

ABSTRACT

Drug Utilization Study of Uterotonic Drugs in Labor (Study at the Obstetrics and Gynecology Department of Dr. Soetomo Teaching Hospital Surabaya)

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Uterotonic agent is a drug used to stimulate uterine contraction. The drugs used as uterotonic are oxytocin, methylergometrine, and prostaglandin derivatives consisting of 15-methyl PGF_{2α} (carboprost), prostaglandin E₁ (misoprostol), and prostaglandin E₂ (dinoprost). Uterotonics have a risk of hyperstimulation or uterine tachysystole which can result uterine rupture, so the utilization of uterotonic drugs must be considered. This study aimed to analyze the utilization of uterotonic drugs including dose regimens, route, frequency, and duration of administration, and also drug-related problem in labor. The method of this study was a retrospective study with descriptive analysis performed at the Obstetric and Gynecology Department of Dr. Soetomo Teaching Hospital Surabaya in the period of July to December 2017. There were 80 patients included in this study. The results showed that uterotonic drugs in this study were administered for three indications: 1) As induction of labor with cervical ripening using 50 µg of misoprostol every 6 hours by oral or vaginal route until pelvic score ≥ 5 followed by oxytocin drip 10 IU in 500cc RL or RD5% (25%); 2) As active management at the third stage labor to accelerate the release of the placenta by using oxytocin 10 IU given intramuscularly (100%); 3) As a therapy to prevent postpartum haemorrhage with oxytocin drip 10 IU in 500cc RL or RD5% (54 %), misoprostol 3-4 tablets (@ 200 µg) per rectal (14%), and methylergometrine 1 ampule given intramuscularly (1%). Potential drug-related problem that reviewed in this study was about adverse effect of uterotonic drugs which were nausea, vomiting, diarrhea, hypertension, hypotension, and others. From these results, the utilization of uterotonic drugs was in accordance with the guidelines of Dr. Soetomo Teaching Hospital clinical practice.

Keywords: drug utilization study, labor, misoprostol, methylergometrine, oxytocin