

Supplementary article data

Outcomes of unilateral and bilateral total knee arthroplasty in 238,373 patients

Eric R BOHM^{1,2}, Katy MOLODIANOVITSH², Alina DRAGAN², Naisu ZHU², Greg WEBSTER², Bas MASRI³, Emil SCHEMITSCH⁴, and Michael DUNBAR^{2,5}

¹ Department of Surgery, University of Manitoba, Winnipeg, Manitoba; ² Canadian Institute for Health Information, Ottawa, Ontario; ³ Department of Orthopaedic Surgery, University of British Columbia, Vancouver, British Columbia; ⁴ Department of Surgery, University of Toronto, Toronto, Ontario; ⁵ Department of Surgery, Dalhousie University, Halifax, Nova Scotia, Canada.

Correspondence: ebohm@cjrg.ca

Submitted 2015-08-02. Accepted 2016-01-29.

Table A. Charlson comorbidity index

Description	Description (ICD-10-CA codes)	Weight
Myocardial infarction	I21, I22, I25.2	0
Congestive heart failure	I09.9, I25.5, I42.0, I42.5, I42.6, I42.7, I42.8, I42.9, I43*, I50, P29.0	2
Peripheral vascular disease	I70, I71, I73.1, I73.8, I73.9, I77.1, I79.0*, I79.2*, K55.1, K55.8, K55.9, Z95.8, Z95.9	0
Cerebrovascular disease	G45, G46*, H340, I60–I67, I68*, I69	0
Dementia	F00*, F01, F02, F03, F051, G30, G311	2
Chronic pulmonary disease	I27.8, I27.9, J40, J41, J42, J43, J44, J45, J46, J47, J60, J61, J62, J63, J64, J65, J66, J67, J68.4, J70.1, J70.3	1
Rheumatologic diseases	M05, M06, M315, M32, M33, M34, M35.1, M35.3, M36.0*	1
Peptic ulcer disease	K25, K26, K27, K28	0
Mild liver disease	B18, K70.0, K70.1, K70.2, K70.3, K70.9, K71.3, K71.4, K71.5, K71.7, K73, K74, K76.0, K76.2, K76.3, K76.4, K76.8, K76.9, Z94.4	2
Diabetes without organ failure	E10.0, E10.1, E10.6, E10.9, E11.0, E11.1, E11.6, E11.9, E13.0, E13.1, E13.6, E13.9, E14.0, E14.1, E14.6, E14.9	0
Diabetes with organ failure	E10.2, E10.3, E10.4, E10.5, E10.7, E11.2, E11.3, E11.4, E11.5, E11.7, E13.2, E13.3, E13.4, E13.5, E13.7, E14.2, E14.3, E14.4, E14.5, E14.7	1
Hemiplegia or paraplegia	G04.1, G11.4, G80.1, G80.2, G81, G82, G83.0, G83.1, G83.2, G83.3, G83.4, G83.9	2
Renal disease	I12.0, I13.1, N03.2, N03.3, N03.4, N03.5, N03.6, N03.7, N05.2, N05.3, N05.4, N05.5, N05.6, N05.7, N18, N19, N25.0, Z49.0, Z49.1, Z49.2, Z94.0, Z99.2	1
Moderate or severe liver disease	I85.0, I85.9, I86.4, I98.2*, K70.4, K71.1, K72.1, K72.9, K76.5, K76.6, K76.7	4
HIV infection	B24, O98.7	4
Primary cancer	C0, C1, C20, C21, C22, C23, C24, C25, C26, C30, C31, C32, C33, C34, C37, C38, C39, C40, C41, C43, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C6, C70, C71, C72, C73, C74, C75, C76, C81, C82, C83, C84, C85, C88, C90, C91, C92, C93, C94, C95, C96, C97	2
Metastatic cancer	C77, C78, C79, C80	6

Source: International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), Canadian version, 2012. For provinces other than Quebec, diagnosis types 1, W, X, and Y were used to calculate the Charlson index score, with the following exceptions: (1) diagnosis type 3 was also used for all diabetes codes; and (2) only diagnosis type 3 was used for asterisk (*) codes. For Quebec, only diagnosis types 1, C, W, X, and Y were used to calculate the Charlson index score. A Charlson-based comorbidity was deemed present if the sum of the weights was > 0.

Table B. Codes for perioperative complications

Description	ICD-10-CA codes*
Acute cardiac ischemia	I20.0, I20.1, I20.80, I20.88, I20.9, I23.0, I23.1, I23.2, I23.3, I23.4, I23.5, I23.6, I23.80, I23.81, I23.82, I23.88, I24.0, I24.8, 24.9
Myocardial infarction	I21.–, I22.–
Cardiac arrhythmia	I47.0, I47.1, I47.2, I47.9, I48.0, I48.1, I49.00, I49.01, I49.1, I49.2, I49.3, I49.4, I49.5, I49.8, I49.9, R00.0, R00.1, R00.2, R00.8, As of version 2012, category I48 was further expanded as follows (codes I48.0 and I48.1 were no longer valid): I48.00, I48.01, I48.02, I48.3, I48.4, I48.90, I48.91
Pulmonary embolism	I26.9, T81.7
Infection of TKA	T84.54

Source: International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10), Canadian version, 2012.