

**TITLE:** Retrospective review; Outcomes from all couples with 3 or more recurrent miscarriages receiving treatment from NaPro Fertility Clinic, Ireland 2010.

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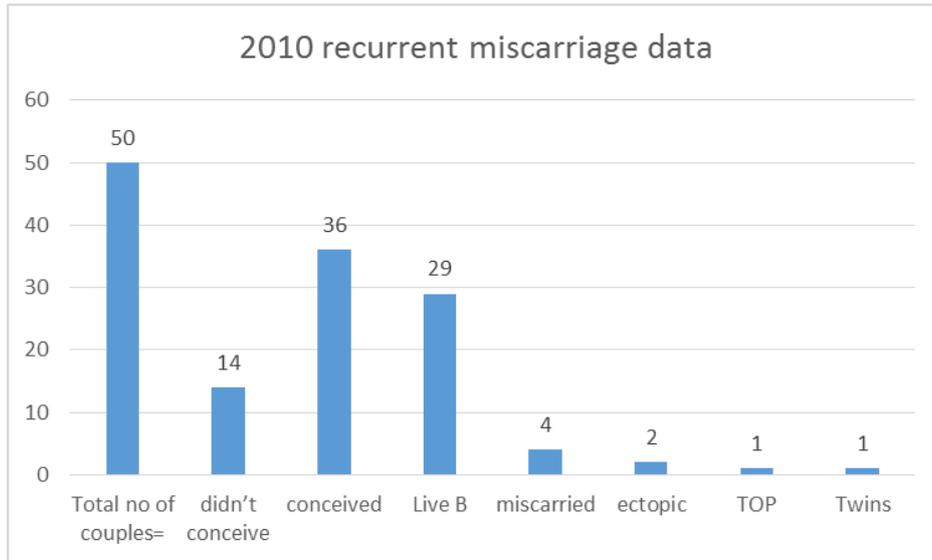
**BACKGROUND:** Couples presenting with 3 or more miscarriages fit the definition of recurrent miscarriage which affects 1% of those trying to conceive<sup>1</sup>. Our clinics based in Dublin and Galway use a multifactorial approach<sup>2</sup> with NaProTechnology<sup>3</sup> to evaluate and treat such couples. Currently we have up to 13 different interventions which we adjust as needed for each couple presenting for treatment. Investigations and treatment are guided by following the woman's signs of fertility recorded with the Creighton Model FertilityCare System (CrMS). Depending on the "working diagnoses" we apply a range of treatments including follicular stimulation with letrozole or clomiphene and luteal phase support with progesterone or HCG. Some of our treatments are based on clinical experience and have not been published or recognised as useful for miscarriage prevention. This paper analyses the outcomes from all couples who presented with 3 or more miscarriages in 2010.

**MATERIALS AND METHODS:** We conducted a retrospective review of all patients who presented for fertility treatment in 2010. Data were extracted from a database of records maintained in our clinic, developed for the purpose of recording outcomes of treatment with NaPro Fertility Care. The principle investigator verified the accuracy of data collection prior to analysis. 355 couples with subfertility attended for 2 or more consultations during 2010. 50(14%) had a history of 3 or more miscarriages. 14 (28%) did not conceive with our treatment – 7 of these had discontinued prematurely after just 2 medical consultations. Our calculations were based on the remaining 36 (72%) of couples who conceived with treatment. The primary outcome measured was live birth or miscarriage per couple. Additional information regarding multiple pregnancy, gestational age and birth weight at delivery were recorded.

**RESULTS:** The group of 36 couples previously had 128 miscarriages in total. The average number of miscarriages was 3.6 per couple with a range of 3-6 previous pregnancy losses. 15 (42%) of the women were nulliparous and never had a previous live birth. The average female age starting treatment was 37.5 years, range 32-43yrs. There were 29 (29/36 = 80.6%) successful pregnancies, 4 (11.1%) miscarriages, 2 (5.6%) ectopic pregnancies and one (2.8%) termination. Furthermore, the average gestation was 38.5 weeks and average birthweight was 7lbs 7oz (2.810 kg). No baby was born prior to 35 weeks. There was only 1 (2.8%) twin pregnancy.

**DISCUSSION:** The expected rate of miscarriage for females with more than 3 previous miscarriages and an average age of 37.5 years would be above 30% for parous women and 40% for nulliparous<sup>4</sup>. Considering the age and history of couples we treated during 2010, a total miscarriage and ectopic rate of 16.7% per couple is encouraging. In our experience, infertility, recurrent miscarriage, ectopic pregnancy, low birth weight and premature delivery are all part of a continuum influenced by multiple factors which contribute to adverse pregnancy outcomes. If the factors contributing to poor health and illness of the couple are accurately identified and treated with a multifactorial treatment strategy, it seems that pregnancy outcomes can be improved, even for women of advanced reproductive age.

**CONCLUSIONS:** Women with recurrent miscarriage appear to have better than expected outcomes following a multifactorial treatment approach used with NaPro Fertility Care. The numbers in this study are small and larger studies will need to be conducted to verify these findings.

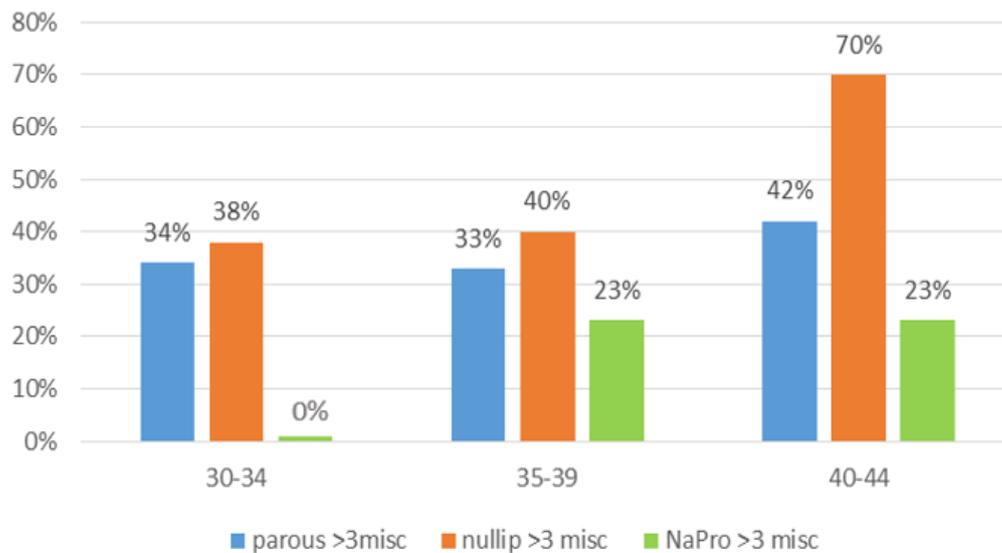


**PROFILE**

36 couples with 128 miscarriages  
 Average 3.6 miscarriages each  
 Range 3-6 miscarriages  
 Female age, average 37.4 yrs  
 Female age, range 32-43 yrs  
 15/36 (42%) no previous live birth - Nulligravida

Column1	Live Births	Miscarriage	Ectopic	Termination	Twins
number	29	4	2	1	1
percentage	80.6	11.1	5.6	2.8	2.8

### Miscarriage rate with >3 previous misc



## **References**

1. RCOG [guidelines for recurrent miscarriage](#) – April 2011 0%
2. 'NaProTechnology – A **Multifactorial approach** to chronic infertility. Boyle P. Stanford JB. [Health Sciences Volume 21, Number 3\(75\) \(2011\)](#)
3. Outcomes from [treatment with Natural Procreative Technology](#) , Stanford JB, Parnell T, Boyle P J Am Board Fam Med September-October 2008 vol. 21 no. 5 375-384
4. **Maternal age and fetal loss: population based register linkage study** *BMJ* 2000; 320 doi: <http://dx.doi.org/10.1136/bmj.320.7251.1708> (Published 24 June 2000) *BMJ* 2000;320:1708