

ONLINE-ONLY SUPPLEMENTARY MATERIAL

Supplementary Table S1. Observational cohort studies excluded at the stage of eligibility according to the PRISMA flow diagram.

Author, Year, Ref	Reasons for the exclusion
Baratta et al. 2024 (15)	Cohort with a very low number of incident AF cases (n=7)
Simon et al. 2023 (16)	Cohort of children and young adults
Boeckmans et al. 2024 (17)	Cohort including individuals with atrial fibrillation at baseline

NB: The Reference number in parenthesis is referring to the list of references reported in the article.

Supplementary Table S2 – Newcastle-Ottawa quality assessment scale (NOS) for eligible cohort studies.

Author (Year)	Selection	Comparability	Exposure/Outcome
Targher et al. (2013)	***	**	***
Käräjämäki et al. (2015)	***	**	***
You et al. (2016)	**	*	**
Long et al. (2017)	***	**	**
Allen et al. (2019)	**	*	**
Roh et al. (2020)	**	**	**
Labenz et al (2020)	***	*	**
Lee et al (2021)	**	**	**
Choi et al (2022)	***	**	**
Van Kleef et al (2022)	***	**	***
Lei et al (2022)	***	*	***
Liu et al (2022)	**	*	***
Roca-Fernandez (2023)	***	**	**
Simon (2023)	****	**	**
Cho et al (2024)	***	**	**
Riley et al (2024)	***	**	**

Fig. S1. PRISMA flow diagram for the present systematic review and meta-analysis.

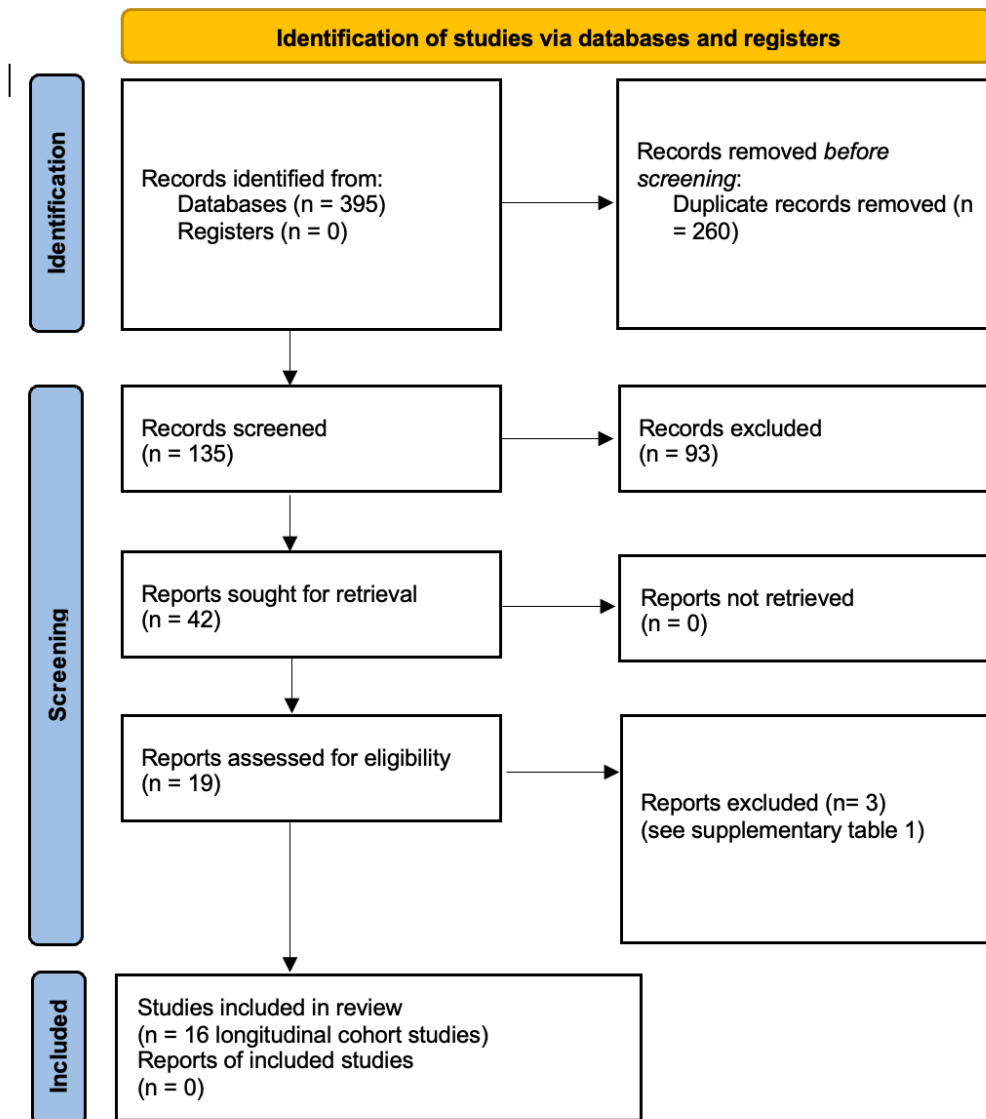


Fig. S2. Forest plot and pooled estimates of the effect of MASLD on the risk of incident AF in the eligible longitudinal cohort studies stratified by study country/continent.

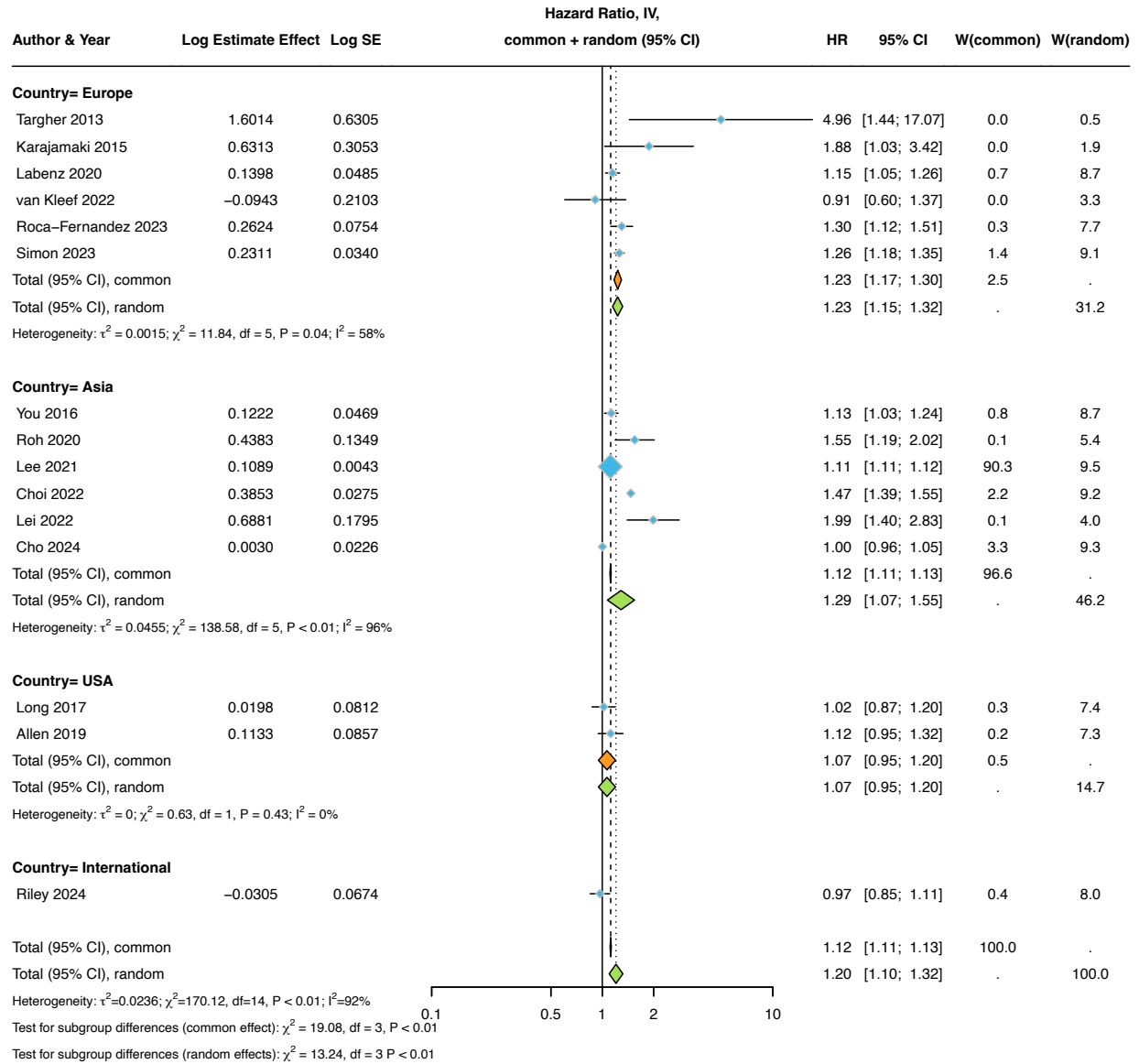


Fig. S3. Forest plot and pooled estimates of the effect of MASLD on the risk of incident AF in the eligible longitudinal cohort studies stratified by the Newcastle-Ottawa scale (NOS).

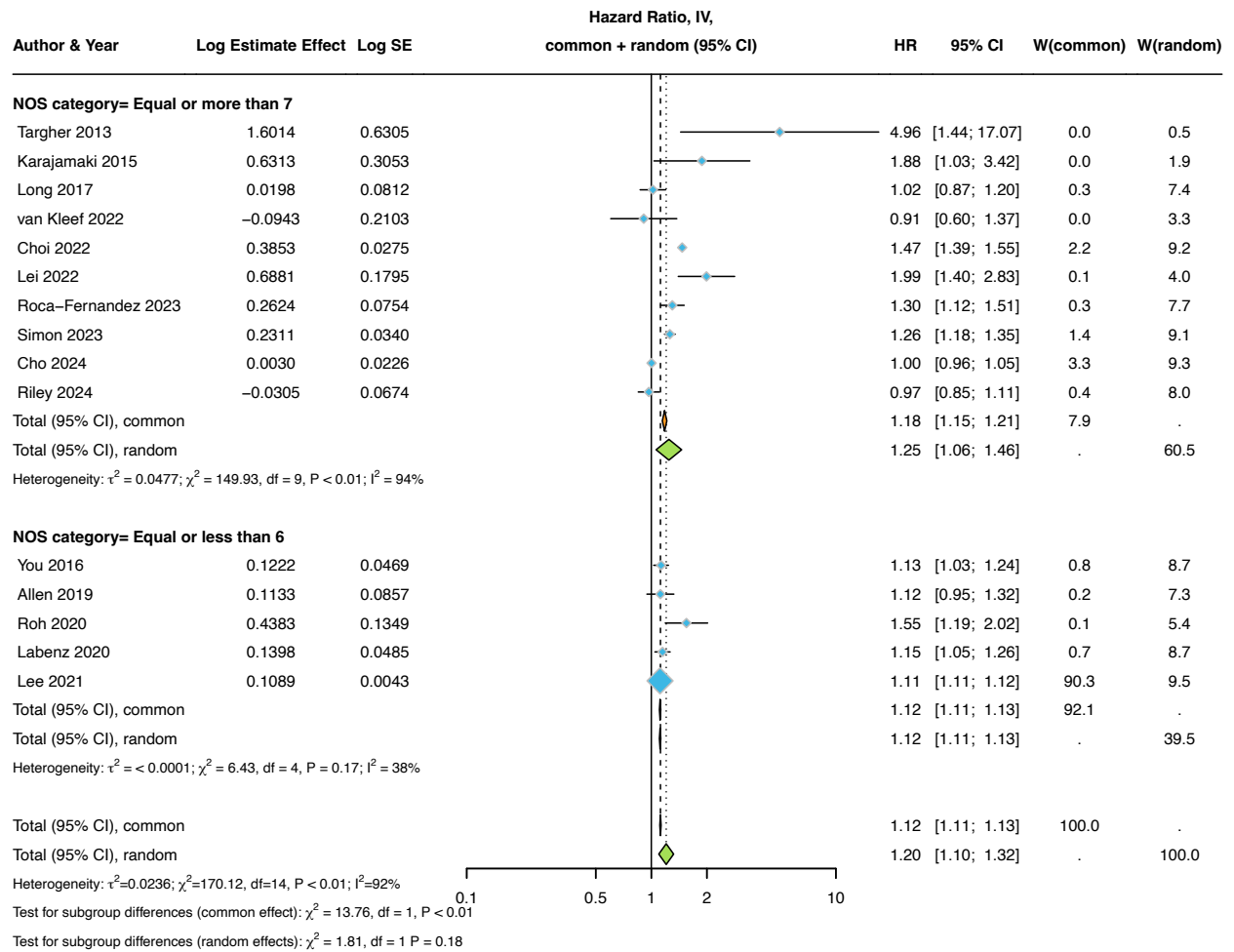


Fig. S4. Forest plot and pooled estimates of the effect of MASLD on the risk of incident AF in the eligible longitudinal cohort studies stratified by the methodologies used for diagnosing the occurrence of AF.

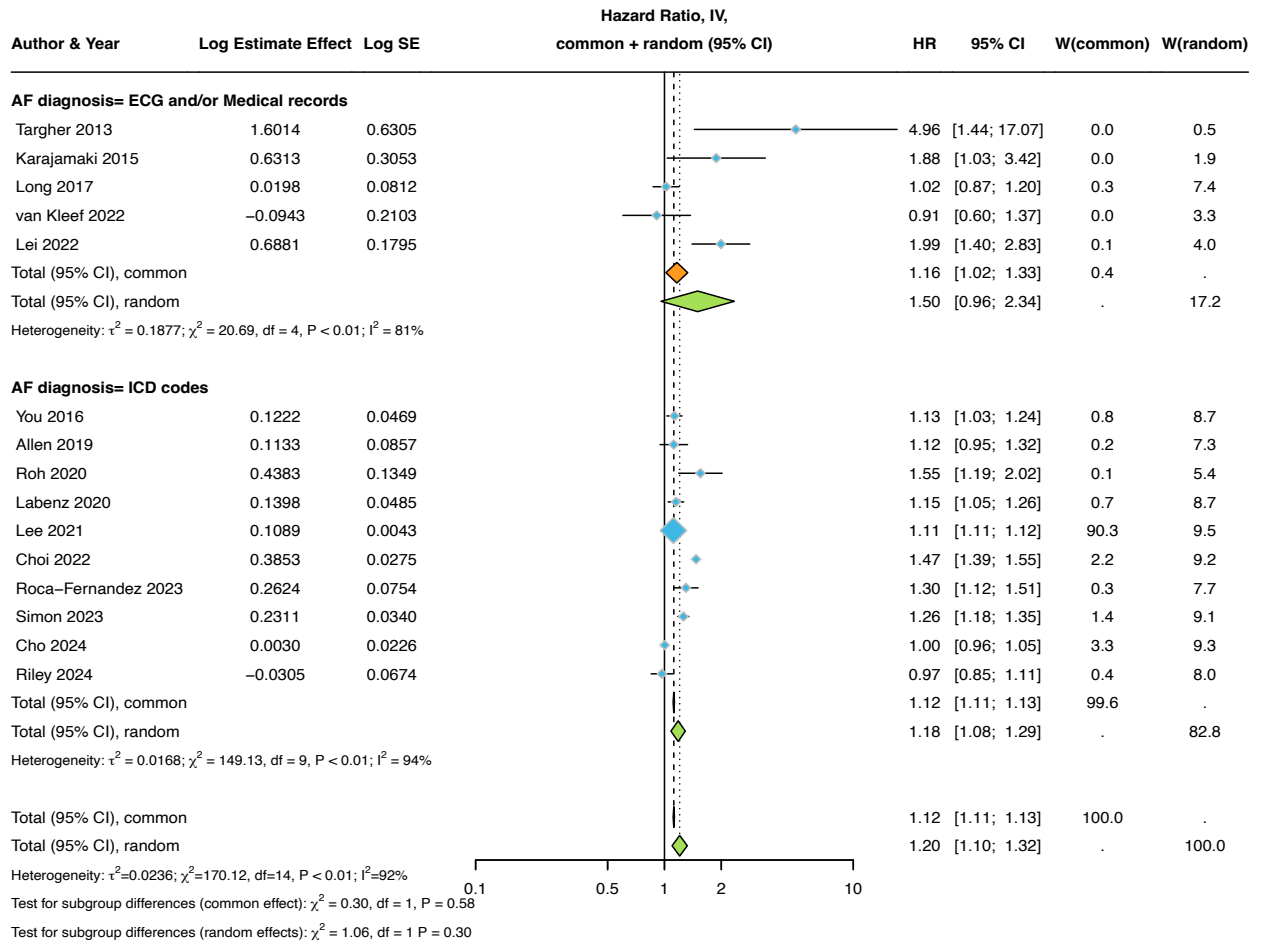


Fig. S5. Sensitivity analysis using the one-study remove (leave-one-out) approach to test each study's influence on the overall effect size of the association between MASLD and the risk of incident AF.

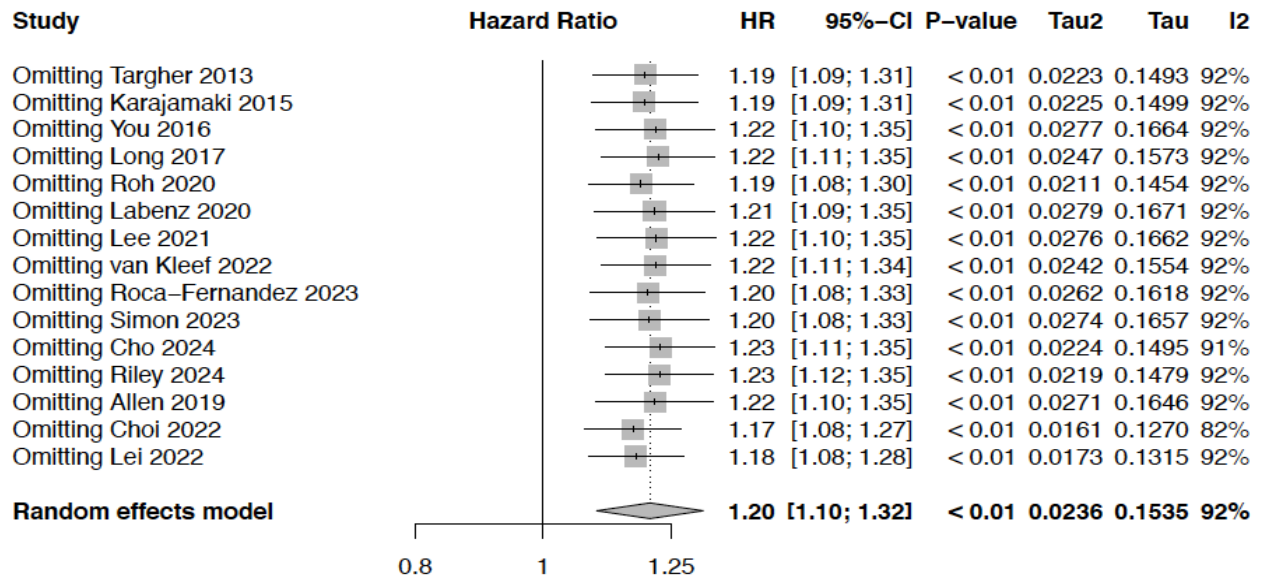


Fig. S6. Univariable meta-regression of the effect of age on the association between MASLD and the risk of incident AF (P-value=0.061).

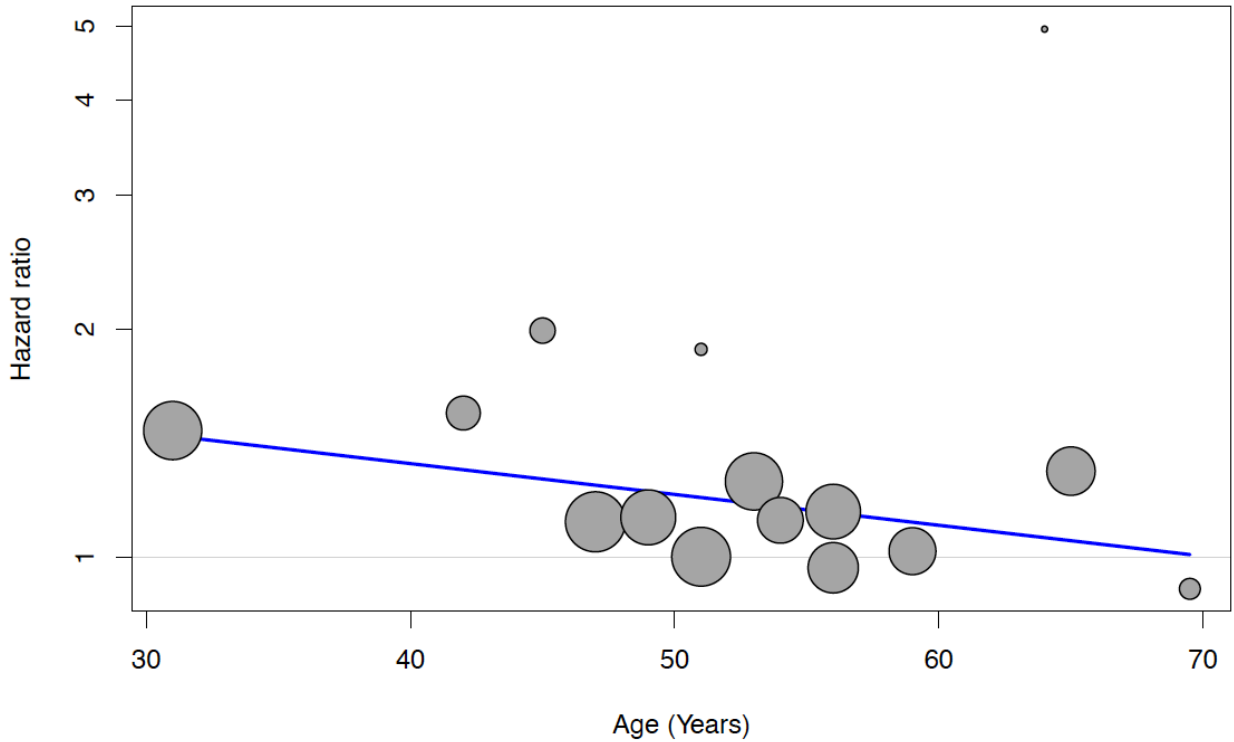


Fig. S7. Univariable meta-regression of the effect of male sex on the association between MASLD and the risk of incident AF (P-value=0.056).

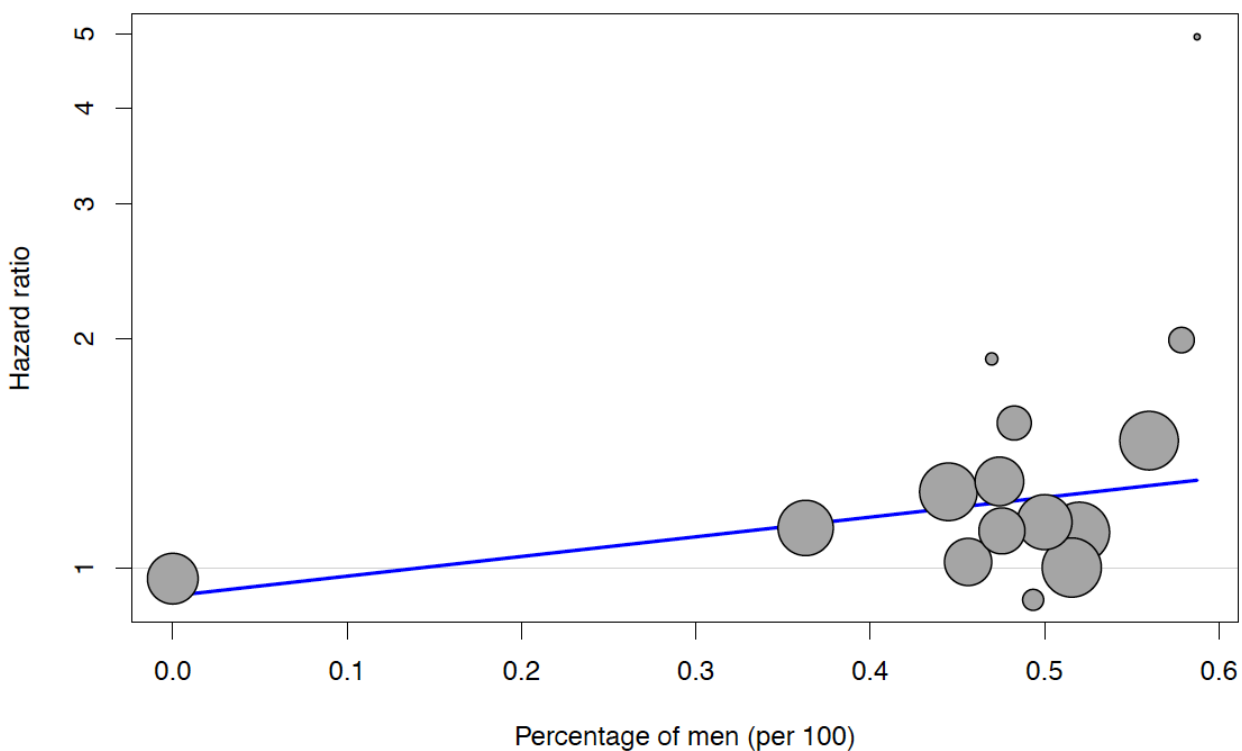


Fig. S8. Univariable meta-regression of the effect of body mass index (BMI) on the association between MASLD and the risk of incident AF (P-value=0.12).

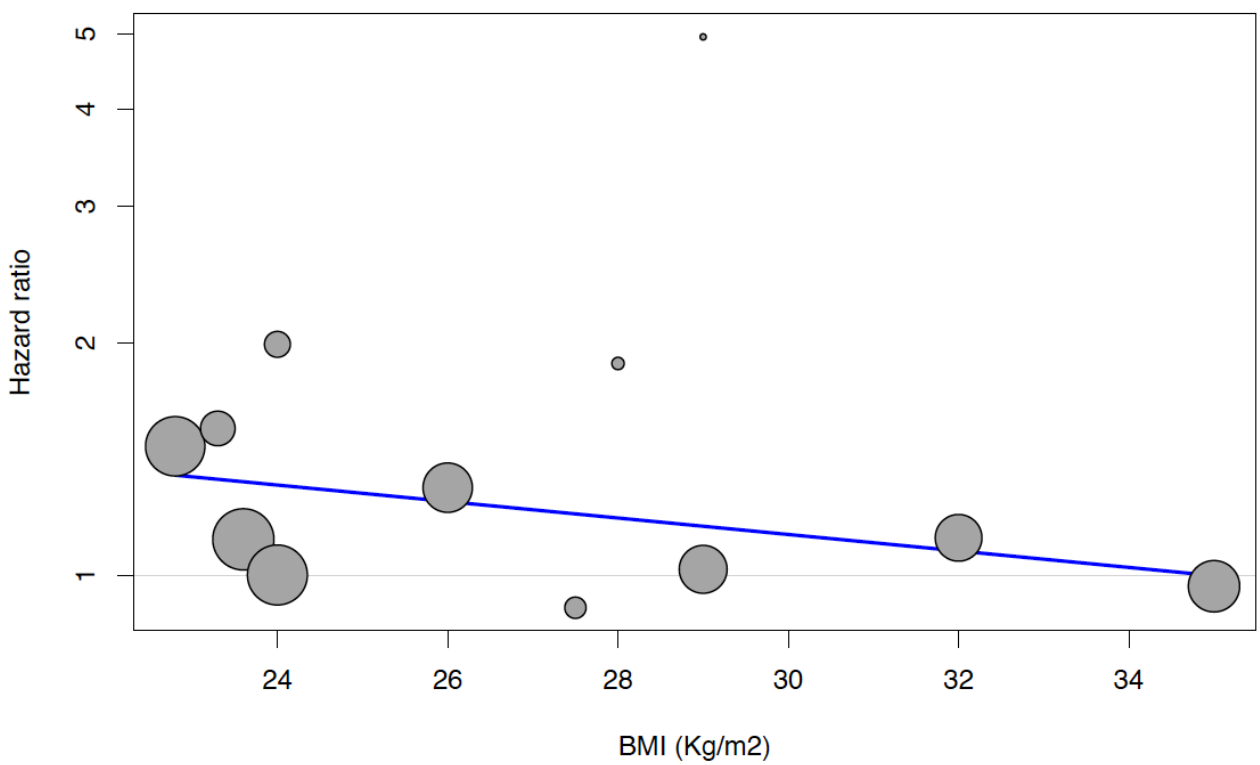


Fig. S9. Univariable meta-regression of the effect of hypertension on the association between MASLD and the risk of incident AF (P-value=0.85).

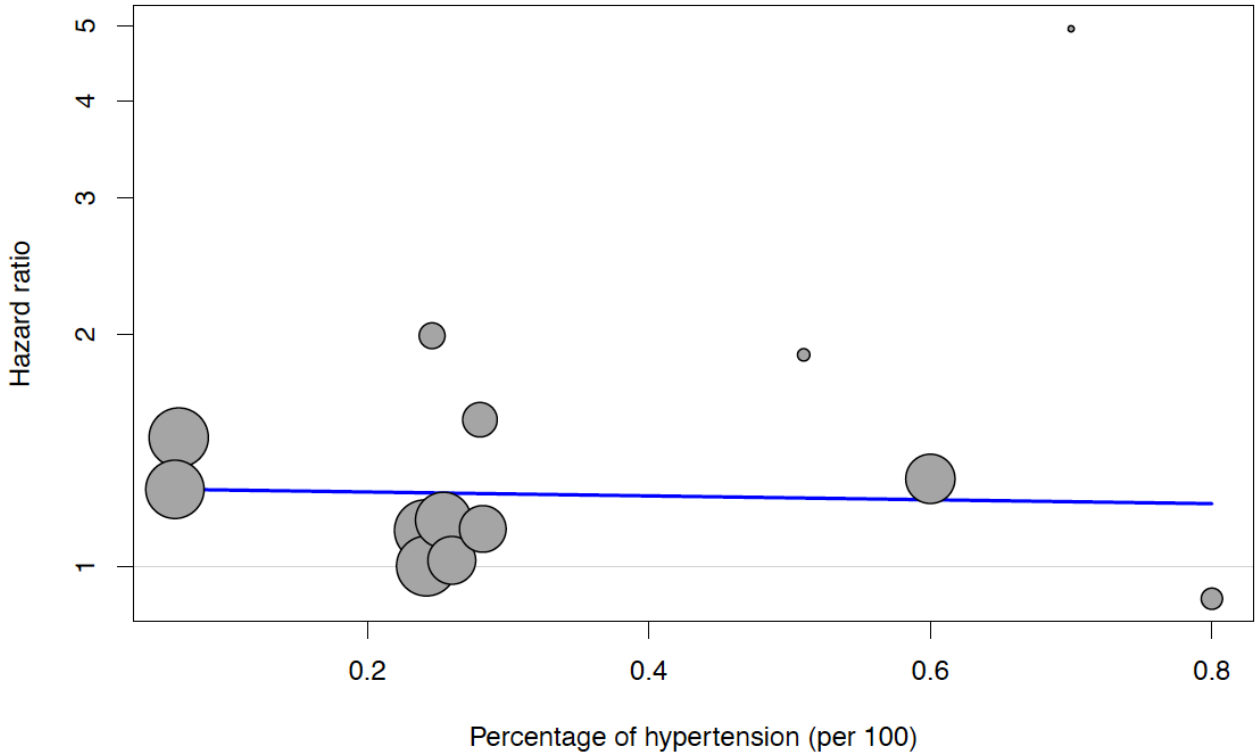


Fig. S10. Univariable meta-regression of the effect of pre-existing type 2 diabetes on the association between MASLD and the risk of incident AF (P-value=0.16).

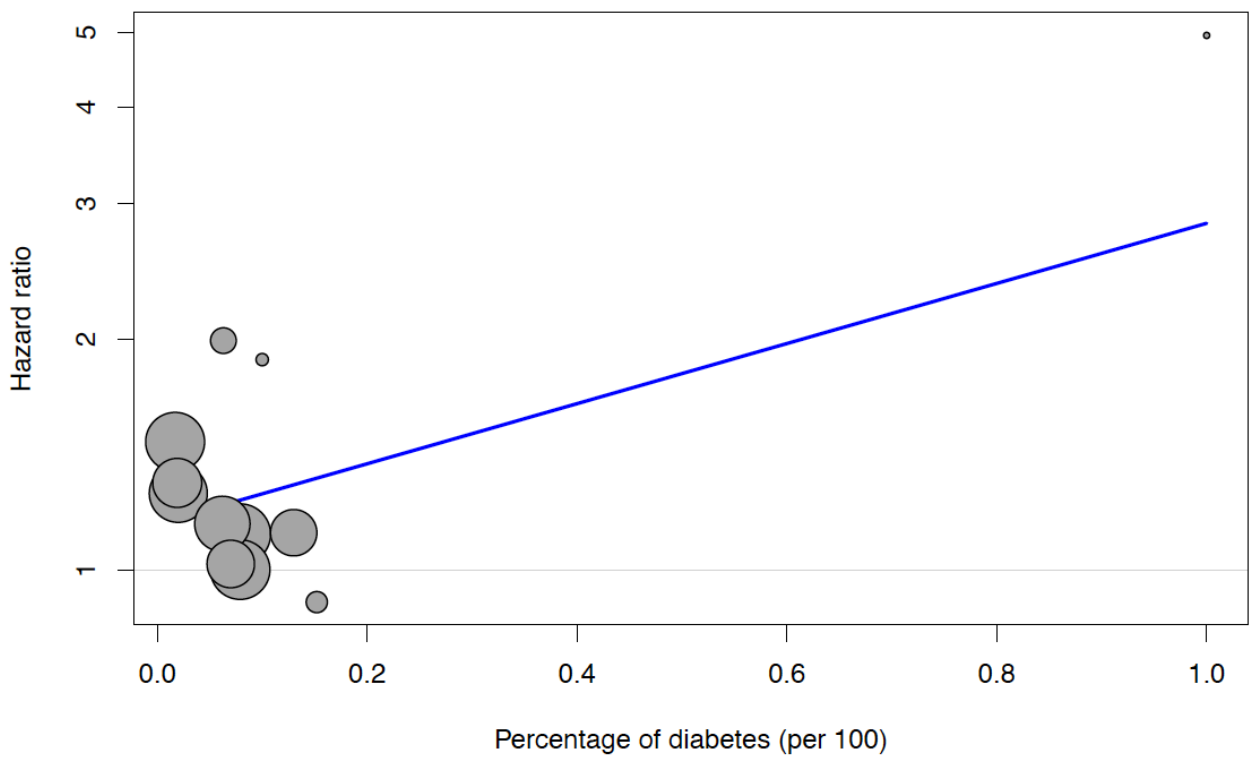


Fig. S11. Funnel plot of the eligible longitudinal studies assessing the association between MASLD and the risk of incident AF (P-value=0.21).

