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Contraception

Letters to the Editor

Types of combined oral contraceptives used by US women

To the Editor:

The findings of Hall and Trussell [1] were enlightening in regard to combined oral contraceptive (COC) products used by women during the time frame from 2006 to 2010. The authors provide an example of the multitude of COCs available and the potential for confusion that can exist regarding what is exactly in each product when therapeutic equivalents are given "brand" names.

The COC market is influenced by health insurance formularies, pharmaceutical company marketing and the pharmacies themselves. I found the clinical relevance of the results presented by Hall and Trussell to need further

Table 1

Estrogen		Progestin		Regimen[a]	Products	% of all oral contraceptive users
Type	Dose (mcg)	Type	Dose		N	
EE	35	Norgestimate	180 mcg/215 mcg/250 mcg	7/7/7/**7**	4	13.2
EE	30	Drosperinone	3 mg	21/**7**	2	11.3
EE	25	Norgestimate	180 mcg/215 mcg/250 mcg	7/7/7/**7**	1	11.0
EE	30	Levo/norgestrel[b]	150 mcg	21/**7**	7	7.1
EE	20	Drosperinone	3 mg	24/**4**	1	6.0
EE	35	Norgestimate	250 mcg	21/**7**	4	5.7
EE	20	Levonorgestrel	100 mcg	21/**7**	5	5.2
EE	30	Desogestrel	150 mcg	21/**7**	4	5.1
EE	20	Norethindrone acetate	1 mg	21/**7**	4	5.0
EE	30	Norethindrone acetate	1.5 mg	21/**7**	4	4.0
EE	35	Norethindrone	1 mg	21/**7**	8	3.8
EE	20	Desogestrel	150 mcg	21/**2**/5[c]	3	2.6
EE	30/40/30	Levonorgestrel	50 mcg/75 mcg/125 mcg	6/5/10/**7**	4	2.3
EE	30	Levonorgestrel	150 mcg	84/**7**	2	2.3
EE	35	Norethindrone	0.5 mg/0.75 mg/1 mg	7/7/7/**7**	3	2.2
EE	50	Ethynodiol diacetate	1 mg	21/**7**	2	1.2
EE	20/30/35	Norethindrone acetate	1 mg	5/7/9/**7**	1	1.0
EE	35	Norethindrone	400 mcg	21/**7**	2	0.7
EE	35	Ethynodiol diacetate	1 mg	21/**7**	3	0.7
EE	35	Norethindrone	500 mcg	21/**7**	2	0.5
EE	30	Levonorgestrel	150 mcg	84/7[d]	1	0.5
EE	50	Norgestrel	500 mcg	21/**7**	2	0.4
EE	25	Desogestrel	100 mcg/125 mcg/150 mcg	7/7/7/**7**	2	0.4
EE	35	Norethindrone	0.5 mg/1 mg	10/11/**7**	3	0.3
EE	UNK	Norethindrone	UNK	UNK	1	0.3
M	50	Norethindrone	1 mg	21/**7**	3	0.2
EE	20	Norethindrone acetate	1 mg	24/**4**	1	0.2
EE	50	Norethindrone	400 mcg	21/**7**	1	0.2
EE	UNK	Ethynodiol Diacetate	UNK	21/**7**	1	0.0005

EE, ethinyl estradiol; M, mestranol; UNK, unknown.

[a] Regimen is days of each combination of hormones; non-hormone pill days are in boldface.

[b] Levonorgestrel and norgestrel are identical. The dextro isomer is inactive and the levo isomer is active; thus, products with 300 mcg of norgestrel (example Lo-Ogestrel®) are identical to products with 150 mcg of levonorgestrel (example Nordette®).

[c] The last 5 days of this regimen contains EE 10 mcg.

[d] The last 7 days in this regimen contains EE 10 mcg and there are no hormone-free pills.

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delineation for these reasons. Most commonly, women are prescribed a COC and, when a therapeutic equivalent (generic) is available, receive whichever one is provided by that pharmacy. Going to a different pharmacy or even the same pharmacy for a refill can result in a different equivalent product being substituted. Thus, the product being used at the time of the survey from which Hall and Trussell obtained their data could have been a different equivalent product the month before. Additionally, some women may identify the "brand" product as their pill when they are actually using a therapeutic equivalent. Accordingly, the relevance of the "brand" of COC being used is not as telling as the hormones and the regimen. Only when no therapeutic equivalent is available does the brand truly represent the product's "market."

Table 1 is a reconfiguration of the authors' original Table 2 by regimen rather than by brand.

This revised table truly reflects the use of COC products during the study period. Additionally, there are three errors in Table 2 as presented by Hall and Trussell [1]. First, Azurette™ and Kariva® are listed with a day supply of 21/7. These products are therapeutic equivalents of Mircette® that was correctly listed as 21/2/5 (21 days of ethinyl estradiol and desogestrel, 2 days of placebo and 5 days of ethinyl estradiol). Second, all of the Junel products are listed with norethindrone as the progestin component; these products contain norethindrone acetate. Third, Mercilon® is not available in the United States. I corrected these errors when configuring the revised table.

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Reference

[1] Hall KS, Trussell J. Types of combined oral contraceptives used by US women. Contraception 2012;86:659–65.

Response to letter to the editor

To the Editor:

We would like to thank Dr. Creinin for his thoughtful letter to the editor and interesting interpretation of data from our recently published manuscript on types of combined oral contraceptives (COCs) used in the U.S. between 2006 and 2010 [1]. Our intention was to present a descriptive "snapshot" of what types of pills women reported or perceived that they were taking in the month before National Survey of Family Growth (NSFG) was administered. As Dr. Creinin pointed out, these reports could potentially bias toward "brand" name COCs, and potentially toward the more familiar, commonly used "brands" or newer and highly publicized "brands," rather than their therapeutic equivalents. Unfortunately, an examination of the role of the pharmaceutical and insurance industries and of medical and pharmacy provider practices in women's use of certain types of COCs was not possible with NSFG data. We fully agree with Dr. Creinin's comments regarding the confusion that women (and even providers) may experience in navigating among the multitude of COC "brands," therapeutic equivalents and hormonal formulations. Dr. Creinin's table is an interesting alternative presentation of the data and nicely supports the clinical issues he raises. We appreciate his letter and believe it is a valuable addition to our work and important contribution to the field.

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Reference

[1] Hall KS, Trussell J. Types of combined oral contraceptives used by US women. Contraception 2012;86:659–65.