

Study	Patients (N)	Treatment arms	Outcome	HR (95% CI)	HR (95% CI)	p-value
Retrospective cohort analysis using Optum-Labs Data Warehouse in the US ⁴¹	9769	Apixaban vs warfarin	30% decline in eGFR	0.88 (0.70–1.10)		0.25
			Doubling of serum creatinine	0.80 (0.41–1.56)		0.51
			AKI	0.84 (0.66–1.07)		0.16
		Dabigatran vs warfarin	30% decline in eGFR	0.72 (0.56–0.93)		0.01
			Doubling of serum creatinine	0.64 (0.31–1.34)		0.24
			AKI	0.55 (0.40–0.77)		<0.001
		Rivaroxaban vs warfarin	30% decline in eGFR	0.73 (0.62–0.87)		<0.001
			Doubling of serum creatinine	0.46 (0.21–0.75)		<0.01
			AKI	0.69 (0.57–0.84)		<0.001
					0.125 0.25 0.5 1 2	
Taiwan nationwide retrospective cohort study ⁷⁴	19,932	Dabigatran vs warfarin	AKI in pts w/o CKD	0.62 (0.49–0.77)		<0.01
			AKI in pts w CKD	0.56 (0.46–0.69)		<0.001
					0.125 0.25 0.5 1 2	
Taiwan nationwide retrospective cohort study ⁷⁵	75,221	Apixaban vs warfarin	AKI in pts w/o CKD	0.53 (0.45–0.62)		–
			AKI in pts w CKD	0.41 (0.35–0.49)		–
		Dabigatran vs warfarin	AKI in pts w/o CKD	0.62 (0.57–0.67)		–
			AKI in pts w CKD	0.51 (0.46–0.56)		–
		Rivaroxaban vs warfarin	AKI in pts w/o CKD	0.66 (0.62–0.71)		–
			AKI in pts w CKD	0.50 (0.46–0.54)		–
					0.125 0.25 0.5 1 2	
US cohort study ⁷³	20,727	Apixaban, dabigatran, rivaroxaban vs warfarin	AKI in pts w eGFR ≥60 ml/min/1.73 m ²	0.72 (0.57–0.91)		0.007
			AKI in pts w eGFR 30–50 ml/min/1.73 m ²	0.80 (0.64–1.01)		0.067
			AKI in pts w eGFR ≤30 ml/min/1.73 m ²	1.31 (0.81–2.13)		0.271
Cohort study using the administrative healthcare databases of Quebec ⁷⁶	26,357	Apixaban vs warfarin	AKI in pts w/o CKD	0.25 (0.14–0.44)		–
			AKI in pts w CKD	0.29 (0.15–0.55)		–
		Dabigatran vs warfarin	AKI in pts w/o CKD	0.67 (0.56–0.80)		–
			AKI in pts w CKD	0.59 (0.45–0.78)		–
		Rivaroxaban vs warfarin	AKI in pts w/o CKD	0.50 (0.39–0.63)		–
			AKI in pts w CKD	0.54 (0.39–0.74)		–
					0.125 0.25 0.5 1 2	
Retrospective claims analysis using US Truven MarketScan data (RIVAL) ⁷⁷	72,599	Rivaroxaban vs warfarin	AKI	0.81 (0.75–0.87)		–
			Progression to stage 5 CKD or dialysis	0.82 (0.74–0.91)		–
					0.125 0.25 0.5 1 2	
Retrospective study of German claims data (RELOADED, renal disease) ⁴⁹	17,842	Apixaban vs phenprocoumon	AKI	0.90 (0.69–1.17)		–
			Progression to ESRD	0.43 (0.29–0.63)		–
		Dabigatran vs phenprocoumon	AKI	0.86 (0.45–1.65)		–
			Progression to ESRD	–		–
		Rivaroxaban vs phenprocoumon	AKI	0.77 (0.58–1.01)		–
			Progression to ESRD	0.27 (0.16–0.43)		–
					0.125 0.25 0.5 1 2	
Retrospective study of German claims data (RELOADED, diabetes) ⁷⁸	21,845	Apixaban vs phenprocoumon	AKI in pts w diabetes	1.07 (0.82–1.41)		–
			Progression to ESRD in pts w diabetes	0.60 (0.40–0.89)		–
		Dabigatran vs phenprocoumon	AKI in pts w diabetes	0.56 (0.23–1.37)		–
			Progression to ESRD in pts w diabetes	–		–
		Rivaroxaban vs phenprocoumon	AKI in pts w diabetes	0.72 (0.53–0.97)		–
			Progression to ESRD in pts w diabetes	0.32 (0.19–0.53)		–
					0.125 0.25 0.5 1 2	
US claims data study (CALLIPER) ⁷⁹	7372	Rivaroxaban vs warfarin	Progression to CKD stage 5, kidney failure or dialysis in pts w CKD stage 3/4	0.53 (0.35–0.78)		–
			Progression to CKD stage 5, kidney failure or dialysis in pts w CKD stage 3/4 and type 2 diabetes	0.50 (0.30–0.83)		–
					0.125 0.25 0.5 1 2	
Retrospective claims analysis using US IBM MarketScan data ⁸⁰	21,682	Rivaroxaban vs warfarin	AKI in pts w diabetes	0.83 (0.74–0.92)		–
			Progression to stage 5 CKD or haemodialysis in pts w diabetes	0.82 (0.70–0.96)		–
					0.125 0.25 0.5 1 2	
					Favours NOAC Favours warfarin/phenprocoumon	