

Supplemental Information

SUPPLEMENTAL TABLE 3 Diagnostic Codes Used in Construction of Study Cohort

NI	Q00, Q05, Q01, Q02, Q03, Q04, Q062, Q064, Q068, Q069, Q078, Q079, F700, F701, F708, F709, F71, F72, F73, F78, F79, G20, G23, G240, G241, G242, G248, G250, G251, G252, G253, G254, G255, G256, G318, G319, G901, G903, G904, G10, G80, G11, G12, G95, G99, G91, G940, G941, G942, G82, G81, G40, G41, G71, G72, Q90, F842, Q910, Q911, Q912, Q913, Q93, Q953, Q958, Q92, Q97, Q985, Q986, Q987, Q988, Q989, Q990, Q992
CCCs	
Cardiovascular	Q20, Q21, Q22, Q23, Q24, Q25, Q26, I420, I421, I422, I423, I424, I425, I427, I428, I429, I515, I44, I45, I47, I48, I49
Respiratory	Q30, Q31, Q32, Q33, Q34, P27, E84
Renal	Q60, Q61, Q62, Q63, Q64, N18
Gastrointestinal	Q39, Q41, Q42, Q431, Q437, Q44, Q45, K73, K74, K754, K758, K759, K760, K50, K51
Hematology and immunodeficiency	D570, D571, D572, D578, D58, D55, D561, D562, D564, D568, D80, D81, D82, D83, D84, D898, D899, B20, B21, B22, B23, B24
Metabolic	E70, E710, E711, E712, E72, E74, E730, E78, E77, E75, E881, E882, E85, E76, E83, E79, E803, E804, E805, E806, E807, E713, E88.8, E88.9
Other congenital or genetic defect	Q914, Q915, Q916, Q917, Q952, Q96, Q980, Q981, Q982, Q984, Q999, E34, M41, Q75, Q76, Q77, Q78, Q790, Q791, Q792, Q793, Q794, Q795, K44, Q897, Q898, Q899, Q87
Malignancy	C00, C01, C02, C03, C04, C05, C06, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, D00, D01, D02, D03, D04, D05, D06, D07, D08, D09, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30, D31, D32, D33, D34, D35, D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D48
TA ^a	K9140, K9141, K9142, K9149, J9500, J9501, J9502, J9503, J9508, J9509, Z459, Z930, Z931, Z932, Z933, Z935, Z936, Z430, Z431, Z432, Z433, Z435, Z436, Z491, Z492, Z992, Z465, Z950, Z96, T823, T824, V440, ^b V441, ^b V442, ^b V443, ^b V445, ^b V446, ^b V450, ^b V451, ^b V530, ^b V535, ^b V550, ^b V551, ^b V552, ^b V553, ^b V555, ^b V556, ^b V560, ^b V568, ^b 5190, ^b 5696, ^b 9961 ^b

All codes are from ICD-10 unless indicated otherwise.

^a TA defined as a diagnostic or procedure code indicating insertion of a medical device without record of subsequent removal. Procedural codes obtained from Canadian Classification of Procedures until 2002, then Canadian Classification of Interventions; codes available from authors on request.

^b *International Classification of Diseases, 9th Revision.*

SUPPLEMENTAL TABLE 4 Distribution of Health System Costs Over 2 Years After Index Hospitalization by Diagnosis Type

	Overall <i>n</i> = 15 771	NI		Multiple CCC		Single CCC	
		TA	No TA	TA	No TA	TA	No TA
		<i>n</i> = 873	<i>n</i> = 3495	<i>n</i> = 152	<i>n</i> = 911	<i>n</i> = 838	<i>n</i> = 9502
Total health system cost							
Total cost	838 824 141	90 487 947	121 858 688	28 036 250	116 697 804	90 069 064	391 674 387
Mean ± SD	53 188 ± 100 229	103 652 ± 148 867	34 867 ± 60 375	184 449 ± 193 388	128 099 ± 155 661	107 481 ± 180 709	41 220 ± 77 029
Median (IQR)	17 372 (7002–56 017)	52 482 (20 173–128 371)	13 815 (6536–36 792)	119 400 (36 424–269 536)	87 870 (26 622–177 327)	49 159 (18 481–122 807)	13 887 (5841–41 991)
Total cost (excluding index hospitalization)							
No. of users (% cohort)	15 608 (99)	869 (99.5)	3441 (98.5)	148 (97.4)	899 (98.7)	830 (99)	9421 (99.1)
Total cost (% overall)	404 688 057 (48.2)	68 376 530 (75.6)	70 544 097 (57.9)	13 099 506 (46.7)	33 405 676 (28.6)	51 036 692 (56.7)	168 225 556 (43)
Median (IQR)	4607 (1364–18 706)	34 574 (10 178–97 063)	5685 (1765–17 657)	33 196 (11 728–133 025)	6854 (2024–25 010)	19 618 (4371–69 389)	2761 (1119–12 013)
Index hospitalization acute care cost (facility + OHIP)							
No. of users (% cohort)	15 771 (100)	873 (100)	3495 (100)	152 (100)	911 (100)	838 (100)	9502 (100)
Total cost (% overall)	434 136 084 (51.8)	22 111 417 (24.4)	51 314 591 (42.1)	14 936 745 (53.3)	83 292 128 (71.4)	39 032 372 (43.3)	223 448 831 (57)
Median (IQR)	5964 (2995–20 099)	5881 (3183–12 881)	3930 (2419–10 440)	18 006 (4769–152 232)	54 214 (9867–145 640)	9567 (3816–34 773)	5831 (3201–19 117)
Acute care cost (facility + OHIP)							
No. of users (% cohort)	11 315 (71.7)	726 (83.2)	2662 (76.2)	137 (90.1)	656 (72)	727 (86.8)	6407 (67.4)
Total cost (% overall)	228 256 216 (27.2)	21 247 266 (23.5)	37 043 903 (30.4)	5 401 283 (19.3)	23 290 226 (20)	26 253 829 (29.1)	115 019 709 (29.4)
Median (IQR)	3545 (54–15 362)	9252 (2592–28 731)	2416 (54–10 497)	15 934 (4304–42 821)	5722 (1588–25 351)	9971 (1882–32 924)	3148 (54–13 349)
ED cost (facility + OHIP)							
No. of users (% cohort)	11 172 (70.8)	726 (83.2)	2548 (72.9)	128 (84.2)	669 (73.4)	626 (74.7)	6475 (68.1)
Total cost (% overall)	2 988 381 (0.4)	256 990 (0.3)	755 852 (0.6)	39 753 (0.1)	207 443 (0.2)	176 603 (0.2)	1 531 740 (0.4)
Median (IQR)	165 (67–333)	234 (100–448)	182 (68–371)	193 (81–432)	187 (85–394)	184 (69–339)	147 (64–304)
SDS cost							
No. of users (% cohort)	2685 (17)	194 (22.2)	671 (19.2)	42 (27.6)	157 (17.2)	208 (24.8)	1413 (14.9)
Total cost (% overall)	3 935 249 (0.5)	234 705 (0.3)	834 404 (0.7)	51 894 (0.2)	224 455 (0.2)	426 359 (0.5)	2 163 431 (0.6)
Median (IQR)	1225 (613–1545)	1225 (601–1496)	1225 (613–1376)	1168 (601–1547)	1149 (613–1545)	1251 (613–1787)	1202 (613–1547)
HC cost							
No. of users (% cohort)	5696 (36.1)	708 (81.1)	1757 (50.3)	111 (73)	363 (39.8)	539 (64.3)	2218 (23.3)
Total cost (% overall)	94 460 536 (11.3)	36 238 239 (40)	18 379 958 (15.1)	5 841 371 (20.8)	4 381 529 (3.8)	15 797 027 (17.5)	13 822 412 (3.5)

SUPPLEMENTAL TABLE 4 Continued

	NI			Multiple CCC			Single CCC		
	Overall	TA	No TA	TA	No TA	TA	No TA	No TA	
	n = 15 771	n = 873	n = 3495	n = 152	n = 911	n = 838	n = 9502		
Median (IQR) Other OHIP cost (eg, ambulatory visits)	3130 (1272–9020)	13 112 (3063–51 255)	3345 (1448–8467)	7207 (2189–93 777)	3530 (1379–7484)	3648 (1296–17 054)	2117 (1050–5073)		
No. of users (% cohort)	15 548 (98.6)	868 (99.4)	3427 (98.1)	148 (97.4)	894 (98.1)	823 (98.2)	9388 (98.8)		
Total cost (% overall)	50 169 623 (6)	3 514 952 (3.9)	9 312 449 (7.6)	901 845 (3.2)	3 571 092 (3.1)	4 371 696 (4.9)	28 497 588 (7.3)		
Median (IQR) ODB cost	1744 (972–3405)	2657 (1469–5064)	1664 (906–3198)	4593 (2499–7956)	2448 (1436–4563)	3127 (1727–6382)	1575 (903–2947)		
No. of users (% cohort)	5050 (32)	570 (65.3)	1329 (38)	105 (69.1)	327 (35.9)	448 (53.5)	2271 (23.9)		
Total cost (% overall)	22 408 103 (2.7)	5 518 253 (6.1)	3 995 951 (3.3)	817 935 (2.9)	1 423 171 (1.2)	3 496 913 (3.9)	7 155 880 (1.8)		
Median (IQR) Other costs ^a	864 (165–4548)	5547 (887–13 215)	860 (195–3514)	2900 (486–10 432)	1123 (205–4213)	2272 (388–9584)	454 (96–2577)		
Total cost (% overall)	2 489 951 (0.3)	1 366 124 (1.5)	221 580 (0.2)	45 426 (0.2)	307 758 (0.3)	514 266 (0.6)	34 796 (0)		
Median (IQR)	80 988 (22 779–287 837)	131 291 (16 351–403 228)	26 980 (22 779–50 018)	45 426 (45 426–45 426)	307 758 (307 758–307 758)	257 135 (113 010–401 256)	17 398 (10 875–23 922)		

All costs rounded to nearest dollar and are expressed in Canadian dollars.

HC, home care; IQR, interquartile range; ODB, Ontario Drug Benefit Plan; SDS, same-day surgery.

^a For example, inpatient rehabilitation or complex continuing care.

SUPPLEMENTAL TABLE 5 Common ICD-10 Diagnoses Among the 9502 Children With Single-Organ System CCCs Without TA and Without NI

CCC Chapter	<i>n</i> (%) of All Single CCCs Without TA	Three Most Common Diagnoses Within Chapter	<i>n</i> (%) With Multiple Diagnoses Within Chapter
Cardiovascular	3541 (31.4)	Patent ductus arteriosus (Q250), Atrial septal defect (Q211), Ventricular septal defect (Q210)	1010 (28.5)
Respiratory	751 (7.9)	Congenital laryngomalacia (Q315), Bronchopulmonary dysplasia (P271), Cystic fibrosis (E840/E849)	42 (5.6)
Renal	1260 (13.3)	Congenital hydronephrosis (Q620), Other specified congenital malformation of kidney (Q638), Congenital vesicoureteral reflux (Q627)	252 (20)
Gastrointestinal	616 (6.5)	Inflammatory bowel disease (K519/K509/K508), Hirschsprung disease (Q431), Inflammatory liver disease (K759)	44 (7.1)
Hematology	593 (6.2)	Sickle cell anemia (D570/D571), Anemia due to glucose-6-phosphate dehydrogenase deficiency (D550), Hereditary spherocytosis (D580)	18 (3.0)
Congenital or genetic defects	952 (10)	Carniosynostosis (Q750), Congenital malformation syndromes predominantly affecting facial appearance (Q870), Gastroschisis (Q793)	36 (3.8)
Metabolic	335 (3.5)	Disorders of calcium metabolism (E835), Disorders of phosphorus metabolism and phosphatases (E833), Other disorders of bilirubin metabolism (E806)	16 (4.8)
Malignancies	1454 (15.3)	Acute lymphoblastic leukemia (C910), Haemangioma of other sites (D1808), Malignant neoplasm of kidney, except renal pelvis (C64)	164 (11.3)