

Appendix 1. Current Procedure Terminology Codes, International Classification of Diseases (ICD), 9th Revision, Clinical Modification, and ICD, 10th Revision, Clinical Modification Codes Used in Defining Study Sample and Variables

Procedures/Conditions	Codes
CPT procedure codes	
Hysterectomy	
Total abdominal hysterectomy	58150, 58152
Abdominal supracervical hysterectomy	58180
Vaginal hysterectomy	58260, 58262, 58263, 58267, 58270, 58290, 58291, 58292, 58293, 58294
Total laparoscopic or laparoscopic-assisted vaginal hysterectomy	58550, 58552, 58553, 58554, 58570, 58571, 58572, 58573
Laparoscopic supracervical hysterectomy	58541, 58542, 58543, 58544
Radical hysterectomy or other hysterectomy related to malignancy	58200, 58210, 58240, 58275, 58280, 58285, 58548, 58951, 58953, 58954, 58956
Pregnancy related hysterectomy	59135, 59525
Myomectomy	
Abdominal myomectomy	58140, 58146
Laparoscopic myomectomy	58545, 58546
Vaginal myomectomy	58145
Procedure that might indicate diagnosis or treatment of gynecologic or other cancers ^a	11100, 11602, 11620, 11621, 11970, 11971, 14301, 15271, 15272, 15734, 19125, 19285, 19301, 19302, 19303, 19304, 19305, 19306, 19307, 19316, 19318, 19325, 19330, 19342, 19350, 19357, 19364, 19366, 19370, 19380, 20926, 22903, 27047, 32553, 36571, 36582, 36590, 38500, 38505, 38525, 38562, 38564, 38570-38572, 38589, 38700, 38740, 38747, 38760, 38765, 38770, 38780, 38790, 38792, 38900, 39599, 43605, 44139, 44620, 44625, 44626, 45126, 45160, 46922, 47000, 47100, 47120, 47379, 47561, 49082, 49084, 49203-49205, 49220, 49255, 49320-49321, 49422, 50220, 50389, 51595, 51597, 52204, 52224, 52234, 52235, 52354, 53200, 56605, 56606, 56620, 56625, 56630-56634, 56637, 56640, 57061, 57065, 57100, 57105, 57106, 57107, 57109, 57110-57112, 57135, 57155, 57156, 57420, 57460, 57500, 57520, 57522, 57531, 58100, 58110, 58120, 58558, 58900, 58943, 58950, 58952, 58956-58958, 58960, 60220, 62362, 75805, 76942, 88104, 88141, 88331

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Other pregnancy related procedures	59000-59899 (other than 59135, 59525)
ICD-9-CM diagnosis codes	
Pregnancy related condition	630.x-679.x, V22.x, V23.x, V27.x, V28.x
Cancer of corpus uteri	179, 182.x,
Cancer of cervix uteri	180.x
Cancer of ovary	183.0
Personal history of gynecologic cancer	V104.0-V104.x
ICD-10-CM diagnosis codes	
Pregnancy related condition	O00.x-O99.x, O9A.x, Z32.x, Z33.x, Z34.x, Z36.x, Z3A.x, Z37.x
Cancer of corpus uteri	C54.x, C55
Cancer of cervix uteri	C53.x
Cancer of ovary	C56.x
Personal history of gynecologic cancer	Z85.40-Z85.44, Z86.001

^a. This was not an exhaustive list of all possible CPT codes for diagnostic or treatment procedure of cancer related conditions. They were limited to our review of CPT codes that appeared in our study sample.

Appendix 2. Determination About Presence of Corpus Uteri, Cervical, and Ovarian Cancer Based on Data Elements From the American College Of Surgeons National Surgical Quality Improvement Program Participant Use Data File

ACS NSQIP variables		Number of observations affected	Determination about presence of corpus uteri, cervical or ovarian cancer
Single variable reporting presence of gynecologic cancer based on pathology report	Three individual variables reporting International Federation of Gynecology and Obstetrics stage for corpus uteri, cervical and ovarian cancer, respectively		
Yes	Three valid cancer stages	N=1	Determined which cancer was present based on the stage variables. No assumptions made.
Yes	One or two of the cancers had a valid stage, and the other one(s) were NA (i.e., not a cancer case)	N=408	
Yes	One NOS and the other two cancers were NA (i.e., not a cancer case)	N=85	
Yes	One valid cancer stage, one NOS, and one NA (i.e., not a cancer case)	N=6	Determined which cancer was present based on the stage variables, but assumed the one(s) with stage NOS were not cancer cases.
Yes	Two valid stages and the other one was NOS	N=2	
Yes	One valid stage and the other two were NOS	N=4	Determined which cancer was present based on the stage variables, but assumed the one with stage 0 was not a cancer case. Deferred to postoperative diagnosis code ^b to decide which of the three cancers was indeed present and use NOS as its stage. Assumed the other two cancers were not present. If postoperative diagnosis code did not reflect a cancer diagnosis (e.g., uterine leiomyoma, endometriosis),
Yes	Two cancers had valid stages and the other one had stage 0 ^a	N=1	
Yes	One valid cancer stage, one stage 0, ^a and one NA (i.e., not a cancer case)	N=3	
Yes	One stage 0 ^a and the other two were NA (i.e., not a cancer case)	N=41	
Yes	One stage 0, ^a one NOS, and one NA (i.e., not a cancer case)	N=1	
Yes	Two NOS and the other cancer was NA (i.e., not a cancer case)	N=1	
Yes	All three stages were NOS	N=2	
Yes	All three stages were NA (i.e., not a cancer case)	N=27	

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			we assumed none of the three cancers was present.
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NOS = not otherwise specified.

^a. The ACS NSQIP data used the International Federation of Gynecology and Obstetrics system for staging corpus uteri, cervical and ovarian cancer, which does not include stage 0. But some observations reported stage = 0 for cancer of corpus uteri and cervix uteri.

^b. The ACS NSQIP data included one International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) or International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) diagnosis code reflecting the diagnosis in brief operative note, operative report, and/or pathology reports. Since only one diagnosis code was available, there was a chance that we might miss potential additional cancers. However, the likelihood of a person having more than one primary gynecologic cancer was low.

Appendix 3. Sample selection flow diagram.

