

**Supplementary Material**

**Burden of tuberculosis and hepatitis co-infection among people living with HIV in Nepal: a systematic review and meta-analysis**

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## Supplemental Material

### Appendix A

#### Literature search strategy

Database and platform: AMED (OvidSP) 1985 to November 2020; Embase (OvidSP) 1974 to 2020 December 09; Ovid MEDLINE(R) 1946 to November Week 4 2020; APA PsycInfo (OvidSP) 1987 to November Week 5 2020.

1. exp hiv/ or exp hiv infections/
2. (hiv or aids or acquired immunodeficiency or acquired immune deficiency).ti,ab.
3. 1 or 2
4. exp Tuberculosis/
5. tuberculosis\$.ti,ab.
6. exp Hepatitis/
7. exp Hepatitis B/or exp Hepatitis C/
8. (hcv or hbv or hepatitis\*).ti,ab.
9. exp \*Opportunistic Infections/ or coinfection/
10. 4 or 5 or 6 or 7 or 8 or 9
11. 3 and 10
12. Animal/ not Human/
13. 11 not 12
14. nepal.mp.
15. 13 and 14
16. remove duplicates from 15

Literature search carried on Scopus using the following literature search strategy:

TITLE-ABS-KEY ( ( hiv OR aids OR "human immunodeficiency virus" OR "acquired immunodeficiency syndrome" OR hiv/aids OR hiv-aids ) AND ( tuberculosis OR tb ) OR ( ( opportunistic AND infection\* ) OR coinfection) OR ( hbv OR hcv OR hepatitis OR ( hepatitis AND virus ) ) AND nepal )

Following search terms were used in NEPJOL database:

(‘human immunodeficiency virus’, or ‘HIV’), coinfection (‘tuberculosis’, ‘TB’, ‘hepatitis B’, ‘HBV’, ‘hepatitis C’, ‘HCV’, ‘coinfection’, or ‘opportunistic infection’)

## Appendix B

### Hoy et al criteria for assessing risk of bias in 23 studies

List of 10 questions (Q1 – Q10) applied to the studies:

1. *Was the study's target population a close representation of the national population in relation to relevant variables, e.g. age, sex, occupation?*
2. *Was the sampling frame a true or close representation of the target population?*
3. *Was some form of random selection used to select the sample, OR, was a census undertaken?*
4. *Was the likelihood of non-response bias minimal?*
5. *Were data collected directly from the subjects (as opposed to a proxy)?*
6. *Was an acceptable case definition used in the study?*
7. *Was the study instrument that measured the parameter of interest (e.g. prevalence of low back pain) shown to have reliability and validity (if necessary)?*
8. *Was the same mode of data collection used for all subjects?*
9. *Was the length of the shortest prevalence period for the parameter of interest appropriate?*
10. *Were the numerator(s) and denominator(s) for the parameter of interest appropriate?*

**Table S1: Methodological quality assessment using Hoy et al criteria for assessing risk of bias**

#	Author, year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Overall risk of study bias*
1	Ghimire et al, 2004	0	1	0	1	1	1	1	1	1	1	8
2	Dhungana et al, 2008	0	0	1	1	1	1	1	1	1	1	8
3	Ghimire et al, 2008	0	1	1	1	1	1	1	1	1	1	9
4	Karki et al, 2009	0	1	1	1	1	1	1	1	1	1	9
5	Sharma et al, 2010	0	0	1	1	1	1	1	1	1	1	8
6	Poudel et al, 2010	0	0	0	1	1	1	1	1	1	1	7
7	Verma et al, 2010	0	0	1	1	1	1	1	1	1	1	8
8	Verma et al, 2012	0	1	1	1	1	1	1	1	1	1	9
9	Dhungana et al, 2012	1	0	1	1	1	1	1	1	1	1	9
10	Tiwari et al, 2012	0	0	0	1	1	1	1	1	1	1	7
11	Ojha et al, 2013	0	0	0	1	1	1	1	1	1	1	7
12	Bohara, 2014	0	0	1	1	1	1	1	1	1	1	8
13	Poudyal et al, 2014	0	0	0	1	1	1	1	1	1	1	7
14	Bista et al, 2014	0	1	0	1	1	1	1	1	1	1	8
15	Paudel et al, 2014	0	0	0	1	1	1	1	1	1	1	7

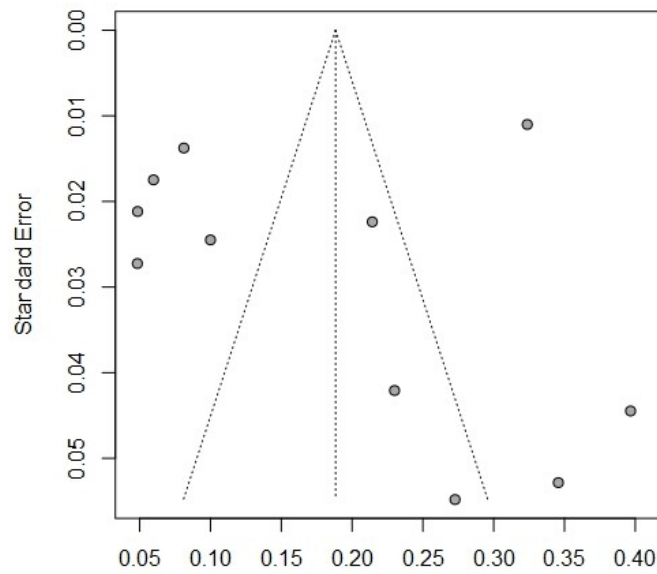
#	Author, year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Overall risk of study bias*
16	Khushbu et al, 2015	0	0	0	1	1	1	1	1	1	1	7
17	Supram et al, 2015	0	1	1	1	1	1	1	1	1	1	9
18	Bhusal et al, 2016	0	0	0	1	1	1	1	1	1	1	7
19	Mahato et al, 2017	0	1	1	1	1	1	1	1	1	1	9
20	Ionita et al, 2017	1	1	1	1	1	1	1	1	1	1	10
21	Baral et al, 2017	0	1	1	1	1	1	1	1	1	1	9
22	Kakchapati et al, 2017	1	1	1	1	1	1	1	1	1	1	10
23	Bhattarai et al, 2018	0	0	1	1	1	1	1	1	1	1	8

\* Domain judgement: 0-5 'high risk of bias', 6-8 'moderate risk of bias', 9-10 'low risk of bias'.

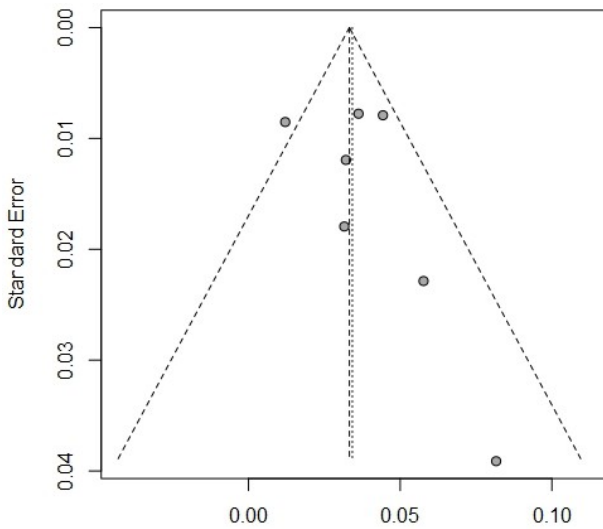
## Appendix C

Figure S1: Funnel plots of standard error by prevalence rate. (A) Tuberculosis; (B) HBV; (C) HCV infection.

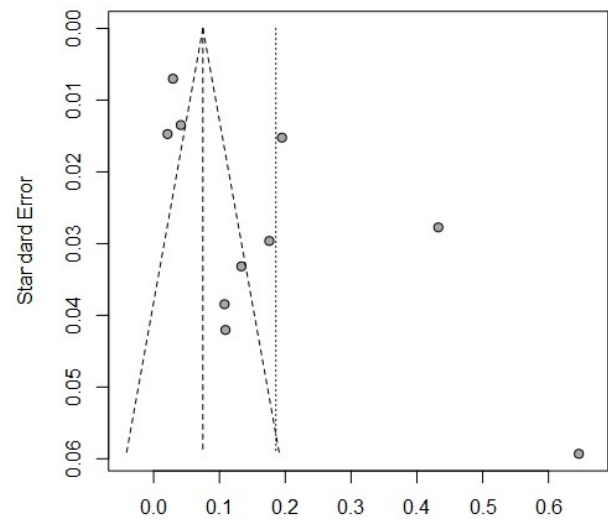
**A**



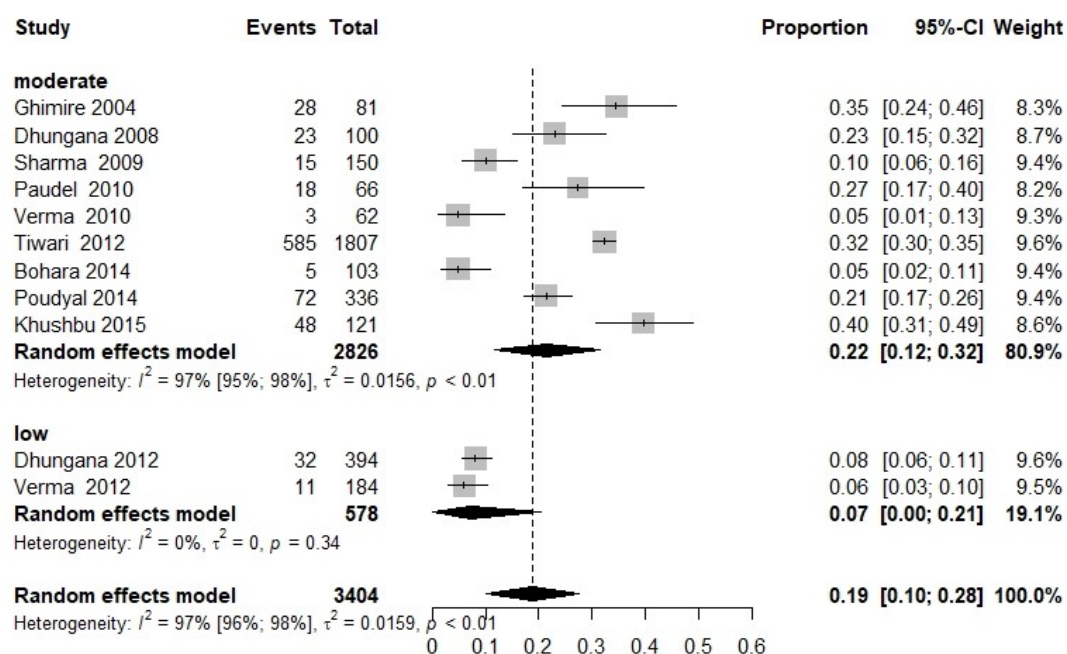
**B**



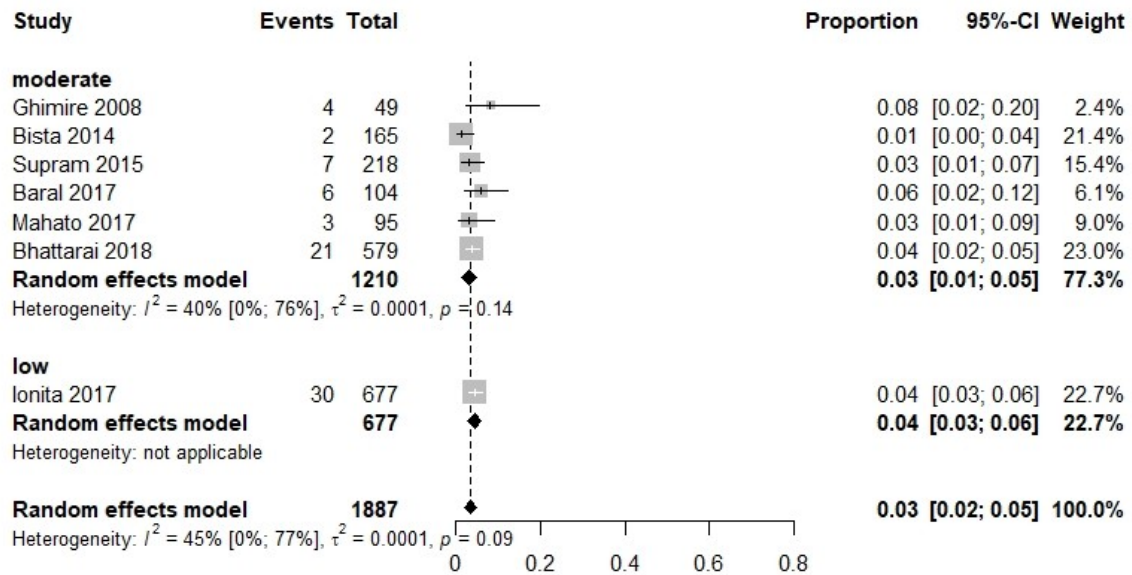
**C**



**Figure S2: Pooled prevalence of TB coinfection among PLHIV by study methodological quality**



**Figure S3: Pooled prevalence of HBV coinfection among PLHIV by study methodological quality**



**Figure S4: Pooled prevalence of HCV coinfection among PLHIV by study methodological quality**

