

SUPPLEMENTAL CONTENTS

Supplemental Table 1: Codes

Supplemental Data 1

Supplemental Table 2: Adverse outcomes among patients with nRVT in Ontario from 1992-2016 (after adding prematurity in the multivariate model)

Supplemental Figure 1: Cumulative risk of adverse outcomes following nRVT over 10 years of follow-up in subset that survives the first year following nRVT without outcome.

Supplementary Table 1: Codes

	ICD-9	ICD-10	OHIP
Neonatal renal vein thrombosis*	4533	I823	—
Chronic kidney disease	2504, 4030, 4039, 4040, 4049, 40501, 40511, 40591, 4401, 44621, 581, 582, 583, 585, 586, 587, 5880, 5888, 5889, 589, 5900, 5937, 7910, 7944	A181, N290, E1020, E1021, E1120, E132, E142, M1039, I120, I129, I130, I131, I132, I139, I150, I701, M310, N03, N04, N05, N06, N07, N08, N11, N12, N137, N138, N139, N14, N15, N16, N180, N188, N189, N19, N250, N258, N259, N26, N27, R80, R944	403,581, 582,585, 586
Hypertension	401, 402, 403, 404, 405	I10, I11, I12, I13, I15	401,402, 403
End-stage renal disease†	769	P22	769
Central venous catheterization‡	1IS53GRLF, 1IS53HNLF, 1IS54, 1IS54GRGX, 1IS54HAC1, 1IS54HAD2, 1IS54HAD3, 1IS54HALF, 1IS54JALF, 1IS55, 1IS55GRFK, 1IS55GRKA, 1IS55GRLF, 1IS55GRLG, 1IS55GRNR, 1IS55LAKA, 1IS55LALF, 1IS55LALG	9806, 5093, 1067, 5149, 5092	G282, S311
Congenital heart disease	745, 746, 747	Q20-Q28	745, 746, 747

Respiratory distress syndrome	769	P22	769
Sepsis	0031, 0362, 0380, 0382, 0383, 03840, 03841, 03842, 03843, 03844, 03849, 0388, 0389	A021, A392, A393, A394, A400, A401, A402, A408, A409-A412, A403, A414	038
NICU admission§	SCU: 10,20, 25, 30, 40, 45, 50, 51, 52, 53, 60, 70, 80, 90, 93, 95		
Maternal diabetes	648.0, 648.8	O24	250
Pre-eclampsia or eclampsia	642.4, 642.5, 642.6, 642.7, 642.1, 642.3, 642.9	O10, O11, O14, O15, O16	642

*Diagnosis must occur between 0-28 days of age.

†Criteria for a diagnosis of ESKD included two ESKD codes for either chronic dialysis separated by a 90-day±14-day period or kidney transplant.

‡Coding by Canadian Classification of Procedures (corresponding to ICD-9 years) and Canadian Classification of Interventions (corresponding to ICD-10-CA years).

§NICU admission was recorded if one of the corresponding codes was reported ≤28 days of age.

Supplemental Data 1

The algorithm that we used to identify CKD was developed by Fleet et al. in 2013.²⁴ It consisted of 11 CKD codes and defined a patient as having CKD if one of these codes was recorded in a health-administrative database within a 5-year window. The sensitivity was 32.7% [95% confidence interval: (95% CI): 32.0 to 33.3%]. All specificities were over 94%. The positive and negative predictive values were 65.4% (95% CI: 64.4 to 66.3%) and 88.8% (95% CI: 88.6 to 89.0%), respectively.

For hypertension, we used an adult case-definition algorithm²⁶ employing 2 outpatient physician billing claims. This algorithm had a sensitivity of 73% (95% confidence interval [CI] 69%–77%), a specificity of 95% (CI 93%–96%), a positive predictive value of 87% (CI 84%–90%), and a negative predictive value of 88% (CI 86%–90%) for detecting hypertensive adults compared with physician-assigned diagnoses.

Supplemental Table 2: Adverse outcomes among patients with nRVT in Ontario from 1992-2016 (after adding prematurity in the multivariate model)

Long-term Outcomes	nRVT (n=85)	Comparator (n=3,010,525)	Measures	P-value
Composite outcome*, n (%)	49 (57.6%)	90,050 (3.0%)	Stdif 1.48	
IR per 1000 person-years	111.8	2.56		
Unadjusted HR (95% CI)	42.3 (28.9-62.1)	Ref.		<0.0001
Adjusted† HR (95% CI) (without prematurity data)	15.5 (11.7-20.6)	Ref.		<0.0001
Number of patients with prematurity data (2002, onwards)	47	1,819,111		
Adjusted HR (95% CI), including prematurity (2002, onwards)	9.27 (6.16-14.0)	Ref.		<0.0001
CKD or Mortality, n (%)	39 (45.9%)	32,016 (1.1%)	Stdif 1.25	
IR per 1000 person-years	66.5	0.9		
Unadjusted HR (95% CI)	67.5 (46.8-97.4)	Ref.		<0.0001
Adjusted HR (95% CI) (without prematurity data)	12.3 (8.9-16.8)	Ref.		<0.0001
Adjusted HR (95% CI), including prematurity (2002, onwards)	10.8 (6.87-17.0)	Ref.		<0.0001
Hypertension, n (%)	33 (38.8%)	64,458 (2.1%)	Stdif 1.02	
IR per 1000 person-years	53.2	1.83		
Unadjusted HR (95% CI)	30.0 (19.8-45.5)	Ref.		<0.0001
Adjusted HR (95% CI) (without prematurity data)	15.7 (11.1-21.1)	Ref.		<0.0001
Adjusted HR (95% CI), including prematurity (2002, onwards)	7.28 (4.13-12.9)	Ref.		<0.0001

SUPPLEMENTAL FIGURE CAPTIONS:
Supplemental Figure 1: Cumulative risk of adverse outcomes following nRVT over 10 years of follow-up in subset that survives the first year following nRVT without outcome.
In each figure, the red line represents the cumulative probability of adverse outcomes among patients with nRVT; the green line represents the risk among general neonatal population over time. (A) Cumulative risk of CKD, all-cause mortality or hypertension. (B) Cumulative risk of Hypertension. (C) Cumulative risk of CKD and/or all-cause mortality.
nRVT, neonatal renal vein thrombosis; CKD, chronic kidney disease

Figure 1A

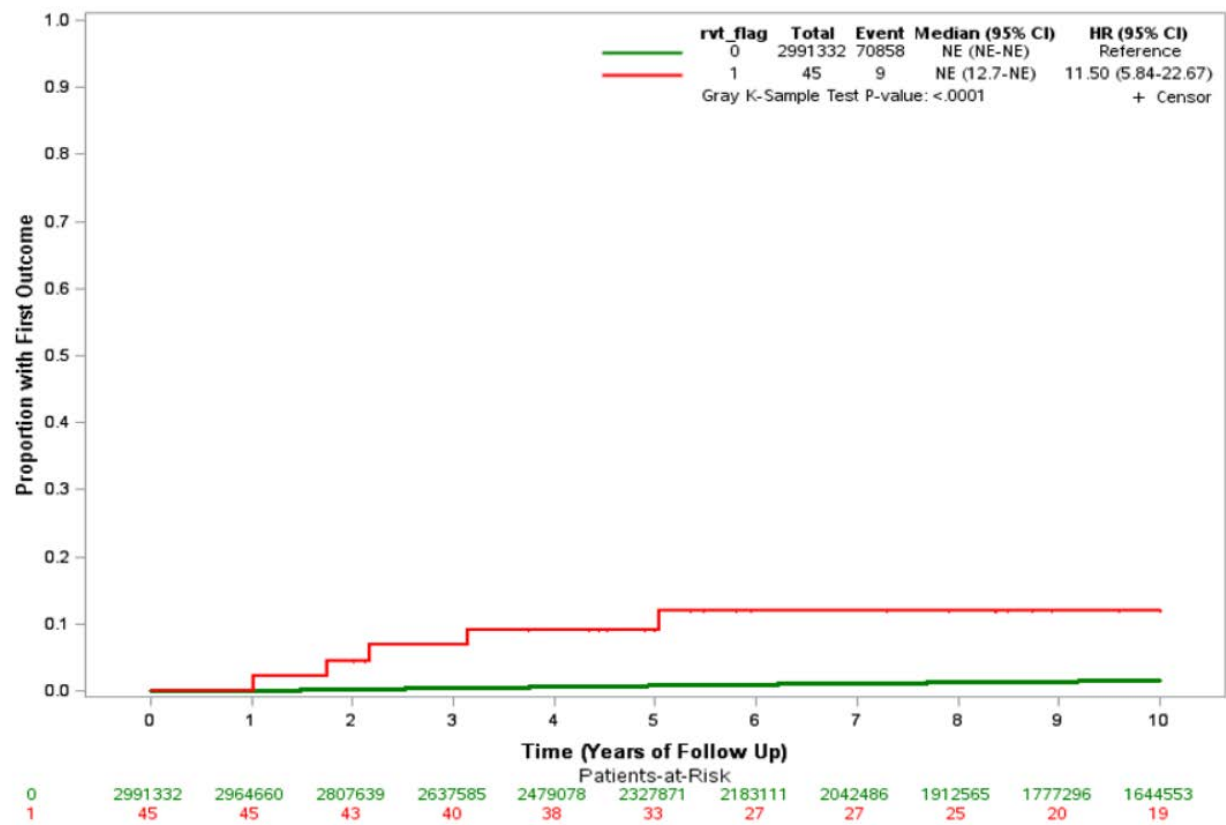


Figure 1B

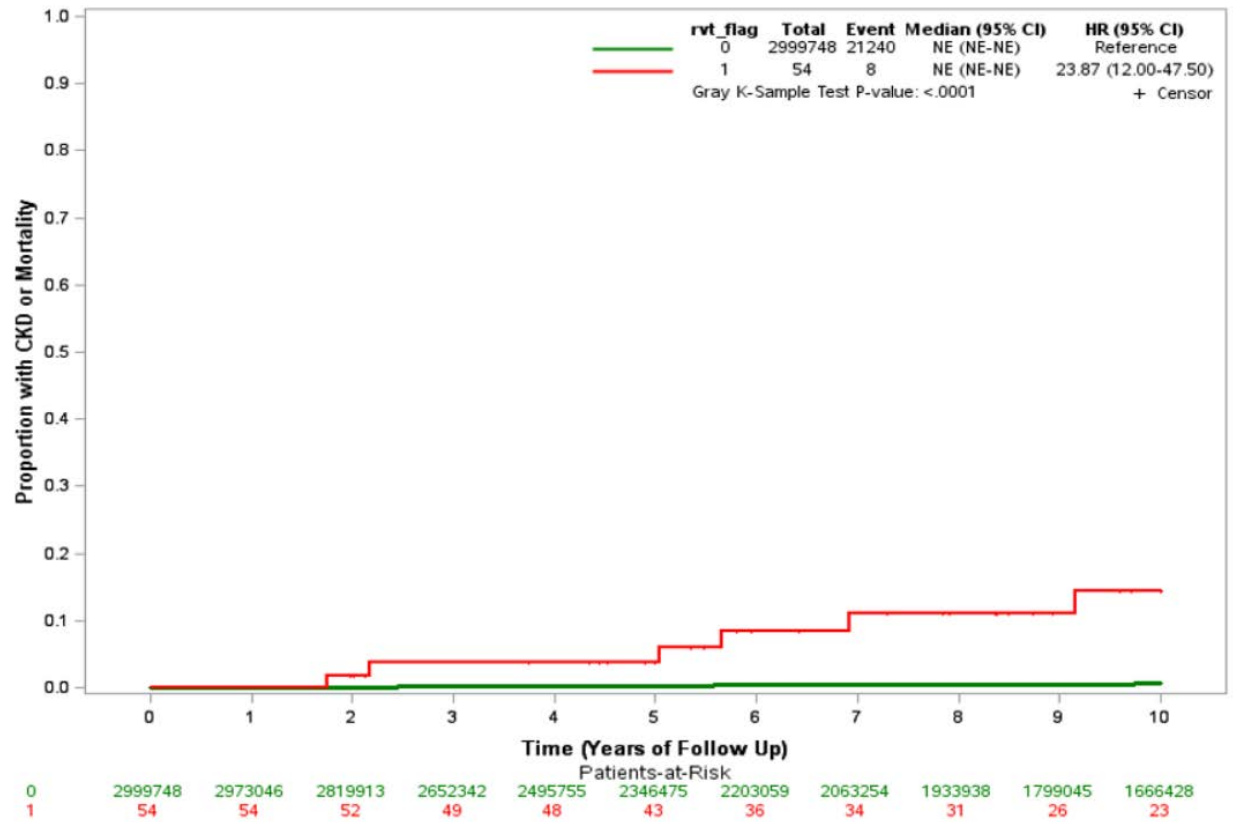


Figure 1C

