

## EMERGENCY CONTRACEPTION: KNOWLEDGE, ATTITUDES AND PRACTICES OF GENERAL PRACTITIONER

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*Department of Obstetrics & Gynecology, Unit-I, Allama Iqbal Medical College/ Jinnah Hospital, Lahore. We conducted a telephone survey among general practitioners from different localities of Lahore selected as convenience sample. Information was collected on a pre-designed questionnaire. The main outcome measures were the knowledge regarding preparations, efficacy, safety, side effects and their attitude toward EC. The relationship of knowledge with age, education and years of practice was also assessed. We interviewed 120 GPs (50 males, 70 females). Among these 65% of the doctors were <40 years of age and 35% > 40 years. Of the responders 38% didn't know any thing about emergency contraception, whereas 46% knew only about hormonal method of emergency contraception 15% about the hormonal and IUCD and none of them was aware of Mifepristone. Among these, the knowledge of 30% of the participants about emergency contraception was adequate and that of 70% was inadequate. The difference of accuracy of knowledge was statistically significant ( $p < 0.05$ ). Only 10% of GPs were in routine practice to talk about EC as a backup support while discussing their patients about contraception. There was no statistically significant difference of knowledge among males and females ( $p > 0.05$ ). Young GPs (<40 years of age) were more aware of IUCD as EC compared with those more than (>40 years) though the difference was not statistically significant but it might have a clinical significance. GPs with postgraduate education when compared with graduates were more likely to know and talk about EC ( $P < 0.05$ ). Maximum knowledgeable GPs were those practicing for the last 5 years (30%) as compared to practicing for more than 10 years (6.7%) ( $p < 0.05$ ). Ethically and morally all GPs were in support of EC and were having favourable attitude towards EC. These findings of our study suggest that the precise knowledge about emergency contraception among doctors (GPs) is inadequate. Prescription practices can improve by generating education and training of health care providers. It should be a routine practice to consider emergency contraception as a part of contraceptive discussion with the couple. The purpose of the present study was to assess the knowledge, attitude and practices of general practitioners toward emergency contraception from different localities of the city of Lahore, which has a population of more than 6 millions.*

**Keywords:** *Emergency contraception, general practitioners, hormonal EC, IUCD,*

### INTRODUCTION

Emergency contraception (EC) refers to all methods of contraception that are used after intercourse and before implantation. It is well established that many unintended pregnancies occur as a result of unprotected intercourse, inadequate contraceptive measures, or failure of a method. So, effective method of post-coital or EC can prevent many of these pregnancies (75–89%) as well as the health and the social consequences associated with them<sup>1</sup>. Jones et al estimate that the use of EC prevented more than 50,000 abortions in the year

2000 and accounted for 43% of the total decrease in the abortion rate between 1994–2000<sup>2</sup>.

The EC method are not abortifacients since they work prior to implantation and are intended for occasional use as a backup to regular method of birth control. EC has been available for almost 30 years but the percentage of women familiar with the method is only 46%<sup>3</sup>. About 1/3 of all the pregnancies are unplanned and 20% of them end in abortion<sup>4</sup>. With the correct use of EC, these pregnancies and abortions could be significantly reduced. The available methods of EC are hormo-

nal methods also known as emergency contraceptive pills, and insertion of copper intrauterine device (IUD) post-coitally.

Two types of hormonal EC are available in Pakistan, one type is a regimen of two oral doses of 750µg Levonorgestrel, a progestin taken 12 hours apart (marketed as Em-Kit) taken within 3–5 days of unprotected intercourse. The other hormonal EC, known as the Yuzpe method, has been in use since 1970 and consists of two doses of 100µg of ethinyl estradiol and 500µg of Levonorgestrel taken orally 12 hours apart (lo-feminol, 3 tablets are almost equivalent to one dose of yuzpe regimen). The anti-progestogen mifepristone (RU 486) has been shown to be a highly effective post-coital contraception<sup>5,6</sup>, but this product is not available in Pakistan. The insertion of copper IUD between 5 and 7 days has been shown to prevent pregnancy and is an important option for women to continue it as a long-term contraception, having no contraindications<sup>7</sup>.

In the late 1990s, the FDA approved two dedicated EC products, a combination of ethinyl estradiol and levonorgestrel and levonorgestrel alone. In 2002, two large randomized trials and a multicenter World Health Organization trial showed that a single dose of 1.5mg of Levonorgestrel was as effective as the standard two-dose Levonorgestrel regimen<sup>8</sup>. Despite proven efficacy and recent FDA approval, however, remains underutilized in the United States<sup>9</sup>. There are no contraindications to the use of hormonal EC except known pregnancy. Women should be advised for a follow-up visit after 21 days. Side effects are minor including nausea, vomiting and fatigue being less with Levonorgestrel only regimen.

The effective use of EC is dependent on increasing both public and professional awareness and improving access to this important therapeutic intervention. Healthcare providers can encourage the appropriate use of EC by discussing it with their patients and by providing women with a prescription of hormonal EC in advance of need. Professionals involved in promotion of women's health must become advocates for EC both locally and nationally.

## METHODS

We conducted a telephone survey among general practitioners from different localities of Lahore selected as convenience sample. Information was collected on a pre-designed questionnaire. The

main outcome measures were the knowledge regarding preparations, efficacy, safety, side effects and their attitude toward EC. The relationship of knowledge with age, education and years of practice was also assessed.

## STATISTICAL ANALYSIS

Data was entered and analyzed in SPSS. Frequency and summary statistics were calculated for all variables. Comparison of knowledge was made between male and female GPs. Relationship of age, postgraduate education and years spent in the practice was made with their knowledge of EC regarding the preparations, efficacy and side effects. For these comparisons, we used Chi-square tests where appropriate, and differences were considered significant when P values were less than 0.05.

## RESULTS

We interviewed 120 GPs (50 males, 75 females), 65% of them were <40 years of age and 35% were > 40 years. Among these 68% were graduates (MBBS) and 31% were had postgraduate qualifications (Table 1). Fifty percent of the doctors were practicing for the last 5 years, 33% for 5-10 years and 16% >10 years. Among the responders 38% didn't know any thing about emergency contraception, whereas 46% knew only about hormonal method of emergency contraception, 15% about the hormonal and IUCD; and none of them was aware of Mifepristone (Table 2). Among these, the knowledge of 30% participants about emergency contraception was adequate and that of 70% was inadequate. The difference of accuracy of knowledge was statically significant ( $P < 0.05$ ). Only 20% of GPs were very comfortable to talk about EC as a backup support while discussing their patients about contraception.

There was no significant difference of knowledge among males and females ( $P > 0.05$ ) (Fig. 1). Young GPs (<40 years of age) were more aware of IUCD as EC compared with those (>40 years old). Though the difference was not statistically significant it might have a clinical significance (Fig. 2). GPs with postgraduate education when compared with graduates, were more likely to know and talk about EC ( $P < 0.05$ ) (Fig. 3). Maximum knowledgeable GPs were those practicing for the last 5 years (30%) as compared to those practicing for more than 10 years (6.7%) ( $P < 0.05$ ) (Fig. 4). Ethically and morally all GPs were in support of EC and had favourable attitude towards EC.

**Table 1:** Particulars of the participating practioners.

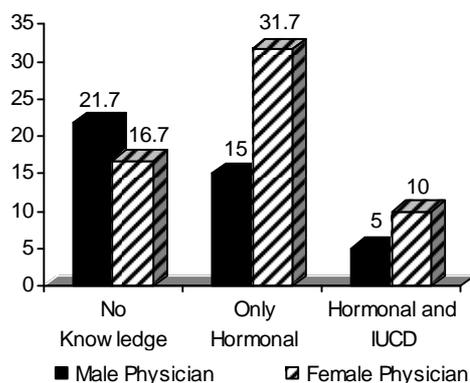
Gender of the GPs		Age of the GPs		Qualification of Physicians	
Male	Female	< 40 Yrs	> 40 Yrs	MBBS	Postgraduate
50	70	78	42	82	38
41.7%	58.3%	65.0%	35.0%	68.3%	31.7%

**Table 2:** Longevity of participation and knowledge about EC.

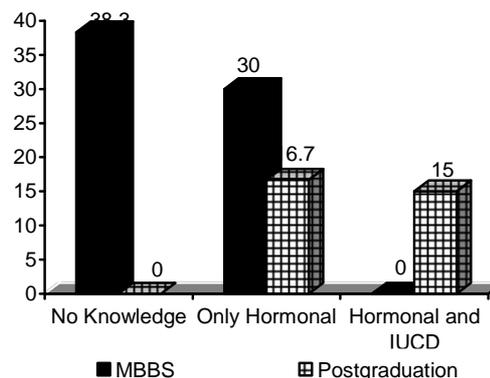
Practicing Experience			Knowledge about EC		
< 5 Yrs	5 - 10 Yrs	> 10 Yrs	No Knowledge	Only Hormonal	Hormonal and IUCD
60	40	20	46	56	18
50.0%	33.3%	16.7%	38.3%	46.7%	15.0%

**Table 3:** Test Statistics.

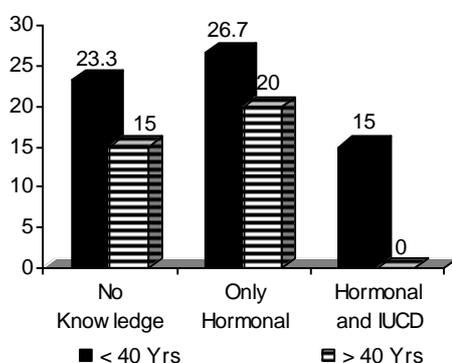
	Gender of Physicians	Age of Physicians	Qualification of physician	Experience (Years)	Knowledge about EC preparations
<b>Chi-Square</b>	1.667	5.400	8.067	10.000	9.700
<b>DF</b>	1	1	1	2	2
<b>Asymp. Stg.</b>	0.197	0.020	0.005	0.007	0.008



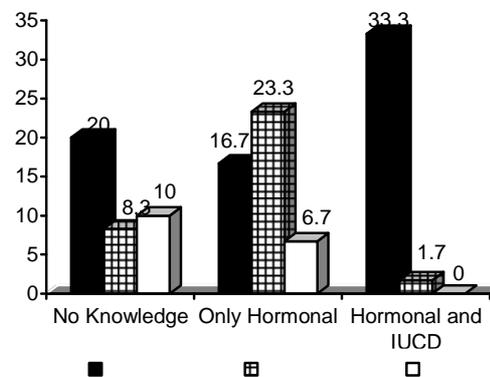
**Fig. 1:** Gender and knowledge.



**Fig. 3:** Knowledge and Qualification.



**Fig. 2:** Ages of Physicians.



**Fig. 4:** Experience and Knowledge.

## DISCUSSION

The reason for not discussing and providing the couple with EC, in this study, is mainly due to the lack of knowledge and awareness of EC among the GPs. This influences the likelihood of women being made aware of or being given emergency contraception. Lack of knowledge and awareness is also identified as a main barrier to the use of EC in most of the literature review<sup>10,11</sup>. In this survey though the difference of knowledge was not statistically significant among the male and female GPs, the female GPs were more likely to discuss and prescribe about emergency contraception. This is concordant with the result of a KAP study of GPs in the Center for Reproductive Health Research, Australia<sup>12</sup>.

This study showed that 66% of the doctors knew at least about one method of EC but only 30% of our GPs had the adequate knowledge and knew about the protocol. On the other hand 77% of the doctors were aware of EC and 79% were familiar with the protocol of EC in a survey conducted in States<sup>12</sup>.

Among the GP interviewed, almost all of them had a positive attitude towards EC that is consistent with most of the literature review on EC prescribing practices. Some of the studies however show that the ethical and religious factors are very important for some physicians that affect the routine discussion of contraception with the patient<sup>13,14</sup>. In our study, one of the most significant barrier identified was not remembering to discuss EC during routine visits and discussion of contraception. Only 10% of our GPs were regularly discussing EC, as a routine with other contraceptive discussion. Similar problem was also noticed in a KAP study on EC in Sydney, as only 16% of their doctors included the information of EC as a part of their routine contraceptive discussion<sup>14</sup>. The most commonly used emergency contraceptive methods were oral contraceptives, mainly the levonorgestrel and the Yuzpe regimen, but the IUCD had less familiarity among GPs. These results agree with the figures of the study of health-care providers in the Department of Obstetrics and Gynaecology, Faculty of Medicine, Yil University, Van, Turkey.

None of their practitioners was aware of Mifepristone as EC. Same is the case with GPs included in our study<sup>15</sup>. Most of our general practitioners were graduates and a few of them had postgraduate qualification. There was a strong association between the education and knowledge regarding emergency contraception in this study of GPs<sup>15</sup>.

## CONCLUSION

These findings of our study suggest that the precise knowledge about emergency contraception among doctors (GPs) is inadequate. Prescription practices can improve by generating education and training of health care providers. It should be a routine practice to consider emergency contraception as a part of contraceptive discussion with the couple. GPs should encourage the appropriate use of EC by discussing it with their patients and by providing women with a prescription of hormonal EC prior to the need.

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