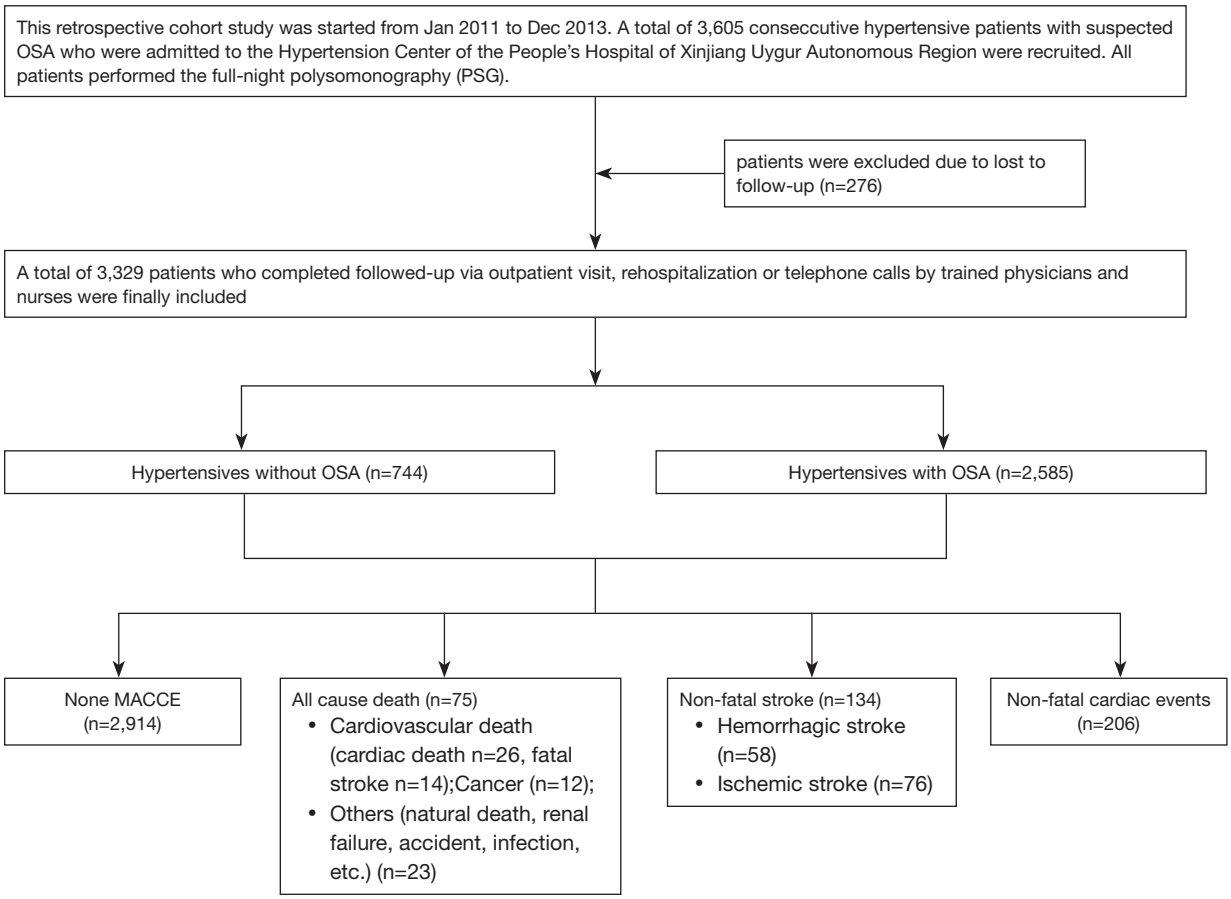

Figure S1 The flowchart of the study. Suspected OSA included: patients who had snoring with or without apnea at night, witnessed apnea and arousal frequently during sleep, unexplained daytime sleepiness, unexplained morning headache, unexplained lip and/or tongue dryness, unexplained cyanosis of lip and/or nail bed and resistant hypertension. OSA, obstructive sleep apnea; MACCE, major adverse cardiovascular and cerebrovascular events.

Table S1 Association between OSA and stroke and all-cause death in the total cohort (n=3,329)

Models	Stroke		All-cause death	
	HR (95% CI)	P value	HR (95% CI)	P value
Crude model	1.03 (0.70–1.50)	0.905	1.35 (0.75–2.41)	0.318
Partially adjusted model	0.92 (0.62–1.37)	0.688	0.90 (0.50–1.62)	0.731
Fully adjusted model	0.85 (0.57–1.28)	0.435	0.80 (0.44–1.46)	0.464
Sensitivity analysis	0.80 (0.53–1.20)	0.279	0.81 (0.44–1.48)	0.497

Partially adjusted model: adjusted for age and sex. Fully adjusted model: adjusted for age, sex, body mass index, baseline systolic blood pressure and diastolic blood pressure, low-density lipoprotein cholesterol, eGFR, smoking, type 2 diabetes, history of coronary heart diseases, lipid-lowering drugs, antidiabetic drugs and antiplatelet drugs. Sensitivity analysis was performed in 3,201 hypertensive patients without OSA-specific treatment, i.e., CPAP, oral appliance, surgery, etc. The confounders in fully adjusted model were included. OSA, obstructive sleep apnea; HR, hazard ratio; CI, confidence interval; eGFR, estimated glomerular filtration rate; CPAP, continuous positive airway pressure.

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Table S2 The interaction of OSA status and BP level on extended MACCE and its components

Outcomes	OSA status & BP level ≥140/90 mmHg (Y/N)	
	HR (95% CI)	P interaction
Extended MACCE	1.12 (0.91–1.36)	0.287
Cardiac events	1.15 (0.88–1.50)	0.321
Stroke	1.32 (0.94–1.86)	0.111
All-cause death	0.88 (0.56–1.40)	0.594

Adjusted for age, sex, body mass index, low-density lipoprotein cholesterol, eGFR, smoking, type 2 diabetes, history of coronary heart diseases, lipid-lowering drugs, antidiabetic drugs and antiplatelet drugs. OSA, obstructive sleep apnea; BP, blood pressure; MACCE, major adverse cardiovascular and cerebrovascular event; HR, hazard ratio; CI, confidence interval; eGFR, estimated glomerular filtration rate.

Table S3 Association between OSA and extended MACCE and cardiac events in subpopulation stratified by blood pressure control (n=3,267)

Models	BP controlled <140/90 mmHg		BP uncontrolled SBP ≥140 mmHg or DBP ≥90 mmHg	
	Adjusted HR (95% CI)	P value	Adjusted HR (95% CI)	P value
Stroke				
Crude model	0.95 (0.48–1.88)	0.873	0.99 (0.61–1.61)	0.966
Partially adjusted model	0.92 (0.45–1.87)	0.814	0.88 (0.53–1.46)	0.622
Fully adjusted mode	0.78 (0.37–1.62)	0.501	0.84 (0.51–1.41)	0.516
Sensitivity analysis	0.69 (0.33–1.46)	0.330	0.80 (0.48–1.35)	0.406
All-cause death				
Crude model	1.72 (0.59–5.03)	0.323	0.91 (0.30–2.80)	0.874
Partially adjusted model	1.16 (0.39–3.40)	0.794	0.58 (0.19–1.84)	0.357
Fully adjusted mode	0.74 (0.24–2.27)	0.597	0.52 (0.15–1.76)	0.291
Sensitivity analysis	0.75 (0.25–2.31)	0.618	0.53 (0.16–1.81)	0.312

Partially adjusted model: adjusted for age and sex. Fully adjusted model: adjusted for age, sex, body mass index, baseline systolic blood pressure and diastolic blood pressure, low-density lipoprotein cholesterol, eGFR, smoking, type 2 diabetes, history of coronary heart diseases, lipid-lowering drugs, antidiabetic drugs and antiplatelet drugs. Sensitivity analysis was performed in 3,139 hypertensive patients without OSA-specific treatment, i.e., CPAP, oral appliance, surgery, etc. The confounders in fully adjusted model were included. OSA, obstructive sleep apnea; MACCE, major adverse cardiovascular and cerebrovascular event; BP, blood pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure; HR, hazard ratio; CI, confidence interval; eGFR, estimated glomerular filtration rate; CPAP, continuous positive airway pressure.

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