Bilaga 2. Mallar

Granskningsmall

First author:

Title:

Journal:

Year: ....

Volume: ....

Issue: ....

First page: ....

Last Page: ....

1. Type of study

❏   RCT → Section A
❏   Controlled trial without randomization → Section B
❏   Observational cohort study → Section B
❏   Case-control study → Section C
❏   Cross-sectional study (exposure and outcome measured simultaneously) → Section C
❏   Case series
❏   Case report
❏   Ecological study
❏   Other: ....

2. Type of report

❏   Full paper in peer reviewed journal
❏   Full paper in book or other type of report
❏   Abbreviated paper in meeting proceedings or similar publication
❏   Abstract only
❏   Other: ....

3. Language

❏   English
❏   Scandinavian
❏   German
❏   French
❏   Other: ....

Section A (randomized clinical trial)

External validity

Short form answer:

- ❑ Clear external validity (0)
- ❑ Probable external validity (1)
- ❑ Uncertain external validity (3)
- ❑ External validity cannot be assessed (5)

**If uncertain, answer questions under Item 1.
Otherwise go to Internal validity (after Item 1)**

1. Accrual of study subjects

a. Eligibility/inclusion criteria clearly stated (eg, if trial of treatment
    of a specified disease, is the definition acceptable)?
    - ❑   Yes = 0
    - ❑   No = 2

b. Consecutive eligible subjects?
    - ❑   Yes = 0
    - ❑   No = 1
    - ❑   Not stated = 1

c. Numbers and reasons for non-participation given?
    - ❑   Yes = 0
    - ❑   No = 2

d. Exclusion criteria clearly stated and acceptable?
    - ❑   Yes = 0
    - ❑   No = 2

e. Are numbers of excluded persons given by reason (as prescribed
    in the CONSORT statement)?
    - ❑   Yes = 0
    - ❑   No = 2

Total sum of section 1
0 = Clear external validity
1 = Probable external validity
2–3 = Uncertain external validity
≥4 = External validity cannot be assessed

Internal validity

Short form answer:

- ❑ Excellent internal validity (0)
- ❑ Good internal validity (1)
- ❑ Acceptable internal validity (2)
- ❑ Uncertain internal validity (4)
- ❑ Uninformative due to flawed internal validity (10)

If uncertain, answer questions under Items 2–9. Otherwise go to Precision (after Item 9)

2. Treatment/exposure assignment

a. Were details about randomization procedure given?
- ❑ Yes = 0
- ❑ No = 1

b. Could the randomization be manipulated?
- ❑ Yes (eg, tossing of coin or throwing of dice) = 1
- ❑ No (eg, opaque envelopes, computer-generated list kept by others than investigators) = 0

c. Did randomization lead to unpredictable treatment assignment?
- ❑ Yes = 0
- ❑ No, treatment could potentially be deduced in some or all = 2

d. Were there exclusions/withdrawals <u>after</u> randomization?
- ❑ Yes = 2
- ❑ No = 0

3. Comparability of groups

a. Was there an account of the comparability of groups with regard to all conceivable factors that might affect the outcome?
- ❑ Yes = 0
- ❑ No = 1

b. Were there any important differences?
- ❑ Yes = 2
- ❑ No = 0
- ❑ No data given = 0 (already scored under 3a)

c. Were any attempts in the analysis phase to adjust for imbalances
    between treatment arms with regard to important determinants
    for the outcome (eg, through multivariate modelling)?
    ❏   Not needed (no important imbalances) = 0
    ❏   Yes = –1 (subtract 1 if you scored 2 under 3b)
    ❏   No, despite a need = 1

4. Blinding

a. Were there any attempts to blind the patients/investigators
    to treatment allocation?
    ❏   No (open study) = 2
    ❏   Only study subjects were blinded (single-blind) = 1
    ❏   Blinding only of investigators who evaluated the outcome
        ("blind observer") = 0
    ❏   Double-blind = 0
    ❏   Triple-blind (breaking of the code first after completion of all analyses) = 0

b. Was there any reason to believe that the blinding had failed
    (eg, due to characteristic side-effects of active treatment or
    dissimilarities of active and reference tablets)?
    ❏   Yes = 1
    ❏   No = 0

c. Was the blinding tested (eg, through asking the subjects at the end
    of the study what they believed they had received)?
    ❏   Yes = 0
    ❏   No = 0

5. Compliance

a. Was there any account of the completeness of treatment/compliance?
    ❏   Yes = 0
    ❏   No = 2

b. Was the completeness acceptable (>80% of the subjects receiving
    >80% of the prescribed treatment)?
    ❏   Yes = 0
    ❏   No = 3
    ❏   Completeness/compliance data not given = 0 (scored under 5a)

6. Drop-outs/losses to follow-up

a.   Was there an account of the numbers of subjects who dropped out
(and the reasons for dropping out)?
- ❏   Yes = 0
- ❏   No = 3

b.   What was the drop-out rate?
- ❏   <10% = 0
- ❏   10–19% = 2
- ❏   20–29% = 3
- ❏   ≥30% → *study is deemed uninformative, excluded*
- ❏   Drop-out rate not stated = 0 (scored under 6a)

7. Evaluation of outcome

a.   Was there an acceptable definition of the outcome?
- ❏   Yes = 0
- ❏   No = 3

b.   Was the outcome clinically relevant?
- ❏   Yes = 0
- ❏   Of questionable relevance = 2
- ❏   Irrelevant → *study is deemed uninformative, excluded*

c.   Was the reporter of the outcome (eg, the investigator, the study
subject) <u>un</u>aware of the treatment given?
- ❏   Yes = 0
- ❏   No = 2

d.   Are there reasons to believe that there might have been misclassification
of the outcome (eg, due to retrospective reporting over too long periods)?
- ❏   Yes = 1
- ❏   No = 0

8. Evaluation of side-effects

a.   Was there acceptable reporting of side effects?
- ❏   Yes, with open-ended questions = 0
- ❏   Yes, with fixed response alternatives = 0
- ❏   Yes, response alternatives not stated = 0
- ❏   No = 3

9. Analysis

a. Was the main outcome variable defined in advance and was the conclusion of the study based on the analysis of this variable?
    - ❑ Yes = 0
    - ❑ No (or not mentioned in the report) = 2

b. Was there a prior hypothesis?
    - ❑ Yes = 0
    - ❑ No (or not mentioned in the report) = 1

c. Were the secondary variables defined in advance?
    - ❑ Yes = 0
    - ❑ No (or not mentioned in the report) = 1
    - ❑ Not applicable, there was no secondary outcome variable = 0

d. Were all randomized subjects included in the analysis and retained in the treatment arm to which they were initially allocated ("intention-to-treat analysis")?
    - ❑ Yes = 0
    - ❑ No = 4

Total sum of Items 2–9 (internal validity)
0–1 = Excellent internal validity
2–4 = Good internal validity
5–7 = Acceptable internal validity
8–10 = Uncertain internal validity
≥10 = Uninformative due to flawed internal validity

Precision

Short form answer:

- ❑ Premeditated and sufficient study size (0)
- ❑ Sample size of uncertain adequacy (2)
- ❑ Probably underpowered study (4)

If uncertain, answer questions under Items 10–11

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10. Smallest clinically relevant effect

a. Was the smallest clinically relevant effect defined?
   - ❑ Yes = 0
   - ❑ No = 1

b. Was the stated smallest clinically relevant effect reasonable?
   - ❑ Yes = 0
   - ❑ No = 1
   - ❑ Not defined = 0 (scored under 10a)

11. Study power

a. Were the deliberations behind the sample size decision clearly described?
   - ❑ Yes = 0
   - ❑ No = 2

b. What was the power to detect a reasonably-sized smallest clinically relevant effect?
   - ❑ Not stated because there was a strong and statistically significant effect = 0
   - ❑ ≥90% = 0
   - ❑ 80–89% = 1
   - ❑ 70–79% = 2
   - ❑ <70% = 3
   - ❑ Not stated despite a non-significant finding = 4

Total sum of Items 10–11 (precision)
0–1 = Premeditated and sufficient study size
2–3 = Sample size of uncertain adequacy
≥4 = Probably underpowered study

Section B (observational cohort study or controlled clinical trial without randomization)

External validity

Short form answer:

- ❏ Clear external validity (0)
- ❏ Probable external validity (1)
- ❏ Uncertain external validity (3)
- ❏ External validity cannot be assessed (5)

**If uncertain, answer questions under Item 1,
Otherwise go to Internal validity (after Item 1)**

1. Accrual/selection of study subjects

a. Was the studied exposure well defined (eg, if follow-up of a specified disease, is the definition of the disease acceptable)?
   - ❏ Yes = 0
   - ❏ No = 2

b. Eligibility/inclusion criteria clearly stated?
   - ❏ Yes = 0
   - ❏ No = 1

c. Consecutive eligible subjects included?
   - ❏ Yes = 0
   - ❏ No = 1
   - ❏ Not stated = 1

d. Numbers and reasons for non-participation given?
   - ❏ Yes = 0
   - ❏ No = 1

e. Exclusion criteria clearly stated and acceptable?
   - ❏ Yes = 0
   - ❏ No = 1

f. Are numbers of excluded persons given by reason (as prescribed in the CONSORT statement)?
   - ❏ Yes = 0
   - ❏ No = 1

<u>Total sum of section 1</u>
0 = Clear external validity
1 = Probable external validity
2–3 = Uncertain external validity
≥4 = External validity cannot be assessed

Internal validity

Short form answer:

❑ Excellent internal validity (0)
❑ Good internal validity (1)
❑ Acceptable internal validity (2)
❑ Uncertain internal validity (4)
❑ Uninformative due to flawed internal validity (10)

**If uncertain, answer questions under Items 2-6.
Otherwise go to Precision (after Item 6)**

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2. Exposure assessment

a. Was the studied exposure satisfactorily measured/recorded?
   ❑ Yes = 0
   ❑ Yes, with minor criticism = 1
   ❑ No = 3

b. Were *all* in the exposed group really exposed?
   ❑ Yes = 0
   ❑ Yes, probably = 1
   ❑ No, probably not = 2
   ❑ No = 2

c. Were *all* in the reference category really unexposed?
   ❑ Yes = 0
   ❑ Yes, probably = 1
   ❑ No, probably not = 2
   ❑ No = 2

3. Comparability of groups/selection bias/confounding

a. Was there an account of the comparability of groups with regard to factors that might conceivably affect the outcome (potential confounding factors)? (If only one cohort was studied and compared with the background population or historical controls – was there data to support the comparability with the reference category).
   - ❏ Yes = 0
   - ❏ No = 3

b. Did the investigators consider all <u>important</u> potential confounding factors (potential confounding factors = factors that are independent causes of/risk factors for/protective factors against the outcome, AND not a link in the causal chain between the studied exposure and the outcome)?
   - ❏ Yes = 0
   - ❏ Probably = 1
   - ❏ No = 3
   - ❏ No data given = 0 (already scored under 3a)

c. Were the relevant confounding factors satisfactorily measured/recorded?
   - ❏ Yes = 0
   - ❏ Yes, with minor criticism = 1
   - ❏ No = 3

d. Were the potential confounding factors unevenly distributed among exposed and/non-exposed/reference group (confounding arises if factors described under 3b are unevenly distributed among exposed and unexposed [ie, linked to the exposure])?
   - ❏ Yes = 2
   - ❏ No = 0
   - ❏ No data given = 0 (already scored under 3a)

e. Were attempts in the analysis to adjust for imbalances between exposure groups with regard to potential confounding factors (eg, through restriction, stratified analyses, or multivariate modelling)?
   - ❏ Not needed (no important imbalances) = 0
   - ❏ Yes = -2 (subtract 2 if you scored 2 under 3d)
   - ❏ No, despite a need = 2

4. Evaluation of outcome, ascertainment/detection bias

a. Was there an acceptable definition of the outcome?
   - ❏ Yes = 0
   - ❏ No = 3

b. Was the outcome clinically relevant?
- ❏ Yes = 0
- ❏ Of questionable relevance = 2
- ❏ Irrelevant → *study is deemed uninformative, excluded*

c. Were the evaluators of the outcome aware of exposure status of the cohort members?
- ❏ Yes = 1
- ❏ Probably = 1
- ❏ No = 0

d. Was there any reason to believe that there was important ascertainment/ detection bias (eg, exposure linked to smoking, and smoking, in turn, linked to higher frequency of health care visits, and thus a more intense surveillance)?
- ❏ Yes = 2
- ❏ No = 0

5. Losses to follow-up

a. Was there an account of the numbers of subjects who were lost to follow-up?
- ❏ Yes = 0
- ❏ No = 3

b. What proportion was lost to follow-up?
- ❏ <10% = 0
- ❏ 10–19% = 1
- ❏ 20–29% = 2
- ❏ 30–39 = 3
- ❏ ≥40% → *study is deemed uninformative, excluded*
- ❏ Proportion not stated = 0 (scored under 5a)

6. Analysis

a. Was the main outcome variable defined in advance and was the conclusion of the study based on the analysis of this variable?
- ❏ Yes = 0
- ❏ No (or not mentioned in the report) = 1

b. Was there a prior hypothesis?
- ❏ Yes = 0
- ❏ No (or not mentioned in the report) = 1

c. Was the statistical method adequate?
- ❏ Yes = 0
- ❏ No = 3

<u>Total sum of Items 2–6 (internal validity)</u>
0–1= Excellent internal validity
2–3 = Good internal validity
4–6 = Acceptable internal validity
7–9 = Uncertain internal validity
≥10 = Uninformative due to flawed internal validity

Precision

> Short form answer:
>
> ❏ Premeditated and sufficient study size (0)
> ❏ Sample size of uncertain adequacy (2)
> ❏ Probably underpowered study (4)
>
> **If uncertain, answer questions under Items 7–8**

7. Smallest clinically relevant effect

a. Was the smallest clinically relevant effect defined?
    ❏ Yes = 0
    ❏ No = 1

b. Was the stated smallest clinically relevant effect reasonable?
    ❏ Yes = 0
    ❏ No = 1
    ❏ Not defined = 0 (scored under 10a)

8. Study power

a. Were the deliberations behind the sample size decision clearly described?
    ❏ Yes = 0
    ❏ No = 2

b. What was the power to detect a reasonably-sized smallest clinically relevant effect?
    ❏ Not stated because there was a strong and statistically significant effect = 0
    ❏ ≥90% = 0
    ❏ 80–89% = 1
    ❏ 70–79% = 2
    ❏ <70% = 3
    ❏ Not stated despite a non-significant finding = 4

Total sum of Items 7–8 (precision)
0–1 = Premeditated and sufficient study size
2–3 = Sample size of uncertain adequacy
≥4 = Probably underpowered study

Section C (case-control or cross-sectional studies)

External validity

> Short form answer:
>
> ❏ Clear external validity (0)
> ❏ Probable external validity (1)
> ❏ Uncertain external validity (3)
> ❏ External validity cannot be assessed (5)
>
> **If uncertain, answer questions under Item 1,**
> **Otherwise go to Internal validity (after Item** 1)

1. Type of cases studied

a. Was there an acceptable definition of the outcome (that rendered subjects case/control status)?
   ❏ Yes = 0
   ❏ No = 2

b. Did the studied cases correspond to cases <u>in the population to which the investigators wished to generalize their findings</u>?
   ❏ Yes = 0
   ❏ Yes, probably = 1
   ❏ No, probably not = 2
   ❏ No, definitely not = 3

<u>Total sum of section 1</u>
0 = Clear external validity
1 = Probable external validity
2–3 = Uncertain external validity
≥4 = External validity cannot be assessed

Internal validity

Short form answer:

❏ Excellent internal validity (0)
❏ Good internal validity (1)
❏ Acceptable internal validity (2)
❏ Uncertain internal validity (4)
❏ Uninformative due to flawed internal validity (10)

**If uncertain, answer questions under Items 2–6.
Otherwise go to Precision (after Item 6)**

2. Study base (NOTE, not relevant to cross-sectional studies; if so, skip 2-3)

The study base is defined as the group of people [the "virtual cohort"] who – if they developed the outcome condition – would necessarily have become cases in the study.

a. Was the study base (the "virtual cohort" [a defined source population followed for a defined time period] that generated the cases) well defined (geographically, age-wise, gender, other characteristics)?
   ❏ Yes, quite clear (eg, an already established cohort, or definition through an existing, well-functioning population register) = 0
   ❏ Yes, reasonably (eg, hospital-based study with strict catchment areas and no important selections of cases or controls) = 1
   ❏ Yes, probably (eg, hospital-based study without clear catchment areas, and/or inability to rule out some less important selection among cases and/or controls; control selection via random digit dialing or through neighbourhood controls whereupon some minor mismatch [for instance socioeconomic] between cases and controls might have occurred) = 2
   ❏ No, it is impossible to tell if the cases and controls come from the same study base and if there are important selection mechanisms for either of these categories = 4

b. Are the cases representative of all cases in the study base?
   ❏ Yes, they represent all or virtually all new (incident) cases of the outcome that occurred in the study base = 0
   ❏ Yes, although it is difficult to tell if they represent *all* cases, there is no reason to suspect that they are unrepresentative of all cases in the study base = 1
   ❏ Yes, they represent prevalent cases in the study base, but there is no reason to suspect that they are unrepresentative = 1
   ❏ No, there are reasons to suspect that they are unrepresentative of all cases in the study base = 3
   ❏ No, definitely unrepresentative → *study is deemed uninformative, excluded*

c. Do the control subjects come from the very same study base as the cases?
- ❏ Yes, definitely = 0
- ❏ Yes, probably = 1
- ❏ Uncertain = 3
- ❏ Probably not = 4
- ❏ No, definitely not → *study is deemed uninformative, excluded*

d. Were the control subjects representative of the entire study base?
- ❏ Yes, they were selected randomly from a defined sampling frame (note that stratified random sampling in order to achieve frequency matching is acceptable) = 0
- ❏ Yes, probably, but they were selected in some other way = 1
- ❏ Uncertain = 3
- ❏ Probably not = 4
- ❏ No, the probability of being selected as control is linked to the subjects' exposure status → *study is deemed uninformative, excluded*

3. Non-participation

a. Were all eligible cases occurring in the study base identified and enumerated?
- ❏ Yes = 0
- ❏ Yes, probably = 1
- ❏ No = 3

b. What was the participation rate among all eligible <u>cases</u>?
- ❏ ≥90% = 0
- ❏ 80–89% = 1
- ❏ 70–79% = 2
- ❏ 60–69% = 3
- ❏ 50–59% = 4
- ❏ <50% → *study is deemed uninformative, excluded*
- ❏ Proportion not stated → *study is deemed uninformative, excluded*

c. Was anything done to insure that major selection bias was not introduced through non-participation among cases?
- ❏ Not needed because participation among cases was >80% = 0
- ❏ Participation ≤80%, but authors provide data about non-participants that seem to rule out important selection bias = –1 (subtract from sum)
- ❏ Participation ≤80%, and no data is given about non-participants = 0

d. What was the participation rate among all selected <u>controls</u>?
- ❏ ≥90% = 0
- ❏ 80–89% = 1
- ❏ 70–79% = 2
- ❏ 60–69% = 3
- ❏ 50–59% = 4
- ❏ <50% → *study is deemed uninformative, excluded*
- ❏ Proportion not stated → *study is deemed uninformative, excluded*

e. Was anything done to insure that major selection bias was not introduced through non-participation among controls?
- ❏ Not needed because participation among controls was >80% = 0
- ❏ Participation ≤80%, but authors provide data about non-participants that seem to rule out important selection bias = –1 (subtract from sum)
- ❏ Participation ≤80%, and no data is given about non-participants = 0

4. Participation in <u>cross-sectional study</u> (skip if regular case-control study)
- ❏ ≥90% = 0
- ❏ 80–89% = 1
- ❏ 70–79% = 2
- ❏ 60–69% = 3
- ❏ 50–59% = 4
- ❏ <50% → *study is deemed uninformative, excluded*
- ❏ Proportion not stated → *study is deemed uninformative, excluded*

5. Exposure assessment

a. How was exposure information collected?
- ❏ From existing databases with data obtained before cases developed outcome = 0
- ❏ Face-to-face or telephone interviews with interviewers blinded to case/control status = 0
- ❏ Face-to-face or telephone interviews where interviewers were aware of case/control status = 1
- ❏ Postal questionnaire = 2
- ❏ Other ways or not stated = 3

b. Use of substitute responders
- ❏ No = 0
- ❏ ≤20% = 1
- ❏ >20% = 3

c. Are there good reasons to suspect biased recall (ie, cases remember/report exposures systematically different compared to controls)
   - ❑ No = 0
   - ❑ No, probably not = 1
   - ❑ Uncertain = 2
   - ❑ Yes, recall bias likely = 4
   - ❑ Yes, high probability of recall bias → *study is deemed uninformative, excluded*

6. Confounding

a. Did the investigators consider all <u>important</u> potential confounding factors (potential confounding factors = factors that are independent causes of/risk factors for/ protective factors against the outcome, AND not a link in the causal chain between the studied exposure and the outcome)?
   - ❑ Yes = 0
   - ❑ Probably = 1
   - ❑ No = 3
   - ❑ No data given = 4

b. Were the relevant confounding factors satisfactorily measured/recorded?
   - ❑ Yes = 0
   - ❑ Yes, with minor criticism = 1
   - ❑ No = 3

c. Were attempts in the study design or analysis to identify and handle confounding factors (eg, through matching, restriction, stratified analyses, or multivariate modelling)?
   - ❑ Yes, adequately = 0
   - ❑ Yes, but not sufficiently = 2
   - ❑ No → *study is deemed uninformative, excluded*

7. Ascertainment/detection bias

a. Was there any reason to believe that there was important ascertainment/ detection bias (eg, exposure linked to smoking, and smoking, in turn, linked to higher frequency of health care visits, and thus a more intense surveillance)?
   - ❑ Yes = 2
   - ❑ No = 0

8. Rare disease assumption

a. Was the rare disease assumption fulfilled (the outcome affected less than 10% of the population in the study base)?
   - ❏ Yes = 0
   - ❏ Unknown = 1
   - ❏ No or probably not = 3 (effects are likely exaggerated!)

9. Analysis

a. Was there a prior hypothesis?
   - ❏ Yes = 0
   - ❏ No (or not mentioned in the report) = 1

b. Was the statistical method adequate?
   - ❏ Yes = 0
   - ❏ No = 3

Total sum of Items 2–9 (internal validity) – CASE-CONTROL STUDY:
0–2= Excellent internal validity
3–4 = Good internal validity
5–7 = Acceptable internal validity
8–10 = Uncertain internal validity
≥11 = Uninformative due to flawed internal validity

Total sum of Items 2–9 (internal validity) – CROSS-SECTIONAL STUDY:
0–1= Excellent internal validity
2–3 = Good internal validity
4–5 = Acceptable internal validity
6–8 = Uncertain internal validity
≥9 = Uninformative due to flawed internal validity

Precision

Short form answer:

- ❏ Premeditated and sufficient study size (0)
- ❏ Sample size of uncertain adequacy (2)
- ❏ Probably underpowered study (4)

If uncertain, answer questions under Items 10–11

10. Smallest clinically relevant effect

a. Was the smallest clinically relevant effect defined?
  - ❏ Yes = 0
  - ❏ No = 1

b. Was the stated smallest clinically relevant effect reasonable?
  - ❏ Yes = 0
  - ❏ No = 1
  - ❏ Not defined = 0 (scored under 10a)

11. Study power

a. Were the deliberations behind the sample size decision clearly described?
  - ❏ Yes = 0
  - ❏ No = 2

b. What was the power to detect a reasonably-sized smallest clinically relevant effect?
  - ❏ Not stated because there was a strong and statistically significant effect = 0
  - ❏ ≥90% = 0
  - ❏ 80–89% = 1
  - ❏ 70–79% = 2
  - ❏ <70% = 3
  - ❏ Not stated despite a non-significant finding = 4

Total sum of Items 10–11 (precision)
0–1 = Premeditated and sufficient study size
2–3 = Sample size of uncertain adequacy
≥4 = Probably underpowered study

Section D (systematic reviews)

Topic/external validity

Is it an overview of the topic that you are interested in?
- ❏ Yes, completely = 0
- ❏ Yes, partly = 1
- ❏ Only to a small extent = 3
- ❏ No = 6

Is the research question clearly stated?
- ❏ Yes = 0
- ❏ Uncertain = 2
- ❏ No = 4

Internal validity

1. Literature search

Is the search strategy clearly stated?

a. Types of publications?
- ❏ Yes = 0
- ❏ No = 1

b. Years?
- ❏ Yes = 0
- ❏ No = 1

c. Languages?
- ❏ Yes = 0
- ❏ No = 1

d. Procedures?
- ❏ Yes = 0
- ❏ No = 1

Was the reproducibility of search efforts tested and reported?
- ❏ Yes = 0
- ❏ No = 1

In your opinion, did the authors succeed in capturing all of the targeted literature?
- ❏ Yes, definitely = 0
- ❏ Yes, probably = 2
- ❏ Probably not = 4
- ❏ Definitely not = 5

2. Evaluation of captured literature

Was there a defined scheme for validity assessment of captured literature?
- ❏ Yes, shown or published previously = 0
- ❏ Probably, but not shown = 1
- ❏ Probably not = 3
- ❏ Definitely not = 4

Were the criteria for accepting/rejecting papers clearly defined?
- ❏ Yes = 0
- ❏ Probably = 1
- ❏ Probably not = 3
- ❏ Definitely not = 4

Were rejected papers listed with reasons for rejection?
- ❏ Yes = 0
- ❏ No = 2

Was there any attempt to document the reproducibility of the validity assessment (eg inter- and/or intra-observer variation)?
- ❏ Yes, with acceptable reproducibility = 0
- ❏ Yes, with poor reproducibility = 2
- ❏ No = 2

3. Summary of findings

Were there any attempts to pool data or to perform a formal meta-analysis?
- ❏ Yes = 0
- ❏ No = 3

Was the choice of statistical method appropriate?
- ❏ Yes, definitely = 0
- ❏ Yes, probably = 0
- ❏ Uncertain = 1
- ❏ Probably not = 2
- ❏ Definitely not = 2
- ❏ Not applicable (no formal statistical testing) = 0

Was lack of consistency between studies evaluated (eg, tests of heterogeneity) and explained?
- ❏ Yes, satisfactorily = 0
- ❏ Yes, but poorly explained = 2
- ❏ No = 3

Were there any attempts to estimate possible publication bias (eg, through funnel plots)?
- ❏ Yes = 0
- ❏ No = 2

Total sum of internal validity
0–1 = Excellent validity
2–3 = Good validity
4–5 = Acceptable validity
6–8 = Uncertain validity
≥9 = Uninformative due to flawed validity

VACCINER TILL BARN – SKYDDSEFFEKT OCH BIVERKNINGAR?

Checklista för bedömning av hälsoekonomiska studiers kvalitet/bevisvärde

Reviderad version, delvis baserad på Drummond's checklista

Svarsalternativ: "Ja", "Nej". Vid oklarhet markera med "?" under Kommentar.

1. **Föreligger en relevant frågeställning som också kan besvaras?** (JA för ett alternativ 1a till 1c är obligatoriskt, annars exkluderad)	**Ja**	**Nej**	**Kommentar**
a) Studeras både kostnader och effekter?			
b) Studeras alternativ(a) behandling(ar)?			
c) Anges det med vilket perspektiv som studien har genomförts?			
2. **Beskrivning av behandlingsalternativen**	**Ja**	**Nej**	**Kommentar**
a) Utförlig beskrivning av alla viktiga alternativ?			
b) Har nollalternativet beaktats?			
3. **Hur har behandlingsalternativens effekter dokumenterats?** (JA för ett alternativ 3a) till 3d) är obligatoriskt, annars exkluderad	**Ja**	**Nej**	**Kommentar**
a) RCT?			
b) CCT?			
c) Observationsstudie, med redovisad diskussion om ev bias?			
d) Annan, exempelvis modell			
4. **Identifiering av väsentliga och relevanta kostnader och effekter**	**Ja**	**Nej**	**Kommentar**
a) Har alla för svensk sjukvård relevanta kostnader och effekter beaktats?			
b) Har såväl rörliga som fasta kostnader (avskrivningar, OH) beaktats?			

5. Kvantifiering av kostnader och effekter	Ja	Nej	Kommentar
a) Kostnader kvantifierats på ett relevant sätt?			
b) Effekter kvantifierats på ett relevant sätt?			
6. Värdering av kostnader och effekter	Ja	Nej	Kommentar
a) Kostnader värderats på ett trovärdigt sätt?			
b) Effekter värderats på ett trovärdigt sätt?			
7. Diskontering	Ja	Nej	Kommentar
a) Har kostnader diskonterats?			
b) Har effekter diskonterats?			
c) Är diskonteringsräntan rimlig?			
8. Marginell ("inkrementell") analys	Ja	Nej	Kommentar
Inkrementell analys har gjorts av kostnader respektive effekter?			
9. Känslighetsanalys	Ja	Nej	Kommentar
a) Har lämpliga statistiska analyser utförts, medvisad/ej visad statistisk skillnad?			
b) Är spridningen för variabelvärdena rimlig?			
c) Är det visat om studiens resultat är känsliga för varierande variabelvärden?			
d) Har patientföljsamhet (compliance) ingått i känslighetsanalysen?			
10. Presentation och diskussion av studiens resultat	Ja	Nej	Kommentar
a) Tydligt uttryckta slutsatser?			
b) Jämförs resultaten med andra studiers resultat?			
c) Diskuteras om resultaten är generaliserbara?			
d) Har studien beaktat även andra väsentliga förhållanden med avseende på beslutssituationen (t ex etiska frågeställningar)?			
e) Diskuteras möjligheter till praktiskt genom-förande (t ex i form av en konsekvensanalys)?			
f) Förs i studien resonemang om alternativ-kostnader?			

11. Modellstudie med tidscykler (t ex Markov-modeller)	Ja	Nej	Kommentar
a) Är tidscyklerna tydligt beskrivna?			
b) Är tidscyklerna motiverade?			
12. Relevans för svensk sjukvård	**Ja**	**Nej**	**Kommentar**
a) Basala data (incidens, prevalens) är relevanta? (JA obligatoriskt för inklusion av studie)			
b) Relativpriser är relevanta? (JA obligatoriskt för inklusion av studie)			
c) Sjukvårdsorganisationen är relevant för svensk sjukvård?			
13. Jävsförhållande	**Ja**	**Nej**	**Kommentar**
a) Är författarna oberoende av finansiärer eller andra intressenter?			
b) Jävsförhållande utan problem för studien?			

Studiens kvalitet enligt checklistan ovan

Den hälsoekonomiska analysen baseras på medicinska data. Summan av bedömningen av den hälsoekonomiska studien och bedömningen av den medicinska studie, som den ekonomiska studien bygger på, kan aldrig innebära högre kvalitet än vad den medicinska anses motivera. I övrigt gäller följande:

Om alla obligatoriska JA (dvs 1a–1c, något av 3a–3d, 12a–12b), inga JA i övrigt: begränsad kvalitet
Om alla obligatoriska JA samt <50 procent JA av övriga JA = måttligt stark kvalitet
Om alla obligatoriska JA samt >50 procent JA av övriga JA = stark kvalitet