



Review

The impact of postpartum haemorrhage management guidelines implemented in clinical practice: a systematic review of the literature



Ruta J. Nadisauskiene^a, Mindaugas Kliucinskas^a, Paulius Dobožinskas^b,
Justina Kacerauskiene^{a,*}

^a Department of Obstetrics and Gynaecology, Lithuanian University of Health Sciences, Kaunas, Lithuania

^b Crisis Research Centre, Lithuanian University of Health Sciences, Kaunas, Lithuania

ARTICLE INFO

Article history:

Received 28 June 2013

Received in revised form 21 March 2014

Accepted 22 March 2014

Keywords:

Postpartum haemorrhage
Management
Guidelines
Outcomes

ABSTRACT

Postpartum haemorrhage (PPH) is an urgent obstetric condition requiring an immediate response and a multidisciplinary approach. The aim of this study was to review PPH management guidelines implemented in clinical practice, to evaluate their impact regarding prevention, diagnosis and treatment, and to analyze how the numbers of PPH cases changed in the post-intervention period. A systematic search in the PubMed database was performed. The references of all included articles were examined. Studies evaluating the management of PPH and the impact on the numbers of cases of this pathology after the implementation of new or updated guidelines were involved in the analysis. Two reviewers independently examined the titles and abstracts of all identified citations, selected potentially eligible studies, and evaluated their full-text versions. Methodological quality was assessed using a checklist based on the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) statement. We analyzed seven articles that evaluated the impact of new or updated guidelines for PPH management implemented in clinical practice. In four trials, the numbers of PPH cases declined after the intervention. Guidelines for PPH management can have a positive impact on the reduction of the number of PPH cases.

© 2014 Elsevier Ireland Ltd. All rights reserved.

Contents

1. Introduction	21
2. Materials and methods	22
2.1. Criteria for including studies	22
2.2. Search strategy	22
2.3. Screening and data extraction	22
2.4. Data processing	23
3. Results	23
4. Discussion	25
5. Limitations	25
6. Conclusions	26
References	26

1. Introduction

According to the World Health Organization (WHO), postpartum haemorrhage (PPH) is defined as a condition when the estimated blood loss is >500 ml after vaginal delivery and >1000 ml after caesarean section [1]. Although WHO reports that PPH complicates about 2% of deliveries [1], studies from Israel, India and the

* Corresponding author at: Eiveniu str. 2, Kaunas, Lithuania. Tel.: +370 61831161.
E-mail address: jusbra@hotmail.com (J. Kacerauskiene).

Table 1
The main characteristics of the studies.

Author (reference)	Country	Setting	Study design	Sample size (number of deliveries)		Guidelines development	Implementation of the guidelines
				Before	After		
Sheikh et al. [9]	Pakistan	Hospital (academic centre)	Before-and-after study	4881	4052	Study authors (guidelines available at: http://www.biomedcentral.com/1471-2393/11/28/suppl/S1) Multidisciplinary team	Theoretical and training sessions
Shields et al. [10]	USA	Hospital	Before-and-after study	2939	2874	Guidelines available at: http://www.cmqcc.org/ob_hemorrhage Multidisciplinary team	Theoretical and training sessions
Skupski et al. [11]	USA	Hospital (IIIRD level maternity unit)	Before-and-after study	5811	12,912	Multidisciplinary team	Theoretical and training sessions
Rizvi et al. [12]	Ireland	Maternity hospital	Before-and-after study	3176	3300	Study authors	Theoretical and training sessions
Audureau et al. [13]	France	Nineteen hospitals (Ist, IIIRD and IIIIRD level maternity units)	Before-and-after study	17,664	17,722	Multidisciplinary team	Theoretical sessions
Althabe et al. [14]	Argentina, Uruguay	Ten maternity hospitals	Cluster-randomized trial (Current Controlled Trials number ISRCTN82417627)	2963	2587	Obstetrics department staff	Theoretical and training sessions
Figueras et al. [15]	Nicaragua, Peru, the Dominican Republic, Argentina and Guatemala	Five hospitals (academic centre)	Before-and-after study	1008	797	Obstetrics department staff	Theoretical and training sessions

Netherlands report incidences of 0.4%, 9.2% and 19% respectively [2]. PPH is a life-threatening obstetric emergency caused mainly by uterine atony, genital tract trauma, retained placental tissues and coagulopathies [2]. It is one of the leading direct causes of maternal mortality globally [3]. One of the Millennium Development Goals of the United Nations is to reduce maternal mortality by 75% by 2015 [4]. Various studies have shown that one of the easiest ways to reach this goal is to reduce the number of PPH cases [5]. Guidelines for prevention, diagnosis and treatment can standardize proper management of PPH cases. Despite the fact that various guidelines are created by different authors, the main information in them is similar and based on the same principles that are detailed in many books and textbooks [6].

The aim of this study was to review PPH management guidelines implemented in clinical practice, to evaluate their effectiveness in prevention, diagnosis and treatment and to analyze how the numbers of PPH cases changed in the post-intervention period.

2. Materials and methods

The PRISMA (Preferred Reporting Items for Systematic reviews and Meta-analyses) statement was used to carry out this systematic review of the literature [7]. The methodology from the WHO Systematic Review on Maternal Mortality and Morbidity [8] was adapted and used in this review.

2.1. Criteria for including studies

Cohort studies and randomized trials evaluating the management of PPH and the impact on the numbers of cases of this pathology after the implementation of new or updated guidelines were included (Table 1).

Studies were not included in this review if they: (i) analyzed the outcomes related to PPH that changed after the audit, (ii) retrospectively analyzed PPH management without introducing new or updated guidelines for it, (iii) analyzed the influence of a certain drug or action on the outcomes related to PPH, (iv) described preparations for future study related to PPH management, (v) were unavailable, (vi) were published in languages other than English, and the amount of information provided by the abstract was insufficient for our analysis.

2.2. Search strategy

A systematic literature search was conducted using the electronic PubMed database. No data limit was applied. The following key words were used: 'postpartum', 'haemorrhage', 'protocol' and 'guidelines'. Key references from analyzed articles were examined for additional material. The following journals were hand-searched: *BJOG: An International Journal of Obstetrics and Gynaecology*, *European Journal of Obstetrics & Gynaecology and Reproductive Biology*, *Acta Obstetrica et Gynecologica Scandinavica*, *Obstetrics & Gynecology* and *Lancet*. Relevant publications from the (i) World Health Organization, (ii) International Federation of Gynecology and Obstetrics (FIGO) and (iii) Cochrane database were checked. The Eighth Report of the Confidential Enquiries into Maternal Deaths in the United Kingdom was also analyzed [16].

2.3. Screening and data extraction

Two reviewers independently evaluated the titles and abstracts of all identified citations for eligibility. Studies that directly addressed our aim were included. Review articles, recommendations, guidelines, statements and studies not directly related to the implementation of the guidelines for the

Download English Version:

<https://daneshyari.com/en/article/6173670>

Download Persian Version:

<https://daneshyari.com/article/6173670>

[Daneshyari.com](https://daneshyari.com)