## Supplementary data

Factor	%	n	Crude HR (95% CI)	p-value	Adjusted HR (95% CI)	p-value
Age						
< 60 years	0.1	29	Ref.		Ref.	
60–75 years	0.2	224	2.4 (1.6–3.5)	< 0.001	1.9 (1.3–2.8)	0.001
> 75 years	0.9	456	8.9 (6.1–12.9)	< 0.001	5.4 (3.7–7.9)	< 0.001
Sex	0.0		0.0 (0.1 12.0)		011 (011 110)	
Female	0.3	316	Ref.		Ref.	
Male	0.5	393	1.6 (1.4–1.9)	< 0.001	2.0 (1.7–2.3)	< 0.001
Year of surgery	0.0	000			,	
1992–1998	0.7	299	Ref.		Ref.	
1999–2005	0.4	221	0.6 (0.5–0.7)	< 0.001	0.6 (0.5–0.7)	< 0.001
2006-2012	0.3	189	0.4 (0.4–0.5)	< 0.001	0.4 (0.3–0.5)	< 0.001
Income						
Low	0.6	355	Ref.		Ref.	
Middle	0.4	242	0.7 (0.6–0.8)	< 0.001	0.8 (0.7–0.9)	0.01
High	0.2	112	0.3 (0.3–0.4)	< 0.001	0.5 (0.4–0.7)	< 0.001
Education			- ( /		- ( /	
Low	0.6	450	Ref.		Ref.	
Middle	0.3	187	0.6 (0.5–0.7)	< 0.001	1.0 (0.8–1.1)	0.6
Higher	0.2	72	0.4 (0.3–0.5)	< 0.001	1.0 (0.7–1.3)	0.8
Cohabiting status			· · · ·		· · · ·	
Cohabiting	0.3	326	Ref.		Ref.	
Non-cohabiting	0.6	383	1.7 (1.4–1.9)	< 0.001	1.6 (1.4–1.9)	< 0.001
Immigration status			· · · ·		· · · ·	
Non-immigrant	0.4	672	Ref.		Ref.	
Immigrant	0.3	37	0.7 (0.5–0.9)	0.02	0.8 (0.6–1.1)	0.1
Charlson Comorbidi	ity Inde	ex				
Low	0.3	388	Ref.		Ref.	
Moderate	1.0	245	3.7 (3.2–4.3)	< 0.001	3.3 (2.8–3.9)	< 0.001
High	2.6	76	9.4 (7.3–12.0)	< 0.001	8.4 (6.5–10.9)	< 0.001
Hospital type			. ,			
County	0.5	574	Ref.		Ref.	
Private	0.2	42	0.4 (0.3–0.6)	< 0.001	0.7 (0.5–1.0)	0.05
University	0.5	93	1.1 (0.9–1.3)	0.5	1.0 (0.8–1.2)	0.5

Table 4. Hazard ratio (HR) for mortality up to 90 days after THA

Number of events = 709; adjusted for age, sex, year of surgery, income, education, cohabiting status, mmigration status, Charlson Comorbidity Index and hospital type.

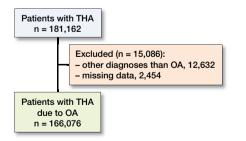


Figure 1. Patient selection.

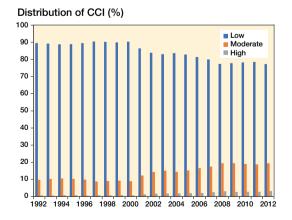


Figure 2. Distribution of Charlson Comorbidity Index (CCI) (low, moderate, and high) divided by year.

			Crude		Adjusted	
Factor	%	n	HR (95% CI)	p-value	HR (95% CI)	p-value
Age						
< 60 years	0.1	41	Ref.		Ref.	
60-75 years	0.5	478	3.7 (2.7–5.0)	< 0.001	3.1 (2.2–4.2)	< 0.001
> 75 years	1.4	689	10.7 (7.8–14.7)	< 0.001	7.5 (5.4–10.3)	< 0.001
Sex						
Female	0.6	572	Ref.		Ref.	
Male	0.9	636	1.4 (1.3–1.6)	< 0.001	1.5 (1.4–1.8)	< 0.001
Year of surgery						
1992–1998	0.9	402	Ref.		Ref.	
1999–2005	0.8	417	0.8 (0.7–0.9)	0.003	0.8 (0.7–0.9)	0.003
2006-2012	0.6	389	0.6 (0.5–0.7)	< 0.001	0.5 (0.5–0.6)	< 0.001
Income						
Low	0.9	534	Ref.		Ref.	
Middle	0.8	439	0.8 (0.7–0.9)	0.01	1.0 (0.8–1.1)	0.5
High	0.4	235	0.5 (0.4–0.5)	< 0.001	0.7 (0.6–0.9)	0.001
Education						
Low	0.9	743	Ref.		Ref.	
Middle	0.6	347	0.6 (0.5–0.7)	< 0.001	0.9 (0.8–1.0)	0.09
Higher	0.4	118	0.4 (0.3–0.5)	< 0.001	0.7 (0.6–0.9)	< 0.001
Cohabiting status						
Cohabiting	0.7	643	Ref.		Ref.	
Non-cohabiting	0.8	565	1.3 (1.2–1.5)	< 0.001	1.2 (1.1–1.4)	0.003
Immigration status						
Non-immigrant	0.7	1112	Ref.		Ref.	
Immigrant	0.8	96	1.1 (0.9–1.3)	0.5	1.2 (1.0–1.5)	0.09
Charlson Comorbidi						
Low	0.5	699	Ref.		Ref.	
Moderate	1.8	429	3.8 (3.4–4.3)	< 0.001	3.4 (3.0–3.9)	< 0.001
High	2.7	80	6.2 (5.0–7.9	< 0.001	5.3 (4.2–6.7)	< 0.001
Hospital type						
County	0.8	945	Ref.		Ref.	
Private	0.5	104	0.6 (0.5–0.8)	< 0.001	1.0 (0.8–1.2)	0.9
University	0.8	159	1.2 (1.0–1.4)	0.05	1.2 (1.0–1.4)	0.1

Table 5. Hazard ratio (HR) for readmissions for cardiovascular reasons up to 90 days after THA  $\,$ 

Number of events = 1,208; adjusted for age, sex, year of surgery, income, education, cohabiting status, immigration status, Charlson Comorbidity Index and hospital type.

Factor	%	n	Crude HR (95% CI)	p-value	Adjusted HR (95% CI)	p-value
Age						
< 60 years	10	24,746	Ref.		Ref.	
60–75 years	13	12,055	1.4 (1.3–1.5)	< 0.001	1.3 (1.3–1.4)	< 0.001
> 75 years	26	12,464	2.9 (2.9–3.0)	< 0.001	2.4 (2.3–2.5)	< 0.001
Sex		,				
Female	17	15,905	Ref.		Ref.	
Male	16	11,292	0.9 (0.9–0.9)	< 0.001	1.0 (1.0–1.1)	0.02
Year of surgery		,			,	
1992–1998	23	10,077	Ref.		Ref.	
1999-2005	16	8,671	0.7 (0.7–0.7)	< 0.001	0.7 (0.7–0.7)	< 0.001
2006-2012	13	8,449	0.5 (0.5–0.6)	< 0.001	0.5 (0.5–0.5	< 0.001
Income		-, -	- ( /		(	
Low	19	10,858	Ref.		Ref.	
Middle	17		0.9 (0.9-0.9)	< 0.001	1.0 (1.0-1.0)	0.7
High	13	6,875	0.7 (0.6–0.7)	< 0.001	0.9 (0.9–0.9)	< 0.001
Education		,	( )		( )	
Low	19	14,763	Ref.		Ref.	
Middle	15	8,531	0.8 (0.8–0.8)	< 0.001	1.0 (1.0–1.0)	0.8
Higher	13	3,903	0.7 (0.7–0.7)	< 0.001	1.0 (0.9–1.0)	0.1
Cohabiting status			· · · ·		, ,	
Cohabiting	14	13,235	Ref.		Ref.	
Non-cohabiting	20	13,962	1.6 (1.5–1.6)	< 0.001	1.4 (1.3–1.4)	< 0.001
Immigration status			· · · ·		· · · ·	
Non-immigrant	16	24,880	Ref.		Ref.	
Immigrant	18	2,317	1.2 (1.1–1.2)	< 0.001	1.2 (1.1–1.2)	< 0.001
Charlson Comorbidity Index						
Low	15	20,487	Ref.		Ref.	
Moderate	24	5,694	1.7 (1.6–1.7)	< 0.001	1.7 (1.6–1.7)	< 0.001
High	34	1,016	2.6 (2.4–2.7)	< 0.001	2.5 (2.4–2.7)	< 0.001
Hospital type						
County	16	20,034	Ref.		Ref.	
Private	13	2,816	0.8 (0.8–0.9)	< 0.001	1.0 (1.0–1.0)	0.6
University	23	4,347	1.5 (1.5–1.6)	< 0.001	1.4 (1.4–1.4)	< 0.001
Middle High Education Low Middle Higher Cohabiting status Cohabiting Non-cohabiting Immigration status Non-immigrant Immigrant Charlson Comorbidi Low Moderate High Hospital type County Private	17 13 19 15 13 14 20 16 18 ty Inco 15 24 34 16 13	9,464 6,875 14,763 8,531 3,903 13,235 13,962 24,880 2,317 Jex 20,487 5,694 1,016 20,034 2,816	0.9 (0.9–0.9) 0.7 (0.6–0.7) Ref. 0.8 (0.8–0.8) 0.7 (0.7–0.7) Ref. 1.6 (1.5–1.6) Ref. 1.2 (1.1–1.2) Ref. 1.7 (1.6–1.7) 2.6 (2.4–2.7) Ref. 0.8 (0.8–0.9)	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	1.0 (1.0–1.0) 0.9 (0.9–0.9) Ref. 1.0 (1.0–1.0) 1.0 (0.9–1.0) Ref. 1.4 (1.3–1.4) Ref. 1.2 (1.1–1.2) Ref. 1.7 (1.6–1.7) 2.5 (2.4–2.7) Ref. 1.0 (1.0–1.0)	< 0.001 0.8 0.1 < 0.001 < 0.001 < 0.001 0.6

Table 6. Hazard ratio (HR) for readmissions for any reason up to 90 days after THA

Number of events = 27,197; adjusted for age, sex, year of surgery, income, education, cohabiting status, immigration status, Charlson Comorbidity Index and hospital type.

1999–2005 2006–2012						
30,820 (57) 37,810 (56)						
23,402 (43) 29,298 (44)						
9,411 (17) 11,525 (17)						
28,325 (52) 37,147 (55)						
16,486 (31) 18,436 (28)						
Charlson Comorbidity Index						
46,365 (85) 52,765 (79)						
7,050 (13) 12,495 (18)						
807 (2) 1,848 (3)						

Table 7. Description of the study population during 3 time periods. Values are frequency (%)