

Appendix A. Databases and search strategies

Databases:

MEDLINE 1966 – December 2008

EMBASE 1974 – December 2008

CINHAL 1982 – December 2008

EBM Reviews: Cochrane Database of Systemic Reviews and Cochrane Central Register of Controlled
Clinical Trials - Last Quarter 2008

ACP Journal Club: 1991 - December 2008

Database of Abstracts of Reviews of Effects - Last Quarter 2008

Search strategies:

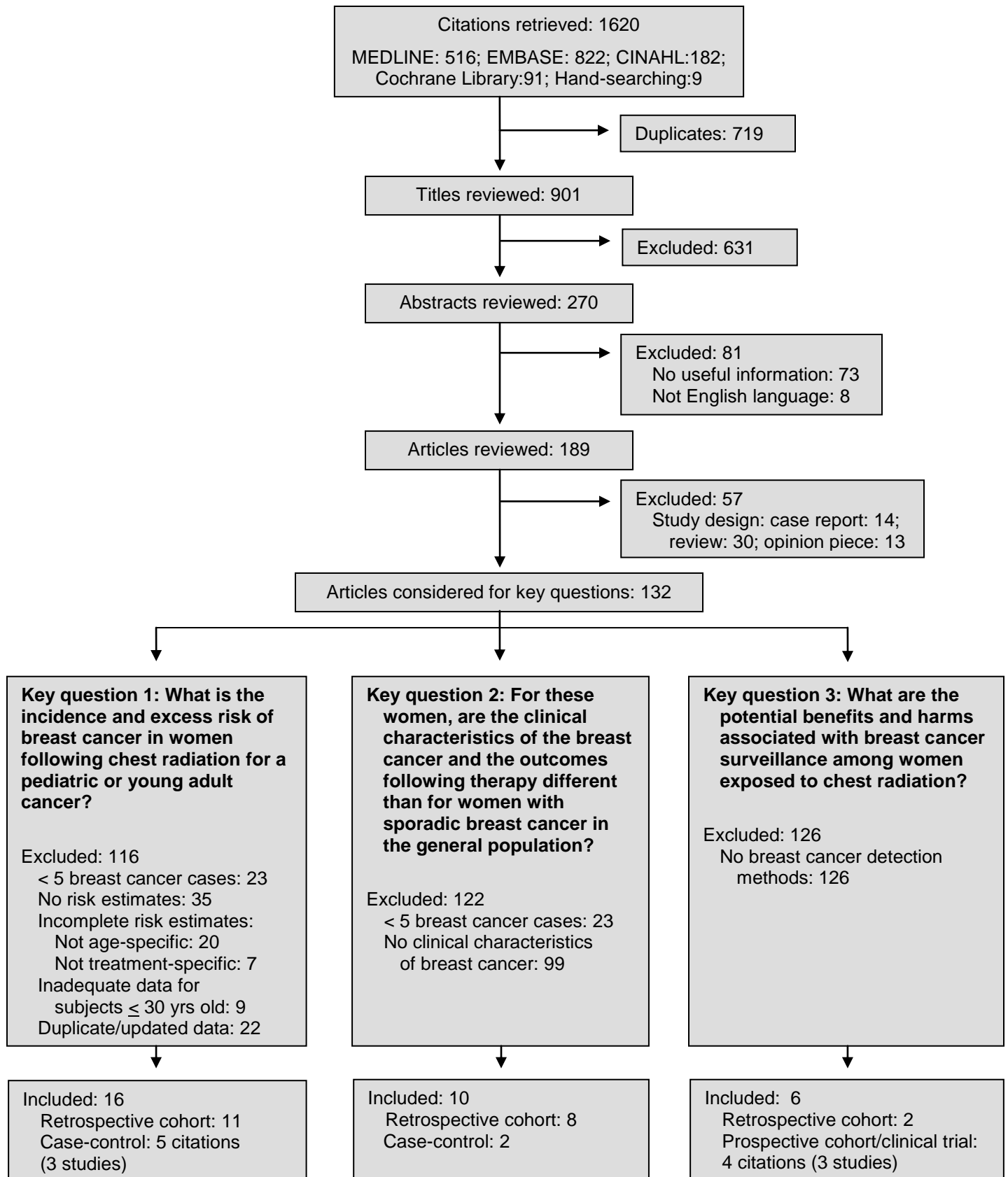
Breast irradiation

1. (child\$ or adol\$)
2. neoplasm
3. 1 and 2
4. 3 and breast.mp.
5. 4 and radiat\$.mp
6. Neoplasms, Second Primary/
7. 3 and 6

Hodgkin's lymphoma

1. Hodgkin\$.mp.
2. Neoplasms, Second Primary/
3. 1 and 2

Appendix B. Summary of literature search and review process by key question



Appendix C Table 1a. Itemized study reporting criteria according to the STROBE* statement check list for observational single institution cohort studies utilized in Question 1: "What is the incidence and excess risk of breast cancer following chest radiation for a pediatric or young adult cancer?"

Item	Item Description	Alm El-Din 2009 (9)	Hancock 1993 (12)	Wolden 1998 (17)
1	a	1	1	0
	b	1	1	1
2		1	1	1
3		1	1	0
4		1	1	1
5		1	1	1
6	a	1	1	1
	b	N/A	N/A	N/A
7		0	0	1
8		0	1	1
9		0	0	0
10		0	1	1
11		0	1	0
12	a	1	1	1
	b	1	1	1
	c	0	0	0
	d	0	0	1
	e	N/A	N/A	N/A
13	a	0	1	1
	b	0	1	1
	c	0	0	0
14	a	1	0	1
	b	1	0	0
	c	1	1	1
15		1	1	1
16	a	1	1	1
	b	1	1	1
	c	0	1	1
17		1	1	1
18		1	1	1
19		0	1	1
20		1	1	1
21		0	0	0
22		1	N/A	1
Sum		19/32	24/31	24/32

* Itemized reporting criteria in the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement checklist have been described in detail previously (7,8)

Appendix C Table 1b. Itemized study reporting criteria according to the STROBE* statement check list for observational multiple institution cohort studies utilized in Question 1: "What is the incidence and excess risk of breast cancer following chest radiation for a pediatric or young adult cancer?"

Item	Item Description	Bhatia 2003 (10)	Constine 2008 (18)	Guibout 2005 (11)	Kenney 2004 (13)	Ng 2002 (15)
1	a	1	0	1	1	0
	b	1	1	1	1	1
2		1	1	1	1	1
3		1	1	1	1	1
4		1	1	1	1	1
5		1	1	1	1	1
6	a	1	1	1	1	1
	b	N/A	N/A	N/A	N/A	N/A
7		1	1	1	1	1
8		1	1	1	1	1
9		0	0	0	0	0
10		1	1	1	1	1
11		1	1	1	1	0
12	a	1	1	1	1	1
	b	1	1	1	1	1
	c	0	0	0	0	0
	d	1	0	1	0	1
	e	1	N/A	N/A	N/A	N/A
13	a	0	0	1	1	1
	b	0	0	0	0	0
	c	0	0	0	0	0
14	a	1	1	1	1	1
	b	1	1	1	1	1
	c	1	1	1	1	1
15		1	1	1	1	1
16	a	1	1	1	1	1
	b	1	1	1	1	1
	c	1	1	1	0	1
17		1	1	1	1	1
18		1	1	1	1	1
19		1	1	1	1	1
20		1	1	1	1	1
21		0	0	1	1	1
22		0	0	1	1	1
Sum		26/33	23/32	28/32	26/32	26/32

Appendix C Table 1c. Itemized study reporting criteria according to the STROBE* statement check list for observational population-based cohort studies utilized in Question 1: "What is the incidence and excess risk of breast cancer following chest radiation for a pediatric or young adult cancer?"

Item	Item Description	De Bruin 2009 (19)	Metayer 2000 (14)	Taylor 2007 (16)
1	a	1	1	1
	b	1	1	1
2	Explain the scientific background and rationale for the investigation being reported.	1	1	1
3	State specific objectives including any prespecified hypotheses.	1	1	1
4	Present key elements of study design early in the paper.	1	1	1
5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up and data.	1	1	1
6	a	1	1	1
	b	N/A	N/A	N/A
7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria if applicable.	1	1	1
8	For each variable of interest, give data sources and details of methods of assessment.	1	0	1
9	Describe any efforts to address potential sources of bias.	0	0	0
10	Explain how the study size was arrived at.	1	1	1
11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why.	0	1	1
12	a	1	1	1
	b	1	1	1
	c	0	0	0
	d	0	1	0
	e	N/A	N/A	N/A
13	a	1	0	1
	b	0	0	0
	c	0	0	0
14	a	1	0	1
	b	0	0	1
	c	1	1	1
15	Report numbers of outcome events or summary measures over time.	1	1	1
16	a	1	1	1
	b	1	1	1
	c	1	1	1
17	Report other analyses done.	1	1	1
18	Summarize key results with reference to study objectives.	1	1	1
19	Discuss limitations of the study, taking into account sources of potential bias or imprecision.	0	1	0
20	Give a cautious overall interpretation of results.	1	1	1
21	Discuss generalizability of study results.	0	0	1
22	Give funding sources.	1	0	1
Sum		23/32	22/32	26/32

Appendix C Table 1d. Itemized study reporting criteria according to the STROBE* statement check list for observational case-control studies utilized in Question 1: "What is the incidence and excess risk of breast cancer following chest radiation for a pediatric or young adult cancer?"

Item	Item Description	Garwicz 2000 (20)	Travis 2003 (24)	Travis 2005 (23)	Hill 2005 (21)	Inskip 2009 (22)
1	a	1	1	1	1	1
	b	1	1	1	1	1
2		1	1	1	1	1
3		1	1	1	1	1
4		1	1	1	1	1
5		1	1	1	1	1
6	a	1	1	1	1	1
	b	1	1	1	1	1
7		1	1	1	1	1
8		1	1	1	1	1
9		1	0	0	0	0
10		1	1	1	1	1
11		1	1	1	1	1
12	a	1	1	1	1	1
	b	1	1	1	1	1
	c	0	1	0	0	1
	d	1	1	1	1	1
	e	N/A	N/A	1	0	0
13	a	1	1	1	1	1
	b	1	0	N/A	1	N/A
	c	0	0	0	0	0
14	a	1	1	1	1	1
	b	1	1	0	1	1
15		1	1	1	1	1
16	a	1	1	1	1	1
	b	1	1	1	1	1
	c	0	1	1	N/A	1
17		1	1	1	1	1
18		1	1	1	1	1
19		1	1	1	0	1
20		1	1	1	1	1
21		1	1	1	1	1
22		1	1	1	1	1
Sum		29/32	29/32	29/32	29/32	27/32

Appendix C Table 2a. Itemized study reporting criteria according to the STROBE statement check list for observational single institution cohort studies[§] utilized in Question 2: “For these women, are the clinical characteristics of the breast cancer and the outcomes following therapy different than for women with sporadic breast cancer in the general population?”

Item	Item Description	Gervais-Fagnou 1999 (36)	Wahner-Roedler 2003 (37)	Wolden 2000 (38)	Yahalom 1992 (39)
1	a	1	1	0	0
	b	1	1	1	1
2		1	1	1	1
3		1	1	1	1
4		1	1	1	1
5		1	1	1	1
6	a	1	1	1	1
	b	N/A	N/A	N/A	N/A
7		0	0	1	1
8		1	1	1	1
9		0	1	0	0
10		1	1	1	1
11		0	1	0	1
12	a	1	1	1	1
	b	N/A	1	1	1
	c	0	0	0	0
	d	0	0	1	0
	e	N/A	0	N/A	N/A
13	a	1	1	0	1
	b	N/A	1	N/A	1
	c	0	0	0	0
14	a	1	1	1	1
	b	1	1	0	1
	c	1	1	1	1
15		1	1	1	1
16	a	1	1	1	1
	b	1	1	1	1
	c	1	1	1	1
17		1	1	1	1
18		1	1	1	1
19		0	1	0	0
20		1	1	1	1
21		0	0	0	0
22		0	0	0	1
Sum		21/30	26/33	21/31	25/32

[§] Also included in question 2, were references 12, 13, 16 which are described for Question 1 above.

Appendix C Table 2b. Itemized study reporting criteria according to the STROBE statement check list for observational multiple institution cohort studies utilized in Question 2: “For these women, are the clinical characteristics of the breast cancer and the outcomes following therapy different than for women with sporadic breast cancer in the general population?”

Item	Item Description	Cutuli 2001 (35)
1	a Study's design clear in title or abstract.	1
	b Abstract has an informative and balanced summary of study.	1
2	Explain the scientific background and rationale for the investigation being reported.	1
3	State specific objectives including any prespecified hypotheses.	1
4	Present key elements of study design early in the paper.	1
5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up and data.	1
6	a Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow up.	1
	b For matched studies, give matching criteria and number of exposed and unexposed.	N/A
7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria if applicable.	1
8	For each variable of interest, give data sources and details of methods of assessment.	1
9	Describe any efforts to address potential sources of bias.	0
10	Explain how the study size was arrived at.	1
11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why.	1
12	a Describe all statistical methods.	1
	b Describe any methods used to examine subgroups and interactions.	0
	c Explain how missing data was addressed.	0
	d Cohort study: Explain how loss to follow-up was addressed.	0
	e Describe any sensitivity analyses.	N/A
13	a Report the number of individuals at each stage of study.	0
	b Give reasons for non-participation at each stage.	N/A
	c Consider use of a flow diagram.	0
14	a Give characteristics of study participants and information on exposures and potential confounders.	1
	b Indicate the number of participants with missing data for each variable of interest.	1
	c Summarize follow-up time.	1
15	Report numbers of outcome events or summary measures over time.	1
16	a Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision.	1
	b Report category boundaries when continuous variables were categorized.	1
	c If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period.	1
17	Report other analyses done.	1
18	Summarize key results with reference to study objectives.	1
19	Discuss limitations of the study, taking into account sources of potential bias or imprecision.	0
20	Give a cautious overall interpretation of results.	1
21	Discuss generalizability of study results.	0
22	Give funding sources.	0
Sum		22/31

Appendix C Table 2c. Itemized study reporting criteria according to the STROBE statement check list for observational case-control studies utilized in Question 2: “For these women, are the clinical characteristics of the breast cancer and the outcomes following therapy different than for women with sporadic breast cancer in the general population?”

Item	Item Description	Janov 2001 (41)	Sanna 2007 (42)
1	a	1	0
	b	1	1
2	Explain the scientific background and rationale for the investigation being reported.	1	1
3	State specific objectives including any prespecified hypotheses.	1	1
4	Present key elements of study design early in the paper.	1	1
5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up and data.	1	1
6	a	1	1
	b	1	1
7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria if applicable.	1	0
8	For each variable of interest, give data sources and details of methods of assessment.	1	1
9	Describe any efforts to address potential sources of bias.	0	0
10	Explain how the study size was arrived at.	1	1
11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why.	0	1
12	a	1	1
	b	N/A	0
	c	0	0
	d	1	1
	e	N/A	N/A
13	a	1	1
	b	1	N/A
	c	0	0
14	a	1	1
	b	1	1
15	Report numbers in each exposure category or summary measures of exposure.	1	1
16	a	1	1
	b	1	1
	c	1	1
17	Report other analyses done.	1	1
18	Summarize key results with reference to study objectives.	1	1
19	Discuss limitations of the study, taking into account sources of potential bias or imprecision.	0	0
20	Give a cautious overall interpretation of results.	1	1
21	Discuss generalizability of study results.	0	0
22	Give funding sources.	0	0
Sum		25/31	22/31

Appendix C Table 3a. Itemized study reporting criteria according to the STROBE statement check list for retrospective observational studies[#] utilized in Question 3: “What are the potential benefits and harms associated with breast cancer surveillance among women exposed to chest radiation?”

Item	Item Description	Dershaw 1992 (46)
1	a Study's design clear in title or abstract.	1
	b Abstract has an informative and balanced summary of study.	1
2	Explain the scientific background and rationale for the investigation being reported.	1
3	State specific objectives including any prespecified hypotheses.	1
4	Present key elements of study design early in the paper.	1
5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up and data.	0
6	a Cohort study: give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow up.	1
	b For matched studies, give matching criteria and number of exposed and unexposed.	N/A
7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria if applicable.	0
8	For each variable of interest, give data sources and details of methods of assessment.	1
9	Describe any efforts to address potential sources of bias.	0
10	Explain how the study size was arrived at.	1
11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why.	0
12	a Describe all statistical methods.	0
	b Describe any methods used to examine subgroups and interactions.	0
	c Explain how missing data was addressed.	0
	d Cohort study: If applicable, explain how loss to follow-up was addressed. Case-control: If applicable, explain how matching of cases and controls was addressed. Cross-sectional: If applicable, describe analytical methods taking account of sampling strategy.	N/A
	e Describe any sensitivity analyses.	N/A
13	a Report the number of individuals at each stage of study.	0
	b Give reasons for non-participation at each stage.	N/A
	c Consider use of a flow diagram.	0
14	a Give characteristics of study participants and information on exposures and potential confounders.	1
	b Indicate the number of participants with missing data for each variable of interest.	0
	c Cohort study: Summarize follow-up time.	1
15	Report numbers of outcome events or summary measures over time.	1
16	a Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision.	N/A
	b Report category boundaries when continuous variables were categorized.	N/A
	c If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period.	N/A
17	Report other analyses done.	1
18	Summarize key results with reference to study objectives.	1
19	Discuss limitations of the study, taking into account sources of potential bias or imprecision.	0
20	Give a cautious overall interpretation of results.	1
21	Discuss generalizability of study results.	0
22	Give funding sources.	0
Sum		14/27

[#] Also included in question 3, were references 38 which is described for Question 2 above.

Appendix C Table 3b. Itemized study reporting criteria according to the STROBE statement check list for prospective observational studies utilized in Question 3: "What are the potential benefits and harms associated with breast cancer surveillance among women exposed to chest radiation?"

Item	Item Description	Diller 2002 (47)	Kwong 2008 (48)	Lee 2008 (49)
1	a Study's design clear in title or abstract.	1	0	1
	b Abstract has an informative and balanced summary of study.	1	1	1
2	Explain the scientific background and rationale for the investigation being reported.	1	1	1
3	State specific objectives including any prespecified hypotheses.	1	1	1
4	Present key elements of study design early in the paper.	1	1	1
5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up and data.	1	0	1
6	a Cohort study: give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow up.	1	1	1
	b For matched studies, give matching criteria and number of exposed and unexposed.	N/A	N/A	N/A
7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria if applicable.	1	1	0
8	For each variable of interest, give data sources and details of methods of assessment.	1	1	1
9	Describe any efforts to address potential sources of bias.	0	0	0
10	Explain how the study size was arrived at.	1	1	1
11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why.	1	1	1
12	a Describe all statistical methods.	1	1	1
	b Describe any methods used to examine subgroups and interactions.	1	0	1
	c Explain how missing data was addressed.	0	0	0
	d Cohort study: If applicable, explain how loss to follow-up was addressed. Case-control: If applicable, explain how matching of cases and controls was addressed. Cross-sectional: If applicable, describe analytical methods taking account of sampling strategy.	0	N/A	0
	e Describe any sensitivity analyses.	N/A	N/A	N/A
13	a Report the number of individuals at each stage of study.	1	1	1
	b Give reasons for non-participation at each stage.	0	1	0
	c Consider use of a flow diagram.	0	0	0
14	a Give characteristics of study participants and information on exposures and potential confounders.	1	1	1
	b Indicate the number of participants with missing data for each variable of interest.	1	1	1
	c Cohort study: Summarize follow-up time.	1	N/A	1
15	Report numbers of outcome events or summary measures over time.	1	1	1
16	a Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision.	1	N/A	1
	b Report category boundaries when continuous variables were categorized.	1	N/A	1
	c If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period.	1	N/A	1
17	Report other analyses done.	1	1	1
18	Summarize key results with reference to study objectives.	1	1	1
19	Discuss limitations of the study, taking into account sources of potential bias or imprecision.	0	1	1
20	Give a cautious overall interpretation of results.	1	1	1
21	Discuss generalizability of study results.	1	0	1
22	Give funding sources.	1	1	0
Sum		26/32	20/27	25/32