

Supplementary Online Content

Clarke MA, Long BJ, Del Mar Morillo A, Arbyn M, Bakkum-Gamez JN, Wentzensen N. Association of endometrial cancer risk with postmenopausal bleeding in women: a systematic review and meta-analysis. *JAMA Intern Med.* Published online August 6, 2018. doi:10.1001/jamainternmed.2018.2820

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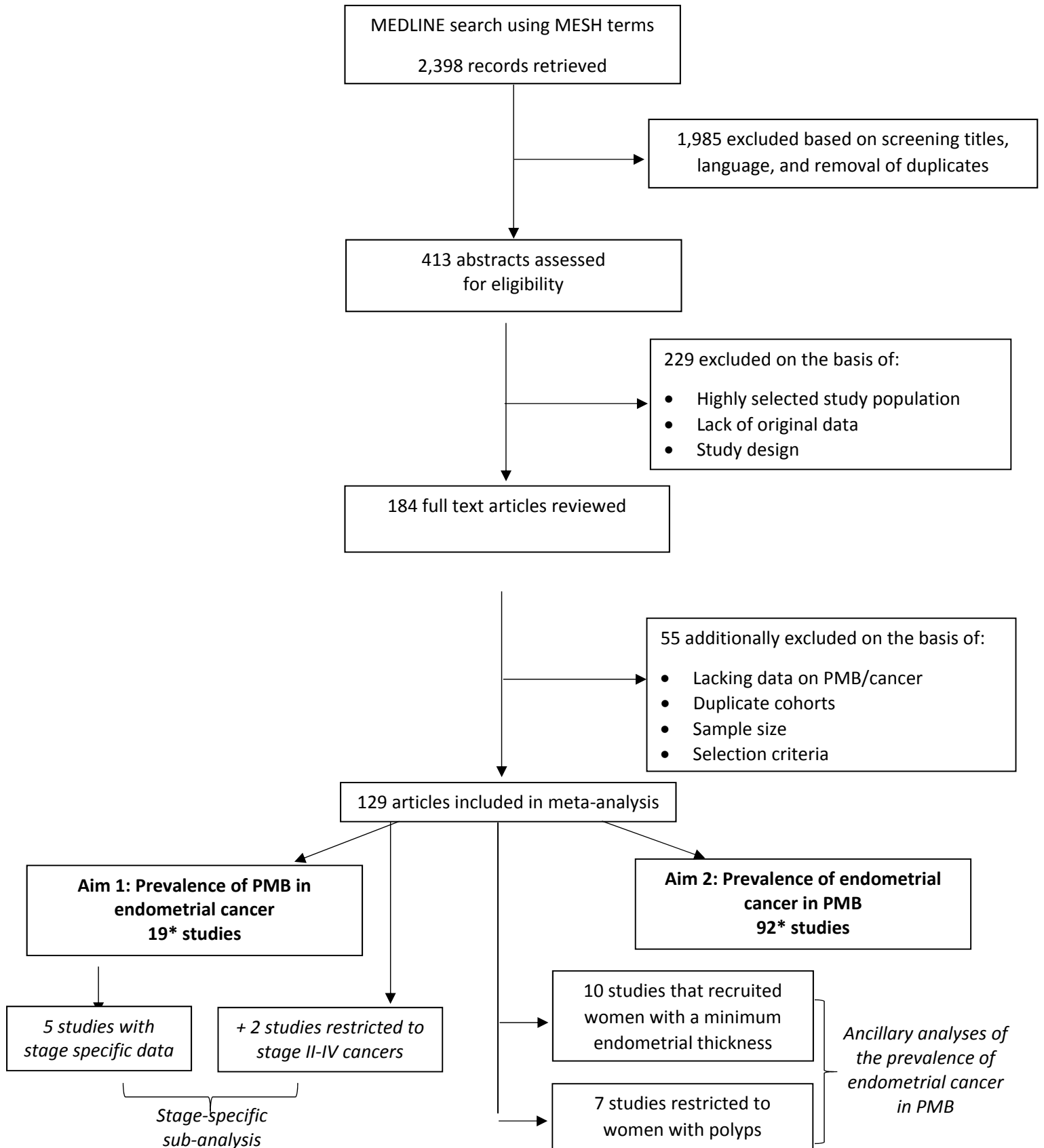
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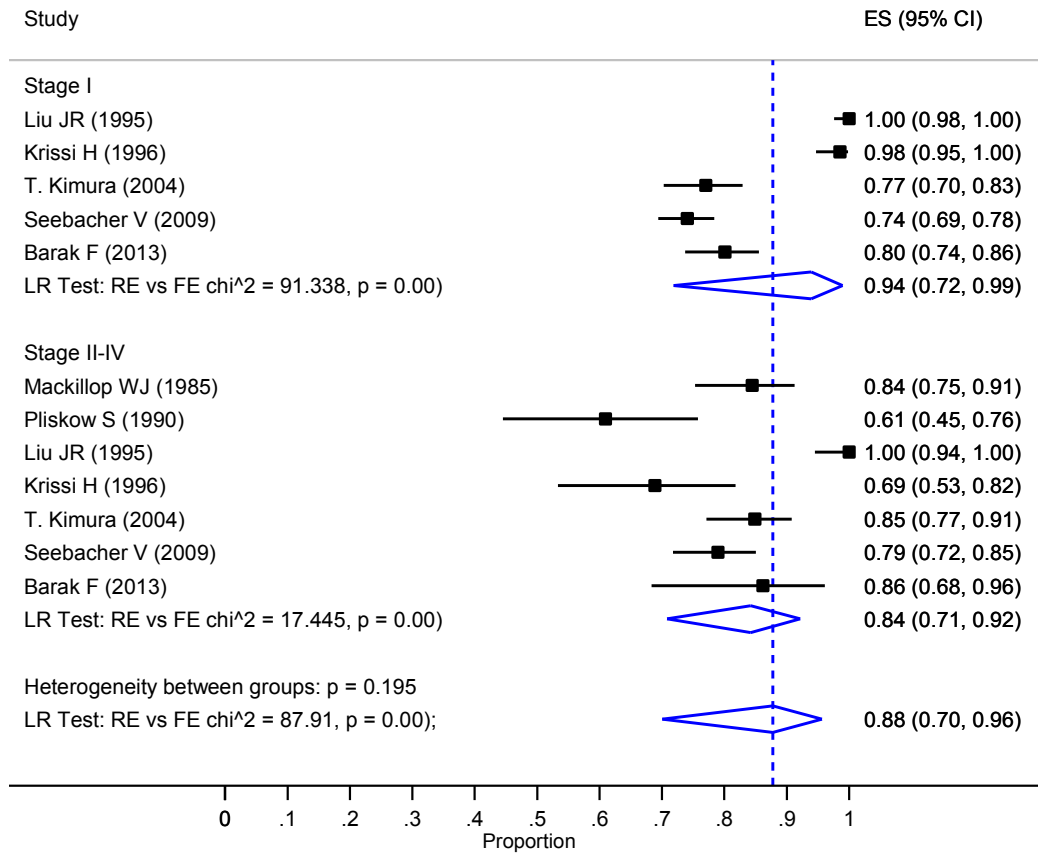
This supplementary material has been provided by the authors to give readers additional information about their work.

eFigure 1. PRISMA Flow

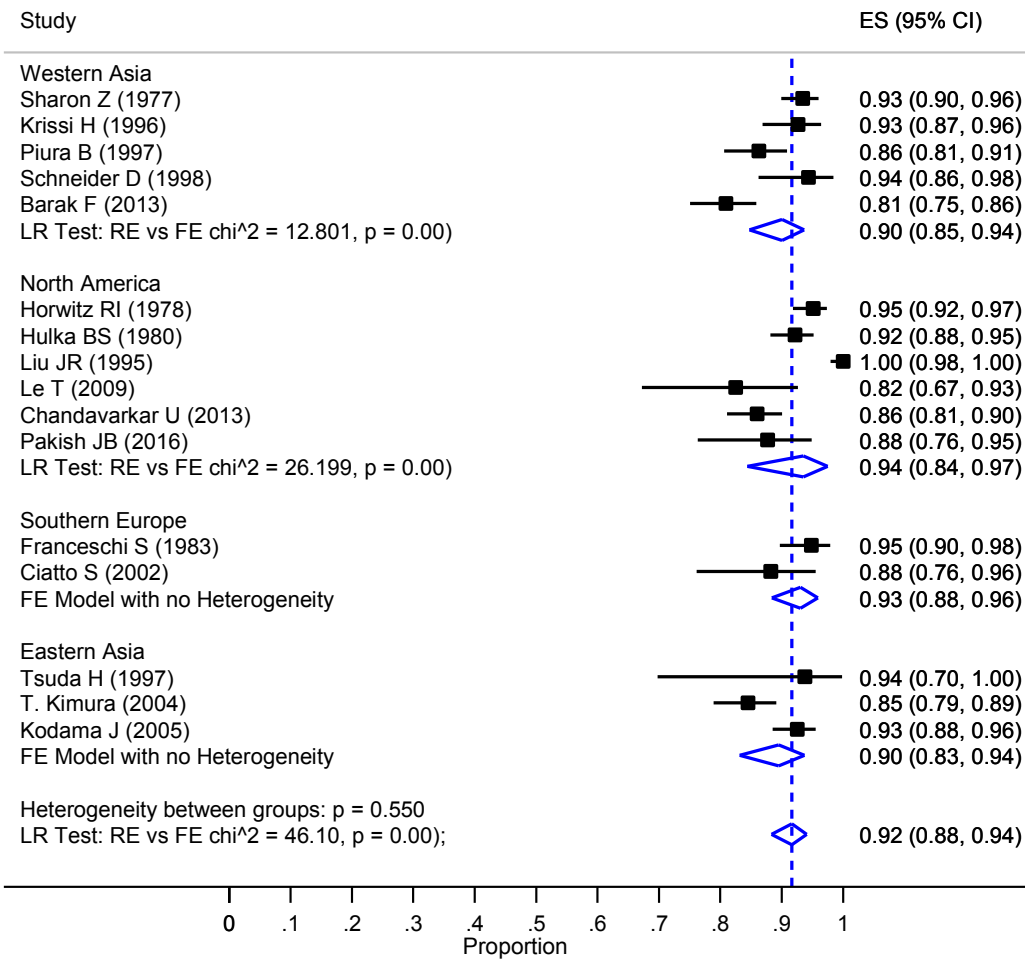
Diagram



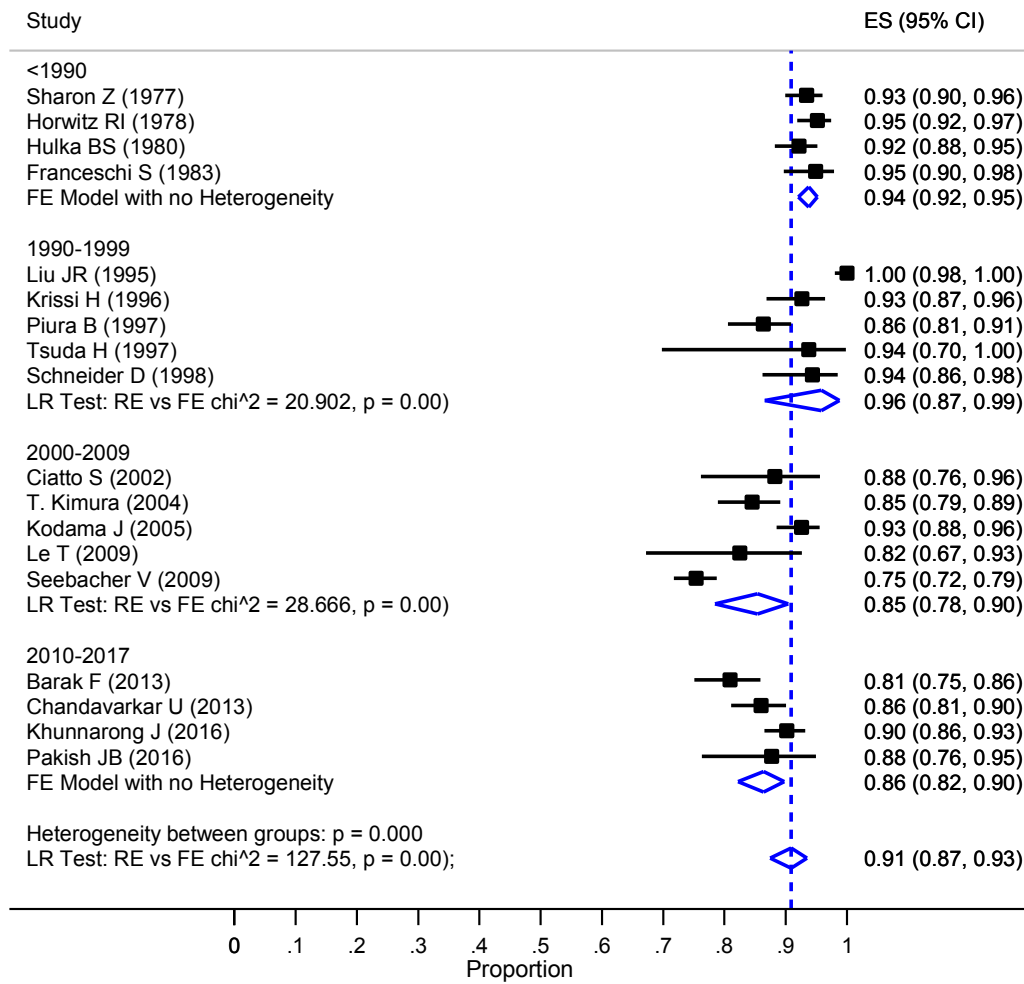
eFigure 2. Prevalence of PMB in Women With Stage I vs Stages II-IV Endometrial Cancers
 *One study included in both aims.



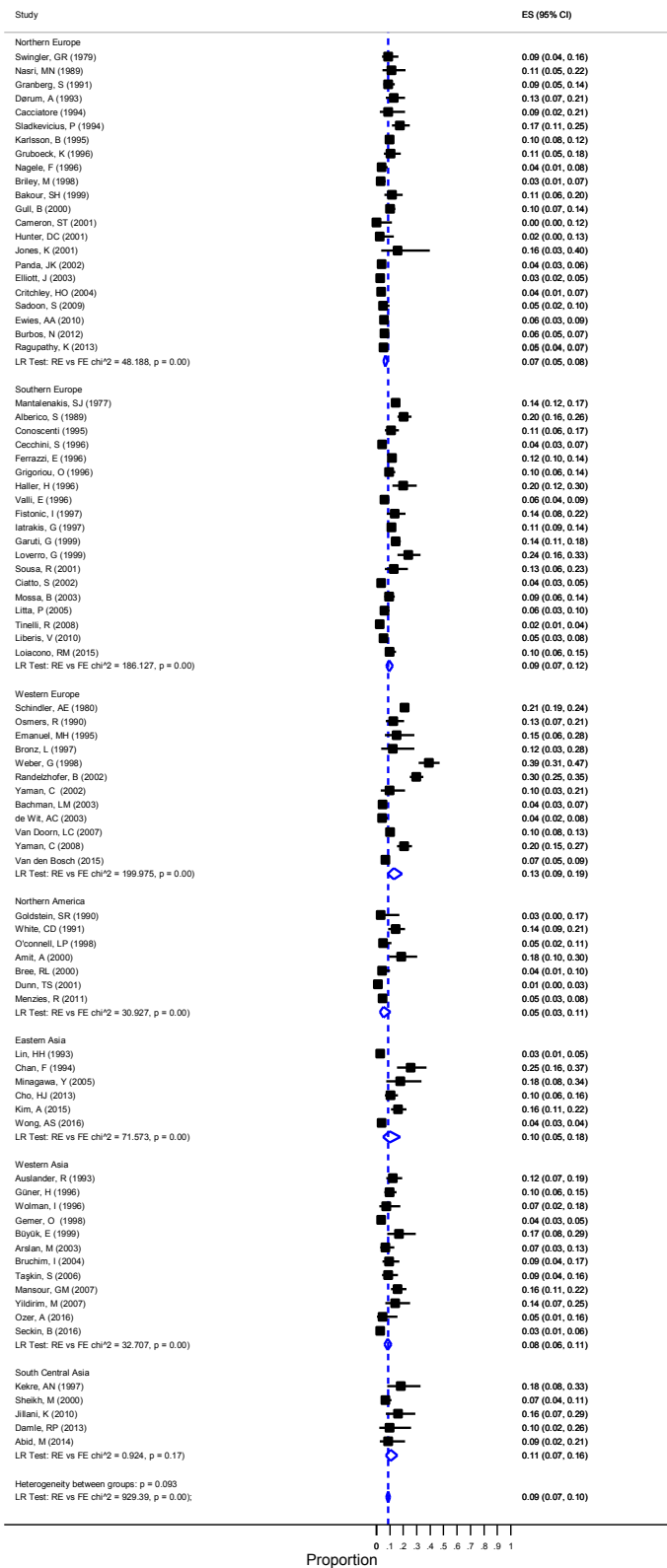
eFigure 3. Prevalence of PMB in Women With Endometrial Cancer, Stratified by Geographic Region



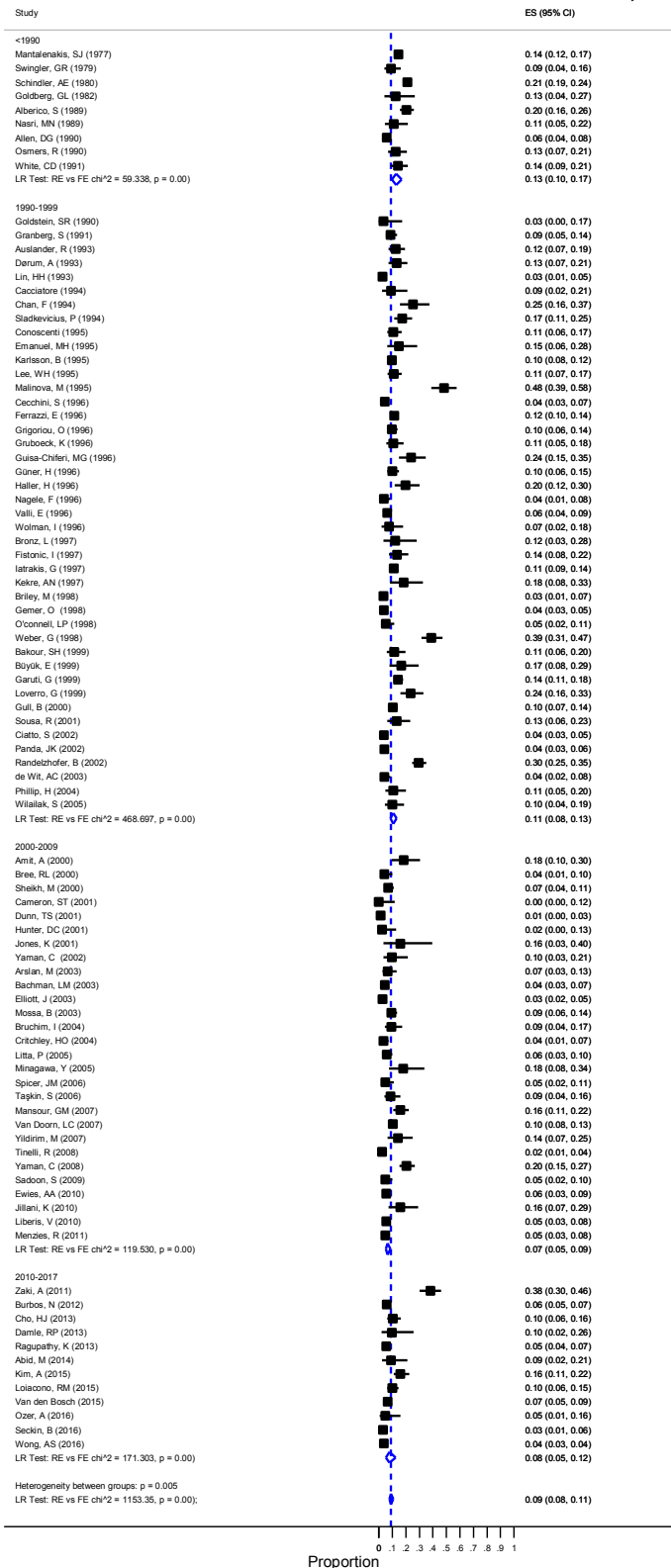
eFigure 4. Prevalence of PMB in Women With Endometrial Cancer by Study Enrollment Period



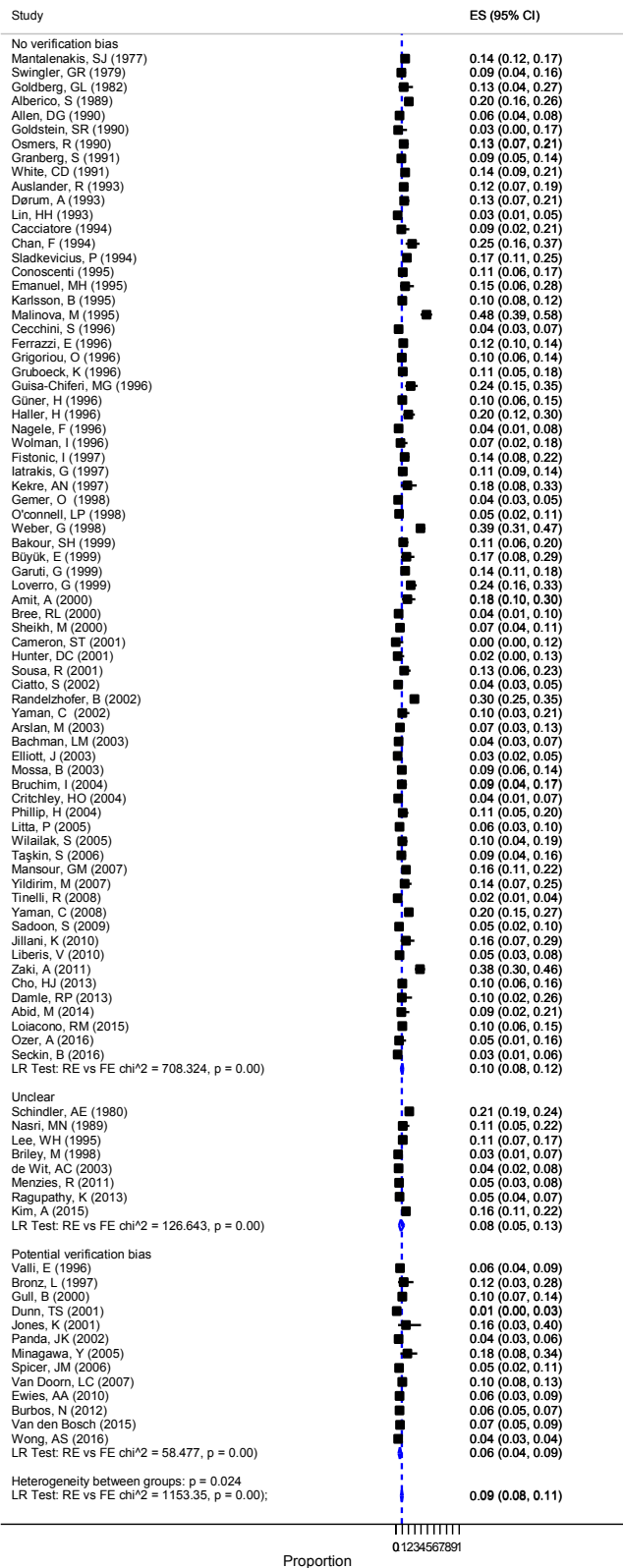
eFigure 5. Risk of Endometrial Cancer in Women With PMB by Geographic Region



eFigure 6. Risk of Endometrial Cancer in Women With PMB, Stratified by Study Enrollment Period



eFigure 7. Risk of Endometrial Cancer in Women With PMB by Potential for Study Verification Bias



eMethods. Study Retrieval and Evaluation and Data Analysis

Aims:

1. Evaluate the prevalence of postmenopausal bleeding in endometrial cancer (i.e., the sensitivity of postmenopausal bleeding for endometrial cancer detection)
2. Evaluate the risk of endometrial cancer in women with postmenopausal bleeding (i.e., the positive predictive value of postmenopausal bleeding for detection of endometrial cancer)
 - a. Secondary analyses:
 - i. Evaluate the risk of endometrial cancer in women with postmenopausal bleeding in studies that excluded women below a minimum endometrial thickness (n=10)
 - ii. Evaluate the risk of endometrial cancer in women with postmenopausal bleeding in studies restricted to women with endometrial polyps (n=7)

Methods:

1. Criteria for Considering Studies
 - a. Types
 - i. Aim 1:
 1. Cross-sectional, case-series studies evaluating the prevalence of postmenopausal bleeding in women with endometrial cancer
 2. Retrospective chart review of endometrial cancer cases
 3. Case-control studies evaluating the prevalence of postmenopausal bleeding
 - ii. Aim 2:
 1. Cross-sectional studies evaluating the prevalence of endometrial cancer in women with postmenopausal bleeding
 2. Retrospective or prospective cohort studies evaluating the risk of endometrial cancer in women with postmenopausal bleeding
 - b. Participants
 - i. Aim 1: Postmenopausal women with endometrial cancer
 - ii. Aim 2: Postmenopausal women with abnormal uterine bleeding
 - c. Outcomes
 - i. Aim 1: Postmenopausal bleeding based on the medical record, patient or clinician report
 - ii. Aim 2: Histologically confirmed diagnosis of endometrial cancer
2. Electronic Searches
 - a. Databases: PubMed and Embase
 - b. Search strategy:
 - i. Endometrial Cancer
 1. Index terms: Endometrial Neoplasms[Mesh] 'endometrium cancer'/exp Emtree 'endometrium cancer'/exp/dm_et

2. Synonyms: Endometrial Neoplasm, Endometrial Carcinoma(s), Endometrial Cancer(s), Endometrium Cancer, Cancer of the Endometrium, Carcinoma of Endometrium, Endometrium Carcinoma(s), Endometrial Adenocarcinoma
 3. Endometrial Cancer search query: Endometrial Neoplasms[Mesh] OR "Endometrial Neoplasm"[tiab] OR "Endometrial Carcinoma"[tiab] OR "Endometrial Carcinomas"[tiab] OR "Endometrial Cancer"[tiab] OR "Endometrial Cancers"[tiab] OR "Endometrium Cancer"[tiab] OR "Cancer of the Endometrium"[tiab] OR "Carcinoma of Endometrium"[tiab] OR "Endometrium Carcinoma"[tiab] OR "Endometrium Carcinomas"[tiab] OR "Endometrial Adenocarcinoma"[tiab] OR "Endometrial Carcinoma"[tiab] OR "Endometrial Carcinomas"[tiab]
- ii. Vaginal bleeding
1. Index terms: "Uterine Hemorrhage"[Mesh] vagina bleeding'/exp [Emtree] 'vagina bleeding'/exp/dm_et [Emtree]
 2. Synonyms: Uterine Hemorrhage(s), Uterine Bleeding(s), Vaginal Bleeding(s), Vagina Bleeding(s), Postmenopausal bleeding, Metrorrhagia
 3. Vaginal Bleeding PubMed search query:"Uterine Hemorrhage"[Mesh] OR ((abnormal[tiab] OR Uterine[tiab] OR Vaginal[tiab] OR vagina[tiab] OR Metrorrhagia[tiab] OR Postmenopausal[tiab])) AND (Bleeding*[tiab] OR Hemorrhage*[tiab]))
- iii. Exclusion terms: Polyp[tiab] OR polyps[tiab] OR interferon[tiab] OR "Case report" OR "Case reports" OR "Case Reports"[Publication Type] OR "Case study"[tiab] OR mice[tiab] OR mouse[tiab] OR rodent*[tiab]

The search results from the PubMed and Embase databases were downloaded into the EndNote citations management program and the duplicates were removed.

3. Data Collection and Statistical Analysis

1. Selection of studies

- a. Titles and abstracts of identified articles were independently screened for inclusion by three independent authors (ADM, BL, and MC). Full-text versions of eligible articles were reviewed by BL and MC to determine eligibility; any questions regarding the inclusion of studies were resolved by discussion with the senior author (NW).

2. Inclusion criteria

- a. Studies were included if they contained original data and reported cancer outcomes by postmenopausal bleeding status. Data on selection criteria, sample size, exposure and outcome ascertainment were evaluated to determine study quality and generalizability (Supplementary Results Table 1); studies that included highly-selected populations, lacked detailed inclusion criteria, and/or included ≤ 25 women

were excluded. In the case of sequential or multiple publications where there was a possibility of overlapping data, only data from the most recent publication were included.

3. Data extraction and management
 - a. Predefined data extraction sheets (Excel)
 - b. Information included:
 - i. Authors
 - ii. Publication date
 - iii. Study design
 - iv. Enrollment years
 - v. Country
 - vi. Clinical setting
 - vii. Inclusion/exclusion criteria
 - viii. Method of outcome and exposure ascertainment
 - ix. Aggregate study-level participant characteristics (e.g., age, body mass index, years since menopause, parity, frequency of bleeding, hormone therapy use, tamoxifen use, other comorbidities)
 - x. Endometrial biopsy/surgical results (stage and histology, if available)
4. Assessment of study quality
 - a. For the 92 studies included in Aim 2, study quality was assessed using items from the Newcastle-Ottawa Quality Assessment Form for Case-Control Studies and the Quality Assessment of Diagnostic Accuracy Studies (QUADAS) tool. The most relevant items from each were chosen and adapted to assess the quality of included studies:
 1. Was the spectrum of patients representative of the patients who will receive the test in practice? (QUADAS)
 2. Were selection criteria clearly described? (QUADAS)
 3. Ascertainment of exposure (Newcastle-Ottawa)
 - a) secure record (e.g. surgical records)
 - b) structured interview where blind to case/control status
 - c) interview not blinded to case/control status
 - d) written self-report or medical record only
 - e) no description

**Note: unless specified, we assumed bleeding status was ascertained through patient report, which was categorized as b) structured interview where blind to case/control status*
 4. Is the diagnostic test likely to correctly classify the target condition? (QUADAS, adapted)
 5. Type of diagnostic test (Added)
 6. Was there an additional clinical test conducted before the diagnostic test (Added)
 7. Did patients receive the same diagnostic test regardless of the additional test result? (QUADAS, adapted)

8. Was the diagnostic test independent of the additional test? (QUADAS, adapted)
 9. Were the same clinical data available when test results were interpreted as would be available when the test is used in practice? (QUADAS)
 - b. Because we adapted these scales to be compatible with the studies included in our meta-analysis, we did not use an official scoring system; however, we ranked individual items according to the following color-coding scale:
 - i. Green = high quality
 - ii. Orange = fair quality
 - iii. Red = poor quality
 - c. The potential for verification bias was determined by items 7 and 8. If receipt or interpretation of the diagnostic test was dependent on the results of a prior clinical test (e.g., vaginal ultrasound) then studies were classified as having potential verification bias.
5. Statistical analysis
- a. Aims 1 and 2: Pooled prevalence estimates and 95% confidence intervals were estimated using logistic-normal random-effects models (*metaprop_one* in Stata version 13).
 - b. For Aim 1, we focused on studies that did not restrict by cancer stage. However, in a sub-analysis, we analyzed the prevalence of PMB, stratified by stage (I and II-IV cancers) (Figure 1).
 - c. Subgroup meta-analyses to evaluate potential sources of heterogeneity:
 - i. Study exclusion criteria for hormone therapy use (Aim 2). Because hormone therapy is known to cause bleeding in postmenopausal women we wanted to evaluate the influence of hormone therapy use on the risk of endometrial cancer in women with PMB using study-level summary data.
 - ii. Geographical regions, defined by the World Health Organization for those in which more than one country was represented(22). We evaluated the influence of geographic regions because the risk of endometrial cancer and the clinical management of postmenopausal bleeding varies in different settings.
 - iii. Study enrollment period - If study enrollment dates were unavailable, publication date was used as a proxy. Years were grouped as <1990, 1990-1999, 2000-2009, and 2010-2017. Given the temporal trends in endometrial cancer incidence and changes in clinical management over time, we wanted to evaluate the influence of time period, approximated by using study enrollment dates.
 - d. Multilevel logistic random-effects models to evaluate the influence of continuous study-level (average) characteristics:
 - i. Age
 - ii. Number of years since menopause
 - iii. Percent of women using hormone therapy
 - e. Sensitivity analyses:

- i. Study design - classified as cross-sectional (case-series), or retrospective or prospective if follow-up time was specified.
 - ii. Study setting - classified as tertiary center versus other (e.g., hospital or clinic), determined from the methods or from the author affiliation if not well-described.
 - iii. Publication bias using Egger regression analyses
 - iv. Study Quality – using results from the quality assessment analysis (Aim 2), we evaluated the influence of the following items on our results:
 - 1. Selection criteria description (Item 1)
 - 2. Exposure ascertainment (Item 2)
 - 3. Clinical test conducted prior to diagnostic test (Item 6)
 - 4. Potential for verification bias (Items 7 and 8)
- f. Ancillary analyses:
- i. We simulated the performance of two approaches for early detection of endometrial cancer: transvaginal ultrasound (endometrial thickness cut-off of ≤ 3 mm), and candidate methylation markers in a hypothetical population of 10,000 women with PMB. Over a range of values based on risk estimates derived from our meta-analysis, we calculated the total number of women who would be sent to biopsy, the ratio of the number of biopsies per case of endometrial cancer detected, the positive predictive value, and the complement of the negative predictive value (i.e., the risk of endometrial cancer among women who test negative) for each test.

Table 1. Results of Quality Assessment of the 92 Studies Included in the Analysis of Risk of Endometrial Cancer in Women With PMB

Author, Year	1. Was the spectrum of patients representative of the patients who will receive the test in practice?	2. Were selection criteria clearly described?	3. Ascertainment of exposure	4. Is the diagnostic test likely to correctly classify the target condition?	5. Type of diagnostic test	6. Was there an additional clinical test conducted before the diagnostic test?	7. Did patients receive the same diagnostic test regardless of the additional test result?	8. Was the diagnostic test independent of the additional test?	9. Were the same clinical data available when test results were interpreted as would be available when the test is used in practice?
Abid,2014	Yes	Yes	Structured interview, blind to case status	Yes	D&C	No	N/A	N/A	Yes
Alberico,1989	Yes	Somewhat	Secure record	Yes	D&C	No	N/A	N/A	Yes
Allen,1990	Yes	Somewhat	Secure record	Yes	D&C, with hysteroscopy or laparoscopy, hysterectomy	No	N/A	N/A	Yes
Amit,2000	Yes	Yes	Structured interview, blind to case status	Yes	D&C	Blood flow measurement with Doppler, vaginal ultrasound	Yes	Yes	Yes
Arslan,2003	Yes	Yes	Secure record	Yes	D&C and hysteroscopy	Vaginal doppler ultrasound	Yes	Yes	Yes
Auslander,1993	Yes	Yes	Structured interview, blind to case status	Yes	Fractional D&C	Vaginal ultrasound	Yes	Yes	Yes
Bachman,2003	Yes	Yes	Secure record	Yes	Pipelle biopsy	Pelvic ultrasound	Yes	Yes	Yes
Bakour,1999	Yes	Somewhat	Secure record	Yes	Pipelle biopsy or curettage	Vaginal ultrasound	Yes	Yes	Yes
Bree,2000	Yes	Yes	Secure record	Yes	D&C, hysteroscopy, hysterectomy	Hysterosonography and ultrasound	Yes	Yes	Yes

Briley,1998	Yes	Yes	Secure record	Yes	Pipelle aspiration, hysteroscopy, D&C, or hysterectomy	Vaginal ultrasound	Unclear	Unclear	Yes
Bronz,1997	Yes	Somewhat	Secure record	Yes	Hysteroscopy and D&C	Bimanual exam	No	No	Yes
Bruchim,2004	Yes	Somewhat	Structured interview, blind to case status	Yes	Hysteroscopy and pipelle biopsy	Vaginal ultrasound	Yes	Yes	Yes
Burbos,2012	Yes	Yes	Structured interview, blind to case status	Pipelle biopsy	Pipelle biopsy	Vaginal Ultrasound	No	No	Yes
Büyük,1999	Yes	Yes	Secure record	Yes	Fractional D&C	Vaginal ultrasound	Yes	Yes	Yes
Cacciatore,1994	Yes	Somewhat	Secure record	Yes	D&C	Vaginal ultrasound and hysteroscopy	Yes	Yes	Yes
Cameron,2001	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound and saline infusion sonography	Yes	Yes	Yes
Cecchini,1996	Yes	Yes	Secure record	Yes	Hysteroscopy and curettage	Abdominal or vaginal ultrasound	Yes	Yes	Yes
Chan,1994	Yes	Yes	Secure record	Yes	D&C or hysterectomy	Vaginal ultrasound	Yes	Yes	Yes
Cho,2013	Yes	Yes	Structured interview, blind to case status	Yes	D&C	Vaginal Ultrasound	Yes	Yes	Yes
Ciatto,2002	Yes	Yes	Secure record	Yes	Linkage to cancer registry within 2 years of TVUS	Vaginal ultrasound	Yes	Yes	Yes
Conoscenti,1995	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Critchley,2004	Yes	Yes	Secure record	Yes	Hysteroscopy with pipelle and tao brush biopsy	Abdominal and/or vaginal ultrasound if no hysteroscopy	Yes	Yes	Yes
Damle,2013	Yes	Somewhat	Structured interview, blind to case status	Yes	D&C or endometrial biopsy	No	N/A	N/A	Yes

de Wit,2003	Yes	Yes	Secure record	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Unclear	Unclear	Yes
Dørum,1993	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Dunn,2001	Yes	Yes	Secure record	Yes	Biopsy	Some ultrasound	No	No	Yes
Elliott,2003	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	No	N/A	N/A	Yes
Emanuel,1995	Yes	Somewhat	Secure record	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Ewies,2010	Yes	Yes	Secure record	Yes	Pipelle biopsy	Vaginal ultrasound	No, some follow-up	No	Yes
Ferrazzi,1996	Yes	Yes	Structured interview, blind to case status	Yes	D&C and hysteroscopy and biopsy	Ultrasound	Yes	Yes	Yes
Fistonic,1997	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Garuti,1999	Yes	Yes	Secure record	Yes	Hysteroscopy and curettage	Vaginal ultrasound	Yes	Yes	Yes
Gemer,1998	Yes	Yes	Secure record	Yes	D&C	No	N/A	N/A	Yes
Goldberg,1982	Yes	Somewhat	Structured interview, blind to case status	Yes	D&C	Accurette and Vabra aspirator	Yes	Yes	Yes
Goldstein,1990	Yes	Somewhat	Secure record	Yes	Biopsy	Ultrasound	Yes	Yes	Yes
Granberg,1991	Yes	Yes	Structured interview, blind to case status	Yes	Curettage	Ultrasound	Yes	Yes	Yes
Grigoriou,1996	Yes	Somewhat	Secure record	Yes	Curettage	Vaginal ultrasound	Yes	Yes	Yes
Gruboeck,1996	Yes	Yes	Structured interview, blind to case status	Yes	Pipelle biopsy or D&C	Vaginal ultrasound	Yes	Yes	Yes
Guisa-Chiferj,1996	Yes	Somewhat	Secure record	Yes	Curettage	Vaginal ultrasound	Yes	Yes	Yes
Gull,2000	Yes	Yes	Secure record	Yes	D&C or endometrial biopsy	Vaginal ultrasound	No	No	Yes
Güner,1996	Yes	Somewhat	Structured interview, blind to case status	Yes	Fractional curettage	Ultrasound	Yes	Yes	Yes
Haller,1996	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes

Hunter,2001	Yes	Yes	Secure record	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Iatrakis,1997	Yes	Somewhat	Secure record	Yes	Hysterectomy	No	N/A	N/A	Yes
Jillani,2010	Yes	Somewhat	Structured interview, blind to case status	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Jones,2001	Yes	Yes	Structured interview, blind to case status	Yes	Pipelle biopsy and/or hysteroscopy	Vaginal ultrasound and saline contrast sonohysterography	No	No	Yes
Karlsson,1995	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Kekre,1997	Yes	Somewhat	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Kim,2015	Yes	Yes	Structured interview, blind to case status	Yes	D&C	Vaginal ultrasound	Unclear	Unclear	Yes
Lee,1995	Yes	Yes	Secure record	Yes	D&C	Unclear	Unclear	Unclear	Yes
Liberis,2010	Yes	Yes	Secure record	Yes	Curettage	Hysteroscopy	Yes	Yes	Yes
Lin,1993	Yes	Yes	Secure record	Yes	D&C	No	N/A	N/A	Yes
Litta,2005	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Loiacono,2015	Yes	Yes	Secure record	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Loverro,1999	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Malinova,1995	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Mansour,2007	Yes	Yes	Structured interview, blind to case status	Yes	D&C or Novak biopsy	Vaginal ultrasound	Yes	Yes	Yes
Mantalenakis,1977	Yes	Yes	Secure record	Yes	D&C	No	N/A	N/A	Yes
Menzies,2011	Yes	Yes	Secure record	Yes	Hysteroscopy	Vaginal ultrasound	Unclear	Unclear	Yes
Minagawa,2005	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound and endometrial cytology	No, with 12 month follow up	No	Yes

Mossa,2003	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Nagele,1996	Yes	Somewhat	Secure record	Yes	Hysteroscopy and biopsy	Pap smear (some), and pelvic ultrasound (some)	Yes	Yes	Yes
Nasri,1989	Yes	Somewhat	Secure record	Yes	D&C or hysterectomy	Vaginal ultrasound	Unclear	Unclear	Yes
O'connell,1998	Yes	Yes	Structured interview, blind to case status	Yes	Fractional curettage with hysteroscopy	Vaginal ultrasound	Yes	Yes	Yes
Osmers,1990	Yes	Yes	Structured interview, blind to case status	Yes	Curettage	Vaginal ultrasound	Yes	Yes	Yes
Ozer,2016	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Panda,2002	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	No	No	Yes
Phillip,2004	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Ragupathy,2013	Yes	Somewhat	Secure record	Yes	Pipelle biopsy	Vaginal ultrasound	Unclear	Unclear	Yes
Randelzhofer,2002	Yes	Yes	Structured interview, blind to case status	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Sadoon,2009	Yes	Yes	Secure record	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Schindler,1980	Yes	Yes	Secure record	Yes	Biopsy	Unclear	Unclear	Unclear	Yes
Seckin,2016	Yes	Yes	Structured interview, blind to case status	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Sheikh,2000	Yes	Yes	Structured interview, blind to case status	Yes	Curettage	Transabdominal and vaginal ultrasound	Yes	Yes	Yes
Sladkevicius,1994	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Sousa,2001	Yes	Yes	Secure record	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Spicer,2006	Yes	Yes	Structured interview, blind	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	No	No	Yes

			to case status						
Swingler,1979	Yes	Yes	Structured interview, blind to case status	Yes	Curettage	No	N/A	N/A	Yes
Taşkin,2006	Yes	Yes	Structured interview, blind to case status	Yes	Endometrial biopsy	Vaginal ultrasound	Yes	Yes	Yes
Tinelli,2008	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	Yes	Yes	Yes
Valli,1996	Yes	Somewhat	Secure record	Yes	Hysteroscopy	Vaginal ultrasound	No	No	Yes
Van den Bosch,2015	Yes	Yes	Structured interview, blind to case status	Yes	Hysteroscopy, biopsy, or hysterectomy	Vaginal ultrasound, fluid instillation sonography	No	No	Yes
Van Doorn,2007	Yes	Yes	Secure record	Yes	D&C or hysteroscopy biopsy	Vaginal ultrasound	No	No	Yes
Weber,1998	Yes	Yes	Secure record	Yes	D&C or hysterectomy	Vaginal ultrasound	Yes	Yes	Yes
White,1991	Yes	Somewhat	Secure record	Yes	Curettage	No	N/A	N/A	Yes
Wilailak,2005	Yes	Yes	Secure record	Yes	Curettage	Vaginal ultrasound	Yes	Yes	Yes
Wolman,1996	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Wong,2016	Yes	Yes	Secure record	Yes	Hysteroscopy and biopsy	Vaginal ultrasound	No	No	Yes
Yaman,2002	Yes	Yes	Secure record	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Yaman,2008	Yes	Yes	Secure record	Yes	Hysteroscopy and curettage	Vaginal ultrasound	Yes	Yes	Yes
Yildirim,2007	Yes	Yes	Structured interview, blind to case status	Yes	D&C	Vaginal ultrasound	Yes	Yes	Yes
Zaki,2011	Yes	Yes	Structured interview, blind to case status	D&C	D&C	Vaginal ultrasound	Yes	Yes	Yes

eTable 2. Results of Sensitivity Analyses Based on Quality Assessment

Sensitivity analysis	No. (%)	Risk of endometrial cancer in PMB (95% CI)	Tau ²	<i>P</i> Value for Heterogeneity
Well-described selection criteria				
Yes	71 (77.2)	9 (7-11)	0.66	.30
Somewhat	21 (22.8)	10 (8-13)	0.21	
Exposure ascertainment				
Secure record	56 (60.9)	9 (7-11)	0.61	.69
Blinded structured interview	36 (39.1)	9 (7-12)	0.48	
Clinical test prior to diagnostic test				
Yes	81 (82.0)	9 (8-11)	0.57	.39
No	11 (12.0)	8 (5-12)	0.48	
Potential verification bias				
Yes	13 (14.1)	6 (4-9)	0.31	.02
No	71 (77.2)	10 (8-12)	0.57	
Unclear	8 (8.7)	8 (5-13)	0.46	

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