

## Infertility Care among Men and Women with Inflammatory Bowel Diseases in the CCFA Partners Cohort

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### **Background/Aims:**

In the United States, 12% of women and 8% of men seek infertility services. Of those who seek medical assistance, 65% of women ultimately give birth. Rates of infertility care are not available for patients with specific chronic conditions, such as inflammatory bowel diseases (IBD). Aims: We aimed 1) to determine the frequency of seeking infertility care among a population of women and men with IBD enrolled in an internet based cohort, 2) to describe predictors of seeking infertility care and 3) to describe infertility testing and live birth /pregnancy outcomes for women and men in this IBD cohort.

**Methods:** We performed a cross-sectional study on infertility in CCFA Partners, a longitudinal internet based cohort of patients living with IBD. We included men and women who had been diagnosed with IBD at <40 years of age. Participants completed questions based on the National Survey of Family Growth, assessing infertility service utilization and pregnancy/ birth outcomes. We used descriptive statistics to compare risk factors for seeking infertility care and to describe differences in types of infertility testing, stratified by disease type, (Crohn's disease (CD) versus ulcerative colitis (UC)), for women and men.

**Results:** A total of 2220 women and 1056 men age  $\leq$  40 at IBD diagnosis completed the survey. Women had a mean age at IBD diagnosis of 24.1 (SD 7.9), 33.1% had ever smoked, 19.5% had GI surgery. A total of 12.5% of women sought infertility care (14.1% for CD and 9.5% for UC), at a mean age of 30.6 (SD 5.1) years. Factors associated with seeking infertility care included history of GI surgery (26.1% vs. 8.5%,  $p=0.003$  and older age at the time of survey (43.4 vs. 39.0,  $p<0.001$ ). Of those for whom an etiology of infertility was found, the most common was blocked fallopian tubes for CD (35.1%) and polycystic ovarian syndrome for UC (29.7%). Of those women who sought infertility care ( $n=206$ ), 57.8% took hormones to aid in achieving pregnancy and overall 79.1% had a live birth. Among included men, the mean age was 23.4 (SD 8.1) at IBD diagnosis, 25.4% reported GI surgery, and a total of 8.7% sought infertility care at a mean age of 31.9 (SD 8.4) years. Only increased age was associated with seeking infertility care ( $p=0.03$ ). The most common etiology of infertility was a problem related to their female partner (49.1%); 78.3% of men who sought infertility assessment had a partner who achieved pregnancy.

**Conclusions:** Contrary to expectation, men and women in the CCFA Partners IBD cohort seek infertility care at about the same rate as the general population. Among women, surgery for CD is associated with seeking infertility care. As in the general population, advanced age is associated with seeking infertility care for both men and women. Live birth and pregnancy outcomes for women and men respectively were similar to the general population.