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Research Article

QUALITY OF IN-PATIENT OBSTETRIC CARE BASED ON IDENTIFIABLE MATERNAL MORBIDITY OUTCOMES IN A PERMANENT HOSPITAL REJECTION DATABASES

¹Dr Amara Zulfiqar Awan, ²Dr Muhammad Inam Ul Haq, ³Abdul Hannan Khalid

¹WMO, THQ Taxila

²Government Maternity Hospital Mangowal Gujrat

³Shalamar Hospital

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Abstract:

Aim: Most pointers proposed for surveying nature of care in obstetrics are measure markers and don't straightforwardly gauge wellbeing impacts, and can't generally be recognized from regularly accessible information bases. Our goal was to propose a bunch of markers to survey the nature of medical clinic obstetric consideration from maternal dreariness results recognizable in perpetual clinic release information bases.

Methods: Different maternal dreariness results conceivably reflecting nature of obstetric consideration were first chosen from a deliberate writing survey. At that point a three-round Delphi agreement review was directed online from January 2019 through December, 2019 among a French board of 37 master obstetricians, anesthetists-basic consideration trained professionals, maternity specialists, nature-of-care analysts, and client agents. For a given maternal result, a few definitions could be supportive of presented and the marker (for example relating rate) could be applied to all ladies or limited to explicit subgroup(s).

Results: Of the 49 specialists welcomed to take an interest, 37 concurred. The reaction rate was 92% in the second round and 97% in the third. At last, a bunch of 13 markers was chosen to evaluate the nature of emergency clinic obstetric consideration: paces of uterine break, baby blues discharge, bonding occurrence, extreme perineal cuts, episiotomy, cesarean, cesarean under broad sedation, post-cesarean site disease, sedation related intricacies, baby blues aspiratory embolism, maternal readmission and maternal mortality. Six were considered in explicit subgroups, with, for instance, the baby blues drain rate surveyed among all ladies and furthermore among ladies at generally safe of PPH.

Discussion: This Delphi cycle empowered us to characterize consensually a bunch of pointers to survey the nature of clinic obstetrics care from routine emergency clinic information, in view of maternal grimness out-comes. Considering 6 of them in explicit subgroups of ladies is particularly fascinating. These markers, recognizable through codes utilized in worldwide characterizations, will be valuable to screen nature of care over the long haul and across settings.

Corresponding author:**Dr. Amara Zulfiqar Awan,**

WMO, THQ Taxila

QR code



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INTRODUCTION:

For several years, safety at birth and the quality of care in the perinatal period have been a topic of concern to public health officials, care providers, and patient groups around the world. Accordingly, several sets of indicators assessing quality of care in obstetrics have been proposed but no consensus has emerged around any of them [1]. They have three principal limitations. First, many define the quality of care by indicators not directly associated with health (e.g. organization of care or process and practice) [2]. Nonetheless, the final objective of evaluation of the quality of care is to improve health and reduce the frequency of adverse health outcomes. Another limitation of quality indicators based on health outcomes is that they often rely on vague or heterogeneous definitions that can lead to various interpretations. For example, some postpartum hemorrhage definitions are very precise (threshold of blood loss >1000 mL in the first 24 hours), while others do not mention any threshold. Lastly, most indicators are defined in the general population of women giving birth and not assessed within specific subgroups where they could best reflect the quality of care. Severe acute maternal morbidity (SAMM), associated with the most pathological forms of maternal health, complicates around 1% of deliveries [3]. Its events are considered avoidable in a large fraction of cases, for reasons often linked to inadequate or faulty quality of care. An evaluation tool based on the severe maternal morbidity outcomes that best reflect quality of care might therefore constitute a useful contribution to quality surveillance in obstetrics [4]. Permanent hospital discharge databases that synthesize information on each hospital stay exist in the great majority of high-resource countries, usually for initial billing purpose. They are coded in a standardized manner and contain diagnostic codes derived from the international ICD9 or ICD10 classifications used worldwide, and procedure codes derived from classifications that may be more country-specific but for which equivalences between countries can be established [5].

METHODOLOGY:

Initiated during the 1950s in the United States, the Delphi-type consensus approach makes it possible to organize a consultation of experts on a specific subject by using iterative questionnaires (3 or 4 rounds); the panel must have feedback about all of the opinions stated to reach new positions, and the

exchanges remain anonymous, which encourages free expression and avoids opinion leader effects. Delphi consensus processes have a proven track record for selecting indicators of quality of care in obstetrics. Each questionnaire was sent by individual emails. A reminder was sent to all participants 48 hours before the deadline, and another to those who had not responded at the deadline. The experts were to assess whether or not each of the 15 indicators was a good indicator of the quality of obstetric care, that is, was rarely expected except in cases of inadequate quality of care or variations of which reflected various levels of quality of care. The first questionnaire also proposed that the indicator be considered for some specific subgroups, because these morbid outcomes might reflect quality of care particularly when they occur among these sub-groups, such as women in principle at low risk of the morbid complication considered. The experts were asked to assess the relevance of each indicator for this population (or these populations). It was clearly stated that the objective was not to combine the indicators selected into a global rate but rather to consider them one by one. Finally, the experts could suggest additional indicators if they wished.

RESULTS:

Among the panel of 37 participants in the first round, the participation rate was 92% in the second round (34 respondents) and 97% in the third (36 respondents). [Table 1](#) recapitulates the indicators submitted to the panel as well as the precisions of definitions or groups of women concerned, and those selected at the different rounds. The rates of uterine rupture (77% agreement), postpartum hemorrhage (84%), transfusion incidents (90%), third- and fourth-degree perineal tears or lacerations (80%), episiotomies (83%), cesareans (94%), post-cesarean infections (95%), complications from anesthesia (84%), maternal readmission post-delivery (87%), and maternal mortality (81%) were the indicators most frequently selected in the first round. At the conclusion of the first round, the panel considered that the indicator concerning the complications of anesthesia was too unspecific. The complications were then separated into sub indicators, three of which were selected during the consensus process: headaches induced by spinal or epidural anesthesia and for which a blood patch was performed, anesthesia-related pulmonary aspiration, and "other pulmonary complications" of anesthesia.

Table 1. Indicators of quality of care considered and selected or excluded at different rounds of the consultation.

Indicators	Consensus to include or exclude the indicator	Agreement % (Round)	Among the indicators included details for the definition (D_) or population (P_) and I_ subindicators of complications of anesthesia	Final decision	Agreement % (Round)
Uterine rupture rate	Included	77% (1)	P_ Among women with a previous cesarean	Included	77% (1)
			P_ Among all women	Excluded	76% (1)
Postpartum hemorrhage rate	Included	84% (1)	D_ Any one or more of conservative surgery, embolization, hysterectomy or transfusion of 4 or more units of packed red blood cells	Included	88% (2)
			P_ Among all women	Included	79% (3)
			P_ Among women who had a planned cesarean before labor	Excluded	93% (1)
			P_ Among women at low risk of PPH♦	Included	66% (3)
Maternal transfusion complication rate	Included	90% (1)			
Severe perineal laceration rate ¹	Included	72% (2)	D_ Third- and fourth-degree lacerations	Included	80% (2)
			P_ Among all women	Included	74% (2)
			P_ Among women with a spontaneous vaginal delivery	Included	69% (3)
			P_ Among women with a non-macrosomic fetus	Not selected	45% (3)
Episiotomy rate ¹	Included	83% (1)	P_ Among all women	Included	73% (1)
			P_ Among women with a spontaneous vaginal delivery	Included	66% (3)
			P_ Among women with a non-macrosomic fetus	Not selected	44% (3)
			P_ Among multiparous women	Not selected	50% (3)
Cesarean rate	Included	94% (1)	P_ Among all women	Included	69% (3)
			P_ Among women at low risk of cesarean♦♦	Included	77% (2)
			P_ Before labor, among women at low risk of cesarean♦♦	Included	69% (3)
Rate of cesareans under general anesthesia during labor	Included	75% (3)			
Post-delivery	Not selected	44%			

laparotomy rate		(3)			
Post-cesarean infection rate	Included	95% (1)	D_ Only surgical site infections, including endometritis	Included	94% (3)
			D_ All infections	Not selected	31% (3)
			D_ Only wound/scar infections	Excluded	77% (2)
Maternal pyelonephritis rate	Excluded	89% (1)			
Postpartum pulmonary embolism rate	Included	76% (2)	P_ Among all women	Included	91% (3)
			P_ Among women with a planned cesarean	Not selected	56% (3)
Eclampsia rate	Not selected	59% (3)			
Maternal readmission rate after hospitalization for delivery	Included	89% (1)	D_ In the 42 days postpartum	Included	71% (2)
			P_ Among all women	Included	78% (2)
			P_ Among all women without complications of breast feeding	Not selected	41% (3)
Maternal ICU admission rate	Not selected	44% (3)			
Maternal mortality rate	Included	81% (1)	P_ All women	Included	84% (2)
			P_ Among women at low risk of maternal mortality◆◆◆	Included	66% (3)

(Continued)

Table 1. (Continued)

Indicators	Consensus to include or exclude the indicator	Agreement % (Round)	Among the indicators included details for the definition (D_) or population (P_) and I_ subindicators of complications of anesthesia	Final decision	Agreement % (Round)
Complications of anesthesia: <i>6 subindicators first specified in the second round</i>	Included	84% (1)	<i>I_ Rate of headaches induced by spinal or epidural anesthesia and for which a blood patch was performed</i>	Included	85% (2)
			<i>I_ Rate of anesthesia-related pulmonary aspiration</i>	Included	91% (2)
			<i>I_ Other anesthesia-related pulmonary complications</i>	Included	71% (2)
			<i>I_ Anesthesia-related cardiac complications</i>	Not selected	56% (3)
			<i>I_ Anesthesia-related complications involving the central nervous system</i>	Not selected	65% (3)
			<i>I_ Toxic reaction to local anesthesia</i>	Not selected	60% (3)
Rate of other complications resulting from care	Include	69% (3)			

DISCUSSION:

The Scientific Committee endorsed two of them because they concerned maternal health, were proposed by at least 2 experts, and could be identified in the hospital data [6]. These were the rate of cesareans under general anesthesia and an item entitled "other complications associated with care," to be entered by medical staff at discharge, when applicable. Both of these received consensus approval in the second round [7]. The other indicators proposed were not selected, because they concerned either neonatal health status or items related to practices rather than health status [8].

The restriction of indicators to one or several groups of women in which they might be considered more pertinent than in the general population was suggested for eight of the indicators proposed to the panel, and finally kept for six [9]. A consensus was reached for 3 subgroups of women at the first round, rate of uterine rupture among women with a previous cesarean (77% agreement, note this is the only subgroup of women at higher risk than the general population), rate of episiotomy among all women (73% agreement), and rate of postpartum hemorrhage among women who had a planned

cesarean before labor (93% agreement to exclude it in round 1) [10].

CONCLUSION:

The consultation of clinicians who were also experts in quality of care, representing the professions involved, as well as user representatives, enabled us to create a set of indicators to assess the quality of obstetric care from hospital discharge databases. The set is composed of 13 indicators, including 6 which will be considered in subgroups of women. The translation of this tool into an algorithm of codes will be followed by a validation stage. This set is composed of outcomes identifiable in routine databases through codes available in international classifications; it may then be applied across or within countries to reveal themes for improving obstetric care.

REFERENCES:

1. Kristensen S, Mainz J, Bartels P. Selection of indicators for continuous monitoring of patient safety: recommendations of the project 'safety improvement for patients in Europe'. International journal for quality in health care: journal of the International Society for Quality in Health Care / ISQua. 2009; 21(3):169–75.

2. Mann S, Pratt S, Gluck P, Nielsen P, Risser D, Greenberg P, et al. Assessing quality obstetrical care: development of standardized measures. *Joint Commission journal on quality and patient safety / Joint Commission Resources*. 2006; 32(9):497–505.
3. Haller G, Comparini-Righini N, Kern C, Pfister RE, Morales M, Berner M, et al. [Patient safety indicators for obstetrics: a Delphi based study]. *J Gynecol Obstet Biol Reprod (Paris)*. 2010; 39(5):371–8.
4. Kesmodel US, Jolving LR. Measuring and improving quality in obstetrics—the implementation of national indicators in Denmark. *Acta obstetrica et gynecologica Scandinavica*. 2011; 90(4):295–304. <https://doi.org/10.1111/j.1600-0412.2011.01078.x> PMID: 21306336
5. Bailit JL, Grobman WA, Rice MM, Spong CY, Wapner RJ, Varner MW, et al. Risk-adjusted models for adverse obstetric outcomes and variation in risk-adjusted outcomes across hospitals. *Am J Obstet Gynecol*. 2013; 209(5):446 e1– e30.
6. Sibanda T, Fox R, Draycott TJ, Mahmood T, Richmond D, Simms RA. Intrapartum care quality indicators: a systematic approach for achieving consensus. *European journal of obstetrics, gynecology, and reproductive biology*. 2013; 166(1):23–9. <https://doi.org/10.1016/j.ejogrb.2012.09.018> PMID: 23069000
7. Boukdedid R, Sibony O, Goffinet F, Fauconnier A, Branger B, Alberti C. Quality indicators for continuous monitoring to improve maternal and infant health in maternity departments: a modified Delphi survey of an international multidisciplinary panel. *PloS one*. 2013; 8(4):e60663. <https://doi.org/10.1371/journal.pone.0060663> PMID: 23577143
8. Woiski MD, Scheepers HC, Liefers J, Lance M, Middeldorp JM, Lotgering FK, et al. Guideline-base development of quality indicators for prevention and management of postpartum hemorrhage. *Acta obstetrica et gynecologica Scandinavica*. 2015; 94(10):1118–27. <https://doi.org/10.1111/aogs.12718> PMID: 2622239
9. Bunch KJ, Allin B, Jolly M, Hardie T, Knight M. Developing a set of consensus indicators to support maternity service quality improvement: using Core Outcome Set methodology including a Delphi process. *BJOG: an international journal of obstetrics and gynaecology*. 2018
10. Janakiraman V, Ecker J. Quality in obstetric care: measuring what matters. *Obstetrics and gynecology*. 2010; 116(3):728–32. <https://doi.org/10.1097/AOG.0b013e3181ea4d4f> PMID: 20733459