

E-MOTIVE Bundle for the Clinical Management of Postpartum Hemorrhage: Role of the Midwife – A Review

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Abstract

Postpartum haemorrhage (PPH) continues to be the primary cause of maternal mortality globally, responsible for around 27% of maternal fatalities, especially in low- and middle-income nations. Notwithstanding the presence of effective therapies, delayed identification and erratic care substantially exacerbate negative maternal outcomes^(11,19). The E-MOTIVE bundle is a research-backed approach aimed at enhancing early identification and facilitating prompt, uniform management of PPH^(5,17). This evaluation rigorously analyzes the elements, efficacy, and execution of the E-MOTIVE bundle, emphasizing the role of midwives. Evidence indicates that the bundle markedly decreases the incidence of severe postpartum hemorrhage and associated consequences via prompt diagnosis and concurrent implementation of treatments^(5,6,16). Midwives are pivotal in the early identification, swift commencement of therapy, and coordination of care. Enhancing midwifery competence and guaranteeing resource availability are crucial for the effective implementation

Keywords: Postpartum hemorrhage, E-MOTIVE bundle, midwife, maternal mortality, obstetric emergency

Introduction

Postpartum hemorrhage is characterized by a blood loss of ≥ 500 ml within 24 hours following childbirth and continues to be a significant factor in maternal morbidity and mortality globally^(2,4). Global estimates reveal that maternal mortality remains a critical public health concern, particularly in resource-constrained environments^(1,23). Despite the availability of effective therapies such as uterotonics and tranexamic acid, delays in diagnosis and fragmented care frequently lead to preventable fatalities^(3,11). Conventional methods based on ocular assessment often underestimate hemorrhage, resulting in postponed intervention⁽¹⁹⁾. The E-MOTIVE bundle signifies a transition from sequential to integrated treatment, prioritizing early identification and concurrent intervention^(5,17).

Methodology

This review is founded on an exhaustive examination of peer-reviewed articles, WHO guidelines, and clinical trials concerning postpartum hemorrhage and the E-MOTIVE bundle published from 2012 to 2025^(2,5,6,23). Databases such as PubMed, Scopus, and the Cochrane Library were queried utilizing pertinent keywords.

Overview of the E-MOTIVE Bundle

The E-MOTIVE bundle comprises a systematic collection of therapies designed for the early identification and swift management of PPH^(5,17). It encompasses: Preliminary identification

utilizing calibrated blood collection drapes
Uterine Manipulation Administration of uterotonics Administration of tranexamic acid
Intravenous fluid therapy Assessment and advancement of medical care This integrated strategy guarantees the concurrent administration of various life-saving interventions, minimizing delays in care^(9,22).

Justification for the E-MOTIVE Methodology:

-The E-MOTIVE bundle targets critical deficiencies in PPH management, such as delayed identification, variable clinical practices, and sequential treatment methodologies^(11,19). Timely identification through objective instruments enhances the acknowledgment of hemorrhaging, whereas coordinated care facilitates prompt intervention⁽⁵⁾. Research demonstrates that the majority of maternal fatalities resulting from postpartum hemorrhage transpire within hours of delivery, underscoring the necessity for prompt intervention^(12,23).

Effectiveness of the E-MOTIVE Package :-

Randomized trials and implementation studies provide evidence for the efficacy of the E-MOTIVE bundle. Substantial decrease in severe postpartum hemorrhage cases^(5,17) Enhanced clinical outcomes and diminished necessity for surgical interventions^(6,16) Improved compliance with evidence-based practices^(9,22) Cost-effectiveness analyses further indicate that the bundle is economically feasible, especially in low-resource environments^(6,13).

Benefits of the E-MOTIVE Bundle :-The E-MOTIVE methodology presents numerous advantages,

- Timely identification: Objective assessment minimizes diagnostic postponements⁽⁵⁾
- Standardized care: Enhances compliance with protocols^(4,18)
- Expedited intervention: Concurrent therapy enhances results⁽¹⁷⁾
- Feasibility: Appropriate for resource-limited environments⁽²¹⁾
- Decreased mortality: Notable reduction in maternal fatalities^(1,23)

Obstacles in Execution: -

- Not with standing its efficacy, numerous obstacles persist:
- Restricted access to vital pharmaceuticals and resources^(3,21)
- Insufficient training and competency deficiencies among healthcare practitioners^(8,10)
- Opposition to protocol-driven care⁽¹⁹⁾
- Constraints of the health system and limitations of infrastructure^(14,15)

Confronting these challenges is crucial for enhancing implementation at scale.

THE MIDWIFE'S ROLE IN E-MOTIVE BUNDLE IMPLEMENTATION

Midwives are integral to maternal healthcare provision and are essential in executing the E-MOTIVE bundle⁽²⁰⁾

1. Preliminary Identification -Midwives are tasked with assessing blood loss and detecting early indicators of hemorrhage utilizing objective instruments^(5,8)
2. Prompt Action -They commence life-saving interventions, such as uterine massage, administration of uterotonics, and intravenous fluid resuscitation^(3,20)
- 3.Coordination of Care -Midwives serve as team leaders, facilitating effective communication and prompt escalation of care^(20,22).
4. Monitoring and evaluation -Ongoing surveillance of maternal health and treatment efficacy is imperative⁽¹¹⁾.
5. Patient Assistance and education -Midwives offer emotional support and instruct women on warning signs and postnatal care⁽²⁰⁾.
6. Advocacy and Execution-They facilitate policy

execution, training and quality enhancement initiatives^(21,22).

Education and Skill Development Successful execution necessitates:

- a) Programs for training based on simulation^(8,10)
- b) Ongoing professional advancement⁽²⁰⁾
- c)Facilitative oversight and guidance⁽²¹⁾
- d) Training enhances proficiency and assurance in handling obstetric emergencies.

Discussion

The E-MOTIVE bundle represents a significant advancement in maternal healthcare by addressing delays in PPH detection and management^(5,17). Its effectiveness is supported by strong clinical evidence and global health recommendations^(4,18).

However, successful implementation depends on health system strengthening, resource availability, and skilled healthcare providers, particularly midwives^(20,21).

TO SUM UP

The E-MOTIVE bundle is a revolutionary, evidence-based strategy for the management of postpartum hemorrhage. By facilitating early detection and prompt, standardized treatment, it substantially decreases maternal morbidity and mortality^(5,6). Midwives are essential to its effective execution, from initial identification to care coordination. Enhancing midwifery skills and incorporating the bundle into clinical practice are crucial measures for advancing global maternal health outcomes^(20,23).

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