Table of Resources for PA diagnosis
(based on health economic analysis, Table 1: Base Case Model Inputs[+])

Input	Base Case Values (BCV)	Sensitivity Analysis Range	Source
Probabilities in Decision Tree			
Prevalence of PA[*]	0.10	0.03 – 0.20	[3,5,19]
Proportion of Unilateral PA (after SST) [*]	0.27	(0.85-1.15)*BCV	[14]& Expert opinion
Proportion of Bilateral Hyperaldosteronism (after SST) [*]	0.46	(0.85-1.15)*BCV	[14]& Expert opinion
Undetermined PA (after SST) [*]	0.27	(0.85-1.15)*BCV	Expert opinion
Proportion of Unilateral PA (without SST) [*]	0.67	(0.85-1.15)*BCV	[23]& Expert opinion
Proportion of Bilateral Hyperaldosteronism (without SST) [*]	0.33	(0.85-1.15)*BCV	[23]& Expert opinion
Adrenalectomy Success Rate[*]	0.934	0.83-1.0	[39,40]& Expert opinion
Test Characteristics			
ARR sensitivity	0.78	0.66 – 0.98	[17,47-50,54,55]
ARR specificity	0.83	0.63 – 0.99	[17,47-50,54,55]
SST sensitivity	0.83	0.55 – 0.90	[17]
SST specificity	0.75	0.75 – 1.00	[17]
Proportion receiving SST[*]	0.88	(0.85-1.15)*BCV	[23]& Expert opinion
No Sub-Typing [*]	0.10	0.09 – 0.11	[23]& Expert opinion
Transition Probabilities			
[†]**From PA to**			
Stroke	0.0188	0.0147-0.0238	[9]
Angina – MI as Proxy	0.0178	0.0138-0.0226	[9]
MI	0.0178	0.0138-0.0226	[9]
Death	0.0042	(0.85-1.15)*BCV	[19]
From Cured PA to			
HT	0.1000	(0.85-1.15)*BCV	[19]
Stroke	0.0044	0.0029-0.0081	[9]
Angina – MI as Proxy	0.0041	0.0030-0.0086	[9]
MI	0.0041	0.0030-0.0086	[9]
Death	0.00416	(0.85-1.15)*BCV	[19]
From HT to			
Stroke	0.0084	0.0080-0.0087	[1]
Angina – MI as Proxy	0.0089	0.0086-0.0093	[1]
MI	0.0089	0.0086-0.0093	[1]
Death	0.0042	(0.85-1.15)*BCV	[19]
From Stroke to			
Acute Death	0.140	(0.85-1.15)*BCV	[56]
Repeat Stroke	0.040	(0.85-1.15)*BCV	[57]
Chronic MI Event	0.022	(0.85-1.15)*BCV	[58]
Chronic Death	0.050	(0.85-1.15)*BCV	[59]
From MI to			
Acute Death	0.150	(0.85-1.15)*BCV	[60]

Acute 2nd MI	0.060	(0.85-1.15)*BCV	[61]
Repeat MI	0.064	(0.85-1.15)*BCV	[62]
Chronic Death	0.040	(0.85-1.15)*BCV	[59]
From Angina to			
Acute Death	0.045	(0.85-1.15)*BCV	[61]
Acute MI	0.035	(0.85-1.15)*BCV	[63]
MI Event	0.035	(0.85-1.15)*BCV	[63]
Chronic Death	0.030	(0.85-1.15)*BCV	[59]
Costs (in AU$)			
ARR	43.70	(0.85-1.15)*BCC	[64]
SST	223.20	(0.85-1.15)*BCC	Expert Advice
AVS	2500.00	(0.85-1.15)*BCC	Expert Advice
CT Scan	999.20	(0.85-1.15)*BCC	[64]
Cost of Adrenalectomy	1442.90	(0.85-1.15)*BCC	[64]
Overnight Hospital Stay for Adrenalectomy‡	4638.27	(0.85-1.15)*BCC	[65]
MRA (spironolactone)	95.94	(0.85-1.15)*BCC	[66]
Anti-Hypertensive Drug†	387.60	(0.85-1.15)*BCC	[66]
Stroke – Initial Treatment‡	10411.53	(0.85-1.15)*BCC	[64]
Stroke – Follow-on Cost‡	4269.15	(0.85-1.15)*BCC	[64]
MI – Initial Treatment‡	10208.49	(0.85-1.15)*BCC	[64]
MI – Follow-on Cost‡	3601.96	(0.85-1.15)*BCC	[64]
Angina – Initial Treatment‡	3235.31	(0.85-1.15)*BCC	[64]
Angina – Follow-on Cost‡	2562.87	(0.85-1.15)*BCC	[64]
Initial Consultation with a specialist	161.90	(0.85-1.15)*BCC	[64]
Follow-up Consultation with specialist	81.05	(0.85-1.15)*BCC	[64]
GP Consultation	39.75	(0.85-1.15)*BCC	[67]
Utility Weights (mean values)			
Disease Free	0.871	(0.85-1.15)*BCV	[33]
Hypertension	0.789	(0.85-1.15)*BCV	[33]
Angina	0.695	(0.85-1.15)*BCV	[33]
MI	0.704	(0.85-1.15)*BCV	[33]
Stroke	0.650	(0.85-1.15)*BCV	[33]

PA: Primary Aldosteronism, MI: Myocardial Infarction, HT: Hypertension, ARR: Aldosterone to Renin Ratio, SST: Saline Suppression Test, AVS: Adrenal Vein Sampling, CT: Computerised Tomography, BCC: Base-Case Costs

†We made the conservative assumption of a standard transition probability from PA to CVD irrespective of whether the patient receives a MRA or an anti-hypertensive. Acute: Events that happen within the first year in a health state, Chronic: Events that happen post the first year in a health state.

‡ Initial disease costs and cost of hospital stay were calculated as a weighted average of the costs of each DRG code corresponding to the disease. For example, the DRG costs for Stroke are the weighted average of costs associated with the DRG codes B70A, B70B, B70C, B70D. Follow-up costs are estimated to be as high as the lowest costs within each group of corresponding DRG codes.

† Cost of all potential prescription combinations used

+All values were discussed with experts within the field.

‡ Adjusted based on expert opinion

Other documented costs

Lubitz et al, Circulation, 2015 (in US Dollars)

Screening ARR $93

Confirmatory saline infusion testing $141

Abdominal CT $329

Adrenal venous sampling $2645

Adrenalectomy (surgery+anesthesia)* $3054

Hospitalization $7867

Hospitalization w/MCC $16 833
One year cost of spironolactone $158

Velasco A et al, J Clin Hypertens, 2015 (in US Dollars)
Screening ARR $86
Saline suppression test $217.72
Adrenal vein sampling $2328.73
Adrenal CT $588.53

Menut KC et al, Screening for PA in the hypertensive OSA population is cost saving, Surgery 2022 (in 2020 USD)
Cost of screening for PA (ARR þ SIT) 188
Cost of CT scan 283
Cost of AVS 2,963
Cost of laparoscopic adrenalectomy, with complication
Age <40 16,935
Age 41-60 19,609
Age 61-70 17,896
Age >70 20,448
Cost of laparoscopic adrenalectomy, uncomplicated
Age <40 10,280
Age 41-60 11,404
Age 61-70 11,513
Age >70 12,457

Sato M, et al. Cost-Effectiveness Analysis of the Diagnosis and Treatment of Primary Aldosteronism in Japan. Horm Metab Res. 2015 Oct;47(11):826-32. (Japanese Yen ~ USD)
Blood test (ARR) 5 220 ~ 36 USD
Loading test 12 700 ~ 87 USD
CT + AVS (8 days hospital admission) 570 620 ~3939 USD
Surgery (11 days hospital admission) 996 710 ~ 6880 USD
Medication costs (included drug fees)/cycle
PA with surgery 71 099 (30 407–119 548) ~ 490 USD
PA without surgery 121 385 (31 270–173 369) ~ 837 USD
Drug free after surgery 31 160 (16 015–36 550) ~ 215 USD
Drug reduced after surgery 121 442 (98 558–168 421) ~ 838 USD

Li N, et al. Cost-effectiveness analysis of screening for primary aldosteronism in China. Clin Endocrinol (Oxf). 2021 Sep;95(3):414-422. (All costs retrieved from the literature were converted for the year 2020 using the consumer price index (CPI) and from China's health system were converted based on the average exchange rate of the **US dollar** in 2019 (USD1 = 6.8985 RMB),24 with a discount rate of 5%.)
MRA costs per year 42.01 (sensitivity analysis range 31.51–52.51)
ARR test 25.22 (18.92–31.53)
SIT 40.30 (30.22–50.37)
CT 81.18 (60.88–101.47)
AVS 289.92 (217.44–362.40)
Surgery 2415.02 (1811.26–3018.77)

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