

Postpartum care

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Date: 1.12.2021

Description of condition and intervention

Postpartum period is crucial for the lives of mother and the newborn. Estimates indicate that half of the postpartum maternal deaths occur in the first 24 hours and 66% of them in the first week after delivery. Haemorrhage, obstructed labour or sepsis have been implicated as main causes of morbidity or mortality during labour, childbirth or immediate postpartum period. This burden of maternal deaths is considerably higher in low-and-middle income countries than high-income countries. Hence it is imperative to provide timely and quality care to address the complications that could arise during the labour, childbirth or postpartum period (WHO 2021).

In this evidence brief we assess the effects and costs of interventions delivered as part of postpartum care, that are being analysed in the FairChoices: DCP Analytical tool.

Treatment of lactational mastitis
Surgery (hysterectomy for uterine rupture or intractable postpartum hemorrhage)

International guidelines

Organization	Indications/recommendations	Applicability in LIC & Lower MIC settings
World Health Organization 2018	Intrapartum care for a positive childbirth experience	Yes

Intervention attributes

Type of interventions & Delivery platform

Table 1: Type of interventions & delivery platform

Intervention	Type	Delivery platform
Treatment of lactational mastitis	Curative	Health centre
Surgery (hysterectomy for uterine rupture or intractable postpartum hemorrhage)	Curative	Health centre

Equity

In addition to considerations like cost-effectiveness and health systems factors, dimensions of equity can be relevant for priority setting. The opportunity for a long and healthy life varies according to the severity of a health condition that individuals might have, so there are inequities in individuals' opportunities for long and healthy lives based on the health conditions they face. Metrics used to estimate the severity of illness at an individual level can be used to help prioritize those with less opportunity for lifetime health. FairChoices: DCP Analytics Tool uses Health adjusted age of death (HAAD), which is a metric that estimates the number of years lived from birth to death, discounting years lived with disability. A high HAAD thus represents a disease less severe in terms of lifetime health loss, while a low HAAD represents a disease that is severe on average, causing early death or a long period of severe disability. It is also possible to estimate the distribution of HAAD across individuals with a health condition. FairChoices shows for each intervention an average HAAD value of the conditions that are affected by respective interventions that have health effects. Additionally, a plot shows HAAD values for around 290 conditions (Johansson KA et al 2020).

Time dependence

Moderate level of urgency of treatment of lactational mastitis. Treatment outcomes not highly affected by some days of delay. Highly urgent for hysterectomy for uterine rupture of intractable postpartum hemorrhage.

Population in need of interventions

Table 2: Population in need of interventions

Intervention	Treated population		Affected population		Disease state addressed
	Treated age	Treated fraction	Affected age	Affected fraction	
Treatment of lactational mastitis	Births (as proxy for lactating mothers/successful pregnancies)	0.1*	10 to 54 years Female		Maternal sepsis and other maternal infections
Surgery (hysterectomy for uterine rupture or intractable postpartum hemorrhage)	15 to 54 years; pregnant female;	0.001**	15 to 54 years	0.001**	Maternal hemorrhage

*Mastitis and breast abscess occur in all populations, whether breastfeeding is the norm. The reported incidence varies from a few to 33% of lactating women, but is usually under 10%. (Table 1). https://apps.who.int/iris/bitstream/handle/10665/66230/WHO_FCH_CAH_00.13_eng.pdf

**The incidence of severe PPH unresponsive to standard medical treatment was 0.1%. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3530254/>

Intervention effect and safety

Table 3: Effect and safety of interventions for postpartum care

Effect of intervention		Certainty of evidence
Mortality (due to condition) Surgery (hysterectomy for uterine rupture or intractable postpartum hemorrhage)	77.5% reduction in mortality with the intervention	See appendix
Disability Treatment of lactational mastitis	Assumed 90% recovery with appropriate antibiotics and analgesics	

Model assumptions

Table 2: Summary of model parameters and values used in FairChoices – DCP Analytical Tool

Category	Model parameter	Notes
Interventions	Treatment of lactational mastitis Surgery (hysterectomy for uterine rupture or intractable postpartum hemorrhage)	
Cost calculation		
Treated population	See Table 2	Global Burden of Disease Study 2019
Gender		
Age		
Treated fraction		
Effect calculation		
Affected population	Those with condition	
Affected gender	See Table 2	
Affected fraction age		
Affected fraction		
Comparison	No intervention	
Mortality Reduction (RRR)* Surgery (hysterectomy for uterine rupture or intractable postpartum hemorrhage)	0.775	
Treatment of lactational mastitis	0.90 (assumed)	

Intervention cost

The cost of treatment of lactational mastitis is estimated to be 2.3 USD per average case in 2014 in Low-income countries (LIC). The cost for hysterectomy for uterine rupture or intractable postpartum hemorrhage is estimated to be 179 USD in 2012 in LIC. The unit cost is based on

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EVIDENCE BRIEF

Management of chronic illness
(DCP4 ID: MNH01-01)

FairChoices
DCP Analytic Tool

an estimate of the Lancet Commission on Global Surgery X Platform multiplier = 1 (Verguet, 2015).

References

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Appendix

Literature Review for effectiveness & safety

This literature search is an example of Level 1 search for intervention inputs taken from DCP3 or generated in an ad hoc manner (e.g., quick google search found one study of cervical cancer screening cost-effectiveness that was used to create an effectiveness parameter for that intervention).

Level of evidence of efficacy studies:

1. low (expert opinions, case series, reports, low-quality case control studies)
2. moderate (high quality case control studies, low quality cohort studies)
3. high (high quality cohort studies, individual RCTs)
4. very high (multiple RCTs, meta-analysis, systematic review, clinical practice guidelines)