**Web Appendix 2.** Descriptions of sensitivity analyses.

We conducted eight sensitivity analyses in which we varied the outcome definition to require:

1) two pelvic-pain diagnoses (no prescription requirement),

2) two opioid prescription fills (no diagnosis requirement),

3) two instances of a pelvic pain diagnosis occurring within a week before an opioid prescription fill,

4) two pelvic pain diagnoses and a cumulative 30 days supply of opioids,

5) one pelvic-pain diagnosis and a cumulative 30 days supply of opioids,

6) one inpatient or ED pelvic-pain diagnosis,

7) one inpatient or ED pelvic-pain diagnosis and two opioid prescription fills, and

8) diagnosis codes for abdominal pain or dysmenorrhea only (ICD-9: 625.3 and 789.0x),

We conducted nine additional sensitivity analyses in which we:

9) reduced the perioperative period for procedure-related opioids to seven days after sterilization thus counting toward the outcome opioid prescriptions between eight and 14 days after the sterilization procedure,

10) reduced the perioperative period for procedure-related opioids to only include opioids before sterilization, thus counting toward the outcome opioid prescriptions between 0 and 14 days after the sterilization procedure,

11) eliminated the perioperative period for procedure-related pain diagnoses,

12) excluded all patients with opioid fills before sterilization (even during the perioperative period),

13) included a term for region-of-service in propensity score models,

14) required 12 months of continuous enrollment prior to sterilization (instead of six) to assess of eligibility criteria and baseline covariates,

15) required six months of continuous enrollment prior to sterilization but allowed up to five years (whenever available) of pre-exposure covariate information (henceforth, look-back) to assess eligibility criteria and baseline covariates,

16) restricted the cohort to years where only the Essure® device was on the market (i.e. 2005-2008), thereby excluding data during the period when both Essure® and Adiana® (Hologic, Bedford, MA) were on the market (2009-2012), and

17) allowed up to five years of look-back and required a 30-day supply of opioids for the prescription component of the opioid-managed pelvic pain outcome (combining SA 4 and SA 15).