"Rapid review" methodology to inform a policy decision: when is it fit for purpose? A case study

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Background
- Inform policy on **compensation** for patients with **HIV & Hep C** from contaminated blood products

Review
- **10 weeks** review: **antiretroviral therapy** on **liver-related** outcomes in HIV/Hep C patients

Aim
- Explore implications of "rapid review" methods for **research** and **policy**

Our "rapid review" methods

Risk of publication bias! *Risk of reviewer error and bias!*

	Our review	Cochrane review
Search	Medline & Embase, citations search, no unpublished studies	At least Medline, Embase and CENTRAL
Study selection (T&A)	1 reviewer	≥2 independent reviewers
Study selection (FT)	2 reviewers	
Data extraction	1+1 checker	
Risk of Bias	1+1 checker	
Patient & public involvement (PPI)	1 patient group	None to extended

Risk of limited relevance!
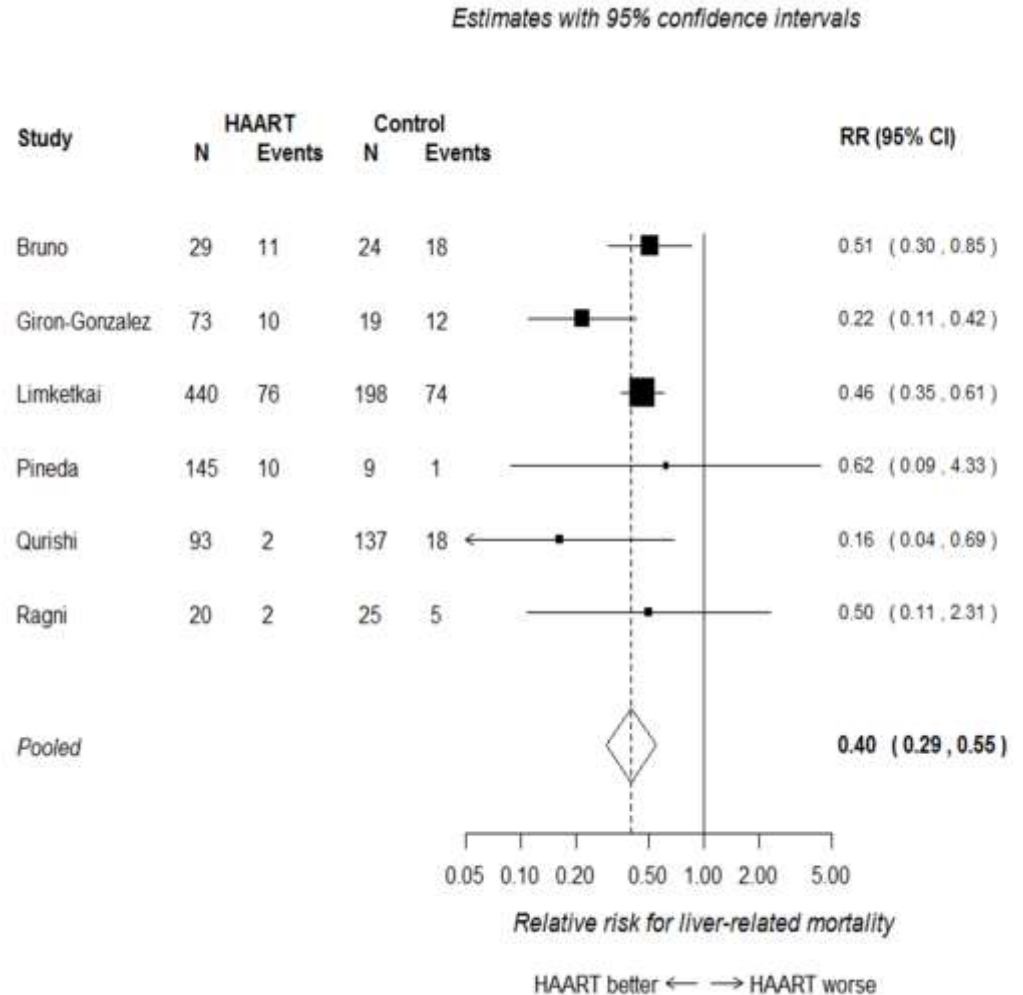
Results & conclusions

- 13 observational studies, 6 in M-A

- Conclusion

- Limitations

  – of evidence: No RCTs & high RoB

  – of review: **risk of missing studies**

But how much did this matter?

Estimates with 95% confidence intervals

Study	HAART N	Events	Control N	Events	RR (95% CI)
Bruno	29	11	24	18	0.51 (0.30 , 0.85)
Giron-Gonzalez	73	10	19	12	0.22 (0.11 , 0.42)
Limketkai	440	76	198	74	0.46 (0.35 , 0.61)
Pineda	145	10	9	1	0.62 (0.09 , 4.33)
Qurishi	93	2	137	18	0.16 (0.04 , 0.69)
Ragni	20	2	25	5	0.50 (0.11 , 2.31)
Pooled					0.40 (0.29 , 0.55)

0.05 0.10 0.20   0.50 1.00 2.00   5.00

Relative risk for liver-related mortality

HAART better ← → HAART worse

Exploring impact of review limitations: 2 scenarios

Assuming the review missed relevant studies, what additional evidence would a "gold-standard" review need to change the conclusions?
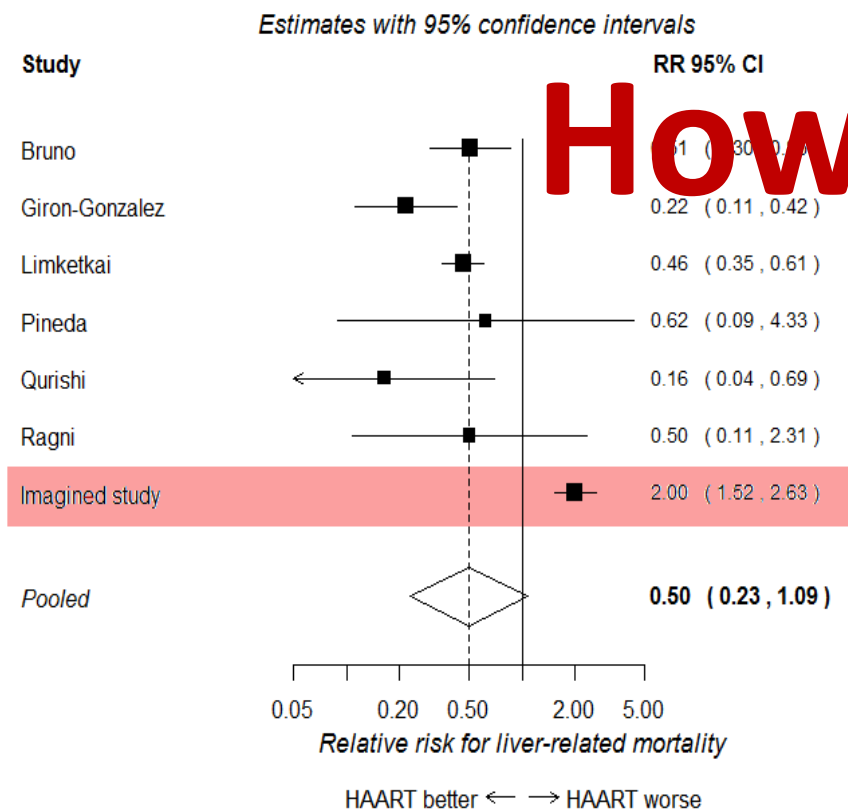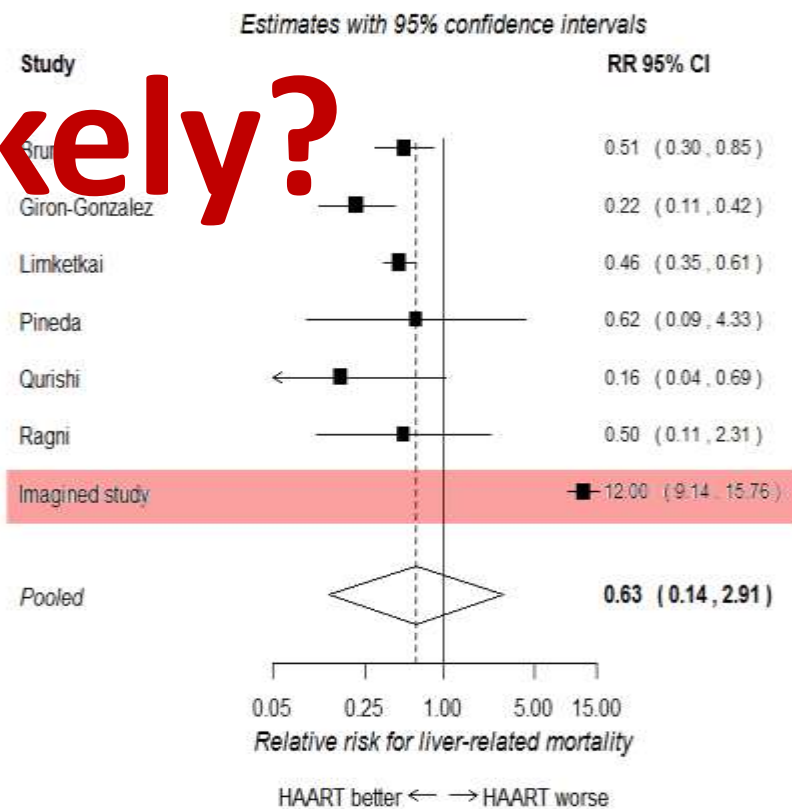

Fig a.

Fig b.

How likely?

Final words

"How much additional evidence would be needed to change the conclusions?"

Appraisal of review methods is

always context dependent

What mattered most <u>here</u>: limited review methods, lack of RCTs, or limited PPI?

*Were our methods **fit for purpose?***

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