

CONCEPTT Cost Implications

S7. Group mean costs of individual healthcare resources by province and study group

Service	Province	CGM Group N=100 Women/Infants		SMBG N=102 Women/Infants		Difference Between CGM and SMBG Mean Total Costs ¹	Rank of Cost Driver Within Province ²
		Mean Cost Per Group	Standard Deviation	Mean Cost Per Group	Standard Deviation		
1. Number of "unscheduled" contacts (via phone, patient visits/appointments, email, text, etc) with the nurse, doctor, any research staff, or the CGM helpline since the last study visit:	Ontario	\$237.67	\$219.69	\$137.53	\$104.57	\$100.14	15
	British Columbia	\$225.91	\$208.79	\$130.73	\$99.40	\$95.17	15
	Alberta	\$249.24	\$230.37	\$144.22	\$109.65	\$105.02	15
1a. For diabetes management - Number of times	Ontario	\$112.76	\$105.78	\$112.38	\$98.00	\$0.38	30
	British Columbia	\$107.19	\$100.56	\$106.83	\$93.16	\$0.36	30
	Alberta	\$118.24	\$110.93	\$117.85	\$102.77	\$0.40	30
1b. For CGM device - Number of times	Ontario	\$28.19	\$37.59	\$1.05	\$4.48	\$27.14	23
	British Columbia	\$26.80	\$35.73	\$1.00	\$4.26	\$25.80	23
	Alberta	\$29.56	\$39.42	\$1.10	\$4.70	\$28.46	23
1c. For both diabetes management and CGM device questions - Number of times	Ontario	\$71.88	\$144.70	\$6.55	\$19.69	\$65.33	18
	British Columbia	\$68.30	\$137.50	\$6.22	\$18.71	\$62.08	18
	Alberta	\$75.37	\$151.74	\$6.87	\$20.65	\$68.51	18
1d. Other (reason not specified) - Number of times	Ontario	\$24.85	\$47.70	\$17.55	\$29.90	\$7.30	25
	British Columbia	\$23.62	\$45.34	\$16.68	\$28.43	\$6.94	25
	Alberta	\$26.06	\$50.02	\$18.41	\$31.36	\$7.65	25
2.a. Maternal antenatal hospital length of stay not for delivery: a. LOS=>24h physician fees and ward cost	Ontario	\$438.53	\$1,044.30	\$334.71	\$863.93	\$103.82	14
	British Columbia	\$431.98	\$1,023.77	\$330.02	\$848.74	\$101.96	14
	Alberta	\$429.38	\$1,019.52	\$328.00	\$844.68	\$101.38	14
	Ontario	\$23.45	\$91.44	\$20.44	\$70.40	\$3.01	28

CONCEPTT Cost Implications

Service	Province	CGM Group N=100 Women/Infants		SMBG N=102 Women/Infants		Difference Between CGM and SMBG Mean Total Costs ¹	Rank of Cost Driver Within Province ²
		Mean Cost Per Group	Standard Deviation	Mean Cost Per Group	Standard Deviation		
2.b. Maternal antenatal hospital length of stay not for delivery: b. LOS<24h (ODU, 6h) physician fees and ward cost	British Columbia	\$20.89	\$81.44	\$18.20	\$62.71	\$2.69	28
	Alberta	\$21.25	\$82.86	\$18.52	\$63.80	\$2.73	28
3. Pregnancy termination ≥ 20 weeks physician fees	Ontario	\$0.00	\$0.00	\$3.04	\$30.70	-\$3.04	27
	British Columbia	\$0.00	\$0.00	\$3.96	\$40.02	-\$3.96	27
	Alberta	\$0.00	\$0.00	\$4.38	\$44.24	-\$4.38	27
4. Stillbirth physician fees	Ontario	\$0.00	\$0.00	\$9.19	\$92.81	-\$9.19	24
	British Columbia	\$0.00	\$0.00	\$8.18	\$82.65	-\$8.18	24
	Alberta	\$0.00	\$0.00	\$6.77	\$68.39	-\$6.77	24
5. Induction	Ontario	\$33.20	\$34.04	\$27.90	\$33.51	\$5.30	26
	British Columbia	\$18.51	\$18.98	\$15.55	\$18.68	\$2.95	26
	Alberta	\$58.90	\$60.40	\$49.50	\$59.45	\$9.40	26
6. Spontaneous vaginal delivery	Ontario	\$211.95	\$348.83	\$140.56	\$310.72	\$71.38	17
	British Columbia	\$172.10	\$277.88	\$110.05	\$239.26	\$62.05	17
	Alberta	\$141.43	\$229.15	\$91.38	\$199.24	\$50.04	17
7. Operative vaginal delivery	Ontario	\$66.95	\$219.07	\$64.32	\$226.68	\$2.63	29
	British Columbia	\$71.68	\$229.29	\$63.61	\$219.33	\$8.07	29
	Alberta	\$56.19	\$179.98	\$51.33	\$177.36	\$4.85	29
8. Elective Caesarean delivery	Ontario	\$502.71	\$684.97	\$598.50	\$717.29	-\$95.79	16
	British Columbia	\$642.70	\$859.58	\$741.42	\$873.24	-\$98.72	16
	Alberta	\$477.89	\$633.14	\$562.91	\$656.33	-\$85.02	16
9. Emergency Caesarean delivery	Ontario	\$257.71	\$443.00	\$288.84	\$458.35	-\$31.13	22
	British Columbia	\$251.90	\$429.60	\$283.72	\$445.81	-\$31.82	22
	Alberta	\$244.05	\$414.39	\$278.15	\$435.54	-\$34.10	22
10. Antenatal ward duration	All Provinces	\$719.96	\$1,332.18	\$1,253.29	\$2,522.84	-\$533.32	9 (Ontario), 9 (British Columbia), 9 (Alberta)

Appendix 7, as supplied by the authors. Appendix to: Ahmed RJ, Gafni A, Hutton EK, et al. The cost implications of continuous glucose monitoring in pregnant women with type 1 diabetes in 3 Canadian provinces: a posthoc cost analysis of the CONCEPTT trial. *CMAJ Open* 2021. DOI:10.9778/cmajo.20200128. Copyright © 2021 The Author(s) or their employer(s). To receive this resource in an accessible format, please contact us at cmajgroup@cmaj.ca.

CONCEPTT Cost Implications

Service	Province	CGM Group N=100 Women/Infants		SMBG N=102 Women/Infants		Difference Between CGM and SMBG Mean Total Costs ¹	Rank of Cost Driver Within Province ²
		Mean Cost Per Group	Standard Deviation	Mean Cost Per Group	Standard Deviation		
11. Labour and delivery ward duration (Including: Pre-eclampsia or hypertension symptoms at delivery for up to 24 hour L&D monitoring from birth)	All Provinces	\$3,285.07	\$3,048.77	\$4,082.51	\$4,554.21	-\$797.44	8 (Ontario), 8 (British Columbia), 8 (Alberta)
12. Operating room ward duration	All Provinces	\$928.78	\$589.67	\$1,051.85	\$505.35	-\$123.07	13 (Ontario), 13 (British Columbia), 13 (Alberta)
13. Postpartum ward duration and cost	All Provinces	\$2,463.09	\$2,205.01	\$2,415.12	\$1,540.50	\$47.96	19 (Ontario), 19 (British Columbia), 19 (Alberta)
14. NICU Level 2 physician care (days)	Ontario	\$131.41	\$329.46	\$313.03	\$740.98	-\$181.63	11
	British Columbia	\$195.43	\$466.80	\$424.92	\$891.15	-\$229.49	11
	Alberta	\$204.69	\$550.51	\$524.49	\$1,335.86	-\$319.80	11
15. NICU Level 3 physician care (days)	Ontario	\$234.44	\$706.14	\$368.43	\$1,046.11	-\$134.00	12
	British Columbia	\$317.22	\$936.27	\$473.09	\$1,297.11	-\$155.87	12
	Alberta	\$279.12	\$848.69	\$456.08	\$1,361.77	-\$176.96	12
16. NICU Level 2 hospital ward duration	All Provinces	\$943.82	\$2,793.74	\$2,661.05	\$7,250.08	-\$1,717.22	5 (Ontario), 5 (British Columbia), 5 (Alberta)
17. NICU Level 3 hospital ward duration	All Provinces	\$2,791.52	\$8,575.22	\$4,694.89	\$14,398.47	-\$1,903.36	3 (Ontario), 3 (British Columbia), 3 (Alberta)
Medtronic Pumps and Number of Medtronic CGM Devices Used	All Provinces	\$294.00	\$347.23	\$0.00	\$0.00	\$294.00	10 (Ontario), 10 (British Columbia), 10 (Alberta)
CGMs Devices Used for Guardian Pumps or Multiple Dose Injections	All Provinces	\$1,160.00	\$992.09	\$0.00	\$0.00	\$1,160.00	7 (Ontario), 7 (British Columbia), 7 (Alberta)

Appendix 7, as supplied by the authors. Appendix to: Ahmed RJ, Gafni A, Hutton EK, et al. The cost implications of continuous glucose monitoring in pregnant women with type 1 diabetes in 3 Canadian provinces: a posthoc cost analysis of the CONCEPTT trial. *CMAJ Open* 2021. DOI:10.9778/cmajo.20200128. Copyright © 2021 The Author(s) or their employer(s). To receive this resource in an accessible format, please contact us at cmajgroup@cmaj.ca.

CONCEPTT Cost Implications

Service	Province	CGM Group N=100 Women/Infants		SMBG N=102 Women/Infants		Difference Between CGM and SMBG Mean Total Costs ¹	Rank of Cost Driver Within Province ²
		Mean Cost Per Group	Standard Deviation	Mean Cost Per Group	Standard Deviation		
CGM Devices for All Pump Types and Multiple Injection Users	All Provinces	\$1,454.00	\$644.86	\$0.00	\$0.00	\$1,454.00	6 (Ontario), 6 (British Columbia), 6 (Alberta)
CGM Sensors For All Pump Types and Multiple Daily Injection Users	All Provinces	\$1,880.40	\$174.61	\$0.00	\$0.00	\$1,880.40	4 (Ontario), 4 (British Columbia), 4 (Alberta)
Glucometers For Both CGM and SMBG Patients	All Provinces	\$45.00	\$0.00	\$45.00	\$0.00	\$0.00	31 (Ontario), 31 (British Columbia), 31 (Alberta)
Glucose Testing Strips For Both CGM and SMBG Patients	All Provinces	\$1,231.36	\$113.50	\$1,189.44	\$133.62	\$41.91	20 (Ontario), 20 (British Columbia), 20 (Alberta)
All CGM Devices and Sensors	All Provinces	\$3,334.40	\$635.79	0	-	\$3,334.40	2 (Ontario), 2 (British Columbia), 2 (Alberta)
All Glucometers and Glucose Testing Strips	All Provinces	\$1,276.36	\$113.50	\$1,234.44	\$133.62	\$41.91	21 (Ontario), 21 (British Columbia), 21 (Alberta)
Total Cost of CGM devices, sensors, SMBG devices, and strips	All Provinces	\$4,610.76	\$656.47	\$1,234.44	\$133.62	\$3,376.31	1 (Ontario), 1 (British Columbia), 1 (Alberta)

Notes: The group mean cost here represents the total cost incurred for each service or ward divided by the total number of women/infants in each study group, 100 or 102, whether or not they incurred the service or ward based on intention-to-treat principle, yielding a group mean cost per study group.

1. The difference between mean costs per group determines which group is more costly: a negative value favors the less costly CGM study group.
2. The absolute difference between CGM and SMBG group mean costs was ranked from 1=highest to 31=lowest mean cost difference, to determine which costs contribute the most difference between study groups