Title: The methods of blood loss assessment that are feasible to be applied in Indonesia

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Abstract

Statement of the problem: There are seven methods of blood loss estimation that are currently used in the world but not all methods can be applied in Indonesia. This study aims to select the most feasible method of blood loss estimation for midwives in Indonesia. **Methodology**: Interviews are undertaken of 23 midwives and observations are done at 165 health facilities from 7 provinces in Indonesia. Clinical scenario simulations are undergone to compare three methods of blood loss assessment to identify the advantages and the shortcomings of the methods. **Findings:** Visual blood loss estimation using artificial blood tended to be overestimated while using human blood tended to be underestimated. A significant correlation between midwife groups and duration of clinical experiences and accuracy of visual blood estimation is observed at volume 100 and 150 mL. Contamination of artificial blood, human blood and blood in real labour on underpads have different characteristics. The discrepancy of underpads' material and absorption influence the weight of blood contamination so that ρ to calculate blood volume using gravimetric method should be adjusted by the type of underpads used as well as for whole blood on non-branded underpads (1.006 g/mL), on SensiPad (0.987 g/mL) and on ProCare (0.060 g/mL) while for red cell blood on SensiPad (1.028 g/mL) and on ProCare (1.150 g/mL). In delivery drape use, the position of wire and drape will influence readable results appearing on the calibrated drape. **Conclusion & significance:** Visual estimation method has more shortcomings compared to gravimetric and drape. Both of these methods are more recommended to be implemented in Indonesia. However, the methods have some considerable factors that need to be noted to avoid biased research results.

Image

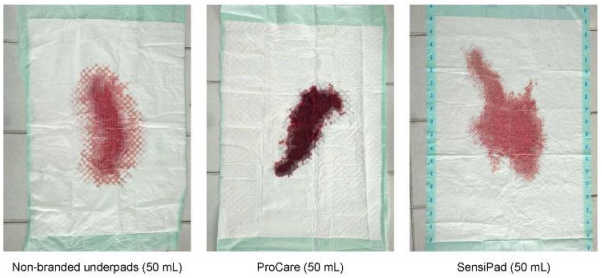


Figure 3. Human blood spills in three different underpads (60 cm x 90 cm)

Recent Publications

1. Indrayani, Harianis S, Astuti H, Rosmaria. (2018). How is oxytocin cold chain in peripheral areas? And is it still effective uterotonic?. PJMHS, 2018, 12(4), 1744-1749. [DOI: http://doi.org/10.5281/zenodo.2594622].
2. Indrayani, Rahmadi A, Rakhim DA. (2018). Can date fruits and 7dates replace iron tablets in increasing hemoglobin levels?. PJMHS, 12(4), 1750-1759. [DOI: http://doi.org/10.5281/zenodo.2594060].
3. Indrayani, Suharti, Rahmadi A, Diana O, Zeranika N. (2018). How do Muslims consume dates?. PJMHS, 12(4), 1732-1743. [DOI: http://doi.org/10.5281/zenodo.2594075].
4. Rahmadi A, Indrayani, Rahmawati J, Mudarris N, Al-Hamat A. (2018). What are moslem women's activities during pregnancy?. PJMHS, 12(3), 953-961. [DOI: http://doi.org/10.5281/zenodo.2525847].
5. Djami MEU, Indrayani, Mafluha Y, Tjandra O, Astari P, Simatupang EJ. (2018). Sexual function of depot medroxyprogesterone acetate users. JSIMLA, 10(2), 108-113. [DOI: http://doi.org/10.5281/zenodo.1462146].
6. Djami MEU, Indrayani, Tjandra O, Alaydrus Z. (2017). Women experience of tubectomy in Kiarapedes Subdistrict. PJMHS, 11(4), 1617-1622. [DOI: http://doi.org/10.5281/zenodo.1323199].
7. Indrayani & Djami MEU. (2018). Why did not midwives use partograph correctly?. PJMHS, 12(1), 468-473. [DOI: http://doi.org/10.5281/zenodo.1323401].
8. Indrayani, Hendari R, Indryana N, Djami MEU, Tjandra O. (2018). Child sexual abuse: who, when, where, why and how?. PJMHS, 12(1), 442–449. [DOI: http://doi.org/10.5281/zenodo.1323286].
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10. Indrayani, Khodijah H, Mudarris N, Rahmadi A, Al-Hamat A, Ali J. (2017). How does moslem community apply the tahneek to the babies?. PJMHS, 11(1), 18-25. [DOI: http://doi.org/10.5281/zenodo.1323170].
11. Indrayani, Husin F, Hilmanto D, Ritha A, Rumintang BI, Daswati et al. (2017). Expectations and prospects regarding the midwife services in Indonesia. JSIMLA, 9(2), 114–122. [DOI: http://doi.org/10.5281/zenodo.1322983].



Biography:

Indrayani is an Indonesian midwife with several years working experience as a nurse at a public health center, midwife practitioner, midwife lecturer, researcher, and writer. Her research interests are maternal mortality particularly postpartum hemorrhage, midwives in communities, midwifery education and Islamic shari'a in midwifery care. Her research tends to emphasize normal birth and midwifery care based on midwifery philosophy. Her commitment in supporting the government to reduce maternal and mortality rate has led her to work with many government and non-government institutions, associations and a broader community of midwives. She has published 4 books on midwifery and more than 22 papers of proceedings and journals both nationally and internationally.

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Notes/Comment: