Medical Center

Colette Dumais
Maine Medical Center

Sarah Austin
Maine Medical Center

See next page for additional authors

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Authors

Deb Sepulveda, Michael G. Pinette, Heidi Morin, Colette Dumais, Sarah Austin, Hector Tarraza, Maria Tkacz, and Zander Abbott

Team Members: Deb Sepulveda MD MPH, Mike Pinette, MD, Heidi Morin, RN, Colette Dumais, RN, Sarah Austin, RN, Hector Tarraza, MD, Maria Tkacz, MHA

Problem/Impact Statement:

Over the past twelve months, 58% (or 340) of patients requiring cervical ripening prior to induction of labor were managed with Cervidil. 401 doses were administered, at a cost of \$2,214 per dose, for total charges of approximately \$887,000. Alternative methods for cervical ripening, often clinically appropriate, range from \$2.73 to \$180.

Scope:

In scope (metric): Patients requiring cervical ripening for induction. Time frame from admission for induction to delivery. Out of scope: Not requiring ripening (dilated >6cm). In scope (intervention): Physicians and staff. Out of scope: Direct patient education.

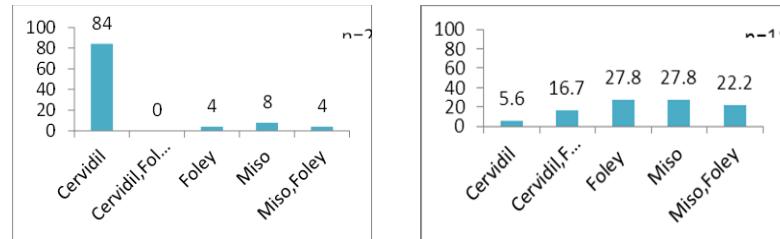
Goal/Objective:

Decrease in Cervidil use for cervical ripening by 20% of anticipated doses prior to Dec 1, 2018 (6 mos) , with a potential for cost savings = 40 doses x approx. \$2000/dose = **\$80,000.**

Baseline Metrics/Current State:

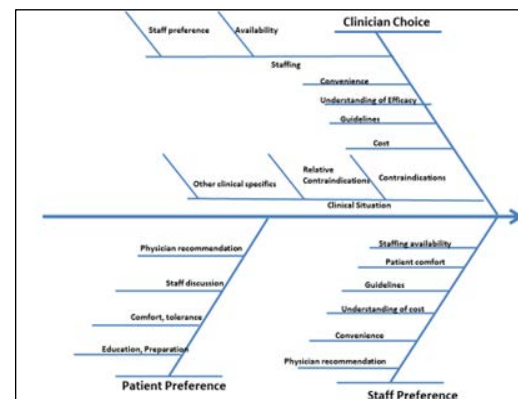
Disparity in practice between seven practice groups with range in Cervidil use – ranging from 26% - 87% of cases. Range 50% to 4% use of very low risk, affordable mechanical ripening (balloon/foley).

Disparity examples: Use of approaches by two groups:



Root Cause Analysis:

- RCA based on survey of physicians, discussion with staff:
- “5 Why” summary:
 Discrepancy in Cervidil use between groups – **Why?**
 Preferential use by some providers – **Why?**
 Perceptions varied (re: cost, efficacy, staff required, weight given to convenience and comfort) – **Why?**
 Lack of education re: cost
 No local data reported
 Lack of standardized algorithm
 Need for clarity re: staffing required



Countermeasures

| Impact | Hard | Easy |
|-------------|--|---|
| High impact | Track detailed internal data on time to delivery outcome, staff cost-feedback data to providers and staff. Require documentation in chart of decision making choice of ripening agent (smart phrase). | Create and distribute cervical ripening algorithm. Education for staff and clinicians in cost of various methods. Provide literature review summary for various approaches. Reinforcement of education in alternative methods and evidence based background. Track and feedback practice patterns and compliance. |
| Low impact | Financial education on cervical ripening alternatives. Scoping for staff discussions with patients. | Provide literature review summary for various approaches. |

| Action | Owner | Due | Status |
|--|-----------------------------------|------------------------------|--------------------|
| DESIGN – Design and implement cervical ripening decision tool and management algorithm | Sepulveda with steering committee | June 20, 2018 | Nearing completion |
| EDUCATE – Share with staff, groups, residents and post | Tarraza, Sepulveda, Morin | July 1, 2018 | Pending |
| FEEDBACK DATA- Track and report monthly data to groups | Sepulveda | First report July 5, ongoing | Pending |

Alternatives to Cervidil

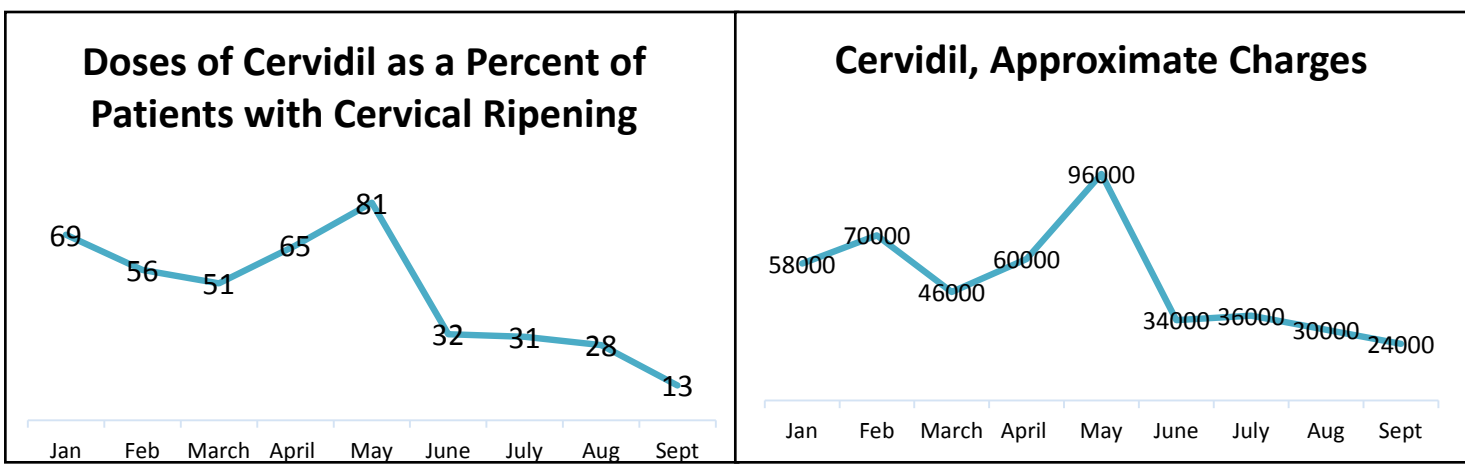
Mechanical (Cook or Foley)

Effective AND economical in comparison to Cervidil.
 Very low risk.
 Few contraindications.
 Can combine with misoprostol.
 Foley can be used as an alternative.

Misoprostol

Effective AND economical in comparison to Cervidil.
 Superior or equal to Cervidil in studies.
 Improves chance for vaginal delivery in 24h.
 Reduces need for anesthesia in Cesarean section (300-400mg).
 Can be used with Foley.
 What is the rate of tachyphylaxis? 1 in 10 in one use; 1 in 100 with 4th.

Outcomes



\$136,000 extrapolated “charge savings” over 4 months

Next Steps

- Practice feedback for Cervidil now integrated into Performance Improvement Committee
- FY '19 transformation focus on inductions
- Algorithm posted on Obstetrical Guidelines webpage for access by other institutions

Plan

Do

Study

Act