

Management of the Obstetric Patient with Class 3 Obesity

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Introduction:

Problem Statement:

- Pregnant persons with obesity are at greater risk for adverse outcomes^{1,2}
- At NMH, 7% of our pregnant persons have a BMI ≥ 40 kg/m² at delivery

Goal:

- To optimize management and care processes of our pregnant persons whose BMI is ≥ 40 kg/m²

Targeted Metrics:

- Antibiotic dosing, VTE prophylaxis, pre-anesthesia consultation, assessments of epidural catheter function

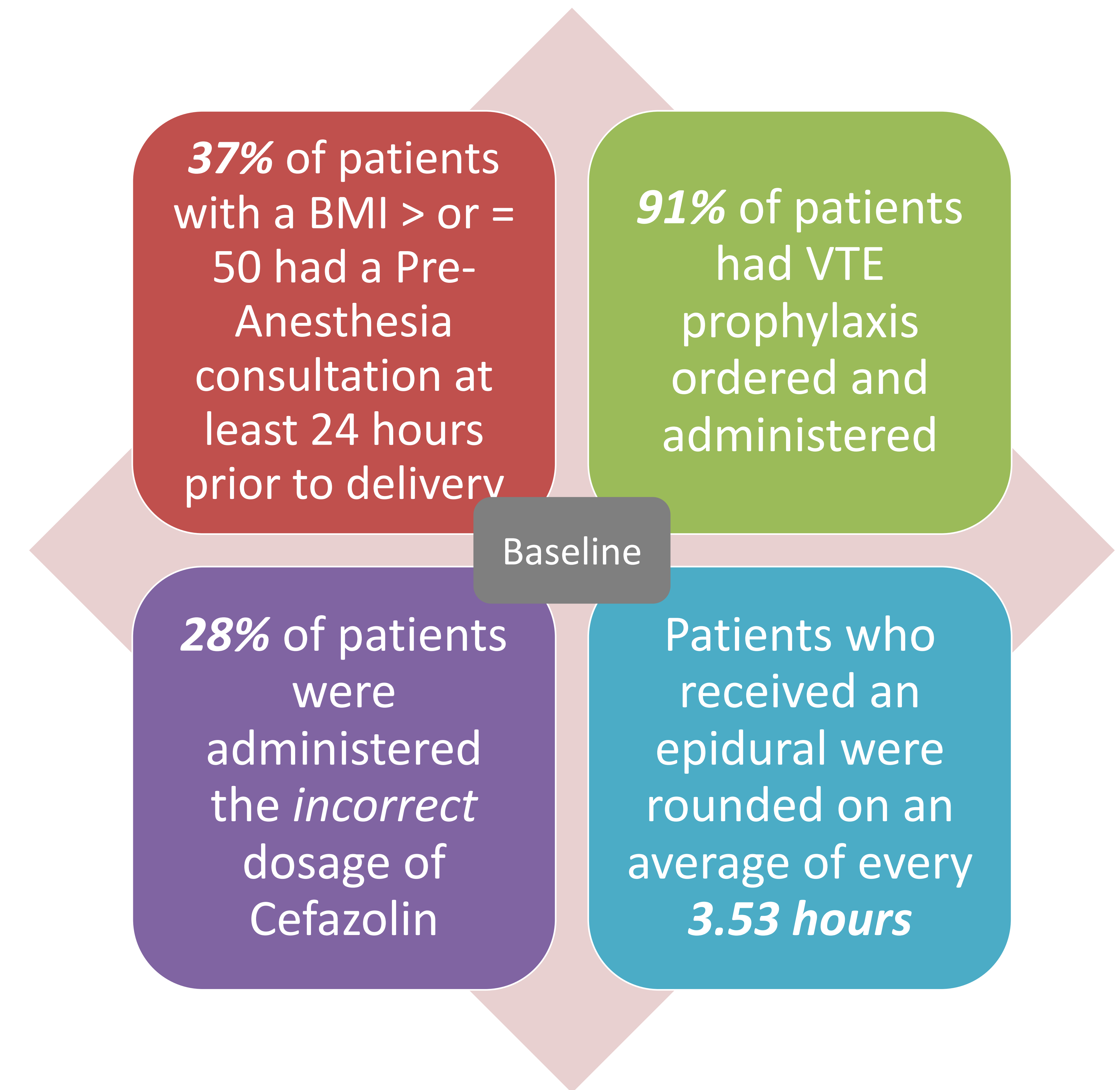


Figure 1: Process Metrics Before

Interventions

1. Antibiotic Dosing

- Defaulted antibiotic dose based on weight in the order set

2. VTE Prophylaxis

- Electronic order alerts for VTE dosing and administration in patients at risk
- OB provider re-education regarding VTE prophylaxis

3. Epidural Catheter Function

- Automated reminders on the L&D grease board based off 2 rules:
- $\text{BMI} \geq 40 \text{ kg/m}^2 \rightarrow$ every 2 hours
- All other patients $\rightarrow$ every 4 hours

4. Pre-anesthesia consultation

- Automated pre-anesthesia consult best practice alert in the EHR for patients with a BMI > 50

<p>L&D ENCOUNTER: 10/26/2018 (1293 D)</p> <p>Principal Problem: No active principal problem</p> <p>CrCl: No successful lab value found.</p> <p>Ht: 172.7 cm (68")</p> <p>Weight: 128 kg (282 lb 3 oz)</p> <p>BMI: 42.91 kg/m² !</p> <p>BSA: 2.37 m²</p> <p>Idl Wt: 63.9 kg (140 lb 14 oz)</p> <p>Adj Wt: 89.5 kg (197 lb 6.4 oz)</p> <p>Dos Wt: —</p> <p>i-Vents: None</p>	<div> <div>▼ Pre-Op Cesarean Section - Non ERAC Patients</div> <div>▼ Nursing Interventions</div> <div> ☐ Recommended Interventions for Pre-Op Cesarean Section - NMH </div> <div>► Fetal/Uterine Monitoring</div> <div>► Other Medications - NMH, LFH & GLH</div> <div>▼ Prophylactic Antibiotics - NMH, LFH, GLH, MCH, HH & WS</div> <div> ☒ ceFAZolin (ANCEF) IV </div> <div> ☒ Patient Weight 120 kg or Greater </div> <div> ☒ ceFAZolin (ANCEF) 3000 mg/100mL sodium chloride 0.9% IVPB 3,000 mg, IVPB, Administer over 30 Minutes, ONCE, today at 1645, For 1 dose Dosed by weight. If less than 120 kg, dose is 2 grams. If 120 kg or greater dose is 3 grams To be given within 1 hour of incision Treatment reason: Prophylaxis Treatment indication: Surgical prophylaxis </div> </div>
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Figure 2: Cefazolin dose default based on weight in Epic

Rounding Status	Last Pull Vitals	Legend
	4h 4m	 Late
	4h 43m	
	2h 29m	
	1h	 Approaching deadline
	3h 49m	
	5h 27m	
	4h 58m	 Appropriate
	3h 5m	
	1h 14m	
	2h 28m	 Delivered
	22m	

Figure 3: Rounding Reminder

ANESTHESIOLOGY REFERRAL

Referral: Priority: **Routine** Urgent Routine Elective

To provider:

To prov spec: Anesthesiology Pediatric Anesthesiology **Anesthesiology**

Geog areas: Default Areas **CENTRAL**

Reason for Referral?

Comments: + Add Comments (F6)

Sched Inst.: Insert SmartText

Class: NM Referrt NM Referral External to NM

Show Additional Order Details

Figure 4: Anesthesia Referral

Discussion

- Several care processes were improved with simple changes to the EHR
- Ongoing evaluation of metrics via quality dashboard
- "Make the right thing easy to do"

Future goals:

- Evaluate rounding data to determine if we can detect early epidural catheter failure and thereby lower rates of general anesthesia for emergent cesarean delivery
- Consider patient satisfaction scores and compare to those who did and did not receive pre-anesthesia consults

Results

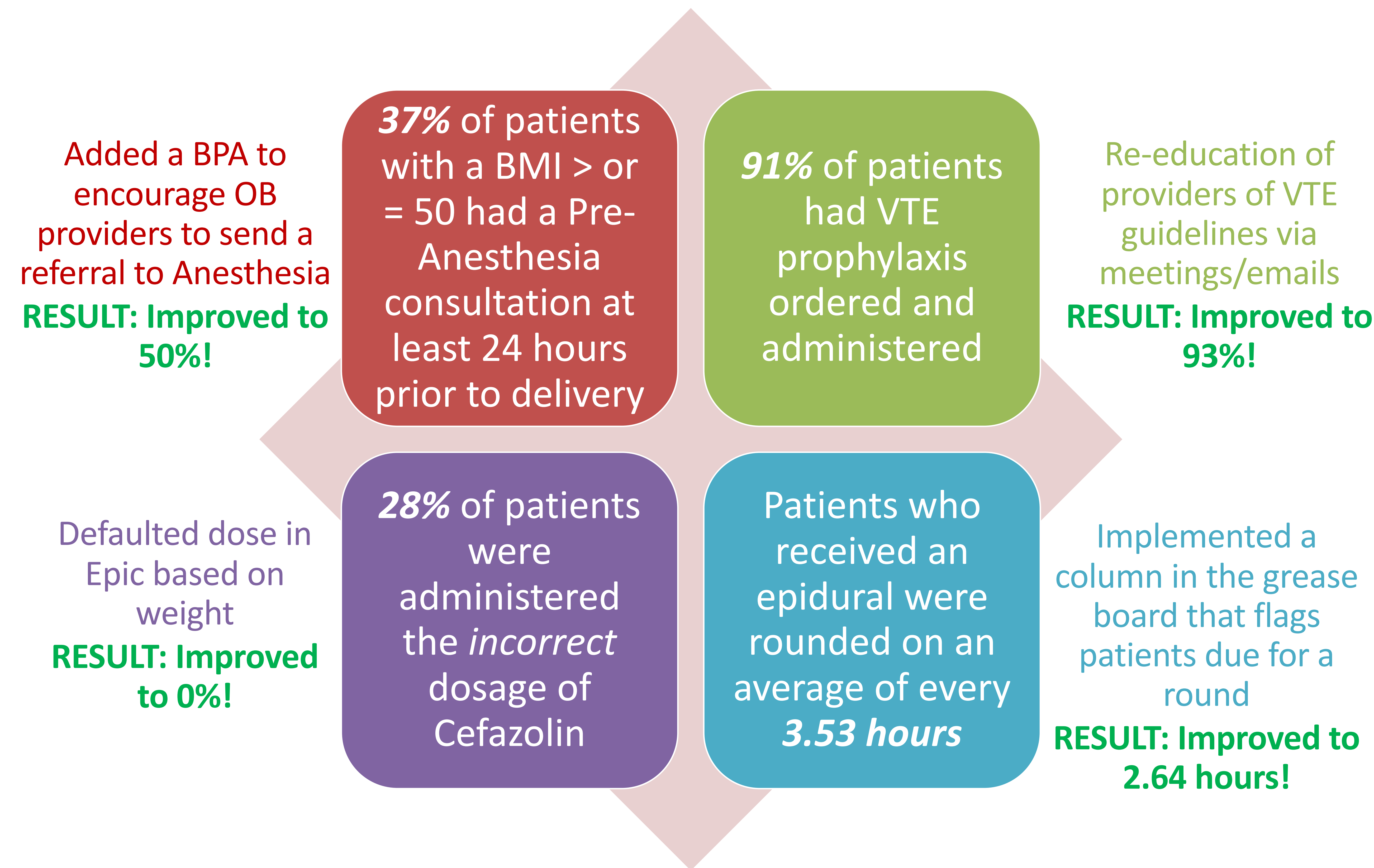


Figure 5: Process Metrics After

References:

1. Obesity in Pregnancy. Obstetrics & Gynecology 2021;137(6):e128-e144
2. Lisonkova S, et al. JAMA 2017;318:1777–86