RUTGERS
Robert Wood Johnson Medical School

Contraceptive Implant Training and Practices: A Multisite Survey of Family Medicine Residents in New Jersey

Tiana Acosta, BA[a]; Stephanie Mischell, MD[a]; Jeffrey Levine, MD, MPH[a] ; Ania Sliwowska, MD[a]; Jennifer Amico, MD, MPH[a];

[a]Department of Family Medicine and Community Health, Rutgers Robert Wood Johnson Medical School, New Brunswick, NJ

Background

- Family physicians can provide full spectrum family planning and in-office skin procedures.
- The etonogestrel contraceptive implant (Nexplanon®) is the most effective contraceptive, with high rates of continuation and satisfaction.
- Only 20% of family physicians provide intrauterine devices (IUDs) and 11% provide contraceptive implants.
- The factor most associated with long-acting reversible contraception (LARC) provision is LARC training in residency.
- Barriers to this implant training are not well documented.
- This study investigates Family Medicine resident's experiences with contraceptive implant and implementation, among residency programtrainings in New Jersey.

Methods

Study Design:
- mixed-method descriptive study
- online, self-administered survey of 65 direct and case-based questions through REDCap

Participants: residents and preceptors

Setting: 19 family medicine programs in New Jersey

Variables:
- practice and individual demographics
- knowledge and attitudes about long-acting reversible contraception (LARC)
- receipt of any LARC training(s)
- experiences and comfort with a range of office procedures

Data Analysis:
- Descriptive statistics (Chi-square, Fisher's exact)
- Identification of factors associated with improved knowledge of, attitudes about, and experience with contraceptive implants

Results (preliminary)

Table 1: Demographics

	Total n = 142 (%)	Residents n = 102 (71.83%)	Preceptors n = 40 (28.17%)	Range from each program
Female	87 (61.26%)	59 (57.84%)	28 (70%)	37.5%-83.33%
Has participated in IUD training workshop	56 (39%)	41 (40.19%)	15 (37.5%)	16.66%-71.42%
Has participated in contraceptive implant training workshop	67(47.18%)	43(30.28%)	24(16.90%)	10%-100%
Proportion of visits with reproductive age females*				
None	0	0	0	0
<25%	35 (25.65%)	25 (24.51%)	10(25%)	0%-66%
25-49%	57 (40.14%)	37(36.27%)	21(52.5%)	11.11%-80%
About 50%	35 (24.64%)	27(26.47%)	8 (20%)	20%-62.5%
51-75%	13(9.15%)	12(11.76%)	1(2.5%)	0%-21.43%
>75%	1(0.70%)	1(0.98%)	0	0%-10%
Proportion of visits that discuss family planning				
None	1(7.04%)	1(0.98%)	0 (0%)	0%-11.11%
<25%	62(60.78%)	50(49.01%)	12(30%)	0%-77.78%
25-49%	36(25.35%)	24(23.53%)	12(30%)	22.22%-50%
About 50%	12(8.45%)	9(8.82%)	3(7.5%)	11.11%-62.5%
51-75%	15(10.56%)	8(7.84%)	7(17.5%)	0%-30.75%
>75%	16(11.27%)	10(9.80%)	6(15%)	0%-21.43%

Table 2:Knowledge Questions, % Correct

	Total n = 146 (%)	Residents n = 107 (71.81%%)	Preceptors n = 39 (26.71%)	Range from each program
FDA duration Paragard	123(84.25%)	89(83.18%)	34(87.19%)	50%-100%
Evidence duration copper IUD	31(28.97%)	21(19.62%)	10(25.64%)	0%-50%
Contraindications copper IUD	87(81.31%)	62(57.94%)	25(64.10%)	50%-100%
All correct copper IUD, or copper IUD score	51(47.66%)	29(27.10%)	22(56.41%)	0%-66.66%
FDA duration Mirena	106(72.60%)	78(72.89%)	28(71.79%)	50%-100%
Evidence duration hormonal IUD	35(23.97%)	27(25.23%)	8(20.51%)	0%-100%
Contraindications hormonal IUD	81(55.50%)	57(53.27%)	24(61.54%)	0%-50%
All correct hormonal IUD, or hormonal IUD score	50(34.25%)	33(30.84%)	17(43.59%)	0%-75%
FDA duration Nexplanon	79(54.11%)	60(56.07%)	19(48.72%)	25%-100%
Evidence duration implant	22(6.71%)	14(13.08%)	8(20.51%)	0%-28.57%
Contraindications implant	81 (55.50%)	54(50.47%)	27(69.23%)	0%-87.5%
All correct implant, or implant score	35(23.97%)	21(19.63%)	14(35.90%)	0%-25%

Table 3: Comfrot with family planning provision—Rated Somewhat or Very Comfortable

	Total n = 140(%)	Residents n = 102(%)	Preceptors n = 38(%)	Range from each program
OCP prescription	113(80.71%)	84(83.33%)	29(76.32%)	50%-100%
Copper IUD counseling	99(69.72%)	74(72.5%)	25(65.79%)	50%-100%
Hormonal IUD counseling	104(74.29%)	77(75.5%)	27(71.05%)	33.33%-100%
Contraceptive implant counseling	85(60.71%)	70(68.63%)	15(39.47%)	22.22%-100%
Copper IUD insertion	42(30%)	26(25.5%)	16(42.11%)	20%-64.29%
Hormonal IUD insertion	58(41.43%)	33(32.35%)	25(65.79%)	0%-80%
Contraceptive implant insertion	45(32.14%)	24(23.53%)	21(2.6%)	0%-50%

Table 4: Experience with LARC procedures

	Total n = 142 (%)	Residents n = 102 (%)	Preceptors n = 40 (%)	Range from each program
Number of copper IUDs placed, median (range)	0 0(0-1.5)	0 (0-0)	2.5 (0 -20)	0-1
Number of hormonal IUDs placed, median (range)	1(0-5)	0(0-3)	15 (0-35)	0- 3.5
Number of implants placed, median (range)	0 (0-3)	0(0-1)	3(0-15)	0-4
Number of implants removed, median (range)	0 (0-2)	0(0-1)	3(0-10)	0-1.5

Conclusions (preliminary)

We anticipate that:
- contraceptive implant knowledge, attitudes and training will vary between programs, as well as between residents at the same program.
- receipt of contraceptive implant training during residency will have a positive impact on knowledge and comfort prescribing and providing LARC
- Comfort with other LARC procedures will be associated with implant comfort

Acknowledgements

This study is funded by the Merck Investigator Studies Program. Special thanks to our survey testers Dr. Cresandra Corbin & Dr. Kenya Cabrera.