

INH preventive therapy for HIV+ adults: The case in favour

Gary Maartens



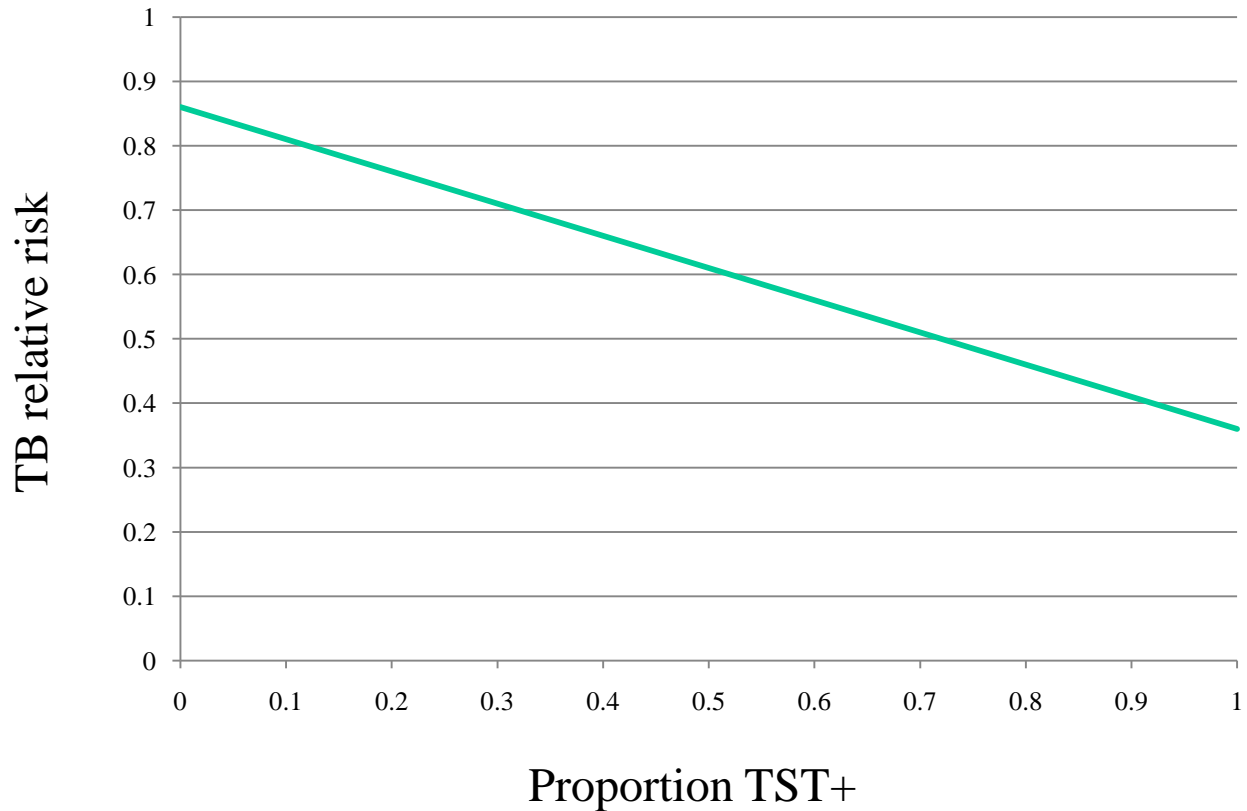
Risk of TB disease after infection

- HIV -ve 5-10% per lifetime
- HIV +ve 5-10% per year

IPT & TST status

TST status	Relative risk (95%CI)
Positive	0.36 (0.22, 0.61)
Negative	0.86 (0.59, 1.26)
Combined	0.67 (0.51, 0.87)

IPT benefit & TST+



Khayelitsha 52% TST+ (median CD4 392)

RR 0.6

INH tolerability in HIV+

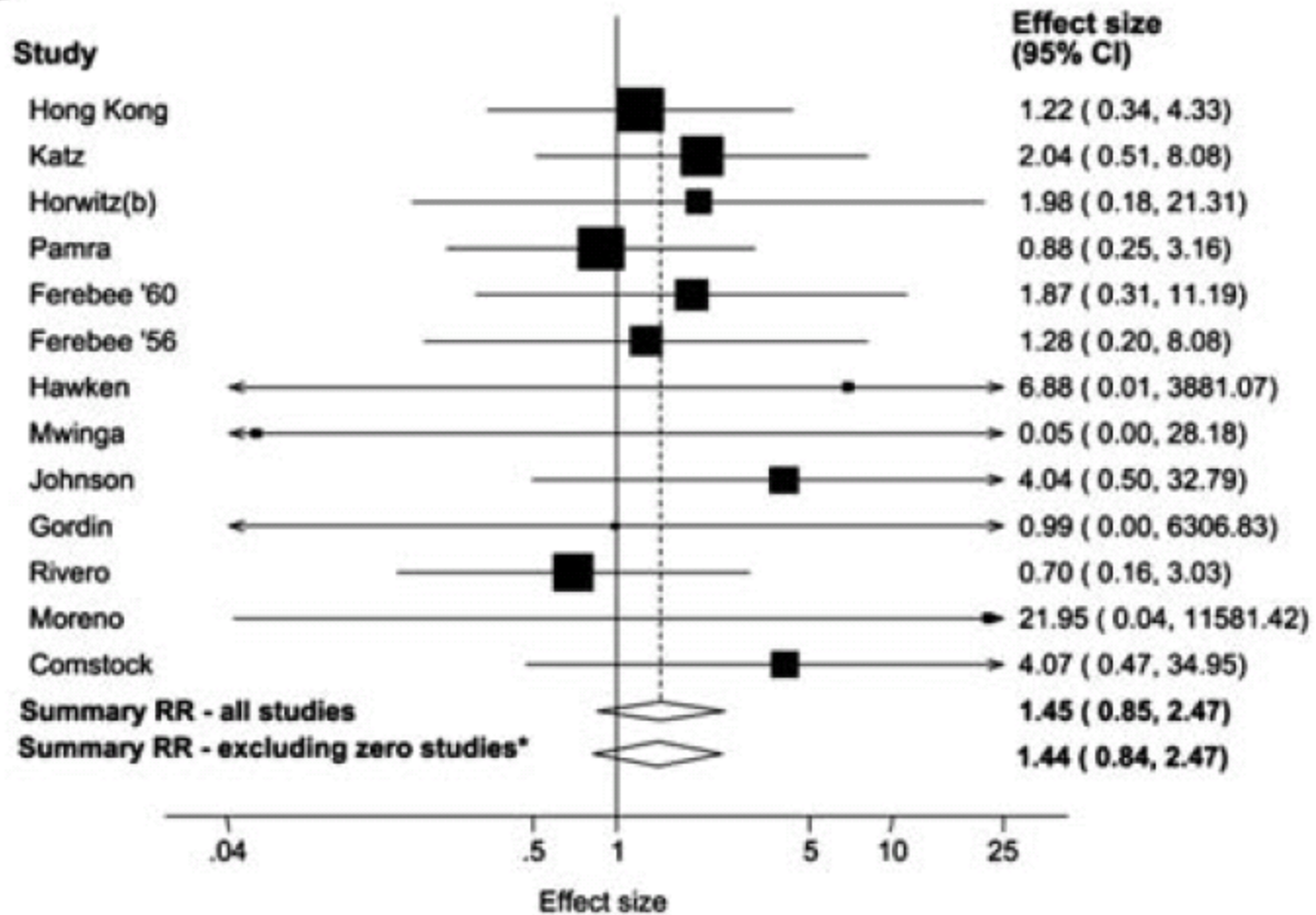
Adverse events severe enough to stop therapy

INH 3.56%

Placebo 2.21%

RR 1.66 (1.09-2.51)

IPT and resistance



How to rule out active TB?

Development of a Standardized Screening Rule for Tuberculosis in People Living with HIV in Resource-Constrained Settings: Individual Participant Data Meta-analysis of Observational Studies

Haileyesus Getahun^{1*}, Wanitchaya Kittikraisak², Charles M. Heilig³, Elizabeth L. Corbett⁴, Helen Ayles^{4,5}, Kevin P. Cain³, Alison D. Grant⁴, Gavin J. Churchyard⁶, Michael Kimerling⁷, Sarita Shah⁸, Stephen D. Lawn^{4,9}, Robin Wood⁹, Gary Maartens¹⁰, Reuben Granich¹, Anand A. Date³, Jay K. Varma^{2,3}

Best symptom screen for TB – any one of:

Cough – active (any duration)

Fever >2 weeks

Night sweats

Weight loss

IPT duration of benefit in HIV+

Zambia

Benefit lost at about 18 months

Both 6H & 3RZ

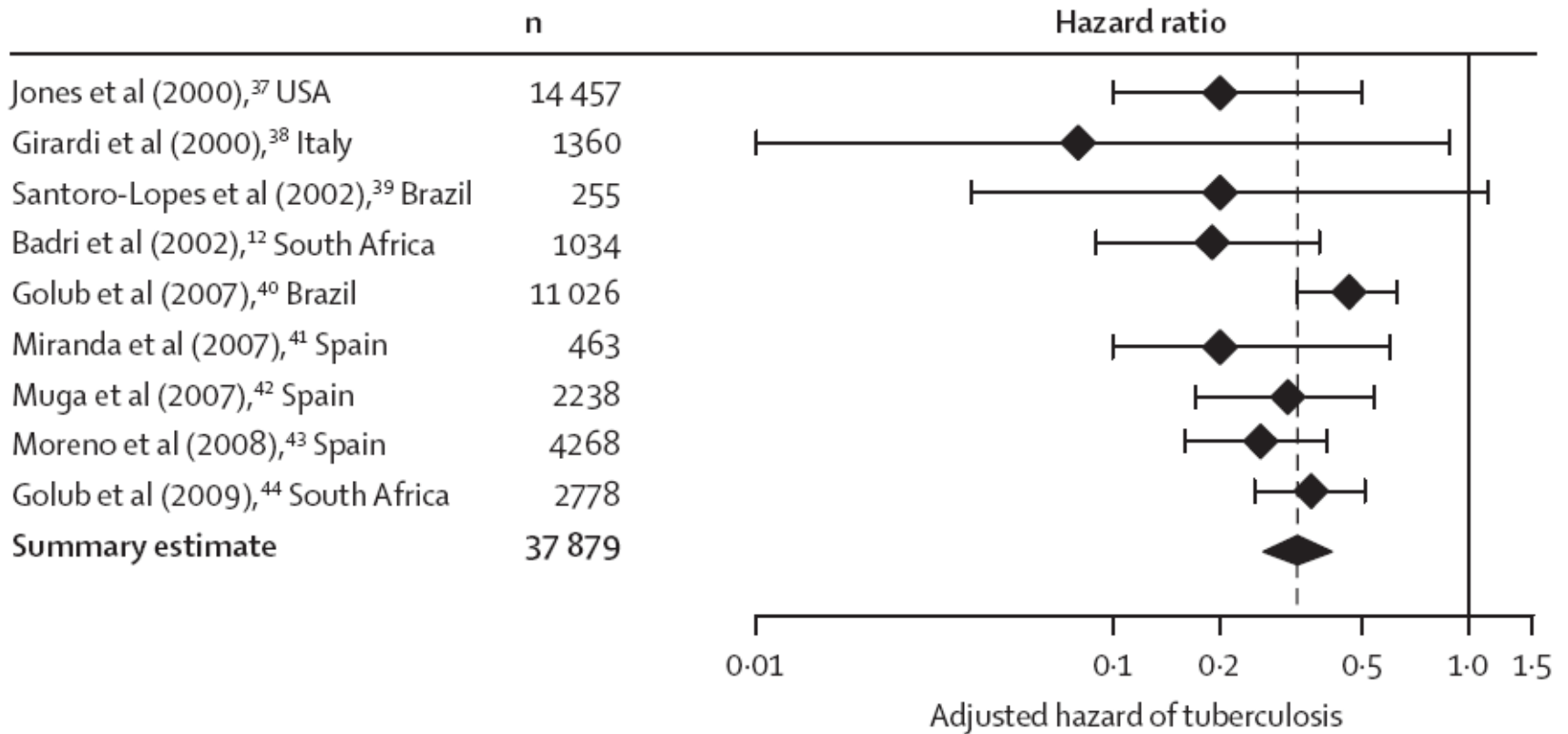
Uganda

6H lost benefit 1 year

3HR & 3HRZ benefit ≥ 3 years

Both post hoc analyses (under-powered)

Effect of ART on TB

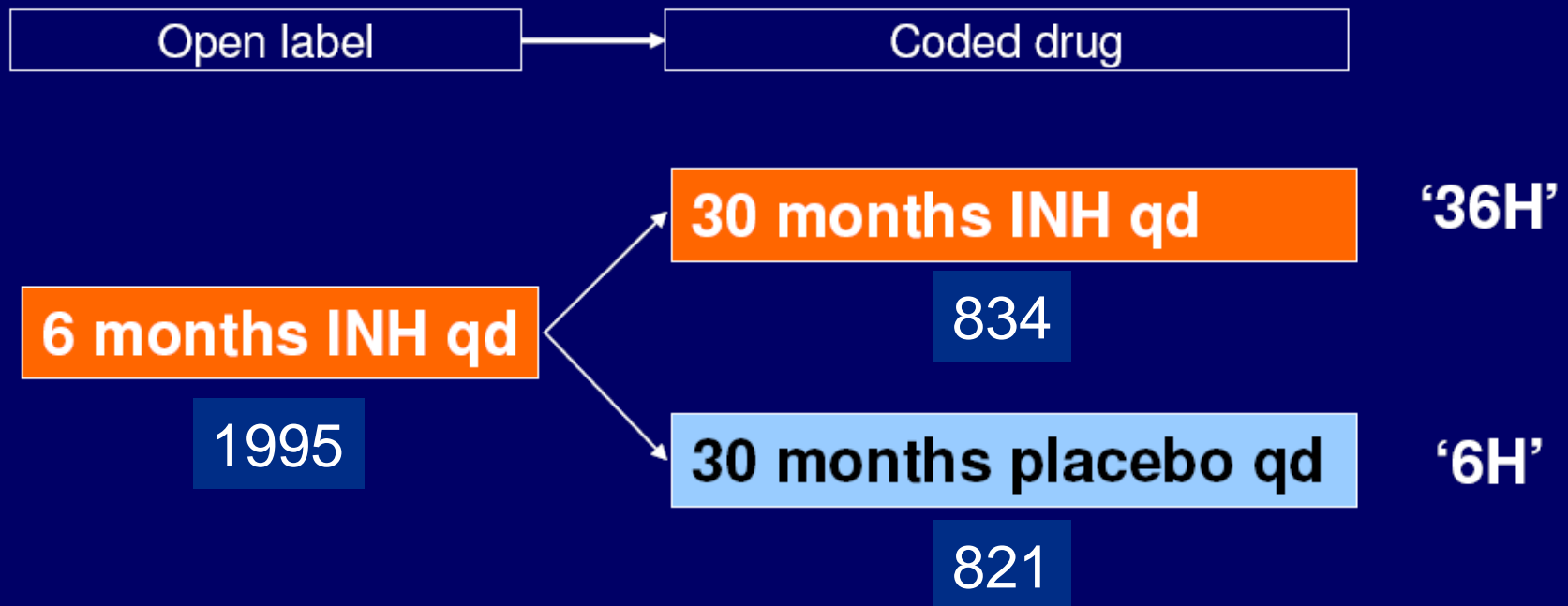


67% reduction (95% CI 61–73%)

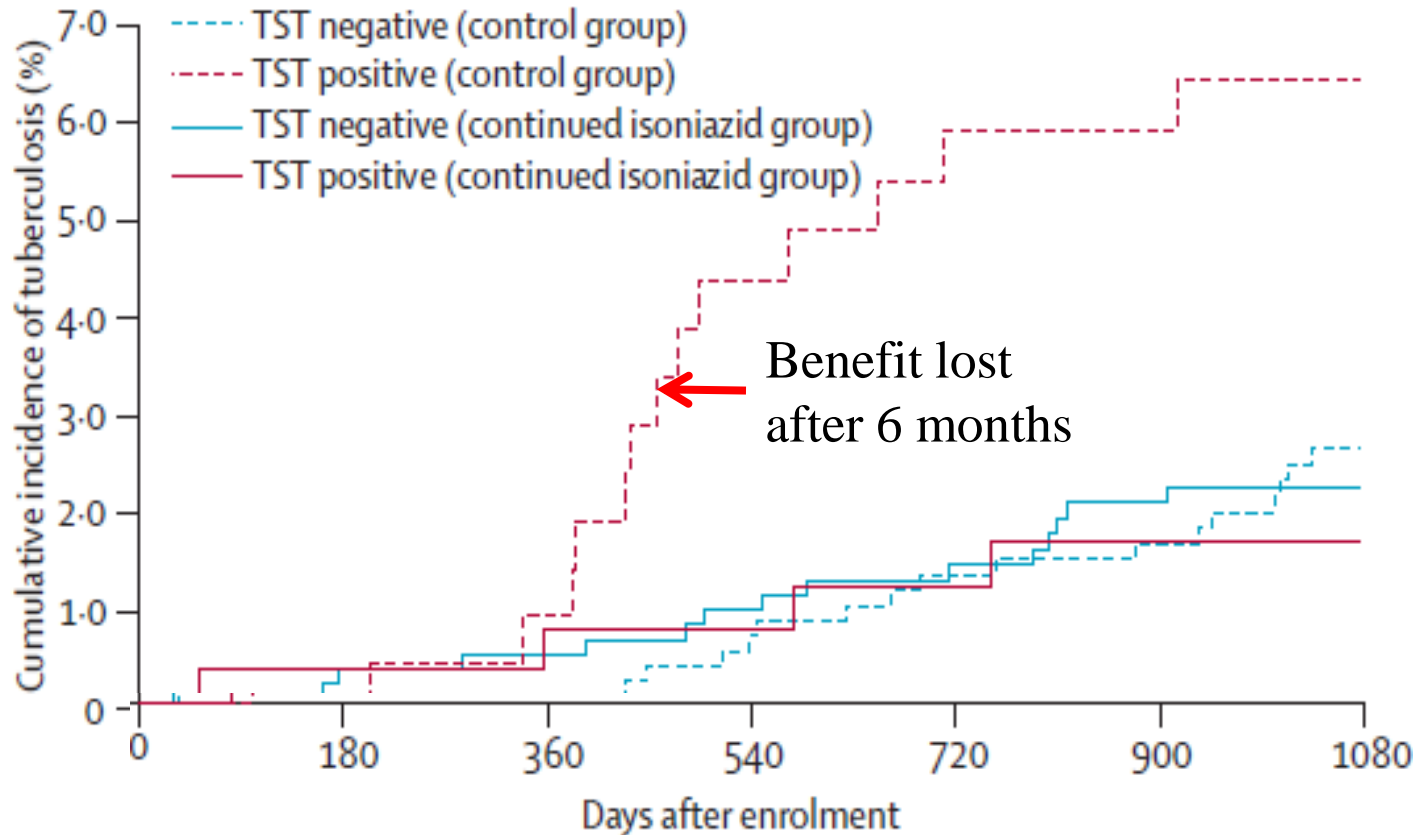
BOTUSA study

Randomized Double-Blind Placebo Controlled Trial

98% not on ART at start



Incidence of TB

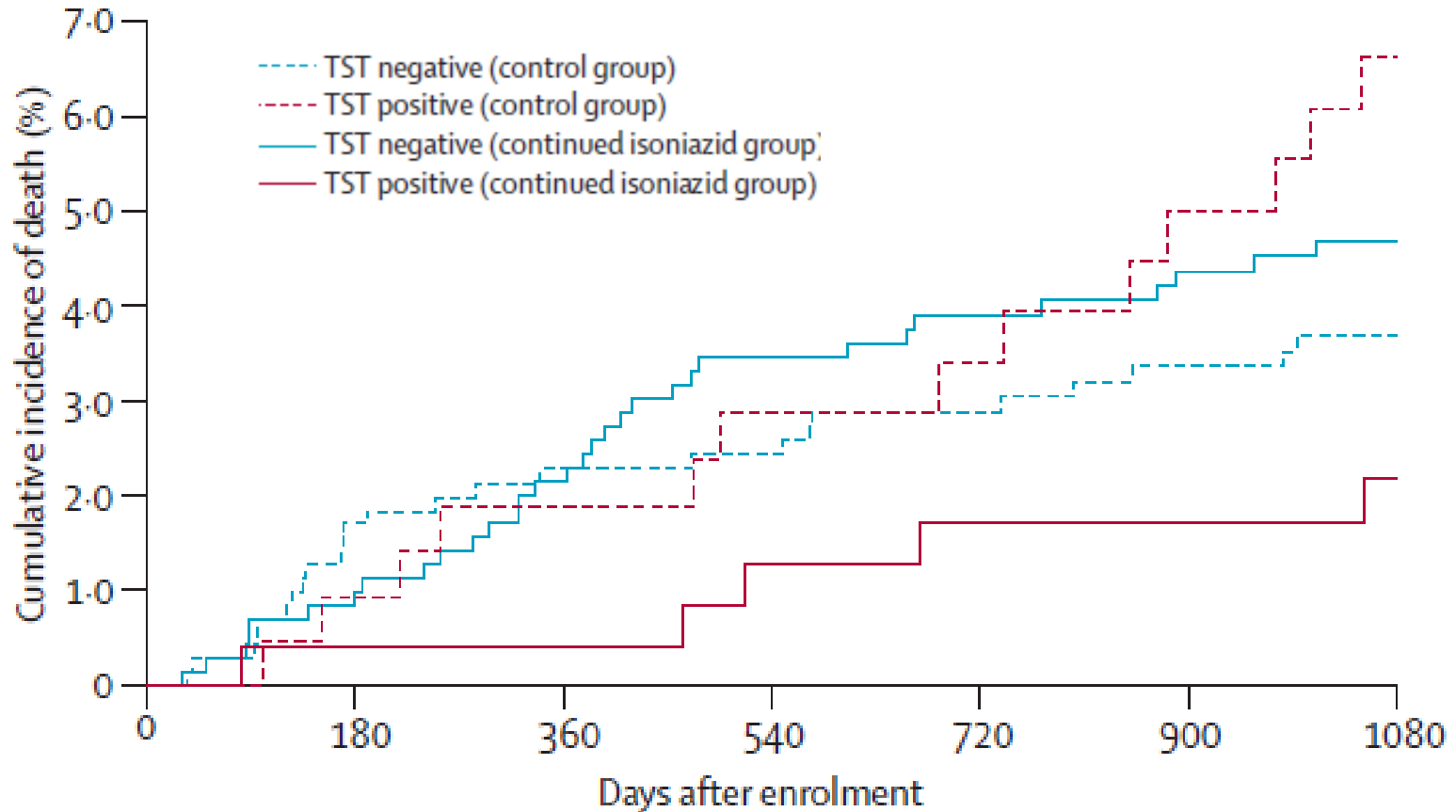


HR 0.57 (95% CI 0.33–0.99)

TST+ HR 0.08 (0.01–0.61)

TST- HR 0.86 (0.38–1.89)

Incidence of death



TST+ HR 0.28 (0.08–1.03)

TST- HR 2.99 (1.27–7.04)

Conclusion

- IPT is effective & well tolerated
 - Population benefit with high prevalence TST+
 - 6 months IPT best pre-ART
- Indirect benefits: screening for active TB and retaining patients in pre-ART care
- Prolonged IPT much more effective than 6/12
 - Should only be given to TST+