

Supplementary Online Content

Randhawa MS, Vishwanath R, Rai MP, et al. Association between use of warfarin for atrial fibrillation and outcomes among patients with end-stage renal disease: a systematic review and meta-analysis. *JAMA Netw Open*. 2020;3(4):e202175.

doi:10.1001/jamanetworkopen.2020.2175

eTable 1. Baseline Characteristics of the Study Population

eTable 2. Newcastle Ottawa Scale Assessment of the Studies

eTable 3. Definitions of Major Bleeding, Ischemic Strokes, and Hemorrhagic Strokes as Mentioned in the Selected Studies

eTable 4. Sensitivity Analysis With “Leave Out” Method and Measure of Heterogeneity Using Cochran’s Q and I² Results

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Baseline Characteristics of the Study Population

Authors	Mean age		Male (%)		Hypertension (%)		Diabetes Mellitus (%)		Coronary artery disease (%)		History of stroke (%) (I, H, NS)**	
	Warfarin	Control	Warfarin	Control	Warfarin	Control	Warfarin	Control	Warfarin	Control	Warfarin	Control
Chan et al ⁸	72.6	71.3	57.8	54.4	79.7	79.8	40.6	34.4	58.3	52.9	14.4(NS)	11.9(NS)
Winkelmayer et al ⁹	68.6	70.1	42.6	42.5	82.7	80.7	60.2	59.1	46.2	53.0	29.9(NS)	23.6(NS)
Carrero et al ¹⁰	-	-	-	-	-	-	-	-	-	-	-	-
Chen J et al ¹¹	-	-	41.5	46.3	81.0	83.1	45.9	47.6	61.9	54.9	-	-
Genovesi et al ¹⁴	-	-	64.2	56.4	76.1	85.3	29.1	33.3	45.5	50.6	15.7(I), 11.9(H)	14.1(I), 26.3(H)
Shah et al ¹²	75.3	75.1	61.0	61.0	77.0	75.0	44.0	39.0	62.0	59.0	6.0(NS)	5.0(NS)
Wakasugi et al ¹³	67.8	68.4	57	72	43	28	18	28	-	-	14(I)	26(I)
Shen et al ¹⁵	61.2	62.1	49.7	48.7	97.2	98.6	69.1	70.8	37.0	42.6	22.0(NS)	26.8(NS)
Garg et al ¹⁶	75	78	55.4	51.3	84.8	88.0	58.8	55.1	77.3	80.9	20.1(I)	23.0(I)
Wang et al ¹⁷	59.8	62.1	61	62.2	98.3	89.0	66.1	54.9	71.2	72.0	27.1(NS)	15.9(NS)
Kai et al ²⁰	69.2	67.3	63.2	58.9	99.2	99.0	79.2	77.9	55.1	49.5	24.0(I), 1.3(H)	25.2(I), 2.5(H)
Lee et al ²²	69.3	70.3	42.3	40.6	-	-	-	-	-	-	6.8(NS)	5.9(NS)
Tan et al ¹⁹	74.4	74.7	43	43.2	98.4	98.6	70.7	71.6	65.9	66.4	21.0(NS)	21.6(NS)
Yoon et al ²¹	67.8	66.1	59.9	57.5	89.4	79.2	43.1	35.9	-	-	-	-
Voskamp et al ²³	67.6	61.3	59.8	61.6	88.1	89.1	17.6	15.8	59.0	31.7	-	-

**Where 'I' is ischemic, 'H' is hemorrhagic and 'NS' is not specified

eTable 2. Newcastle Ottawa Scale Assessment of the Studies

<i>Study</i>	<i>Selection</i>	<i>Compatibility</i>	<i>Outcomes</i>
Chan et al⁸	****	-	*
Winkelmayer et al⁹	****	*	**
Carrero et al¹⁰	**	-	-
Chen J et al¹¹	****	*	**
Genovesi et al¹⁴	****	**	***
Shah et al¹²	***	*	*
Wakasugi et al¹³	****	**	***
Shen et al¹⁵	****	*	***
Garg et al¹⁶	****	*	***
Wang et al¹⁷	****	**	***
Kai et al²⁰	****	*	***
Lee et al²²	****	*	***
Tan et al¹⁹	****	*	-
Yoon et al²¹	****	*	***
Voskamp et al²³	****	**	***

eTable 3. Definitions of Major Bleeding, Ischemic Strokes, and Hemorrhagic Strokes as Mentioned in the Selected Studies

Definition of Major Bleeding		
Defined as	Number of Studies	Studies
Hospitalization/transfusion	5	Carrero et al ¹⁰ , Wakasugi et al ¹³ , Shen et al ¹⁵ , Garg et al ¹⁶ , Wang et al ¹⁷ .
Internal bleeding	2	Winkelmayer et al ⁹ , Shah et al ¹² .
Not defined	1	Genovesi et al ¹⁴ .
Definition of Ischemic Stroke		
Defined as	Number of Studies	Studies
ICD codes	5	Winkelmayer et al ⁹ , Chen J et al ¹¹ , Lee et al ²² , Tan et al ¹⁹ , Yoon et al ²¹ .
Clinical evidence	2	Wakasugi et al ¹³ , Garg et al ¹⁶ .
Others	3	Chan et al ⁸ , Shah et al ¹² , Kai et al ²⁰
Not defined	1	Shen et al ¹⁵
Definition of Hemorrhagic Stroke		
Defined as	Number of Studies	Studies
ICD codes	3	Winkelmayer et al ⁹ , Lee et al ²² , Yoon et. Al ²¹
Radiographic evidence	1	Wang et al ¹⁷
Others	2	Chan et al ⁸ , Shah et al ¹²
Not defined	1	Shen et al ¹⁵

eTable 4. Sensitivity Analysis With “Leave Out” Method and Measure of Heterogeneity Using Cochran’s Q and I² Results

	<i>Sensitivity Analysis</i>				<i>Measures of heterogeneity</i>			
	<i>Remove Winkelmaye’s et al¹⁰ & Wakasugi et al¹¹</i>	<i>Remove Shen et al¹⁵, Shah et al¹² & Lee et al²²</i>	<i>Remove Wakasugi et al¹¹, Winkelmaye et al¹⁰, Chan et al⁹, & Shen et al¹⁵</i>	<i>Remove Tan et al¹⁹, Wakasugi et al¹¹, Shah et al¹² & Yoon et al²¹</i>	<i>Cochran’s Q (p-value)</i>	<i>I² (%)</i>	<i>Modified H²</i>	<i>Tau²</i>
<i>Ischemic Stroke</i>	0.95 (0.81-1.12)	0.997 (0.85 - 1.17)	0.97 (0.81 – 1.57)	0.948 (0.796 – 1.13)	21.09 (0.02)	52.60%	1.109	0.034
<i>Hemorrhagic Stroke</i>	1.35 (0.95-1.92)	1.55 (1.08 -2.21)	1.38 (0.95 – 1.99)	1.49 (0.917 – 2.45)	9.53 (0.146)	37.00%	0.588	0.0686
<i>Major Bleeding</i>	1.25 (1.01-1.55)	1.16 (0.914 -1.488)	1.24 (0.99 – 1.54)	1.21 (0.986 – 1.49)	23.54 (0.003)	66.00%	1.943	0.0465
<i>Mortality</i>	0.94 (0.81-1.08)	0.94 (0.9 -1.94)	0.95 (0.83 – 1.09)	0.99 (0.877 – 1.12)	54.56 (<0.01)	85.30%	5.82	0.0301