

Appendix 1. Procedure and Diagnostic Codes Used to Identify Prior Procedures

Procedure	ACHI (8 th edition) procedure code	ACHI (8 th edition) procedure names	ICD-10-AM diagnosis code	ICD-10-AM diagnosis name
Gynecological laparoscopy				
	35638-00	Laparoscopic wedge resection of ovary		
	35638-01	Laparoscopic partial oophorectomy		
	35638-02	Laparoscopic oophorectomy, unilateral		
	35638-03	Laparoscopic oophorectomy, bilateral		
	35638-04	Laparoscopic ovarian cystectomy, unilateral		
	35638-05	Laparoscopic ovarian cystectomy, bilateral		
	35638-06	Laparoscopic salpingotomy		
	35638-07	Laparoscopic partial salpingectomy, unilateral		
	35638-08	Laparoscopic partial salpingectomy, bilateral		
	35638-09	Laparoscopic salpingectomy, unilateral		
	35638-10	Laparoscopic salpingectomy, bilateral		
	35638-11	Laparoscopic salpingo-oophorectomy, unilateral		
	35638-12	Laparoscopic salpingo-oophorectomy, bilateral		
	35638-14	Laparoscopic uterosacral nerve ablation		
	35637-02	Laparoscopic diathermy of lesion of pelvic cavity		
	35637-04	Laparoscopic ventrosuspension		
	35637-07	Laparoscopic rupture of ovarian cyst or abscess		
	35637-08	Laparoscopic ovarian drilling		
	35637-10	Laparoscopic excision of lesion of pelvic cavity		
	35729-00	Laparoscopic transposition of ovary		
	90430-00	Laparoscopic repair of ovary		
	90433-00	Other laparoscopic repair of fallopian tube		
	35694-00	Laparoscopic salpingoplasty		
	35694-01	Laparoscopic anastomosis of fallopian tube		
	35694-02	Laparoscopic salpingolysis		
	35694-03	Laparoscopic salpingostomy		
	35694-06	Laparoscopic salpingotomy		
	35649-01*	Myomectomy of uterus via laparoscopy		
Hysteroscopy, including operative hysteroscopy				
	35630-00	Diagnostic hysteroscopy		
	35649-00	Hysterotomy		
	35633-00	Division of uterine adhesions		
	35634-00	Division of uterine septum via hysteroscopy		
	35649-02	Division of uterine septum via hysterotomy		
	35633-01	Polypectomy of uterus via hysteroscopy		
	35623-00	Myomectomy of uterus via hysteroscopy		

Baldwin HJ, Patterson JA, Nippita TA, Torvaldsen S, Ibiebele I, Simpson JM, et al. Antecedents of abnormally invasive placenta in primiparous women: the risk from gynecologic procedures. *Obstet Gynecol* 2018; 131.

The authors provided this information as a supplement to their article.

©2018 American College of Obstetricians and Gynecologists.

35649-03	Myomectomy of uterus		
90452-00	Excision of other lesion of uterus		
Curettage, including suction curettage and surgical termination			
35640-00	Dilation and curettage of uterus	O08.6	Surgical termination of pregnancy
35640-01	Curettage of uterus without dilation		
35640-03	Suction curettage of uterus		
35643-03	Dilation and evacuation of uterus		
16564-00	Postpartum evacuation of uterus by dilation and curettage		
16564-01	Postpartum evacuation of uterus by suction curettage		
35620-00	Biopsy of endometrium		
Endometrial ablation			
35622-00	Endometrial ablation		
Assisted reproductive technology			
13209-00	Planning and management for assisted reproductive technologies		
13206-00	Assisted reproductive technologies to induce oocyte growth and development		
13200-00	Assisted reproductive technologies to induce superovulation		
13203-00	Ovulation monitoring services for artificial insemination		
13212-00	Transabdominal oocyte retrieval		
13215-00	Gamete intrafallopian transfer		
13215-01	Embryo transfer to uterus		

* Note that '35649-01', laparoscopy myomectomy, was counted only once, in the laparoscopy group, while other types of myomectomy were included in the hysteroscopy group.

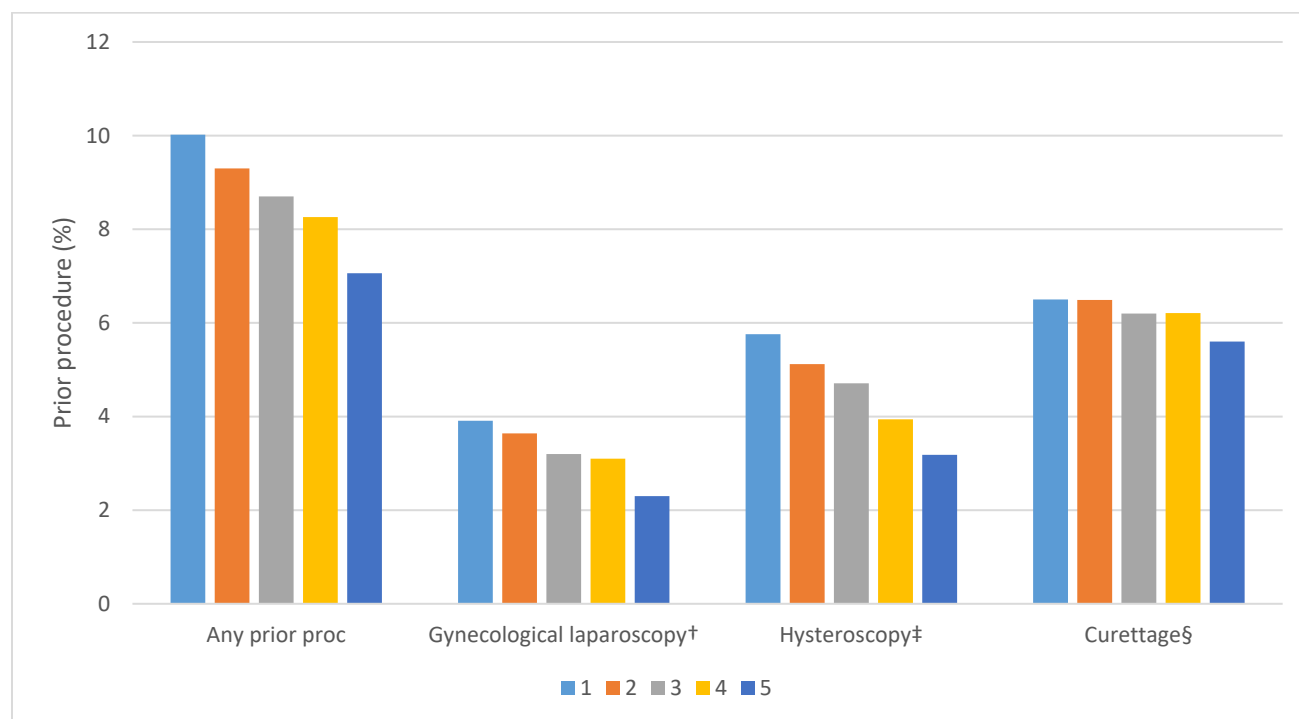
Appendix 2. Distribution of Missing Data by Variable (N = 380,775)

Variable	Number of missing records	%
Maternal age	75	0.02
Socioeconomic status	2472	0.65
Australian born	1496	0.39
Prior invasive procedures	NA*	—
ART in the year prior to pregnancy	NA*	—

*Because of the nature of using linked data to detect prior procedures in previous hospital records, there are no known missing data (an absence of a relevant record = no recorded procedure)

ART = assisted reproductive technology

Appendix 3. Percentage of women who had at least one prior procedure, by socioeconomic status quintile (1 indicates least disadvantaged, 5 indicates most disadvantaged). [†]With instrumentation of uterus; [‡]including operative hysteroscopy; [§]including suction curettage and surgical termination.



Baldwin HJ, Patterson JA, Nippita TA, Torvaldsen S, Ibiebele I, Simpson JM, et al. Antecedents of abnormally invasive placenta in primiparous women: the risk from gynecologic procedures. *Obstet Gynecol* 2018; 131.

The authors provided this information as a supplement to their article.

©2018 American College of Obstetricians and Gynecologists.

Appendix 4. Sensitivity Analysis: Factors Associated With Abnormally Invasive Placenta Diagnosis and a Cesarean Delivery, NSW 2003-2012

Factor	Multivariable Relative Risk	Model 99% CI	<i>p</i>-value
Prior procedures			<0.001
0	Reference		
1	1.6	(1.0–2.6)	
2	4.5	(2.3–8.8)	
≥3	12.7	(6.2–26.1)	
Maternal age (years)			<0.001
<20	0.3	(0.1–1.2)	
20-34	Reference		
≥35	3.2	(2.2–4.4)	
Socioeconomic status quintiles			<0.001
1 Least disadvantaged	Reference		
2	1.2	(0.8–1.8)	
3	1.0	(0.7–1.7)	
4	0.6	(0.4–1.1)	
5 Most disadvantaged	0.6	(0.3–1.1)	
Australian-born	1.4	(1.0–2.0)	0.03

CI, confidence interval

The final adjusted model included all factors in this table. There were 259 mothers with an abnormally invasive placenta diagnosis and cesarean delivery, compared with 278,044. C-statistic = 0.60.

Baldwin HJ, Patterson JA, Nippita TA, Torvaldsen S, Ibiebele I, Simpson JM, et al. Antecedents of abnormally invasive placenta in primiparous women: the risk from gynecologic procedures. *Obstet Gynecol* 2018; 131.

The authors provided this information as a supplement to their article.

©2018 American College of Obstetricians and Gynecologists.

Appendix 5. Sensitivity Analysis: Factors Associated With Abnormally Invasive Placenta Diagnosis, Excluding Women With Placenta Previa, NSW 2003-2012

Factor	Multivariable Relative Risk	99% CI	<i>p</i>-value
Prior procedures			<0.001
0			
1	1.4	(1.1-1.9)	
2	2.7	(1.7-4.5)	
≥3	4.1	(1.9-8.6)	
Maternal age (years)			<0.001
<20	0.5	0.3-0.8	
20-34	Reference		
≥35	2.0	1.6-2.5	
Socioeconomic status quintiles			<0.001
1 Least disadvantaged	Reference		
2	1.0	(0.7—1.2)	
3	0.8	(0.6—1.0)	
4	0.8	(0.6—1.0)	
5 Most disadvantaged	0.5	(0.4—0.8)	
Australian born	1.5	(1.2—1.9)	<0.001

CI, confidence interval

The final adjusted model included all factors in this table. There were 797 women with abnormally invasive placenta and 375,655 women without abnormally invasive placenta included in this analysis. C-statistic = 0.61.

Baldwin HJ, Patterson JA, Nippita TA, Torvaldsen S, Ibiebele I, Simpson JM, et al. Antecedents of abnormally invasive placenta in primiparous women: the risk from gynecologic procedures. *Obstet Gynecol* 2018; 131.

The authors provided this information as a supplement to their article.

©2018 American College of Obstetricians and Gynecologists.