

APPENDIX 1. LITERATURE SEARCH STRATEGY

CLINICAL CONSENSUS NUMBER 2

Treatment of Urogenital Symptoms in Individuals with a History of Estrogen-dependent Breast Cancer

Database: Ovid MEDLINE(R) 1946 to May Week 5 2021 (searched June 7, 2021)

- All searches were limited to human and English.
- Initial searches were conducted in May of 2020 and were limited to 2000-present.
- A bridge search was conducted in June of 2021, limited to 2020-present.

Vaginal Estrogen and Breast Cancer – General Search and Hormonal Treatments

Line	Search	Results
1	(Premarin or estring or vagifem or estrace).mp.	555
2	Estrogen Replacement Therapy/ or estradiol/ or estrogens, conjugated/ or estrogens/ or Hormone Replacement Therapy/	151825
3	(estrogen\$ or oestrogen\$ or estradiol).ti. or (hrt or ert).ti,ab. or ((estrogen or oestrogen\$ or hormone) adj3 (replacement or therapy)).ti,ab.	115652
4	2 or 3	194290
5	"vaginal creams, foams, and jellies"/ or administration, intravaginal/	5903
6	(vagina\$ or intravagina\$ or intra-vagina*).ti. or ((vagina\$ or intravagina\$ or intra-vagina\$) adj3 (tablet\$ or ring\$ or cream\$)).ti,ab.	40086
7	5 or 6	42637
8	1 or (4 and 7)	3130
9	exp breast neoplasms/ or (breast adj3 (neoplasm\$ or cancer or carcinoma\$)).ti.	308943
10	8 and 9	127
11	Estrogen Replacement Therapy/ or prasterone/ or estradiol/ or estriol/ or estrone/ or estrogens, conjugated/ or estrogens/ or testosterone/ or epitestosterone/ or hydroxytestosterones/ or methenolone/ or methyltestosterone/ or Dehydroepiandrosterone Sulfate/ or Hormone Replacement Therapy/ or *Androgens/	224884
12	(Dehydroepiandrosterone or testosterone).ti. or (prasterone or intrarosa or imvexxy or Premarin or Alora or Climara or femhrt or cenestin or estratest or esclim or estinyl or estrace or estring or vagifem or vivelle or aquest or prempphase or menest or ortho-est or prempo or estrogen replacement or hormone replacement or hrt or ert).ti,ab.	52393
13	11 or 12	237639

14	13 and (postmenopaus\$ or menopaus\$ or climacteric or premenopaus\$).ti,ab.	28599
15	1 or 7	43131
16	14 and 15	1102
17	9 and 16	71
18	10 or 17	132
19	limit 18 to (english language and humans)	122
20	limit 19 to yr="2000 -Current"	83

Vaginal Estrogen and Breast Cancer – Nonhormonal Treatments

Line	Search	Results
21	dyspareunia/ or vagina/ or vaginal diseases/ or vulva/ or "vaginal creams, foams, and jellies"/ or administration, intravaginal/	49489
22	((vaginal\$ adj3 (moisturizer\$ or lubricant\$)) or (vagina\$ or vulvovagina\$ or vulvo-vagina\$ or genitourinary or genito-urinary)).ti. or (vagina\$ adj3 dry\$).ti,ab. or ((vulvovagina\$ or vulvo-vagina\$ or vagina\$ or vaginitis) adj3 (atroph* or symptom\$)).ti,ab. or ((genitourinary or genito-urinary) adj3 (syndrome or symptom\$)).ti,ab.	45336
23	21 or 22	74437
24	9 and 23	572
25	lubrication/ or lubricants/ or watchful waiting/ or lasers/ or hyaluronic acid/	66608
26	(anesthetics, local/ or anesthesia, local/ or lidocaine/) and (administration, topical/ or topical\$.ti.)	2903
27	(lubrication or lubricant\$ or moisturize\$ or Replens or laser\$ or hyaluronic acid or ospemifene or ospheña or "over the counter" or nonhormonal\$ or non-hormonal\$ or watchful waiting or ((anesthetic\$ or anaesthetic\$ or lidocaine) adj3 topical\$) or (expectant\$ adj3 manag\$)).ti,ab.	228755
28	25 or 26 or 27	250770
29	24 and 28	88
30	9 and (Ospemifene or ospheña).ti,ab.	24
31	29 or 30	101
32	limit 31 to (english language and humans)	97
33	limit 32 to yr="2000 -Current"	94

Vaginal Estrogen and Breast Cancer – Aromatase Inhibitors:

Line	Search	Results
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APPENDIX 1. Treatment of Urogenital Symptoms in Individuals with a History of Estrogen-dependent Breast Cancer

34	exp aromatase inhibitors/ or (aromatase inhibitor\$ or exemestane or letrozole or anastrozole or aromasin or femara or arimidex).ti,ab.	11625
35	9 and 34	6466
36	23 and 35	110
37	limit 36 to (english language and humans)	105
38	limit 37 to yr="2000 -Current"	101

Vaginal Estrogen and Breast Cancer – Other

Line	Search	Results
39	exp treatment outcome/ or exp anti-infective agents/ or exp Immunotherapy/ or antibiotic prophylaxis/ or combined modality therapy/ or exp drug therapy/ or (treat\$ or therap\$ or manage\$).ti. or (th or dt or rt or su or de or dh).fs.	10099743
40	24 and 39	475
41	40 not (19 or 32 or 37)	277
42	1 or 2 or 3 or 13	266421
43	41 and 42	112
44	limit 43 to (english language and humans)	89
45	limit 44 to yr="2000 -Current"	60

Vaginal Estrogen and Breast Cancer – Health Equity

Line	Search	Results
46	Vulnerable populations/ or Socioeconomic factors/ or Social segregation/ or Race factors/ or Race relations/ or Racism/ or Prejudice/ or Poverty/ or Social class/ or Healthcare disparities/ or Health status disparities/ or Poverty areas/ or Urban population/ or Rural Population/ or Continental population groups/ or Ethnic groups/ or African Americans/ or Hispanic Americans/ or Asian Americans/	484843
47	(equit\$ or inequit\$ or inequalit\$ or disparit\$ or equality or disproport\$ or ethnic\$ or race or racial\$ or racis\$ or prejudic\$ or race-relat\$ or disproportionate risk or systemic barrier\$ or SES or SEP or sociodemographic\$ or socio-demographic\$ or income or wealth\$ or poverty or educational level or educational attainment or well educated or better educated or unemploy\$ or home owner\$ or tenure or affluen\$ or well off or better off or worse off or social\$ or socio-economic or socioeconomic or economic or	2445615

	structural or material or Hispanic\$ or Latino\$ or Latina\$ or Latinx or Asian American\$).mp.	
48	((implicit adj3 bias) or ((bias or prejudic\$ or racis\$) and (unconscious\$ or implicit\$ or institutional\$ or structural\$ or dismantl\$)) or ((social\$ or socio-economic or socioeconomic or economic or structural or material) adj3 (advantage\$ or disadvantage\$ or exclude\$ or exclusion or include\$ or inclusion or status or position or gradient\$ or hierarch\$ or class\$ or determinant\$)) or (health adj3 (gap\$ or gradient\$ or hierarch\$)) or (level adj education\$) or ((African or Black) adj3 American\$)).mp.	227135
49	46 or 47 or 48	2541742
50	20 or 33 or 38 or 45	265
51	49 and 50	11

Vaginal Estrogen and Breast Cancer – PubMed in Process

Database: PubMed (searched June 7, 2021)

- Search was limited to English and in process or publisher citations.
- Search results were limited to 2000-present.

Line	Search	Results
1	(breast*[ti] AND (cancer*[ti] OR neoplas*[ti] OR carcinoma*[ti])) OR breast cancer*[tiab] OR breast neoplas*[tiab] OR breast carcinoma*[tiab] OR dcis[tiab])	329,757
2	(estrogen replacement[tiab] OR estrogen therap*[tiab] OR oestrogen replacement[tiab] OR oestrogen therap*[tiab] OR hormone replacement[tiab] OR hormone therap*[tiab] OR estradiol[ti] OR estrogen*[ti] OR hrt[tiab] OR ert[tiab] OR premarin[tiab] OR estring[tiab] OR vagifem[tiab] OR vaginal ring*[tiab] OR vaginal tablet*[tiab] OR vaginal cream*[tiab] OR estrace[tiab] OR prasterone[tiab] OR estriol[tiab] OR estrone[tiab] OR dehydroepiandrosterone[tiab] OR dhea[tiab] OR intrarosa[tiab] OR imvexxy[tiab] OR premarin[tiab] OR alora[tiab] OR climara[tiab] OR femhrt[tiab] OR cenestin[tiab] OR estratest[tiab] OR esclim[tiab] OR estinyl[tiab] OR vivelle[tiab])	136,813
3	(vaginal*[tiab] OR intravagina*[tiab] OR intra-vagina*[tiab])	110,085
4	#1 AND #2 AND #3	356
5	english[la] AND (publisher[sb] OR inprocess[sb] OR pubmednotmedline[sb] OR (pubstatusnihms AND publisher[sb]) OR (pubstatuspmcsd AND publisher[sb])) - Saved search	4,627,313
6	#4 AND #5	37

7	(vaginal*[tiab] OR intravagina*[tiab] OR intra-vagina*[tiab] OR dyspareunia[tiab] OR vagina*[tiab] OR vulva*[tiab] OR vulvovagina*[tiab] OR vulvo-vagina*[tiab] OR genitourinary[tiab] OR genito-urinary[tiab] OR vaginal dryness[tiab] OR vaginitis[tiab])	158,317
8	(topical anesthet*[tiab] OR topical anaesthet*[tiab] OR topical lidocaine*[tiab] OR watchful waiting[tiab] OR expectant management[tiab] OR lubrica*[tiab] OR moisturi*[tiab] OR laser*[tiab] OR hyaluronic acid[tiab] OR replens[tiab] OR ospemifene[tiab] OR ospheña[tiab] OR "over the counter"[tiab] OR nonhomon*[tiab] OR non-hormon*[tiab])	339,558
9	#1 AND #7 AND #8	167
10	#9 AND #5	31
11	(aromatase inhibitor*[tiab] OR exemestane[tiab] OR letrozole[tiab] OR anastrozole[tiab] OR aromasin[tiab] OR femara[tiab] OR arimidex[tiab])	9,867
12	#1 AND #7 AND #11	188
13	#12 AND #5	21

Vaginal Estrogen and Breast Cancer – Embase

Database: Embase 1996 to 2020 Week 2021 (searched May 27, 2020)

- Search was limited to human and English.
- Search results were limited to 2000-present.

Line	Search	Results
1	Intravaginal drug administration/	2710
2	(vagina\$ or intravagina\$ or intra-vagina\$).ti	33955
3	(Premarin or estring or vagifem or vaginal tablet\$ or vaginal ring\$ or vaginal cream\$ or estrace).mp	4212
4	(vaginal\$ adj3 (moisturizer\$ or lubricant\$)).ti,ab	288
5	1 or 2 or 3 or 4	38659
6	Breast neoplasms/	7306
7	Breast cancer/	326084
8	(breast adj3 (neoplasm\$ or cancer\$)).ti	225467
9	6 or 7 or 8	390292
10	5 and 9	651
11	Dyspareunia/	9572
12	(vulvovagina\$ or vulvo-vagina\$).ti	1436
13	(genitourinary or genito-urinary\$).ti	3705
14	(vagina\$ adj3 dry\$).ti,ab	1893
15	((vulvovagina\$ or vulvo-vagina\$ or vagina\$ or vaginitis) adj3 (atroph\$ or symptom\$)).ti,ab	4390
16	((genitourinary or genito-urinary) adj3 (syndrome or symptom\$)).ti,ab	1042
17	11 or 12 or 13 or 14 or 15 or 16	19048

18	10 and 17	239
19	Limit 18 to (human and English language)	224
20	Limit 19 to "2000-Current"	221