

# Using Kaizen to Improve Quality Processes in an Obstetrics Unit: Postpartum Hemorrhage Management

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## Objective

- Postpartum hemorrhage (PPH) can lead to significant maternal morbidity and mortality
- The rising rate of cesarean delivery puts patients at risk PPH
- Efforts to prevent, diagnose and treat PPH can drastically improve quality of patient safety.

## Methods

- We worked to implement a unit-wide Kaizen involving attending physicians, residents, nurses and other faculty to address PPH
- Kaizen means “new change” in Japanese, and it has been referenced to apply continuous improvement of quality and efficiency to the work place. It is an informal process, involving very few meetings
- Emphasis is placed on what can be done “in the moment” for participants to try and affect positive change on a small scale
- The process can repeat itself until the implemented change demonstrates benefit, utilizing PDCA (Plan, Do, Check, Act).

## Kaizen

Three kaizen goals were as follows:

- 1) Recognition of patients at high risk for PPH, increased awareness & preparedness
- 2) Awareness of minimum times for C/S
- 3) Developing methods to quantify blood loss during delivery

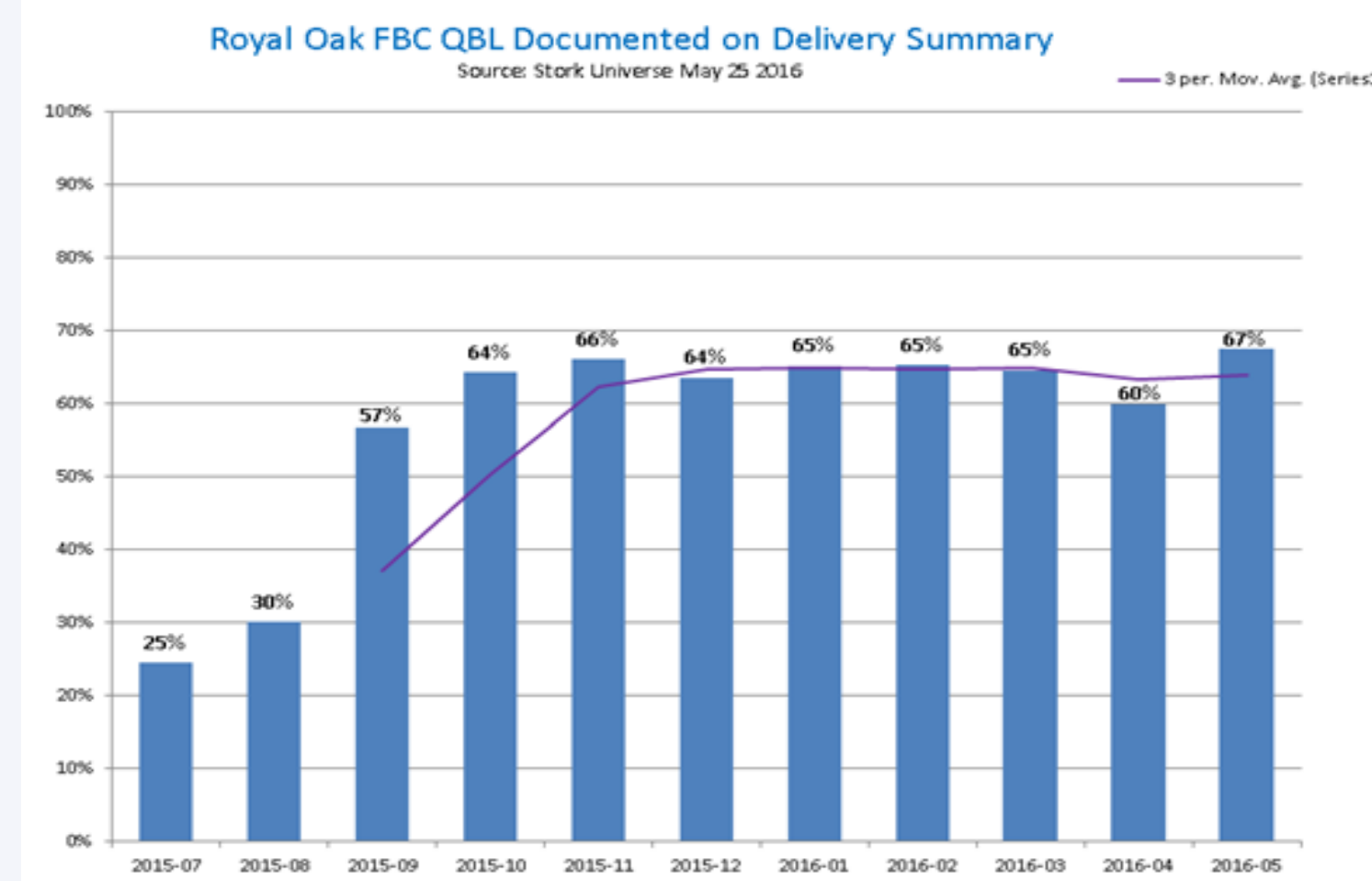
## Kaizen: QBL

For vaginal delivery:

1. Use cone graduated drapes, note amount in pouch once baby is out
2. Subtract the initial amount of fluid from amount noted at end
3. Lift up placenta and state amount of blood in placenta bucket
4. Weigh sponges and any blood soaked towels; subtract from baseline
5. Add all together for QBL

For cesarean birth:

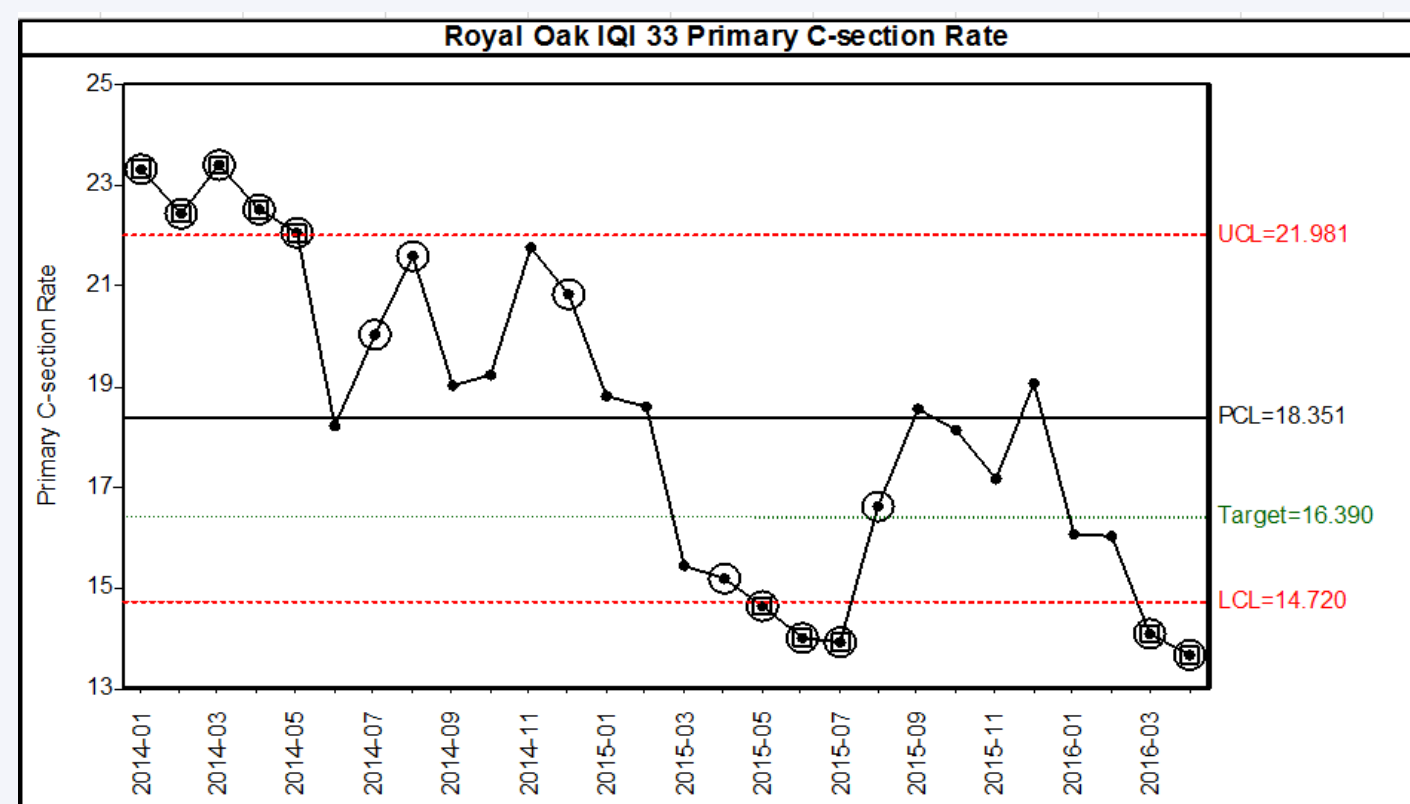
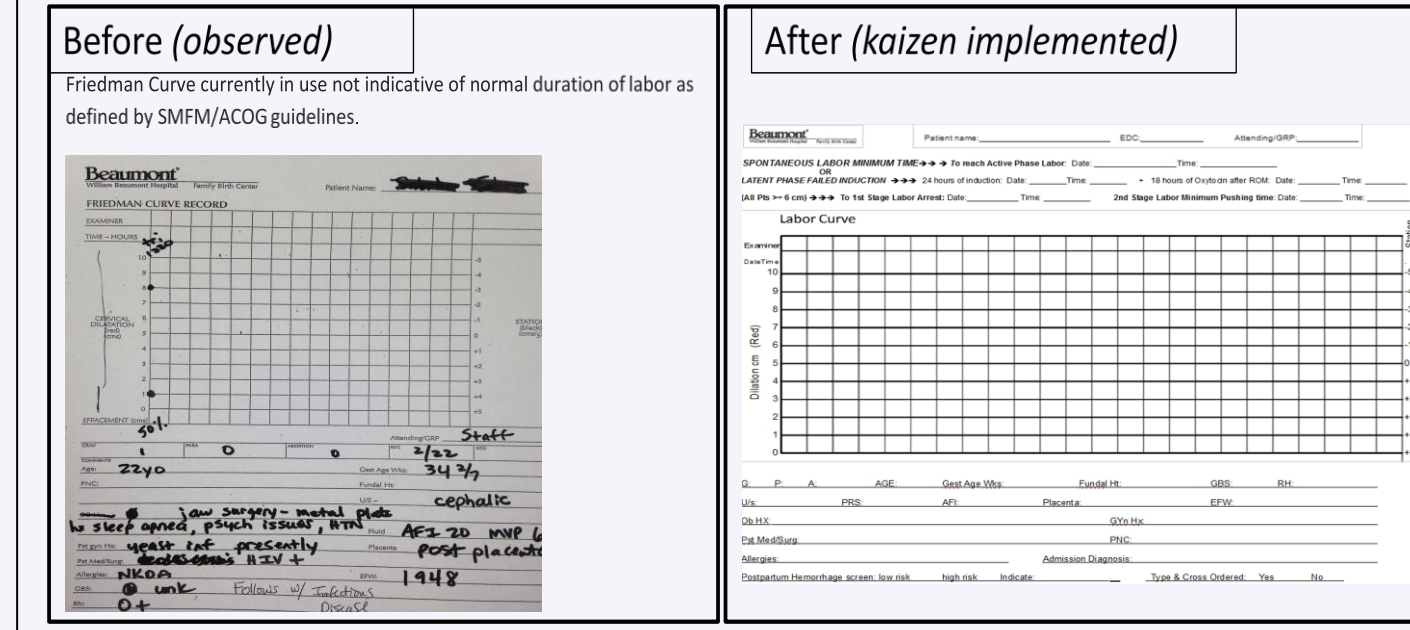
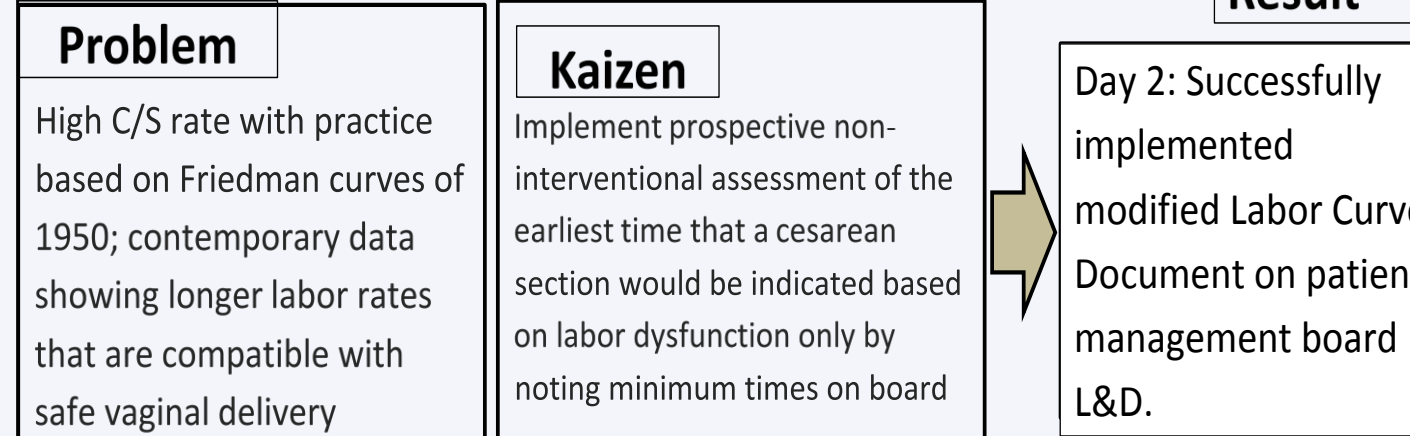
1. Once baby is out, suction pockets. Note amount in canister
2. Subtract the initial amount of fluid from amount noted at end
3. At end of case, weighs sponges and any blood-soaked towels
4. Note and subtract any irrigation fluid
5. Add all together for QBL



## Kaizen: Cesarean Birth Rate

- A new labor curve was developed with minimum times for arrest of labor, arrest of descent & induction times included
- Pamphlets were developed for patients, educating and encouraging them through the potentially long labor process

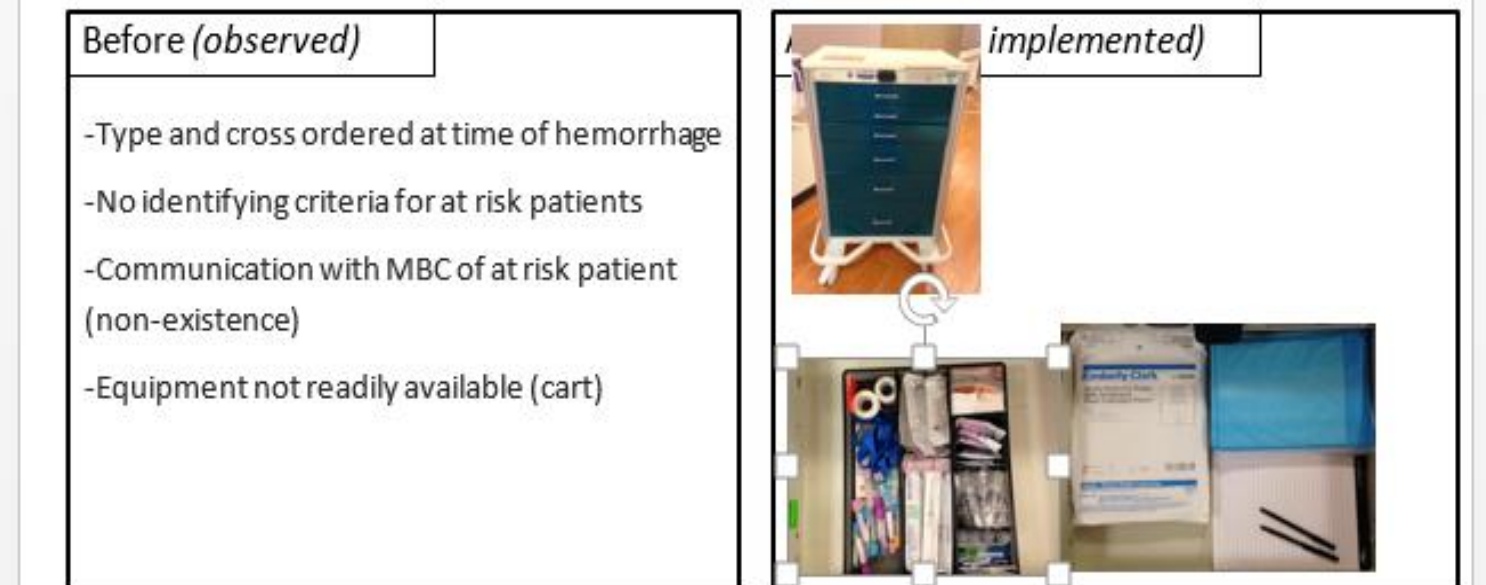
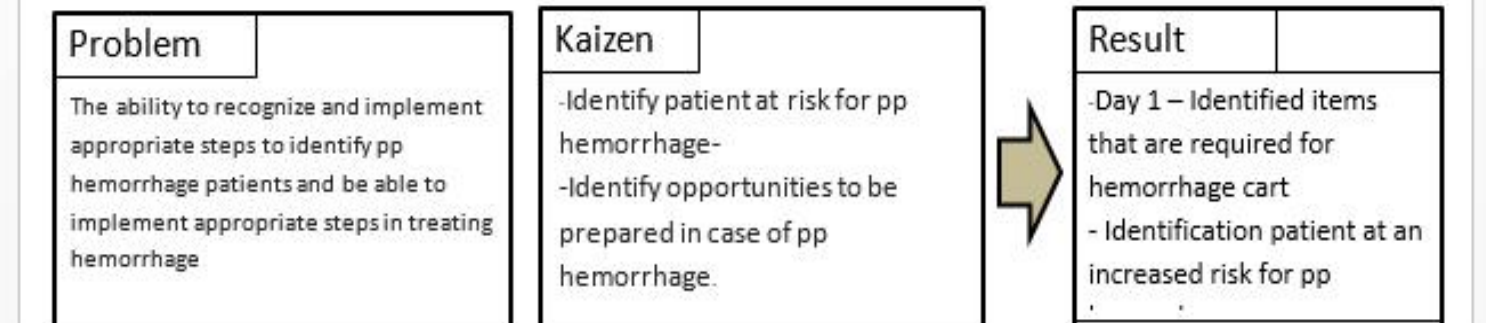
### Kaizen: Minimum times for C/S



## Kaizen: PPH Risk Awareness

1. Increased communication/signouts between triage, L&D and postpartum personnel for high risk patients
2. Emergency hemorrhage carts assembled and used
3. Assigning “PPH” sticker to high risk patients on L&D board
4. EMR requirement of PPH risk of every patient

### Kaizen: Postpartum Hemorrhage



Random snapshot audit May 24, 2016  
98% of grease board records displayed Hemorrhage Risk.

## Conclusions

- Kaizen has been able to help facilitate preparedness for PPH with
- recognition of PPH at 98%
- cesarean section rate decrease from 23% to 13.0%
- increase QBL calculation from 0% to 67%