

# GRADE



# Afiliaciones

- Medicina interna & Medicina del enfermo en estado critico | OPD Hospitales Civiles de Guadalajara.
- Maestría en métodos de investigación en ciencias de la salud | Universidad de McMaster.
- Profesor de asignatura | CUCS | Universidad de Guadalajara.
- Sistema nacional de investigadores | Conacyt | Nivel I.
- Miembro y autor de la colaboración Cochrane | Cochrane México.
- Miembro del grupo “McMaster GRADE Centre” | Universidad de McMaster.
- Instructor “Core GRADE” | Universidad de McMaster.

# Conflicto de interés

## Financiero

- Ninguno.

## Intelectual

- Miembro y autor de la colaboración Cochrane | Cochrane México.
- Miembro del grupo “McMaster GRADE Centre” | Universidad de McMaster
- Instructor “Core GRADE” | Universidad de McMaster

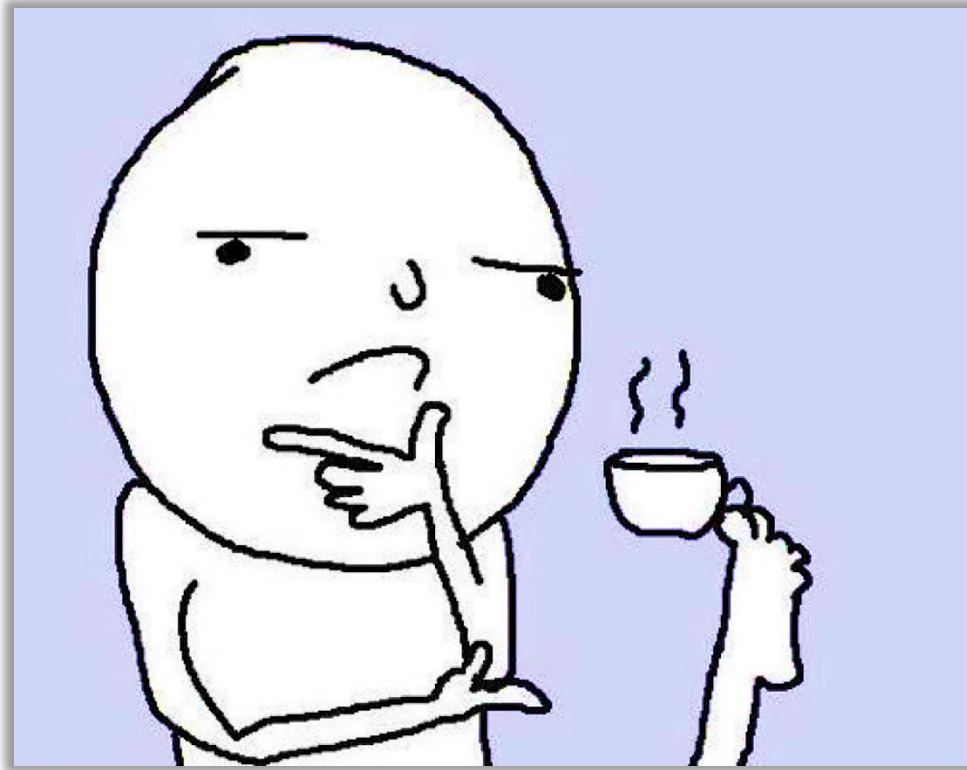
# Agenda del día

- Introducción.
- Evaluación de la certeza de la evidencia con el sistema GRADE.
- Transición de la evidencia a las recomendaciones (EtD framework).

# Agenda del día

- **Introducción.**
- Evaluación de la certeza de la evidencia con el sistema GRADE.
- Transición de la evidencia a las recomendaciones (EtD framework).

# ¿De dónde sale GRADE?

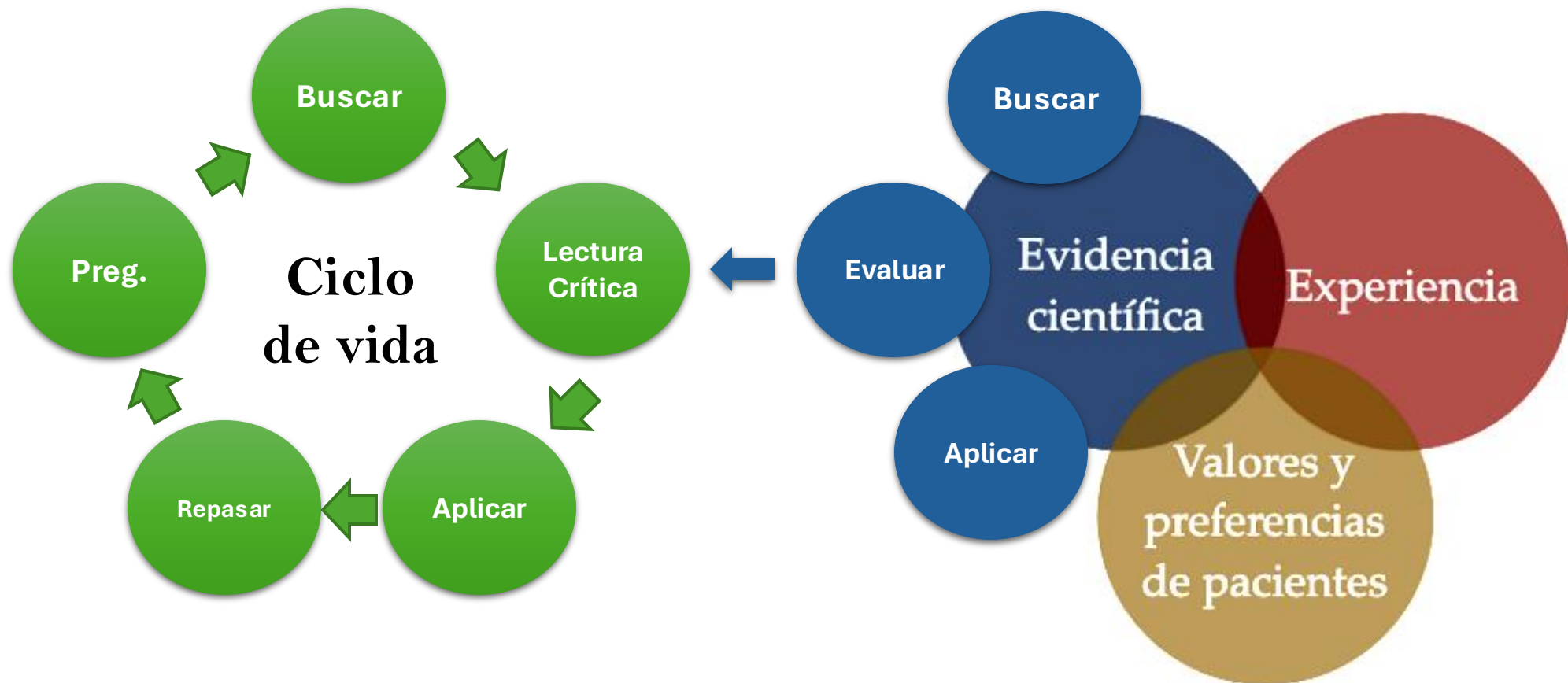


# Toma de decisiones

## Medicina Basada en Evidencias

Es un enfoque utilizado por los profesionales de la salud, el cual esta dirigido a optimizar la toma de decisiones, a partir de tres constructos: Evidencia científica, experiencia clínica y los valores y preferencias de los pacientes.

# Medicina Basada en Evidencias



# Evaluación de la credibilidad de la evidencia



**Andy Oxman**

## GRADE

(Grades of recommendation, assessment, development and evaluation)

Publicado por primera vez en 2004 en BMJ.

2008 Serie de 6 partes en BMJ.

Enfocado en clínicos

2011 al presente

Serie de 30 partes (hasta ahora) en JCE

Para autores de revisiones sistemáticas y guías

# Evaluación de la credibilidad de la evidencia



Andy Oxman



>110 organizaciones han implementado

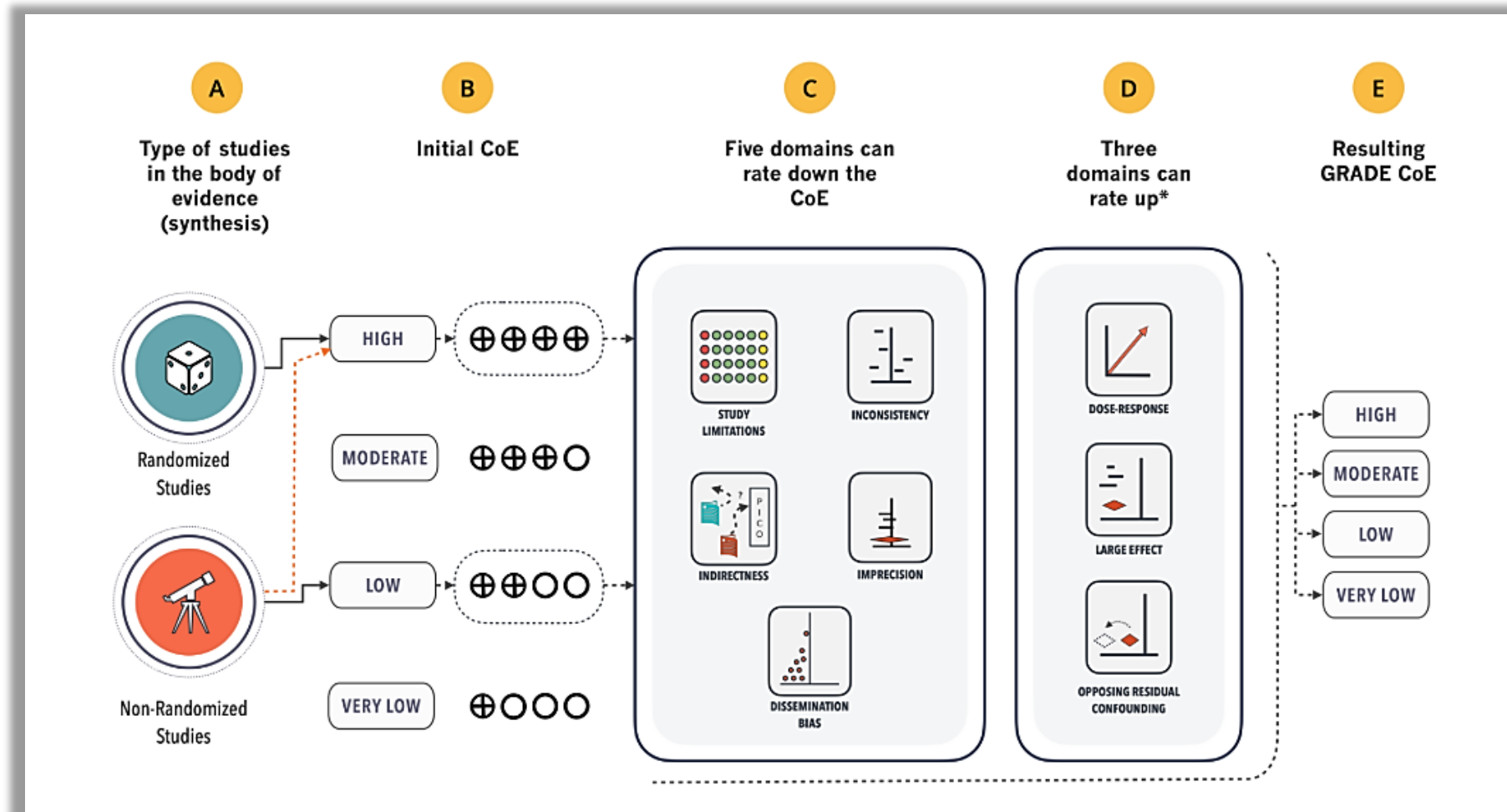
# GRADE vs Otros sistemas

Tabla 1. Ventajas de GRADE en comparación con otros sistemas

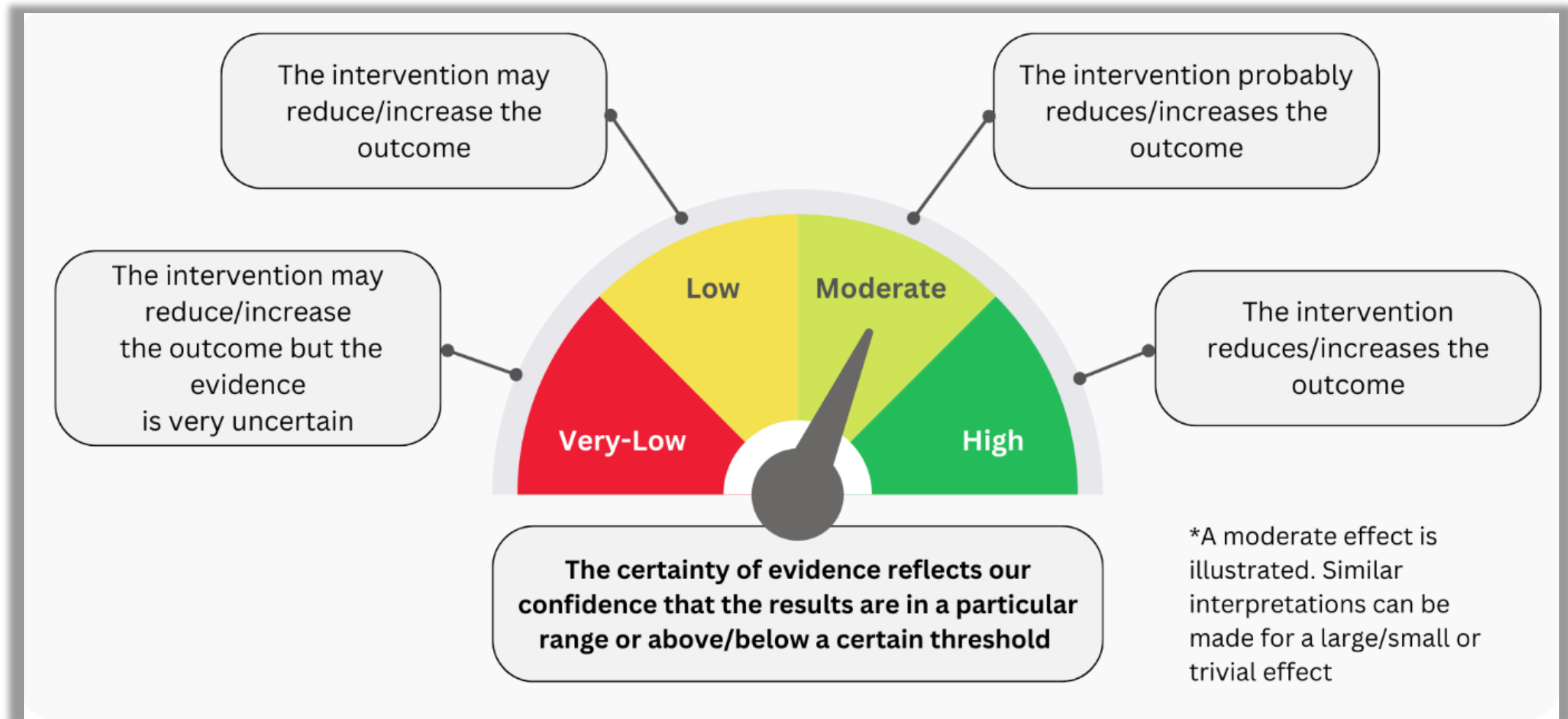
1. Separación clara entre la certeza de la evidencia y la fuerza de las recomendaciones.
2. Criterios explícitos y completos para disminuir o aumentar la certeza de la evidencia.
3. Consideración explícita de la importancia relativa de los distintos desenlaces para los pacientes y las personas.
4. Marco estructurado y proceso transparente para pasar de la evidencia a las decisiones.
5. Recomendación explícita de formular recomendaciones incluso cuando solo se dispone de evidencia de certeza muy baja.
6. Interpretación clara y pragmática de las recomendaciones fuertes y condicionales.
7. Equilibrio entre simplicidad, solidez metodológica y exhaustividad.
8. Permite la adaptación y adopción de decisiones y recomendaciones (Adolopment de GRADE).
9. Recursos para aprender sobre GRADE ampliamente disponibles y de acceso libre.
10. Respaldo por una red internacional.
11. Permite la innovación, el perfeccionamiento y el desarrollo continuo.
12. Respaldo por herramientas, por ejemplo, GRADEpro.



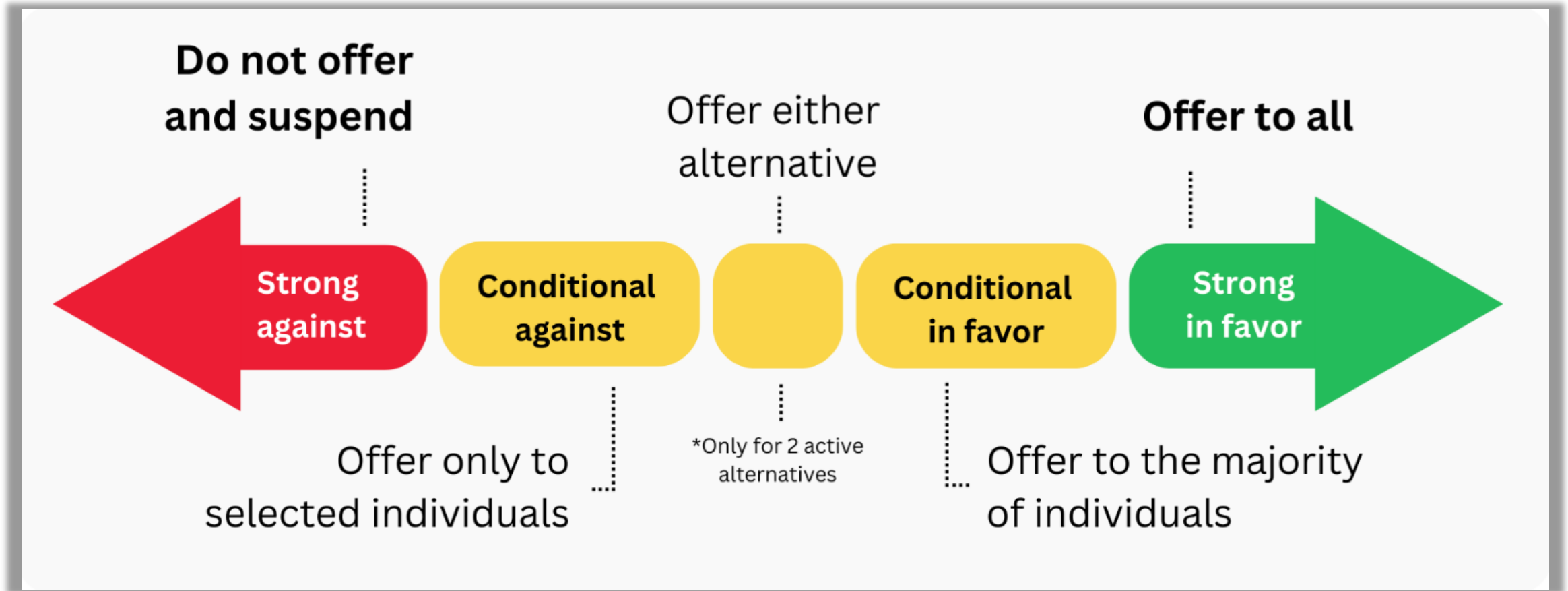
# Abordaje GRADE para la evaluación de la certeza en intervenciones



# Interpretación de los niveles de certeza de la evidencia de los efectos de las intervenciones



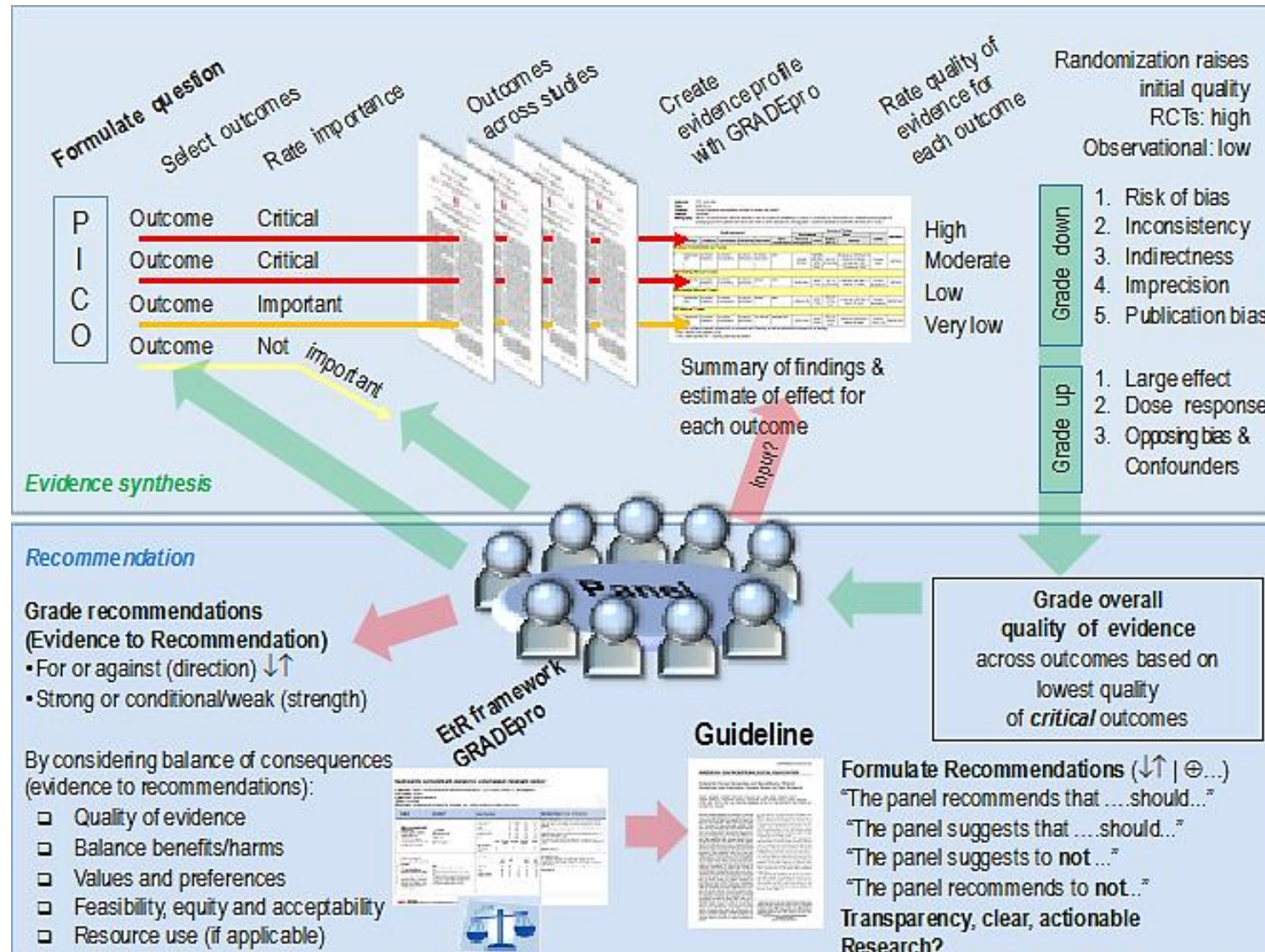
# Fuerza de las recomendaciones



# Agenda del día

- Introducción.
- Evaluación de la certeza de la evidencia con el sistema GRADE.
- Transición de la evidencia a las recomendaciones (EtD framework).

# Guías de practica clínica



# Ejercicios en GRADEpro



**Cochrane  
Library**

Cochrane Database of Systematic Reviews

## **Cenobamate add-on therapy for drug-resistant focal epilepsy (Review)**

Brigo F, Lattanzi S

# GRADE evidence profile

GRADEpro GDT

▼ Cochrane Iberoamerica - workshop

Help  

▼ Should Cenobamate add-on therapy vs. standard of care be used for drug-resistant focal epilepsy?



Bottom panel



Explanations



Cenobamate add-on therapy compared to standard of care for drug-resistant focal epilepsy



| Certainty assessment      |                           |                           |                            |                           |                          |                      | Summary of findings                    |                               |                                |                                |                        | Importance <sup>i</sup> |
|---------------------------|---------------------------|---------------------------|----------------------------|---------------------------|--------------------------|----------------------|----------------------------------------|-------------------------------|--------------------------------|--------------------------------|------------------------|-------------------------|
| № of studies <sup>i</sup> | Study design <sup>i</sup> | Risk of bias <sup>i</sup> | Inconsistency <sup>i</sup> | Indirectness <sup>i</sup> | Imprecision <sup>i</sup> | Other considerations | № of patients                          |                               | Effect                         |                                | Certainty <sup>i</sup> |                         |
|                           |                           |                           |                            |                           |                          |                      | Cenobamate add-on therapy <sup>i</sup> | Standard of care <sup>i</sup> | Relative (95% CI) <sup>i</sup> | Absolute (95% CI) <sup>i</sup> |                        |                         |

50% responder rate (assessed with: Defined as the proportion of participants with D 50% seizure reduction/month during the maintenance treatment period (of any duration) compared to baseline.)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

Seizure-freedom rate (assessed with: Defined as the proportion of participants achieving total seizure cessation during the maintenance treatment period (of any duration) compared to baseline)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

Any adverse event (assessed with: Proportion of participants who experienced any adverse event (AE) throughout the entire study period)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

Add outcome

Import outcome(s)



Dashboard



Project setup



Tasks



Team



Scope



References



Prognosis



Comparisons

Evidence table

Recommendations

Presentations



Multi comparisons



PanelVoice



Document sections

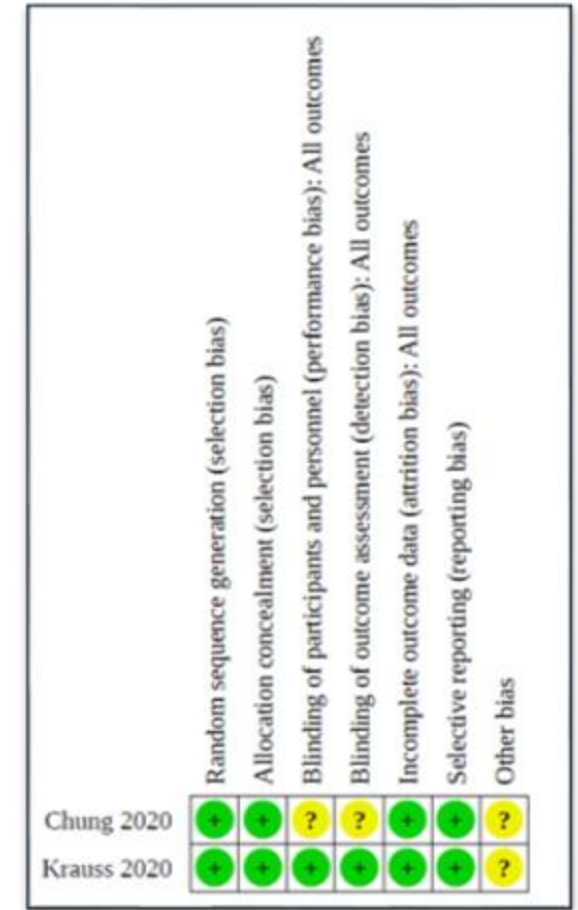
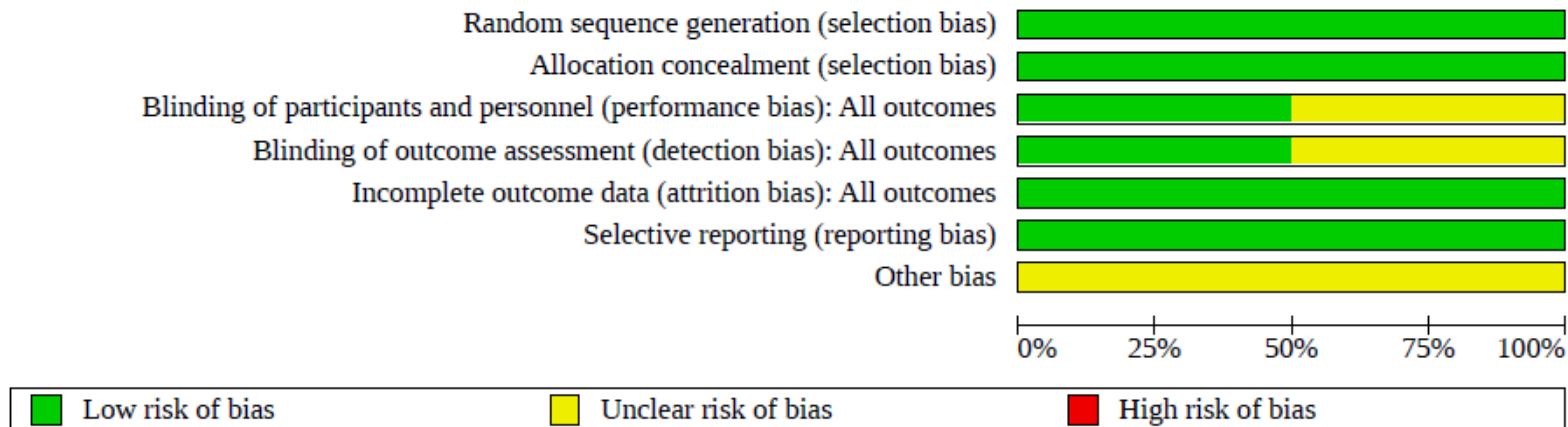


Dissemination

# Dominios de penalización (downgrade)

# Riesgo de Sesgo

Figure 2. Risk of bias graph: summary of review authors' judgements about risk of bias for all included studies.



# Riesgo de Sesgo

Con base a la información proporcionada

¿Hay riesgo de sesgo?

# Riesgo de Sesgo – GRADE book

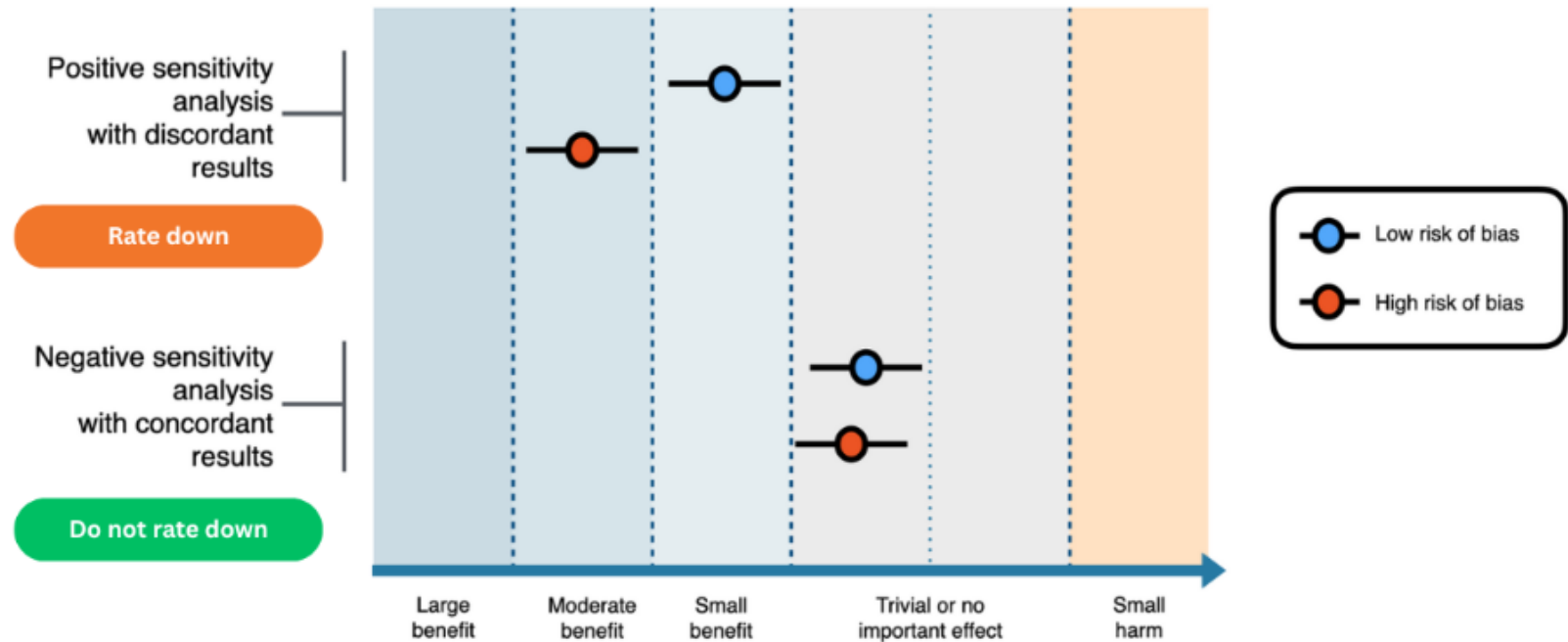
Table 1 – Limitations in the design or execution in randomized trials

| Limitations                                | Explanation                                                                                                                                                                                 | Ways trialists can reduce bias                                                                  |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Randomization process</b>               | Random allocation of participants to the different treatment groups creates groups of similar prognostic profiles and thus, similar probability of experiencing the outcomes of interest    | Computer generated sequence with allocation concealment (e.g., central randomization).          |
| <b>Systematic deviations from protocol</b> | Deviations from the intended protocol may change the prognostic similarity between groups established by randomization                                                                      | Blinding of participants, investigators, and study personnel<br><br>Intention-to-treat analysis |
| <b>Missing outcome data</b>                | If a substantial proportion of outcome data is missing the prognostic balance between groups established by randomization may be compromised                                                | Strategies to increase follow-up<br><br>Analytical strategies to deal with missing outcome data |
| <b>Outcome measurement</b>                 | Bias in the outcome measurement may arise when the adjudicators are aware of the treatment assignment                                                                                       | Blinding of participants, investigators, study personnel, outcome adjudicators                  |
| <b>Selection of the reported result</b>    | If different ways to report the same outcome are available, investigators may choose to report the measurement that looks more positive for the treatment group they believe to be superior | Use of core outcomes set<br><br>Publishing a detailed protocol                                  |

# Riesgo de Sesgo – GRADE book

## Guía para evaluación:

1. Umbrales?
2. Target (objetivo).
3. Comparación de la evidencia
  - (Bajo o Alto RoB).
4. Juicio de valor para disminuir la certeza.



# GRADEpro

▼ Should Cenobamate add-on therapy vs. standard of care be used for drug-resistant focal epilepsy?



Bottom panel



Explanations



Cenobamate add-on therapy compared to standard of care for drug-resistant focal epilepsy



| Certainty assessment |              |              |               |              |             |                      | Summary of findings       |                  |                   |                   |           | Importance |
|----------------------|--------------|--------------|---------------|--------------|-------------|----------------------|---------------------------|------------------|-------------------|-------------------|-----------|------------|
| № of studies         | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | № of patients             |                  | Effect            |                   | Certainty |            |
|                      |              |              |               |              |             |                      | Cenobamate add-on therapy | Standard of care | Relative (95% CI) | Absolute (95% CI) |           |            |

50% responder rate (assessed with: Defined as the proportion of participants with D 50% seizure reduction/month during the maintenance treatment period (of any duration) compared to baseline.)



|   |                   |             |  |  |  |  |  |  |               |  |   |  |
|---|-------------------|-------------|--|--|--|--|--|--|---------------|--|---|--|
| 2 | randomised trials | not serious |  |  |  |  |  |  | not estimable |  | - |  |
|---|-------------------|-------------|--|--|--|--|--|--|---------------|--|---|--|

Seizure-freedom rate (assessed with: Defined as the proportion of participants achieving total seizure cessation during the maintenance treatment period (of any duration) compared to baseline)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

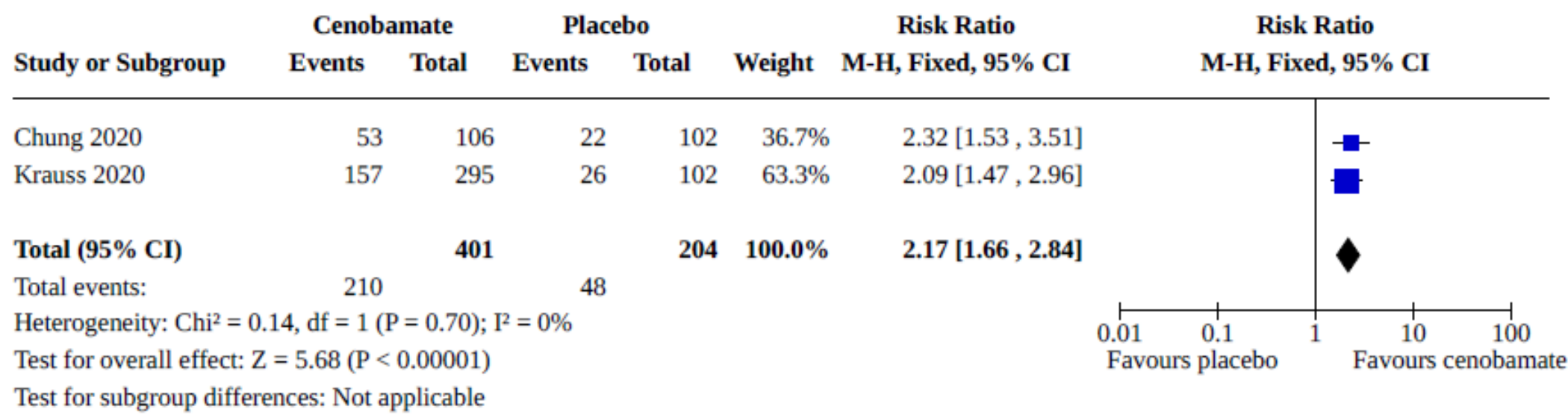
Any adverse event (assessed with: Proportion of participants who experienced any adverse event (AE) throughout the entire study period)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

# Inconsistencia

## Analysis 1.1. Comparison 1: Cenobamate versus placebo (any dose), Outcome 1: 50% responder rate

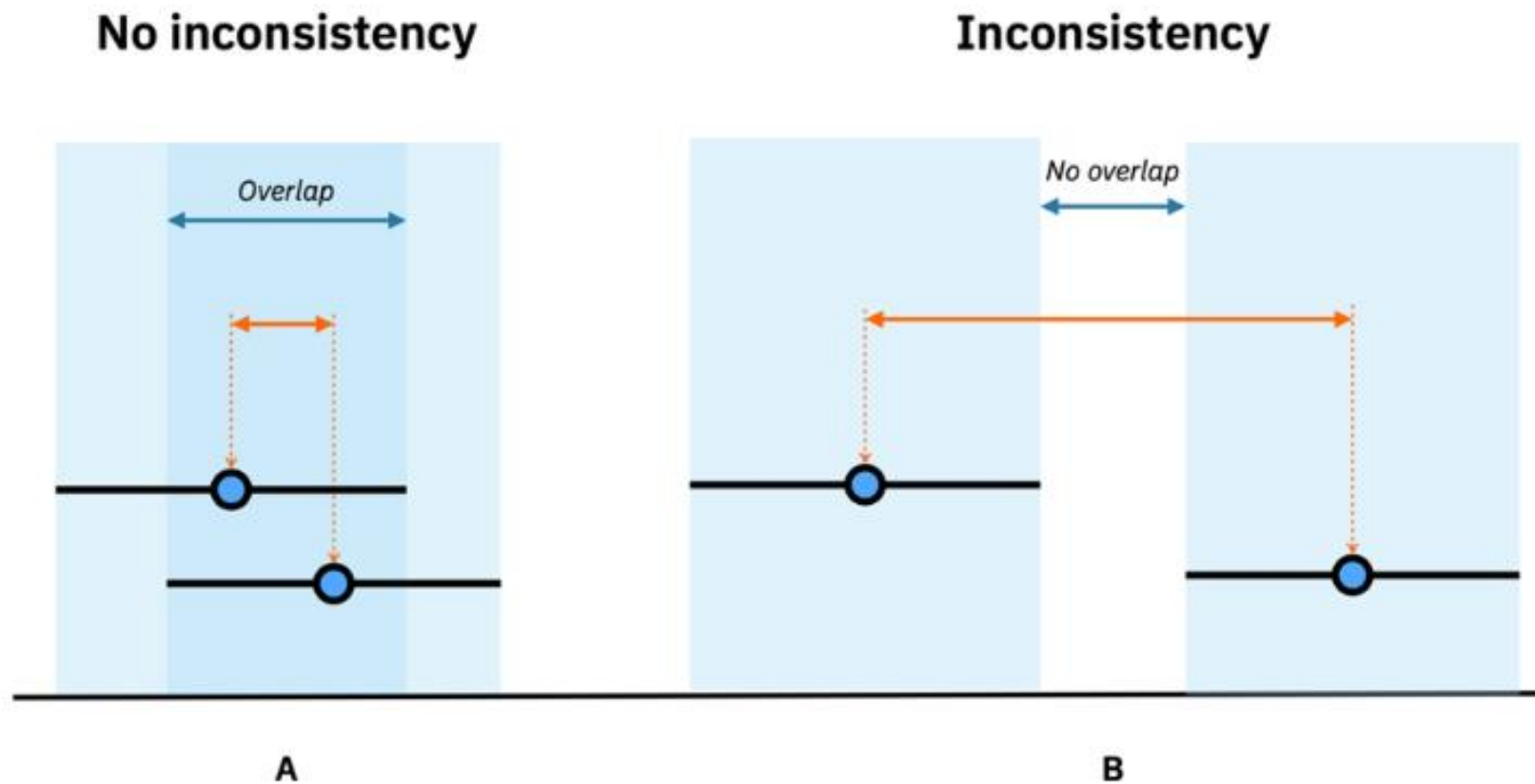


# Inconsistencia

Con base a la información proporcionada

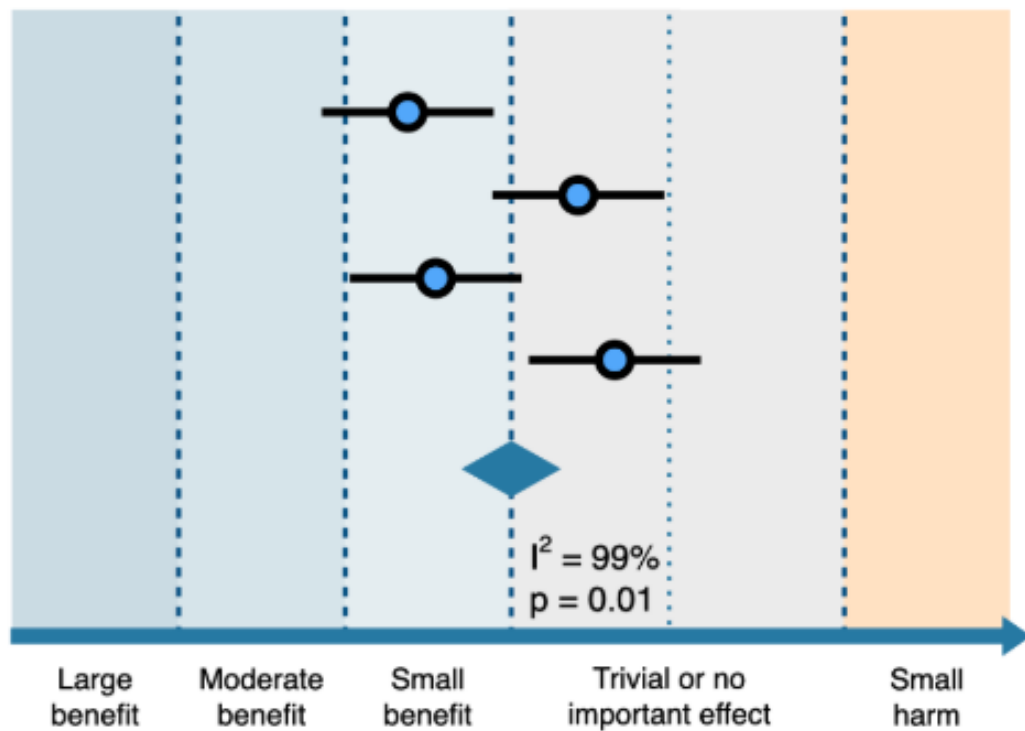
¿Hay inconsistencia?

# Inconsistencia

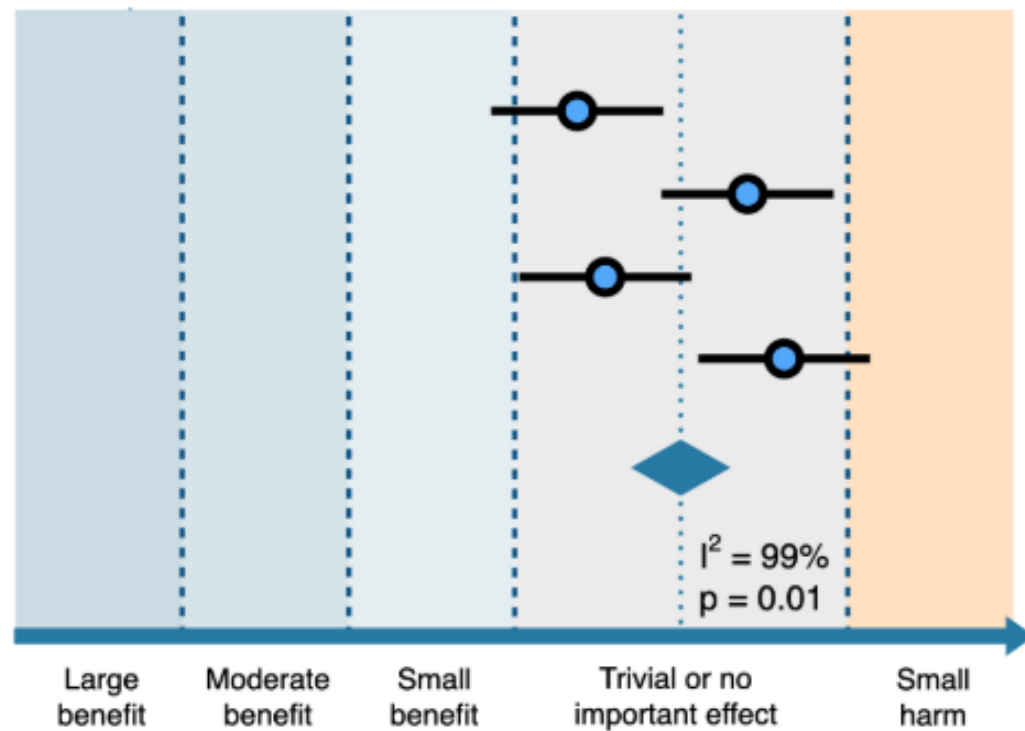


# Inconsistencia

## Inconsistency

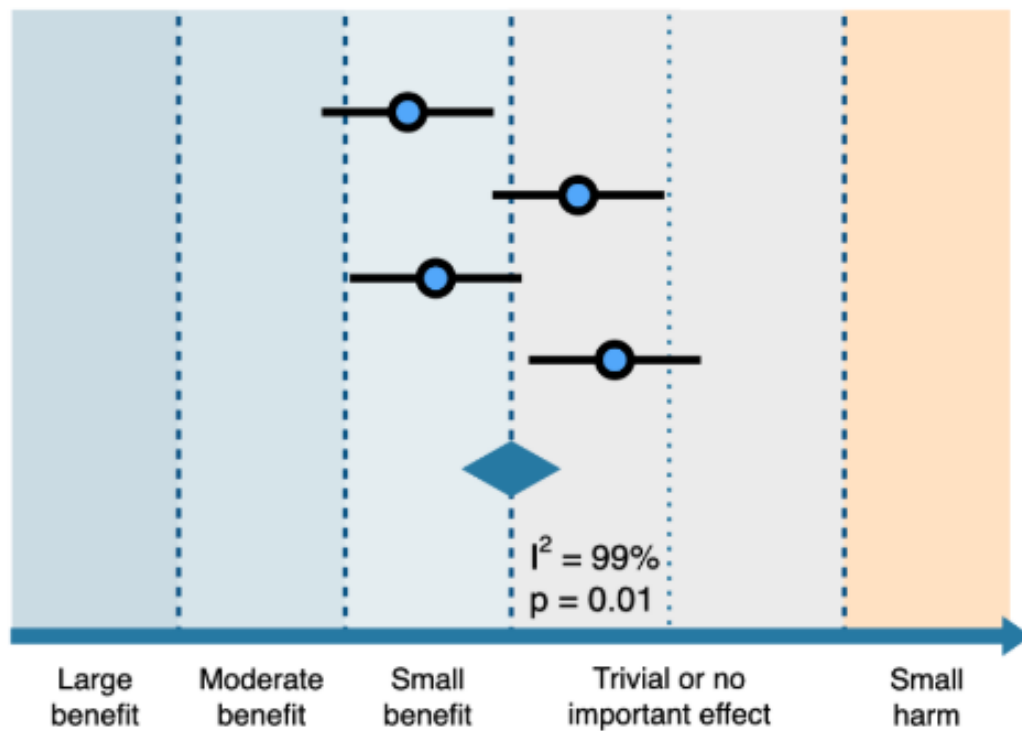


## No inconsistency

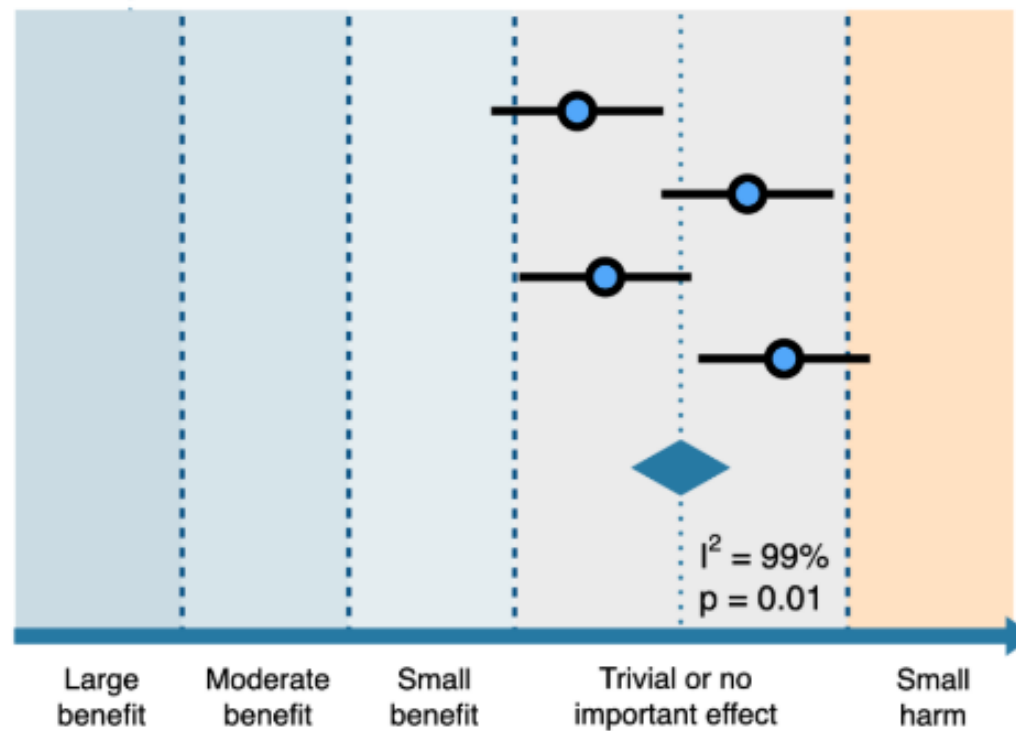


# Inconsistencia

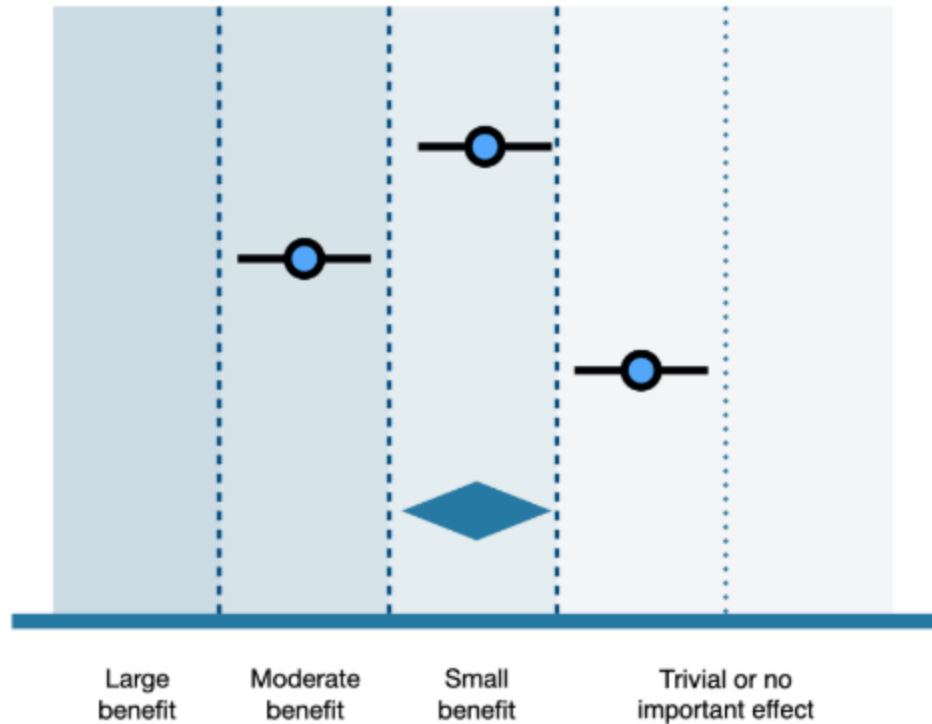
## Inconsistency



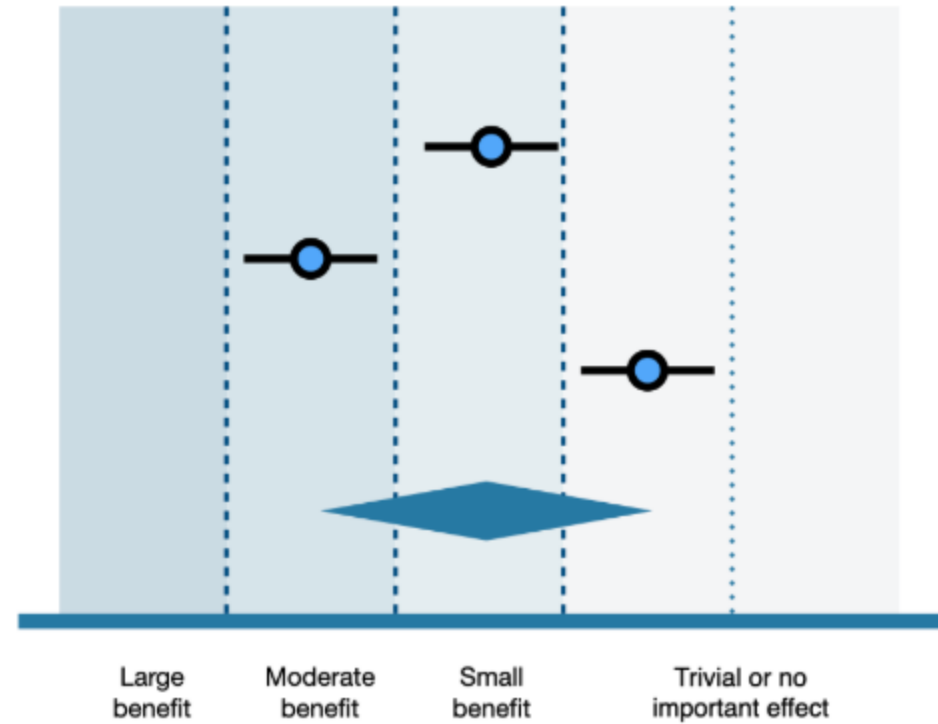
## No inconsistency



# Inconsistencia



**Fixed effect model**



**Random effect model**

# Inconsistencia – GRADE book

## Guía para evaluación:

1. Umbrales?
2. Target (objetivo).
3. Evaluar la evidencia ->
4. Juicio de valor para disminuir la certeza.

¿Cómo evaluamos la consistencia en un cuerpo de evidencia?

Variabilidad del efecto entre los estudios

Superposición de los efectos.

Evaluaciones estadísticas

Prueba de  $\chi^2$  para heterogeneidad

Valor de  $I^2$

# GRADEpro

▼ Should Cenobamate add-on therapy vs. standard of care be used for drug-resistant focal epilepsy?



Bottom panel



Explanations



Cenobamate add-on therapy compared to standard of care for drug-resistant focal epilepsy



| Certainty assessment |              |              |               |              |             |                      | Summary of findings       |                  |                   |                   | Importance |           |
|----------------------|--------------|--------------|---------------|--------------|-------------|----------------------|---------------------------|------------------|-------------------|-------------------|------------|-----------|
| № of studies         | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | № of patients             |                  | Effect            |                   |            | Certainty |
|                      |              |              |               |              |             |                      | Cenobamate add-on therapy | Standard of care | Relative (95% CI) | Absolute (95% CI) |            |           |

50% responder rate (assessed with: Defined as the proportion of participants with D 50% seizure reduction/month during the maintenance treatment period (of any duration) compared to baseline.)



|   |                   |             |             |  |  |  |  |  |               |  |   |  |
|---|-------------------|-------------|-------------|--|--|--|--|--|---------------|--|---|--|
| 2 | randomised trials | not serious | not serious |  |  |  |  |  | not estimable |  | - |  |
|---|-------------------|-------------|-------------|--|--|--|--|--|---------------|--|---|--|

Seizure-freedom rate (assessed with: Defined as the proportion of participants achieving total seizure cessation during the maintenance treatment period (of any duration) compared to baseline)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

Any adverse event (assessed with: Proportion of participants who experienced any adverse event (AE) throughout the entire study period)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

# Datos indirectos

Chung 2020

## *Study characteristics*

|         |                                                                             |
|---------|-----------------------------------------------------------------------------|
| Methods | Phase II, multicentre, parallel-group, placebo-controlled, randomised trial |
|---------|-----------------------------------------------------------------------------|

|              |                                  |
|--------------|----------------------------------|
| Participants | <b><i>Inclusion criteria</i></b> |
|--------------|----------------------------------|

- Ages eligible for study: 18 to 65 years
- Sexes eligible for study: all
- Diagnosis of treatment resistant partial epilepsy
- History of epilepsy for at least 2 years
- Have at least 3 simple partial with motor component, complex partial or secondarily generalised seizures per month with no consecutive 21-day seizure-free period
- Currently treated on a stable dose of: 1 to 3 AEDs for at least 12 weeks prior to randomisation
- VNS will not be counted as AED; however, the parameters must remain stable for at least 4 weeks prior to baseline
- Benzodiazepines taken at least once per week for epilepsy, or for anxiety or sleep disorder, will be counted as 1 AED. Therefore, only a maximum of 2 additional approved AEDs will be allowed.

|               |                                                                                                                                                                                                                                                                                       |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interventions | <b><i>Intervention</i></b><br>Oral cenobamate, 200 mg once daily<br><br><b><i>Comparator</i></b><br>Oral placebo, once daily<br><br>8-week observational baseline period<br>6-week double-blind titration<br>6-week double-blind maintenance phase<br>Open-label extension (optional) |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# Datos indirectos

**Krauss 2020** (Continued)

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methods       | Phase II, multicentre, parallel-group, placebo-controlled, randomised trial                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Participants  | <p><b>Inclusion criteria</b></p> <ul style="list-style-type: none"><li>• Ages eligible for study: 18 to 70 years</li><li>• Sexes eligible for study: all</li><li>• Weight at least 40 kg</li><li>• A diagnosis of partial epilepsy according to the International League Against Epilepsy's Classification of Epileptic Seizures. Diagnosis should have been established by clinical history and an electroencephalogram (EEG) that is consistent with localisation-related epilepsy; normal interictal EEGs will be allowed provided that the individual meets the other diagnosis criterion (i.e. clinical history).</li><li>• Have uncontrolled partial seizures despite having been treated with at least 1 AED within approximately the last 2 years</li><li>• During the 8-week baseline period, individuals must have at least 8 partial seizures including only simple partial seizures with motor component, complex partial seizures, or secondarily generalised seizures without a seizure-free interval of greater than 25 days any time during the 8-week baseline. Individuals must have at least 3 of these partial seizures during each of the 2 consecutive 4-week segments of the baseline period.</li><li>• Currently on stable antiepileptic treatment regimen</li></ul> |
| Interventions | <p><b>Intervention</b><br/>Oral cenobamate, 100, 200, 400 mg once daily</p> <p><b>Comparator</b><br/>Oral placebo, once daily</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

# Datos indirectos

Con base a la información proporcionada

¿Hay datos indirectos?

# Datos indirectos

Outcome: 50% responder rate

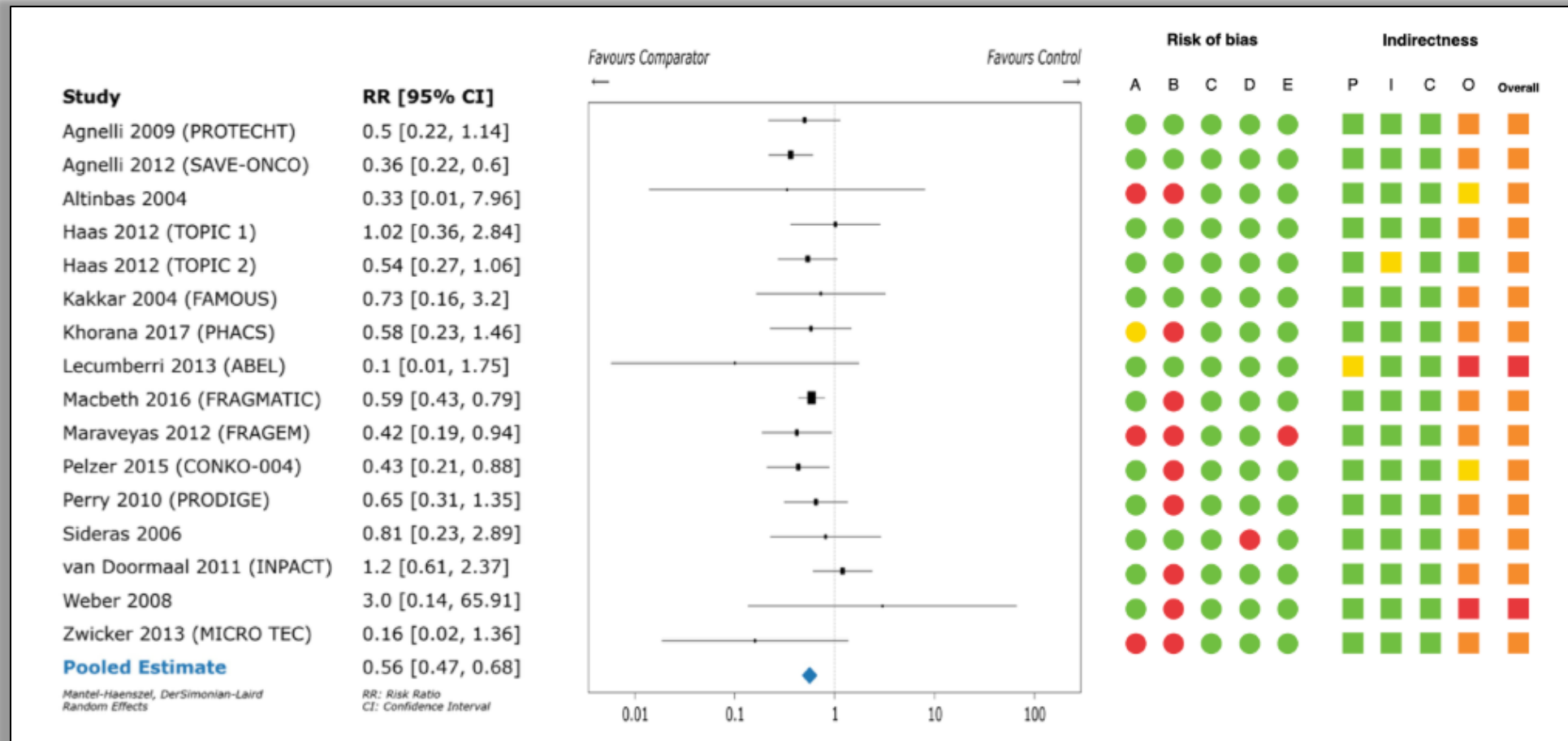
| Domain (original question asked)                  | Description                                                                                                                      | Judgment - Is the evidence sufficiently direct?                                                                         |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Population:                                       |                                                 | <input type="radio"/> Yes <input type="radio"/> Probably yes <input type="radio"/> Probably no <input type="radio"/> No |
| Intervention: Cenobamate add-on therapy           |                                                                                                                                  | <input type="radio"/> Yes <input type="radio"/> Probably yes <input type="radio"/> Probably no <input type="radio"/> No |
| Comparator: standard of care                      |                                                                                                                                  | <input type="radio"/> Yes <input type="radio"/> Probably yes <input type="radio"/> Probably no <input type="radio"/> No |
| Direct comparison                                 |                                                                                                                                  | <input type="radio"/> Yes <input type="radio"/> Probably yes <input type="radio"/> Probably no <input type="radio"/> No |
| Outcome: 50% responder rate                       |                                                                                                                                  | <input type="radio"/> Yes <input type="radio"/> Probably yes <input type="radio"/> Probably no <input type="radio"/> No |
| Final judgment about indirectness across domains: | <input type="radio"/> No indirectness <input type="radio"/> Serious indirectness <input type="radio"/> Very serious indirectness |                                                                                                                         |

| Subdomains                                                                                                                                                                                                                                                                                                                                                       | Items and sub-items                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>POPULATION</b><br><br><b>Interaction between population and intervention:</b> when the effect of the intervention may differ across subpopulations<br><br><b>Uncertainty about baseline risk:</b> when the relative estimates of an intervention effect are applied or generalized to a population of interest for which the baseline risk is not well known. | <ul style="list-style-type: none"> <li>• <b>Disease and co-morbidities:</b> Primary condition of interest, secondary conditions of interest (co-morbidities).</li> <li>• <b>Non-modifiable person or population characteristics:</b> Age, gender, genetics, ethnicity.</li> <li>• <b>Modifiable person or population characteristics:</b> Anthropometric (weight), type of community or organization.</li> <li>• <b>Environmental and geographic characteristics:</b> Urban on non-urban, exposure to toxins.</li> <li>• <b>Setting:</b> Health care system and provision (tertiary care, secondary, primary care), regulatory environment.</li> </ul> |
| <b>INTERVENTION</b><br><br><b>Interaction between intervention and how is delivered:</b> when the effect of the intervention may differ depending on how, where, or by whom it is delivered.                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• <b>Type of intervention:</b> Drugs/medications, behavioural, policy change.</li> <li>• <b>Components of the intervention:</b> Provider of the intervention, intensity and duration</li> <li>• <b>Naturally occurring intervention:</b> Type of exposure</li> </ul>                                                                                                                                                                                                                                                                                                                                            |
| <b>COMPARISON</b><br><br><b>Interaction between intervention and comparator:</b> when the effect of the intervention may vary depending on the specific comparator used.                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• <b>No active comparison:</b> Use of placebo or sham intervention, usual care (may include different interventions), no intervention at all.</li> <li>• <b>Active comparison:</b> same considerations that with the intervention.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |
| <b>OUTCOMES</b><br><br><b>Interaction between intervention and outcomes:</b> when the effect of the intervention may vary depending on which outcomes are measured, how they are defined, and the timing of their assessment.                                                                                                                                    | <ul style="list-style-type: none"> <li>• <b>Health and well being outcomes:</b> How is the outcome measured, when is measured.</li> <li>• <b>Burden:</b> from the intervention and the comparison</li> <li>• <b>Health systems outcomes:</b> Resources and societal outcomes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                |

# Datos indirectos

| Subdomain                                               | Description                                                                                                                            | Judgment                                   |                                          |                                                    |                                |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------|----------------------------------------------------|--------------------------------|
| Target question                                         | Evidence found                                                                                                                         | Is the evidence is sufficiently direct?    |                                          |                                                    |                                |
| <b>Population:</b><br>All patients with advanced cancer | The trial included patients with advanced small cell lung cancer. The study population was representative of patients seen in practice | Yes<br><input checked="" type="checkbox"/> | Probably Yes<br><input type="checkbox"/> | Probably No<br><input type="checkbox"/>            | No<br><input type="checkbox"/> |
| <b>Intervention:</b><br>Heparins (any type)             | The trial assessed the effect of Low Molecular Weight Heparin (LMWH)                                                                   | Yes<br><input checked="" type="checkbox"/> | Probably Yes<br><input type="checkbox"/> | Probably No<br><input type="checkbox"/>            | No<br><input type="checkbox"/> |
| <b>Comparison:</b><br>No anticoagulation                | The trial used placebo injections similar to LMWH                                                                                      | Yes<br><input checked="" type="checkbox"/> | Probably Yes<br><input type="checkbox"/> | Probably No<br><input type="checkbox"/>            | No<br><input type="checkbox"/> |
| <b>Outcome:</b><br>Symptomatic venous thromboembolism   | The trial reported symptomatic and asymptomatic venous thromboembolism determined by screening                                         | Yes<br><input type="checkbox"/>            | Probably Yes<br><input type="checkbox"/> | Probably No<br><input checked="" type="checkbox"/> | No<br><input type="checkbox"/> |
| <b>Judgment across subdomains</b>                       | The trial is relevant, but there are concerns about indirectness due to the use of surrogate outcomes                                  | Serious Indirectness                       |                                          |                                                    |                                |

# Datos indirectos



# Datos indirectos – GRADE book

## Guía para evaluación:

1. Umbrales?
2. Target (objetivo).
3. Evaluar la evidencia.
4. Juicio de valor para disminuir la certeza.

Table 1. Subdomains (PICO components), common source of indirectness and strategies to mitigate their impact

| Subdomain                                              | Common sources of indirectness                                                                                                                                                                                  | Ways to mitigate it                                                                                                                                                                                                |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Population indirectness (sub group effect)             | Most of the evidence—based on the weight of included studies—comes from a population that differs from the population of interest, and there are differences in relative effects due to interaction             | <p>Prioritize studies that directly include the population of interest.</p> <p>Conduct subgroup analyses for the relevant population to assess whether effect estimates are concordant</p>                         |
| Population indirectness (uncertainty on baseline risk) | Concerns that the baseline risk in the included studies does not represent the baseline risk of the target population                                                                                           | <p>Calculate absolute effect estimates using baseline risk data from observational studies</p> <p>Test plausible baseline risks and assess whether the corresponding absolute effect estimates are concordant.</p> |
| Intervention indirectness                              | Most of the evidence relates to interventions that differ from the intervention of interest, and relative effects are likely to differ between the intervention of interest and those evaluated in the studies. | <p>Prioritize studies that evaluate the intervention of interest.</p> <p>Use additional evidence (e.g., observational studies) to test for differences in relative effects.</p>                                    |
| Comparator indirectness                                | Interventions are compared with a comparator that differs from the one specified in the review or guideline question and relative effects are likely to differ due to the different comparison                  | <p>Prioritize the most direct comparison</p> <p>Conduct sensitivity analyses using different comparators and assess whether absolute estimates are concordant</p>                                                  |
| Outcome indirectness                                   | Outcomes most important to people are not directly measured, requiring reliance on surrogate outcomes, outcomes measured sub-optimally, or follow-up periods that are too short.                                | <p>Focus on studies that measure the outcome of interest</p> <p>Use additional evidence (e.g., observational studies) to model outcomes with more accurate measurement.</p>                                        |

# GRADEpro

| Certainty assessment                                                                            |                                                                                                |                                                                                                |                                                                                                 |                                                                                                |                                                                                                 |                      | Summary of findings                                                                                           |                                                                                                      |                                                                                                       |                                                                                                       |                                                                                               | Importance  |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| No of studies  | Study design  | Risk of bias  | Inconsistency  | Indirectness  | Imprecision  | Other considerations | No of patients                                                                                                |                                                                                                      | Effect                                                                                                |                                                                                                       | Certainty  |                                                                                                |
|                                                                                                 |                                                                                                |                                                                                                |                                                                                                 |                                                                                                |                                                                                                 |                      | Cenobamate add-on therapy  | Standard of care  | Relative (95% CI)  | Absolute (95% CI)  |                                                                                               |                                                                                                |

50% responder rate (assessed with: Defined as the proportion of participants with D 50% seizure reduction/month during the maintenance treatment period (of any duration) compared to baseline.) 

|   |                   |             |             |             |  |  |  |  |               |  |   |  |
|---|-------------------|-------------|-------------|-------------|--|--|--|--|---------------|--|---|--|
| 2 | randomised trials | not serious | not serious | not serious |  |  |  |  | not estimable |  | - |  |
|---|-------------------|-------------|-------------|-------------|--|--|--|--|---------------|--|---|--|

Seizure-freedom rate (assessed with: Defined as the proportion of participants achieving total seizure cessation during the maintenance treatment period (of any duration) compared to baseline) 

|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

Any adverse event (assessed with: Proportion of participants who experienced any adverse event (AE) throughout the entire study period) 

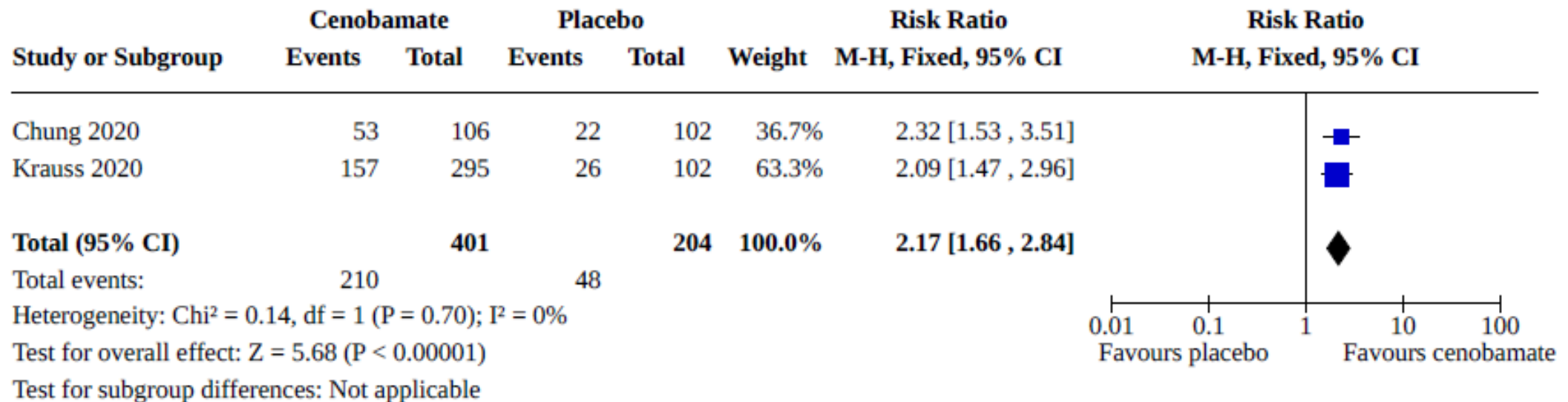
|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

Add outcome

Import outcome(s)

# Imprecisión

## Analysis 1.1. Comparison 1: Cenobamate versus placebo (any dose), Outcome 1: 50% responder rate

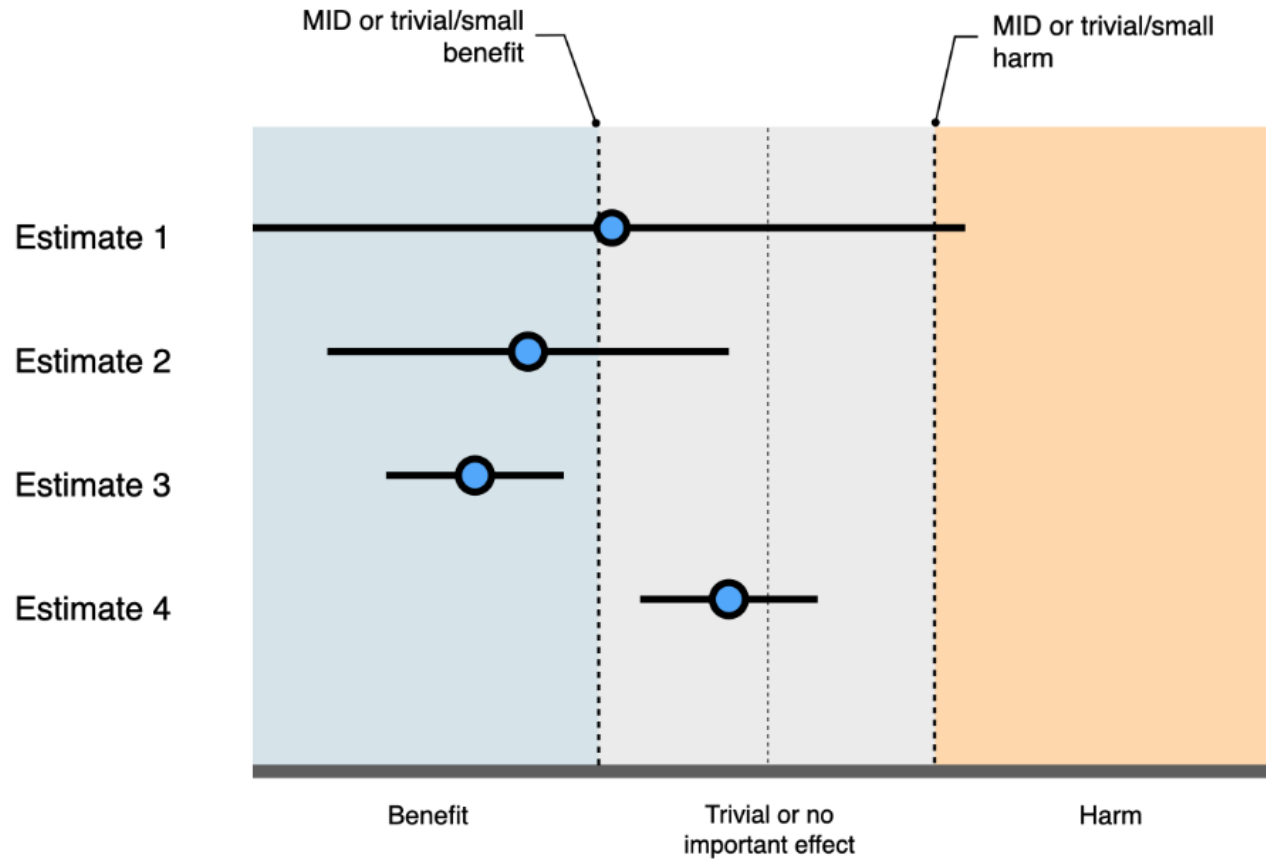


# Imprecisión

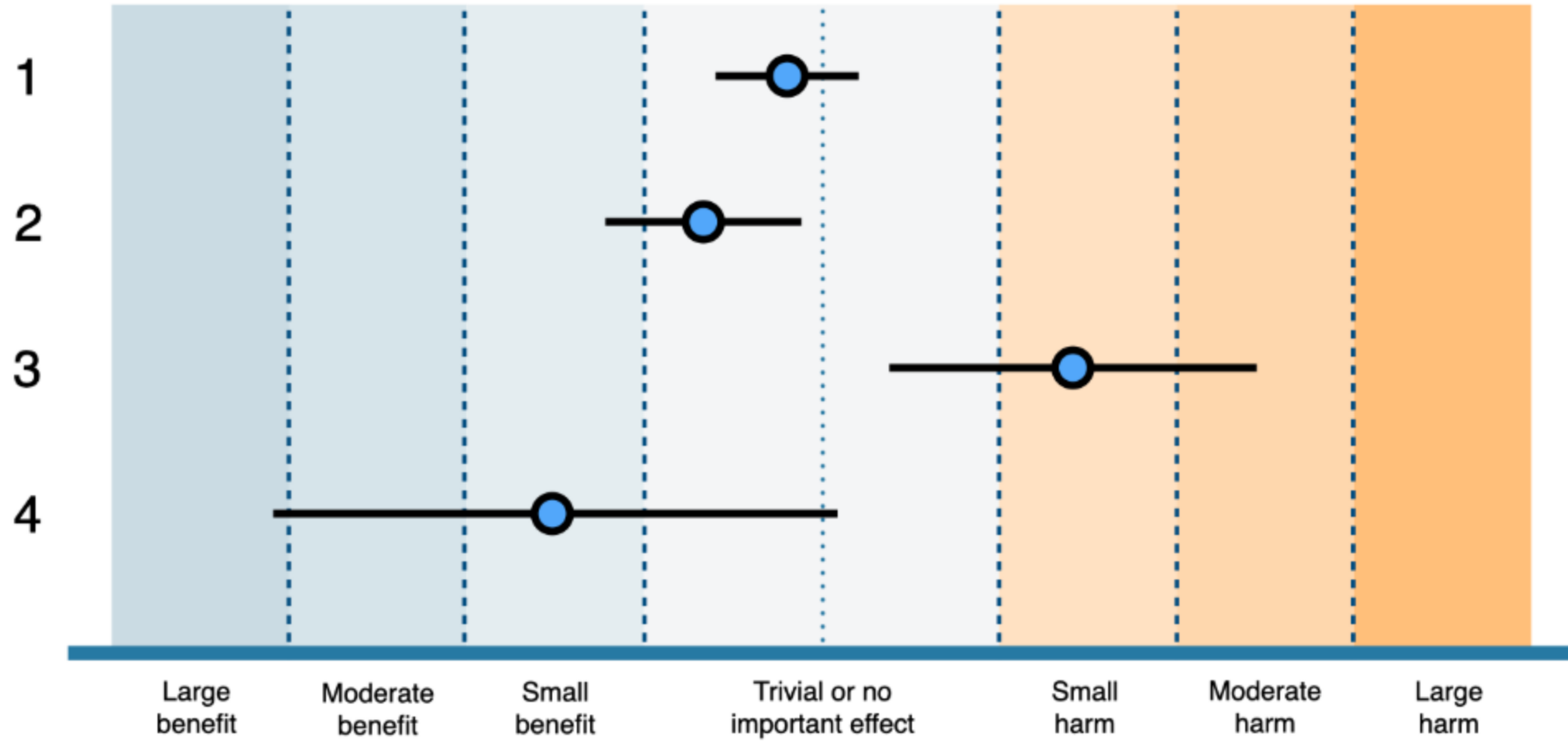
Con base a la información proporcionada

¿Hay datos imprecisión?

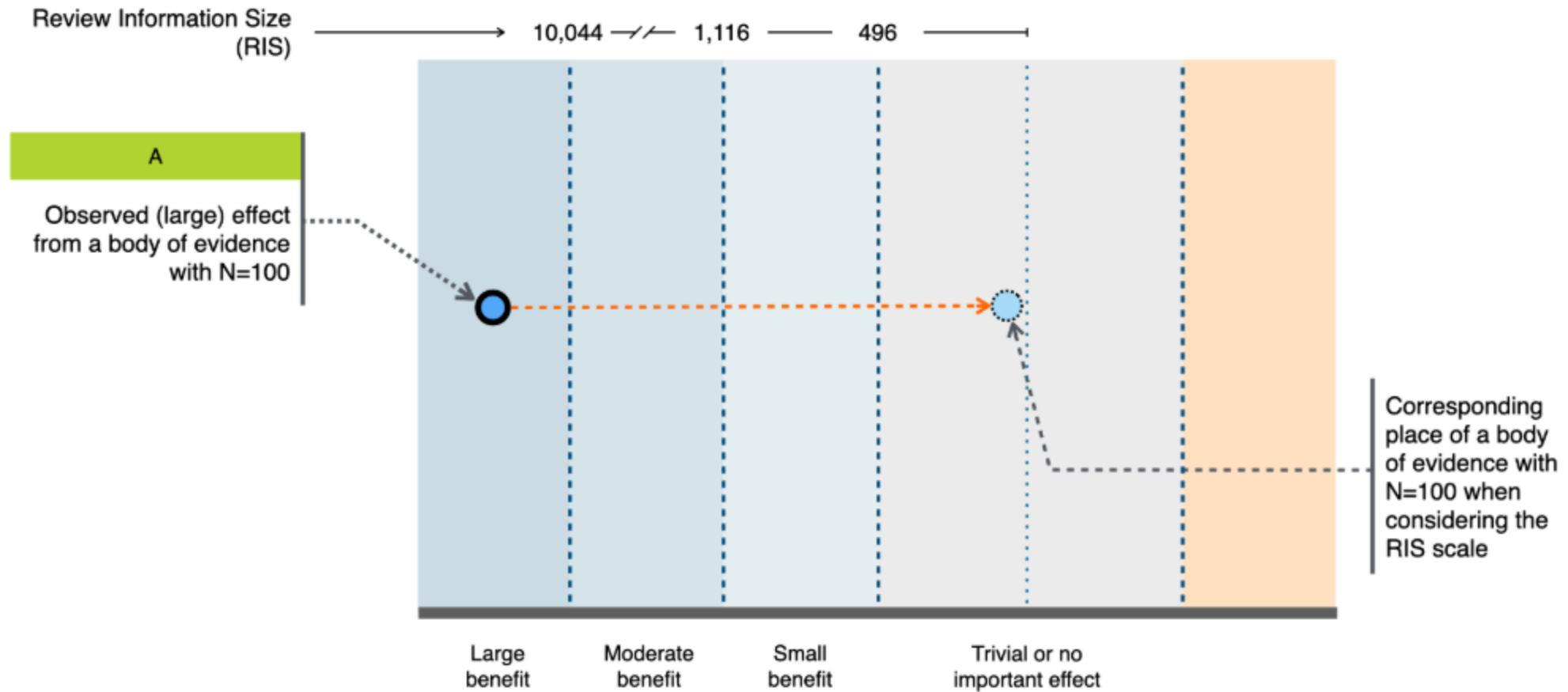
# Imprecisión



# Imprecisión



# Imprecisión



# Imprecisión

## 4.1. When systematic review and guideline authors should check optimal information size

Considering OIS refers to considering whether the total number of participants or events in the meta-analysis is more than the number of participants or events generated by a conventional sample size calculation for a single adequately powered trial [1,2]. When the CI overlaps with threshold(s) of interest, authors would rate down for imprecision and do not need to consider the OIS.

When the CI does not overlap with the threshold(s) of interest and the effect is sufficiently large and [e.g., relative risk (RR) reduction or an RR increase over 30%] that the authors consider the results implausible, authors should consider implementing the OIS [1,2,12]. If the OIS is met, authors do not need to rate down for imprecision; otherwise, authors should rate down. It is important to notice that because the calculation of OIS is based on relative estimates of effect [1], all assessments and steps in OIS approach focus on the relative estimate of effect (as opposed to the CI approach, which is done based on absolute estimates of effect).



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## GRADE GUIDANCE SERIES

### GRADE Guidance 34: update on rating imprecision using a minimally contextualized approach

Linan Zeng<sup>a,b,\*</sup>, Romina Brignardello-Petersen<sup>b</sup>, Monica Hultcrantz<sup>c</sup>, Reem A. Mustafa<sup>d</sup>,  
Mohammad H. Murad<sup>e</sup>, Alfonso Iorio<sup>b,f</sup>, Gregory Traversy<sup>g</sup>, Elie A. Akl<sup>h</sup>, Martin Mayer<sup>i,j,k</sup>,  
Holger J. Schünemann<sup>b,f</sup>, Gordon H. Guyatt<sup>b,f</sup>

# Imprecisión



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Journal of Clinical Epidemiology 150 (2022) 216–224

Journal of  
Clinical  
Epidemiology

## GRADE GUIDANCE SERIES

### GRADE Guidance 34: update on rating imprecision using a minimally contextualized approach

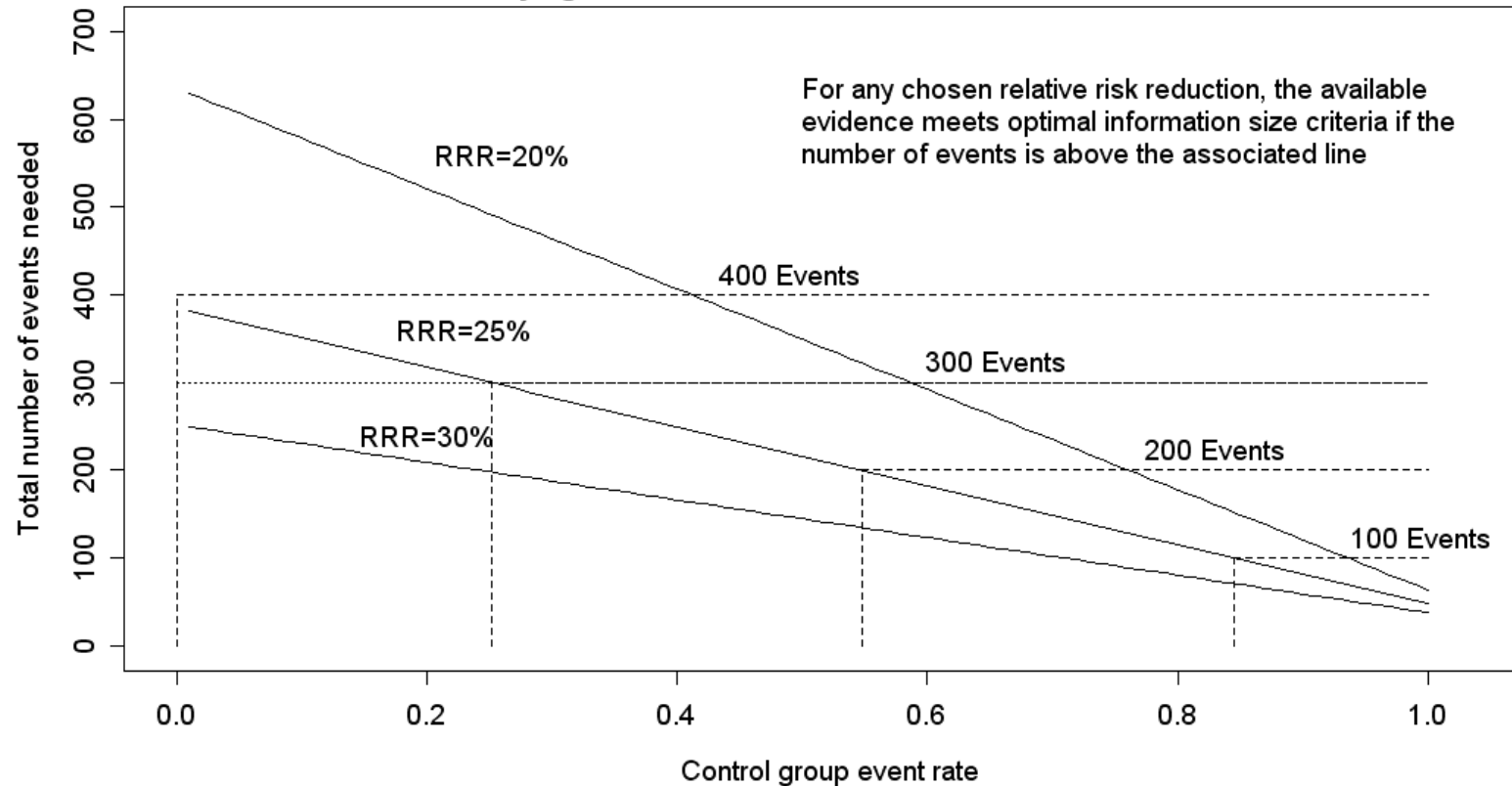
Linan Zeng<sup>a,b,\*</sup>, Romina Brignardello-Petersen<sup>b</sup>, Monica Hultcrantz<sup>c</sup>, Reem A. Mustafa<sup>d</sup>,  
Mohammad H. Murad<sup>e</sup>, Alfonso Iorio<sup>b,f</sup>, Gregory Traversy<sup>g</sup>, Elie A. Akl<sup>h</sup>, Martin Mayer<sup>i,j,k</sup>,  
Holger J. Schünemann<sup>b,f</sup>, Gordon H. Guyatt<sup>b,f</sup>

#### Box 5 Circumstances when one should consider rating down two levels for imprecision based on optimal information size calculation using a minimally contextualized approach

1. For dichotomous outcomes, when the ratio of the upper to the lower boundary of the CI is more than 2.5 for odds ratio or three for risk ratio (Appendix A, Example 1).
2. For continuous outcomes, when the total sample size of a meta-analysis is smaller than 30–50% of the OIS (Appendix A, Example 2).

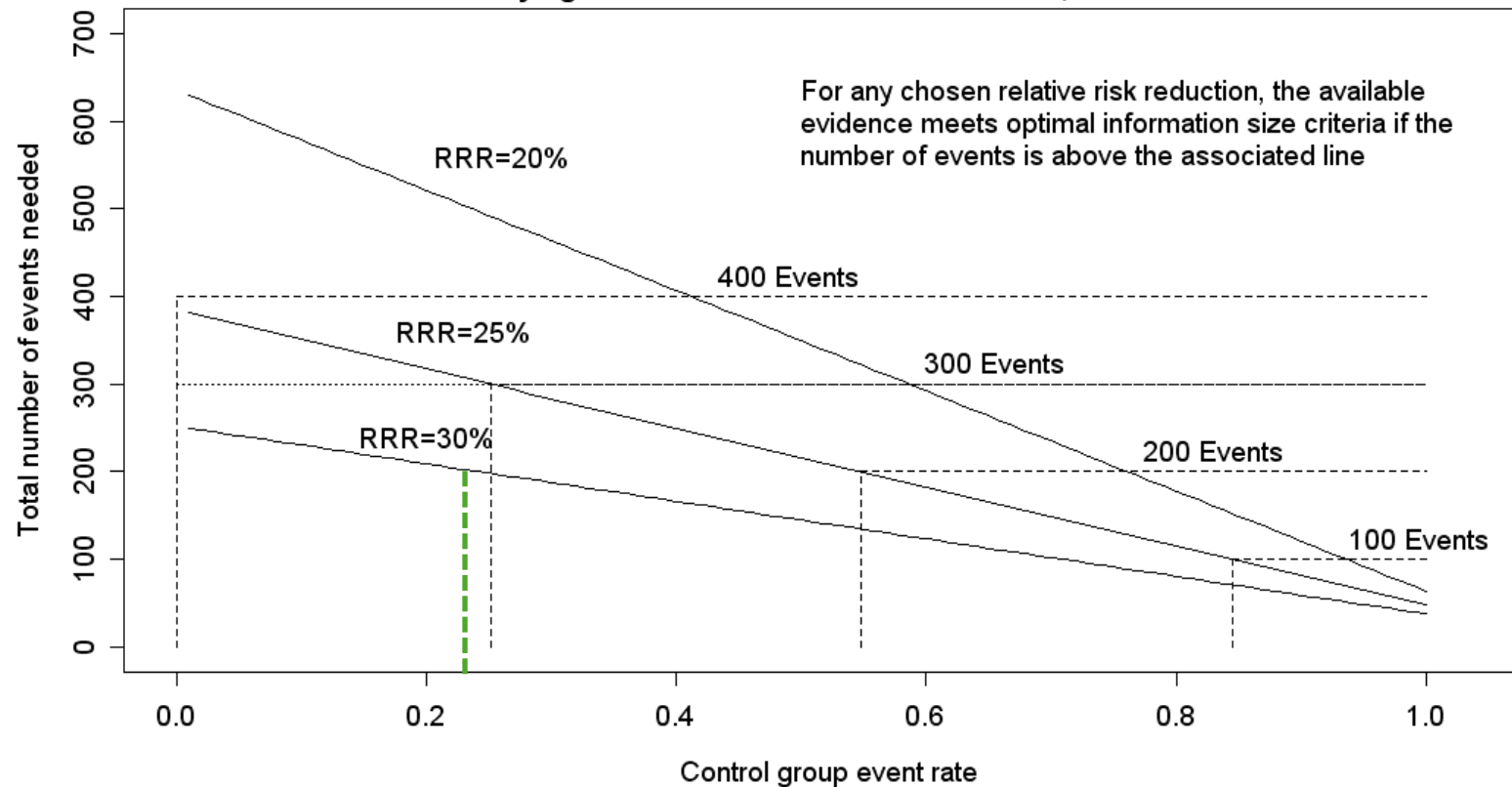
# Imprecisión

**Figure 5: Optimal information size presented as number of events  
given alpha of 0.05 and beta of 0.20  
for varying control event rates and RRR of 20%, 25% and 30%**



# Imprecisión

Figure 5: Optimal information size presented as number of events  
given alpha of 0.05 and beta of 0.20  
for varying control event rates and RRR of 20%, 25% and 30%



# Imprecisión – GRADE book

## Guía para evaluación:

1. Umbrales?
2. Target (objetivo).
3. Evaluar la evidencia.
4. Juicio de valor para disminuir la certeza.
5. OIS o RIS.

### Considera disminuir la certeza por imprecisión:

- Tamaño de muestra pequeño, IC amplio.
  - Observa los límites superior e inferior del IC.
- Si cruza el umbral, es probable que se deba disminuir la calificación.
- Si cruza los umbrales de beneficio importante o daño, actúa en consecuencia.
  - Considera un resumen en lenguaje claro.
- Si el efecto es grande ( $RRR > 30\%$ ), revisa nuevamente.
  - Está bien si se cumple el OIS (revisa la figura o al menos 300 eventos).

# GRADEpro

▼ Should Cenobamate add-on therapy vs. standard of care be used for drug-resistant focal epilepsy?



Bottom panel



Explanations



Cenobamate add-on therapy compared to standard of care for drug-resistant focal epilepsy



| Certainty assessment |              |              |               |              |             |                      | Summary of findings       |                  |                   |                   |           | Importance |
|----------------------|--------------|--------------|---------------|--------------|-------------|----------------------|---------------------------|------------------|-------------------|-------------------|-----------|------------|
| № of studies         | Study design | Risk of bias | Inconsistency | Indirectness | Imprecision | Other considerations | № of patients             |                  | Effect            |                   | Certainty |            |
|                      |              |              |               |              |             |                      | Cenobamate add-on therapy | Standard of care | Relative (95% CI) | Absolute (95% CI) |           |            |

50% responder rate (assessed with: Defined as the proportion of participants with D 50% seizure reduction/month during the maintenance treatment period (of any duration) compared to baseline.)



|   |                   |             |             |             |                      |  |  |  |               |  |                |  |
|---|-------------------|-------------|-------------|-------------|----------------------|--|--|--|---------------|--|----------------|--|
| 2 | randomised trials | not serious | not serious | not serious | serious <sup>a</sup> |  |  |  | not estimable |  | - <sup>a</sup> |  |
|---|-------------------|-------------|-------------|-------------|----------------------|--|--|--|---------------|--|----------------|--|

Seizure-freedom rate (assessed with: Defined as the proportion of participants achieving total seizure cessation during the maintenance treatment period (of any duration) compared to baseline)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|

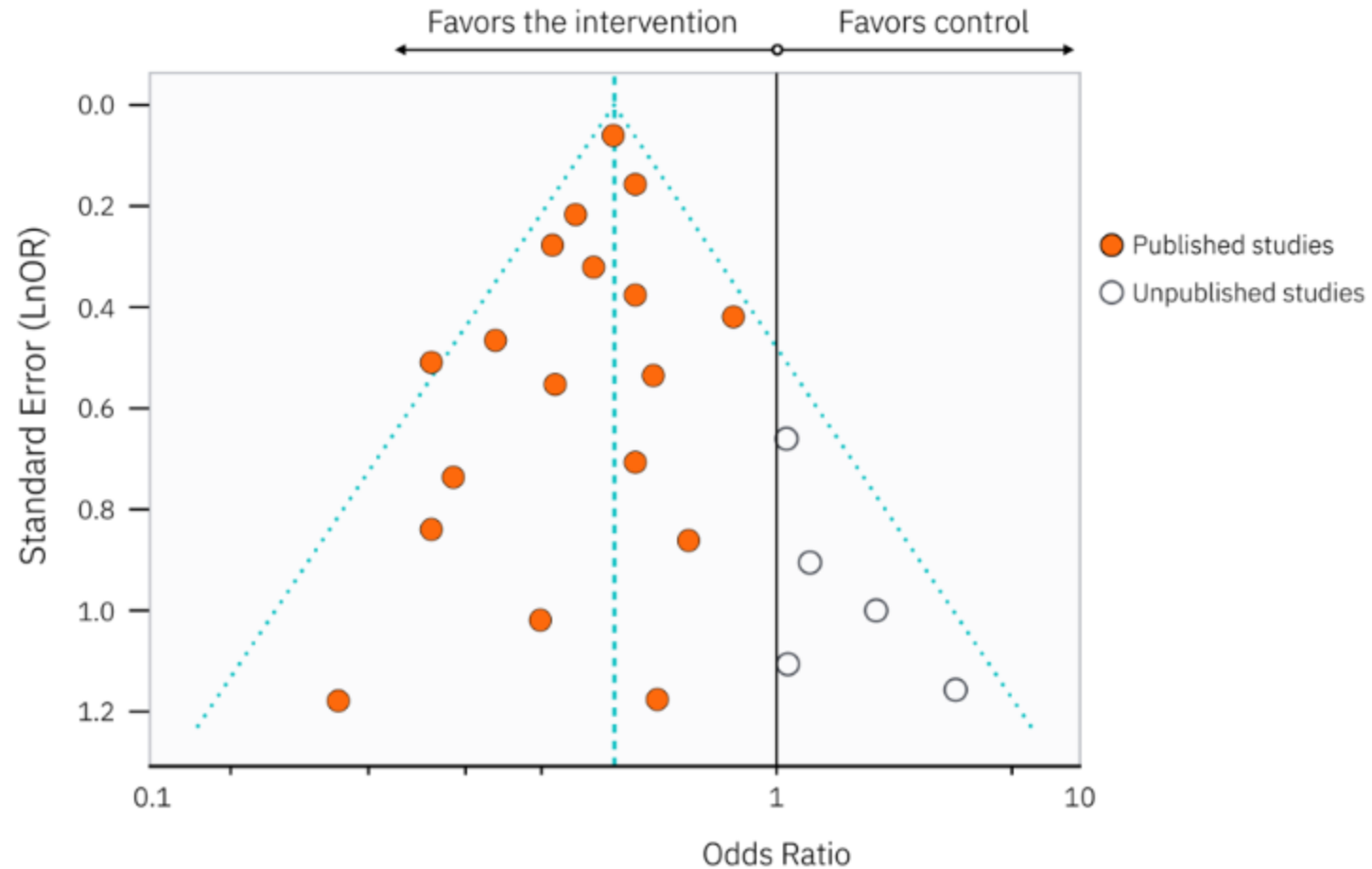
Any adverse event (assessed with: Proportion of participants who experienced any adverse event (AE) throughout the entire study period)



|  |  |  |  |  |  |  |  |  |               |  |   |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|
|  |  |  |  |  |  |  |  |  | not estimable |  | - |  |
|--|--|--|--|--|--|--|--|--|---------------|--|---|--|



# Sesgo de publicación



# Sesgo de publicación

- Estudios negativos son menos probables a ser publicados
- Existe una alta probabilidad de que el sesgo de publicación afecte la calidad de la información
  - Pocos estudios en el cuerpo de la evidencia
  - Estudios realizados por la industria.

# Dominios de mejora

(upgrade)

# GRADE book

- Tamaño del efecto
- Dosis respuesta
- Variables de confusión

## *Efecto*

+1 grande

+2 muy grande

## *Dosis-respuesta*

+1 gradiente evidente

## *Todos los factores de confusión:*

+1 reducirían el efecto  
observado

+1 sugerirían un efecto  
espurio si no hay efecto observado

# Agenda del día

- Introducción.
- Evaluación de la certeza de la evidencia con el sistema GRADE.
- **Transición de la evidencia a las recomendaciones (EtD framework).**

# Transición de la evidencia a las recomendaciones (EtD framework)

## GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 1: Introduction

Pablo Alonso-Coello,<sup>1,2</sup> Holger J Schünemann,<sup>2,3</sup> Jenny Moberg,<sup>4</sup> Romina Brignardello-Petersen,<sup>2,5</sup> Elie A Akl,<sup>2,6</sup> Marina Davoli,<sup>7</sup> Shaun Treweek,<sup>8</sup> Reem A Mustafa,<sup>2,9</sup> Gabriel Rada,<sup>10,11,12</sup> Sarah Rosenbaum,<sup>4</sup> Angela Morelli,<sup>4</sup> Gordon H Guyatt,<sup>2,3</sup> Andrew D Oxman<sup>4</sup> the GRADE Working Group



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**Journal of  
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### GRADE RELATED SERIES

Using evidence to decision frameworks led to guidelines of better quality  
and more credible and transparent recommendations

Jose F. Meneses-Echavez<sup>a,b,\*</sup>, Julia Bidonde<sup>a,c</sup>, Camila Montesinos-Guevara<sup>d</sup>, Yasser S. Amer<sup>e</sup>,  
Andres Felipe Loaiza-Betancur<sup>f,g</sup>, Luis Andres Tellez Tinjaca<sup>g</sup>, David Fraile Navarro<sup>h,i</sup>,  
Tina Poklepović Perićić<sup>j</sup>, Ružica Tokalić<sup>j</sup>, Malgorzata M. Bala<sup>k</sup>, Dawid Storman<sup>l</sup>,  
Mateusz Swierz<sup>k</sup>, Joanna Zajac<sup>k</sup>, Ivan D. Flórez<sup>m,n,o</sup>, Holger Schünemann<sup>p</sup>, Signe Flottorp<sup>a,q</sup>,  
Pablo Alonso-Coello<sup>r</sup>

# GRADEpro

# Evidence to Decision Framework

The screenshot displays the Evidence to Decision Framework (EDF) interface. On the left is a dark sidebar with navigation icons and labels. The main panel on the right is titled "Should Cenobamate add-on therapy vs. standard of care be used for drug-resistant focal epilepsy?" and contains 12 numbered steps, each with a question and a dropdown arrow.

**Sidebar Navigation:**

- Dashboard
- Project setup
- Tasks
- Team
- Scope
- References
- Prognosis
- Comparisons (selected)
- Evidence table
- Recommendations
- Presentations
- Multi comparisons
- PanelVoice
- Document sections
- Dissemination

**Main Panel Steps:**

- 1 Problem**  
Is the problem a priority?
- 2 Desirable Effects**  
How substantial are the desirable anticipated effects?
- 3 Undesirable Effects**  
How substantial are the undesirable anticipated effects?
- 4 Certainty of evidence**  
What is the overall certainty of the evidence of effects?
- 5 Values**  
Is there important uncertainty about or variability in how much people value the main outcomes?
- 6 Balance of effects**  
Does the balance between desirable and undesirable effects favor the intervention or the comparison?
- 7 Resources required**
- 8 Certainty of evidence of required resources**  
What is the certainty of the evidence of resource requirements (costs)?
- 9 Cost effectiveness**  
Does the cost-effectiveness of the intervention favor the intervention or the comparison?
- 10 Equity**  
What would be the impact on health equity?
- 11 Acceptability**  
Is the intervention acceptable to key interest-holders?
- 12 Feasibility**  
Is the intervention feasible to implement?

**Top Right Controls:**

- Bottom panel (toggle)
- Explanations (star icon)
- Share icon

# Evidence to Decision Framework

Dashboard

Project setup

Tasks

Team

Scope

References

Prognosis

Comparisons

Evidence table

Recommendations

Presentations

Multi comparisons

PanelVoice

Document sections

Dissemination

Should Cenobamate add-on therapy vs. standard of care be used for drug-resistant focal epilepsy?

Bottom panel

Explanations

SUMMARY OF JUDGEMENTS

| CRITERIA                                    | SUMMARY OF JUDGEMENTS                |                                               |                                                               |                                         |                              |            | IMPORTANCE FOR DECISION |
|---------------------------------------------|--------------------------------------|-----------------------------------------------|---------------------------------------------------------------|-----------------------------------------|------------------------------|------------|-------------------------|
| PROBLEM                                     | No                                   | Probably no                                   | Probably yes                                                  | Yes                                     | Varies                       | Don't know |                         |
| DESIRABLE EFFECTS                           | Trivial                              | Small                                         | Moderate                                                      | Large                                   | Varies                       | Don't know |                         |
| UNDESIRABLE EFFECTS                         | Large                                | Moderate                                      | Small                                                         | Trivial                                 | Varies                       | Don't know |                         |
| CERTAINTY OF EVIDENCE                       | Very low                             | Low                                           | Moderate                                                      | High                                    | No included studies          |            |                         |
| VALUES                                      | Important uncertainty or variability | Possibly important uncertainty or variability | Probably no important uncertainty or variability              | No important uncertainty or variability |                              |            |                         |
| BALANCE OF EFFECTS                          | Favors the comparison<br>◀           | Probably favors the comparison<br>◀           | Does not favor either the intervention or the comparison<br>● | Probably favors the intervention<br>▶   | Favors the intervention<br>▶ | Varies     | Don't know              |
| RESOURCES REQUIRED                          | Large costs<br>◀                     | Moderate costs<br>◀                           | Negligible costs and savings<br>●                             | Moderate savings<br>▶                   | Large savings<br>▶           | Varies     | Don't know              |
| CERTAINTY OF EVIDENCE OF REQUIRED RESOURCES | Very low                             | Low                                           | Moderate                                                      | High                                    | No included studies          |            |                         |
| COST EFFECTIVENESS                          | Favors the comparison<br>◀           | Probably favors the comparison<br>◀           | Does not favor either the intervention or the comparison<br>● | Probably favors the intervention<br>▶   | Favors the intervention<br>▶ | Varies     | No included studies     |
| EQUITY                                      | Reduced<br>◀                         | Probably reduced<br>◀                         | Probably no impact<br>●                                       | Probably increased<br>▶                 | Increased<br>▶               | Varies     | Don't know              |
| ACCEPTABILITY                               | No                                   | Probably no                                   | Probably yes                                                  | Yes                                     | Varies                       | Don't know |                         |
| FEASIBILITY                                 | No                                   | Probably no                                   | Probably yes                                                  | Yes                                     | Varies                       | Don't know |                         |

# Evidence to Decision Framework

▼ Should Cenobamate add-on therapy vs. standard of care be used for drug-resistant focal epilepsy?

☐ Bottom panel [✦ Explanations](#)



## TYPE OF RECOMMENDATION

Strong recommendation against the intervention



Conditional recommendation against the intervention



Conditional recommendation for either the intervention or the comparison



Conditional recommendation for the intervention



Strong recommendation for the intervention



# Gracias por su atención



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@Colunga\_Lozano

Internal medicine/critical care & methodologist. Evidence-based practice. Into riding motorcycles, board games, karaoke and anything that keeps my heart excited

 Medicina y salud  Guadalajara, Jalisco  [scholar.google.ca/citations?user...](https://scholar.google.ca/citations?user...)  
 Fecha de nacimiento: 28 de noviembre de 1986  Se unió en marzo de 2020

