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Cervical Ripening for Induction of Labor

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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.

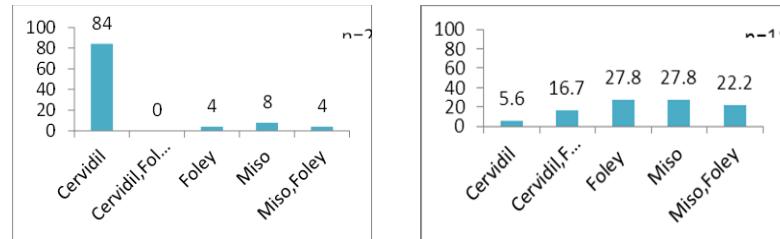
Goal/Objective:

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:

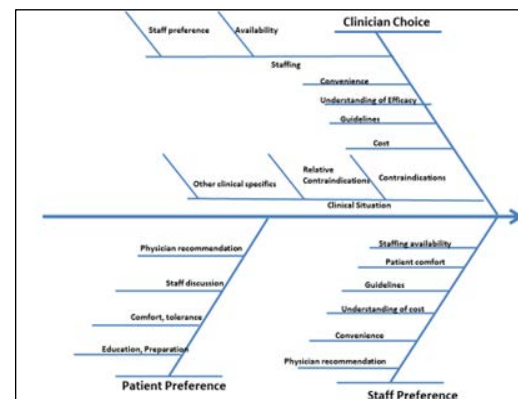
Disparity in practice between seven practice groups with range in Cervidil use – ranging from 26% - 87% of cases. Range 50% to 4% use of very low risk, affordable mechanical ripening (balloon/foley).

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

	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

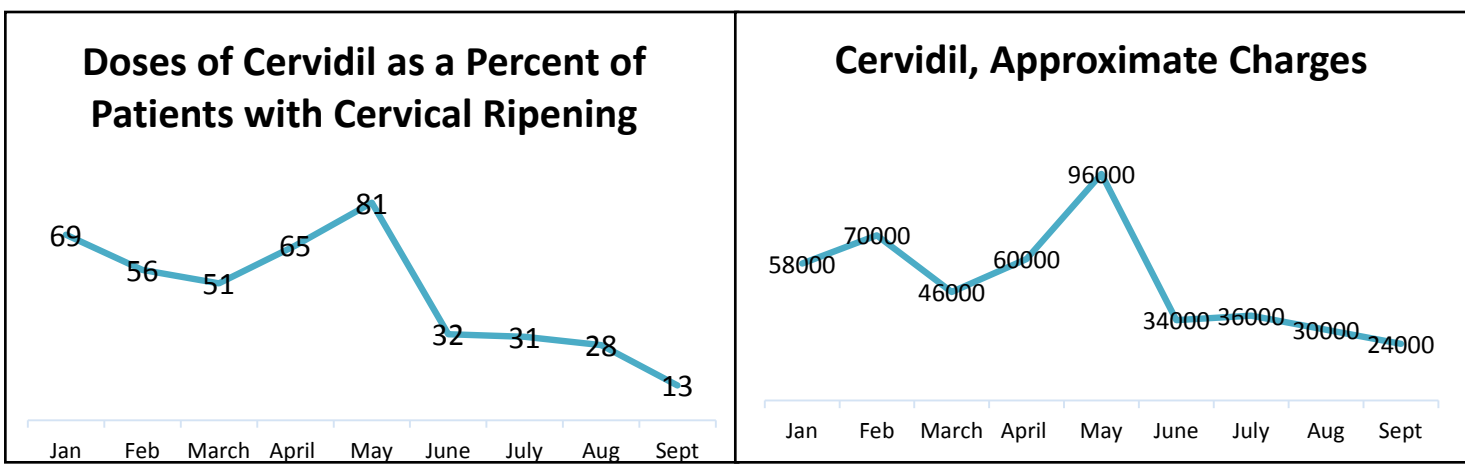
Mechanical (Cook or Foley)

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 chances for vaginal delivery in 24h.
 Reduces need for anesthesia in labor.
 Can be used with Foley.
 What is the rate of tachycardia? 1 in 10 in one use at max. with 400.
 1.2% with 800 compared to Cervidil.
 1.8% (0.126 x 2.25) in 10.
 (Observed change of quality in Cervidil has not translated into lower Cesarean or emergency cesarean rates.)

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