

Emergency contraception at the Emergency Department. Experience of one year of free assistance

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None

Background: The Department of Health of Aragon has been offering free emergency contraception (EC) since 2005.

Aims: The aim of the present study was to assess the profile of women who sought EC during the first year of free contraception at the Emergency Service of a third level hospital and to identify the type of variables related to the seek of EC within 24 hours after a sexual intercourse.

Methods: One-year descriptive retrospective study which reviewed all medical records with diagnosis of emergency contraception at the emergency department of H.C.U. "Lozano Blesa" (Zaragoza). Clinical and epidemiological information was recorded in a specifically devised data collection form. Data of patients who sought EC within 24 hours after a sexual intercourse were compared with the rest of patients.

Results: The total number of pills dispensed was 1,129 with a mean of 3.09 pills dispensed in a single day. The mean age of patients was 21 years (29% of the whole sample was under 18 years of age). About 55% searched EC from 9:00 to 20:00 hours (when the pill is available in outpatient services) and 68% presented to ED within 24 hours after the sexual intercourse. Women between 19 and 24 years of age sought assistance earlier than women in other age groups. The same applied for Saturdays (in comparison with the rest of the days of the week). Failure of barrier method was the reason for consultation in 79%.

Conclusions: The most frequent user of this service is a 21 year-old woman who seeks EC within 24 hours after a sexual intercourse (usually during the weekend). The rationale for seeking EA is typically a failure in the barrier method; although the pill is available in other external services women prefer to go to the hospital. The age of one out of three users of this service is less than 18 years. Finally, it is important to highlight that pills are solicited earlier during the weekend (according to the idea of time since the sexual intercourse). [Emergencias 2008;20:108-112]

Key words: Emergency contraception. Emergency Service, hospital.

Introduction

According to the World Health Organisation (WHO)¹, emergency contraception (EC) is a method of pregnancy prevention after unprotected sexual intercourse². In our setting the option of choice is the post-coital pill (PCP) administered in a single dose of 1.5 mg^{3,4} of levonorgestrel which is efficient within the 72-hour period following intercourse.

The mechanism of this drug depends on the time within the menstrual cycle and time lapsed

since intercourse, triggering a number of effects such as ovulation inhibition, alteration of tubal motility and modification of endometrial structure⁵⁻⁷.

From 1995 to 2005 a total of 729,348 voluntary pregnancy interruptions (VPI) were performed⁸, increasing annually up to a total of 91,644 VPIs performed in 2005⁸.

The PCP was authorised in our country by the Ministry of Health in 2001. In 2005, the Health Office of Aragón (HOA) decided to make it availa-

ble to the public free of charge with a two-fold aim: a) adequate prescription control and b) reduction in the number of abortions and unwanted pregnancies, particularly among young people.

The aim of this study was to assess the profile of women requesting free EC during the first year of its availability in an emergency department of a third level hospital and to identify the variables related to this request within 24 hours of sexual intercourse.

Method

The "Lozano Blesa" Clinical University Hospital is the hospital of reference within health district III of the Autonomous Community of Aragon attending a mainly rural population of around 275,000 inhabitants with a high level of geographical dispersion. Our department attends approximately 400 emergencies per day, of all kinds, of which 25 are obstetric/gynaecologic.

We performed a descriptive, retrospective study carried out over a period of one year (from October 25, 2005 to October 25, 2006) including all emergency clinical histories with a diagnosis of "emergency contraception".

A standard questionnaire was designed to add to the clinical history of the patients requesting the PCP. This questionnaire was completed by the House Doctor (R-1) with a priority level of 5 within the outpatient consultation of general emergencies. The questionnaire contained the following questions: reason for request, time lapsed since sexual intercourse, personal history, date of last menstruation, usual contraceptive method and number of previous requests. The time lapsed between sexual intercourse and the emergency consultation was considered a dependent variable (expressed as less than or equal to 24 hours or greater than 24 hours), with the remaining variables considered to be independent.

The database compiling the replies was analysed using the SPSS statistical programme version 11.0 (SPSS, Chicago IL, USA). Data were expressed as central tendencies (mean, median and mode) for quantitative variables or as absolute values (percentage of total) in the case of qualitative variables. The χ^2 test was used for proportion comparison and the ANOVA test was used for mean comparison. In any event, a *p* value lower than 0.05 (two-tailed) was considered statistically significant.

Results

Of all the clinical histories analysed, 1,007 women requested the EC during the year of study. A total of 1,129 pills was dispensed, with a daily average of 3.09, of which 777 (68%) were requested within the first 24 hours, 113 (10%) within 24 and 48 hours, and 139 (12%) were requested within 48 and 72 hours after sexual intercourse. This information was not available in 110 cases (10%). The mean age of the user was 21 years, the median 22 and the mode 19, ranging from 15-43 years. The distribution of assistance by day of the week did not prove to be statistically significant ($p > 0.01$), with greater demand on weekends (Figure 1). Sixty percent of the patients had previously used this method and 17% had done so within the previous year (Figure 2).

Table 1 shows the distribution of several clinical-epidemiological variables of the overall sample, distributed according to the haste with which the service was requested. As can be observed, more haste in demanding the service was seen on

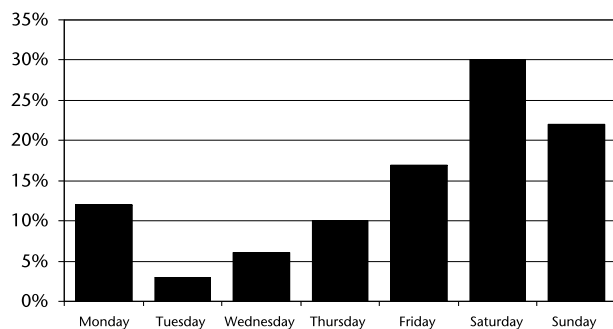


Figure 1. Distribution of the requests for the post-coital pill (PCP) per day of the week.

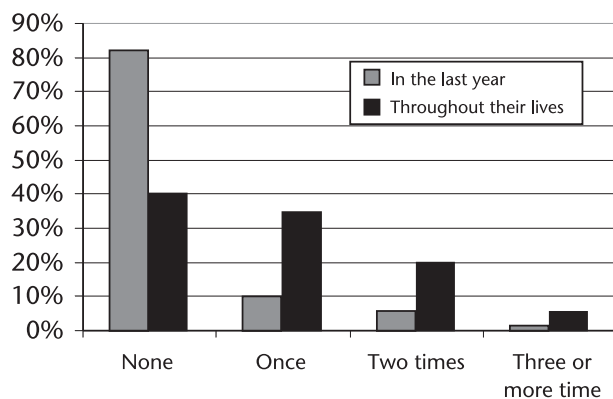


Figure 2. Number of times patients had taken the post-coital pill (PCP) in the last year or throughout their lives (N = 1,129 pills).

Table 1. Clinical and epidemiological characteristics of the users to whom the pills were dispensed and comparison of the characteristics between those requesting the pill within the first 24 hours and the remaining users

	Total (n = 1129)	Early request* (n = 777)	Late request* (n = 252)	p value
Distribution by age				
12-16 years	82 (7.3%)	40 (5.9%)	36 (14.2%)	n.s
17-18 years	244 (21.6%)	171 (21.7%)	52 (20.6%)	n.s
19-24 years	531 (47%)	421 (54%)	101 (43.6%)	p = 0.04
25-30 years	203 (18%)	151 (19.5%)	31 (12.6%)	n.s
31-35 years	35 (3.1%)	19 (3.2%)	10 (3.9%)	n.s
> 36 years	34 (3%)	17 (2.7%)	13 (5.1%)	n.s
Time of request				
9 to 20 hours	621 (55%)	414 (53%)	128 (51%)	n.s
20 to 24 hours	226 (20%)	159 (19%)	55 (22%)	n.s
0 to 9 hours	282 (25%)	204 (28%)	59 (27%)	n.s
Days of the week				
Monday	135 (12%)	77 (10%)	20 (8%)	n.s
Tuesday	34 (3%)	18 (2%)	7 (3%)	n.s
Wednesday	68 (6%)	39 (5%)	15 (6%)	n.s
Thursday	113 (10%)	93 (12%)	35 (14%)	n.s
Friday	192 (17%)	139 (18%)	50 (20%)	n.s
Saturday	339 (30%)	272 (35%)	68 (27%)	p = 0.03
Sunday	248 (22%)	139 (18%)	57 (22%)	n.s
Reason for consultation				
Failure of barrier method	895 (79.3%)	621 (80%)	194 (77%)	n.s
No data	90 (8%)	47 (6%)	13 (5%)	n.s
No contraception	85 (7%)	70 (9%)	25 (10%)	n.s
Failure of oral contraception	56 (5%)	38 (4.9%)	19 (7.61%)	n.s
Rape	2 (0.2%)	1 (0.1%)	1 (0.39%)	n.s
Usual contraception				
Barrier method	869 (77%)	582 (75%)	191 (76%)	n.s
No method	113 (10%)	70 (9%)	20 (8%)	n.s
No data	90 (8%)	77 (10%)	22 (9%)	n.s
Oral contraception	56 (5%)	48 (6%)	19 (6%)	n.s

*Cases for which data was not available were excluded; the sum of both groups is therefore less than the total number.
n.s.- not significant.

Saturdays ($p < 0.03$) and among patients aged between 19 and 23 years ($p < 0.04$).

Discussion

To our knowledge this study includes the highest number of results both in terms of participants and study period of those available in the literature.

The results of our study are comparable to those found in other Spanish studies⁹⁻¹³ on EC in different areas (primary care or hospital), as well as in terms of user profile specific to PCP¹⁴, that is, a woman under the age of 25. On the other hand, our study highlights the high percentage of minors (28.9%) suggesting the need to reflect upon the type of sex education given to this population segment and their partners. Likewise, it should be highlighted that 7.6% were under the age of 16, with consequences not only for the girls themselves¹⁵ but also in regard to the controversy of dispensing EC to underage girls, both from an ethical and legal perspective, as it leaves the physician to determine the degree of maturity of the minor¹⁶.

The time of dispensation was within the 9:00 to 20:00 range in 55%, times at which this service is available in other centres (family planning, health centres, continual care centres, etc) and would not require third level hospital assistance and thereby generating a further load at the already overcrowded EDs. This also reflects a considerable lack of information on other accessible points of assistance. The days of the week on which more requests were made were during the period from Friday to Sunday (69% of the total).

International guidelines¹ report unprotected sex to be the main reason for EC requests, whereas in our study the main reason was barrier method failure (79.3%), comparable to the findings of other Spanish studies⁹⁻¹³. If this is indeed the case, we should begin to question the quality of the condoms available in our country. We believe that this situation reflects a more than probable "reply bias" by the users, probably indicative of a lack of use of any of the contraceptive methods available in the market.

PCP administration is carried out by the attending physician, who also advises as to health education and reminds the users that unprotected sex can lead to sexually transmitted diseases. It was

also recommended that, in the event that the woman should vomit within the first 3 hours following administration, the patient should return to the centre for a possible second administration of the PCP.

Similar to other studies, a high percentage of users (68%), requested the PCP within the first 24 hours, when the drug is most effective^{4,16-19}. The most frequently used contraceptive method was the condom (79.3%), as reported in other Spanish articles¹⁶⁻¹⁹. No statistically significant differences were observed between the variables analysed and the first 24 hours since intercourse, except with regard to the day of the week (Saturday) which was to be expected given the high percentage of requests on that day within the 19-24 year-old age range.

Sixty percent of the users admitted to having taken the PCP previously, with 25% on two or more occasions, for which the possible side effects have not been adequately studied. The real perception and information of the users regarding EC, their characteristics and conditioning factors¹⁷⁻¹⁹ and their influence on the request were not assessed in this study.

One of the objectives of the Autonomous Communities when dispensing the EC free of charge was to reduce abortions among young women and teenagers. Nevertheless, despite this measure, the rate of abortion has shown a sustainable rise in recent years in all the Autonomous Communities in Spain⁸.

We have no information as to the possible social impact of conscientious objection on the part of the physicians in our hospital. Depending on the organisation consulted^{3,5}, if beginning of pregnancy is considered to be the zygote implant in the womb (WHO), the PCP cannot be considered an abortive measure, regardless of its mechanism of action. If we consider the theories that determine that life begins at conception, then PCP, insofar that it acts by preventing implantation, could be considered abortive and thus subject to possible conscientious objection.

Lastly, the limitations of our study include the lack of completion of the medical histories, lack of real information by the physician regarding what is being prescribed and the possible lack of veracity in user replies. No data are available on the number of EC requests in the last year that pertain to the period of study. The possible "reply bias" of the users can also be significant, especially regarding the reason for consultation. We can conclude that the user profile is a 21-year-old

woman requesting EC within 24 hours of sexual intercourse, usually on weekends and due to failure of the barrier methods, presenting during times when this service is available at other centres. One out of every 3 users in this department is underage. The haste in requesting the pill is associated with the day of the week (Saturday) and the age range (19-24) and is not related to being underage.

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Anticoncepción de emergencia en un servicio de urgencias extrahospitalario: la experiencia de un año de gratuidad

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Objetivos: La anticoncepción de emergencia es gratuita en la sanidad pública de Aragón desde 2005. Se describe el perfil de la solicitante durante el primer año de gratuidad en un servicio de urgencias hospitalario y las variables relacionadas con su solicitud en las primeras 24 horas tras la relación sexual.

Método: Estudio descriptivo retrospectivo de un año de duración que incluyó todas las historias clínicas de urgencias del Hospital Clínico Universitario "Lozano Blesa" (Zaragoza) en las que el diagnóstico fue "anticoncepción de emergencia". Se elaboró una hoja de recogida de datos clínicos y epidemiológicos. Se compararon estos datos entre las pacientes que acudieron durante las primeras 24 horas tras la relación sexual y el resto.

Resultados: El número de píldoras dispensadas fue de 1.129. La media diaria fue de 3,09. La edad media fue de 21 años. Un 29% fueron menores de edad. En un 55% solicitaron la anticoncepción de emergencia (ACE) cuando está disponible en otros centros. Un 68% acudió dentro de las primeras 24 horas tras la relación sexual. Esta mayor rapidez en demandar asistencia se asoció con la consulta en sábado y con una edad comprendida entre 19 y 24 años. En un 79%, el motivo de consulta fue el fallo del método de barrera.

Conclusiones: El perfil de usuaria es una mujer de 21 años que solicita la ACE en las primeras 24 horas tras la relación sexual, habitualmente en fin de semana por fallo del método de barrera y acude en una franja horaria donde está disponible en otros centros. Una de cada tres es menor de edad. Se aprecia relación entre la prontitud de la petición de píldora y el día de la semana (sábado) y el segmento de edad entre 19 y 24 años. [*Emergencias* 2008;20:108-112]

Palabras clave: Anticoncepción de emergencia. Urgencias hospitalarias.