

SAFER MATERNITY CARE: A QUALITY QUEST TO REDUCE POSTPARTUM HEMORRHAGE

Al Wakra Hospital, HMC, Qatar

Lolwa Al Ansari, Sufia Athar, Amna Tellisi, Shamika, Fayrooz Hasan, Tamara Al Shdafat, Farhan Koujan

INTRODUCTION

Postpartum hemorrhage (PPH) is a major cause of maternal mortality and morbidity worldwide, contributing to nearly a quarter of maternal deaths (Say et al., 2014). Al-Wakra Hospital's PPH rate of 6.4%, higher than similar facilities, highlighted the need for a structured quality improvement initiative. This project aimed to reduce PPH-related complications by implementing evidence-based protocols, standardizing the use of uterotonics, and enhancing staff training, ultimately improving maternal outcomes and promoting a culture of safety in obstetric care.

OBJECTIVE:

Postpartum hemorrhage (PPH) is a leading cause of maternal morbidity and mortality globally, with Al-Wakra Hospital reporting a PPH rate of 6.4%, significantly higher than other facilities. This project aimed to reduce PPH-related complications by implementing evidence-based protocols, optimizing the use of uterotonics, and enhancing healthcare professionals' training.

DESIGN:

 Quality Improvement

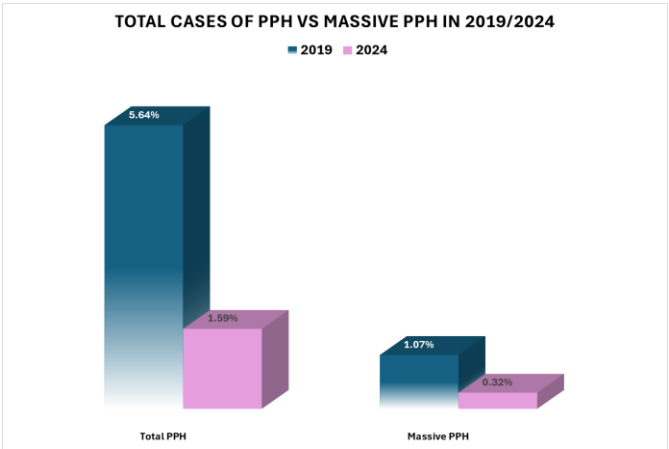
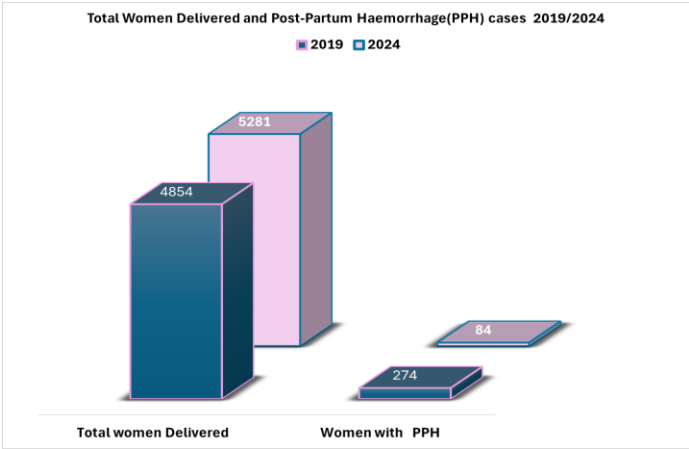
METHODS:

A multidisciplinary team conducted a quality improvement initiative using the Plan-Do-Study-Act (PDSA) framework. Interventions included identifying high-risk patients, conducting consultant-led high-risk cesarean sections, ensuring the availability of PPH kits, fostering early escalation protocols, and providing ongoing training and feedback sessions. Data on PPH rates, maternal outcomes, and resource utilization were collected over three years before and after implementation.

RESULTS

- The project achieved significant improvements in postpartum care, successfully reducing the incidence of Postpartum Hemorrhage (PPH) from 5.6% to 1.59 % (OR- 0.2702, 95% CI-0.2109 to 0.3461, p< 0.0001) over five years.
- Patient safety was enhanced, as evidenced by a notable decrease in maternal admissions to intensive care, dropping from 0.38% in 2019 to 0.18% in 2024.
- Additionally, shorter hospital stays were facilitated, with patients being discharged within 12- 24 hours for vaginal deliveries and 48 hours for cesarean sections.
- Effective cost savings were realized through a reduction in blood transfusions and high-dependency unit stays.

RESULTS



Year	Total women Delivered	Total PPH	%	Massive PPH	%	OR	95% CI	P
2019	4854	274	5.64%	52	1.07%	0.27	0.21-0.35	< 0.0001
2024	5281	84	1.59%	17	0.32%			

- The healthcare team's competence was significantly improved, reflected in increased staff confidence and a further decrease in massive PPH rates from 1.07% to 0.32% in 2024 (OR-0.2982, 95% CI-0.172- to 0.5164, p< 0.0001).
- Streamlined workflows were achieved through the availability of PPH kits, which reduced the time necessary to access essential medications and equipment.
- Finally, the project fostered effective collaboration among healthcare teams, exemplified by consultant-led high-risk cesarean sections and coverage assignments that ensured expertise was readily available when needed.

CONCLUSION: The initiative demonstrated significant improvements in maternal outcomes through systematic intervention strategies, enhancing patient safety and the quality of obstetric care at Al-Wakra Hospital. The project established a sustainable model for managing PPH, fostering a culture of safety and expertise among healthcare providers that can be replicated in other healthcare facilities. Further research is encouraged to explore the long-term sustainability of these practices and their applicability across various healthcare settings.

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