



**Karolinska  
Institutet**

**Institutionen för Kvinnors och Barns Hälsa**

## Increasing access to medical abortion

**AKADEMISK AVHANDLING**

som för avläggande av medicine doktorsexamen vid Karolinska  
Institutet offentligen försvaras i Aulan, Danderyds Sjukhus

**fredagen 7 december 2012 kl 09.00**

av

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**Stockholm 2012**

# ABSTRACT

## Introduction:

Unsafe abortion kills approximately 47000 women per year. However, women in high resource settings may also have difficulties in accessing safe abortion facilities due to high cost, a large number of visits required or difficulty in finding an abortion provider. The object of this thesis was to examine ways to increase access to medical abortion.

## Materials, methods and results:

**Study I:** Home use of misoprostol may decrease cost, the number of required visits and by attracting women who dislike hospitals. A total of 395 women with gestational age up to and including 63 days were recruited to investigate efficacy and acceptability of home use of misoprostol. Women with gestational length lower than 50 days were compared to women with gestational length of 50 days or higher. Efficacy of the procedure was high (97,5%). Overall acceptability of the procedure did not differ between the groups ( $p=0,36$ ) and was not related to gestational age ( $p=0,097$ ).

**Study II:** In the second study the objective was to assess which factors had a significant influence on the acceptability of home use of misoprostol in the same group of patients. Potentially influential factors were recoded into categorical variables and evaluated using logistic regression. In the final models parity ( $p=0,003$ ) and feeling calm after the administration of misoprostol ( $p<0,001$ ) had a positive influence on the experience in relation to expectation whereas having a positive u-hcg test on follow up had a negative influence ( $p=0,003$ ). Women who had a partner/friend present during the abortion were more likely ( $p=0,021$ ) whereas women with a positive u-hcg on follow up were less likely to prefer home administration of misoprostol ( $p=0,002$ ).

**Study III:** Letrozole is an aromatase inhibitor and has been shown to increase the number of complete abortions when used with misoprostol only. A total of 16 women scheduled for surgical abortion were randomized to either pretreatment with letrozole or no pretreatment. Uterine contractility was measured before and after the cervical priming dose of misoprostol was given. The results were analyzed using repeated measures ANOVA. No difference in time to tonus increase ( $p=0,243$ ), maximum tonus ( $p=0,953$ ) or contractility between the two groups was detected ( $p=0,423$ ).

**Study IV:** Task shifting from physicians to midlevel providers may increase access to abortion services where physicians are scarce or unwilling to perform abortion provision. Before any examination had been made 1180 women were randomized to medical abortion provision by a physician or nurse midwife. Both provisions were equally effective with the risk difference of 1,6% within the set margin of equivalence of 5% ( $p=0,027$ ). Women randomized to nurse midwife were significantly more likely to prefer seeing a midwife again were they to have another medical abortion ( $p<0,001$ ).

## Conclusions:

This thesis shows that increased access to medical abortion can be achieved in several ways by either increasing use of home use of misoprostol, finding new drugs without previous abortion stigma to replace mifepristone or by task shifting provision of medical abortion from physicians to midlevel providers.

ISBN: 978-91-7457-916-1