

# 1 Supplementary data

2 **Table S1. Patient and prosthesis characteristics at the time of primary UKA. Values are count (%)**  
 3 **unless otherwise specified**

	Absolute annual hospital volume			
	<25 (n = 6,788)	25–39 (n = 7,582)	40–79 (n = 11,551)	>79 (n = 22,108)
Age, mean (SD)	61.7 (8.5)	63.0 (8.8)	64.0 (8.9)	64.9 (8.8)
Female	3,940 (58)	4,258 (56)	6,427 (56)	12,209 (55)
Body mass index, mean (SD)	29.2 (4.4)	29.1 (4.4)	29.1 (4.4)	29.0 (4.5)
Smoker	424 (12)	514 (12)	889 (9.8)	1,705 (8.3)
ASA				
<i>I</i>	2,113 (31)	2,048 (27)	2,691 (23)	4,472 (20)
<i>II</i>	3,760 (55)	4,465 (59)	7,347 (64)	14,506 (66)
<i>III–IV</i>	580 (8.5)	717 (9.5)	1,382 (12)	2,972 (13)
Charnley				
<i>A</i>	2,018 (57)	2,518 (57)	5,038 (54)	10,064 (48)
<i>B1</i>	1,027 (29)	1,212 (27)	2,759 (30)	6,672 (32)
<i>B2</i>	472 (13)	669 (15)	1430 (15)	3,756 (18)
<i>C</i>	37 (1.0)	42 (0.9)	111 (1.2)	372 (1.8)
Diagnosis				
<i>Osteoarthritis</i>	6,581 (98)	7,403 (98)	11,306 (99)	21,760 (99)
<i>Osteonecrosis</i>	45 (0.7)	58 (0.8)	111 (1.0)	194 (0.9)
<i>Late post-traumatic</i>	39 (0.6)	37 (0.5)	39 (0.3)	70 (0.3)
<i>Rheumatoid arthritis</i>	4 (0.1)	10 (0.1)	12 (0.1)	12 (0.1)
<i>Other</i>	29 (0.4)	16 (0.2)	13 (0.1)	19 (0.1)
Follow-up in years, median (IQR)	7.7 (4.2–11.2)	6.7 (3.2–10.7)	3.8 (1.7–7.1)	2.6 (1.0–5.0)
Bearing type				
<i>Mobile</i>	4,359 (67)	5,905 (81)	9,382 (85)	16,528 (83)
<i>Fixed</i>	2,174 (33)	1,347 (19)	1,660 (15)	3,516 (17)
Fixation				
<i>Cemented</i>	5,487 (82)	5,258 (71)	6,044 (53)	8,222 (37)

<i>Cementless</i>	1,121 (17)	2,051 (28)	5,261 (46)	13,215 (60)
<i>Hybrid</i>	64 (1.0)	126 (1.7)	152 (1.3)	527 (2.4)

5 **Table S2. Reasons for revision compared between different absolute hospital volumes**

	Absolute hospital volume groups			
	<25 (n = 870) % (rank)	25–39 (n = 873) % (rank)	40–79 (n = 823) % (rank)	>79 (n = 831) % (rank)
<i>Progression of osteoarthritis</i>	22 (2)	23 (1)	17 (1)	13 (3)
<i>Loosening</i>	26 (1)	19 (2)	16 (3)	9.8 (5)
<i>Instability</i>	9.0 (5)	9.1 (6)	16 (2)	18 (1)
<i>Malalignment</i>	12 (3)	11 (4)	8.5 (6)	7.7 (6)
<i>Patellar pain</i>	9.8 (4)	10 (5)	8.9 (5)	6.1 (8)
<i>Infection</i>	3.3 (8)	4.0 (8)	6.1 (7)	12(4)
<i>Wear inlay</i>	4.6 (7)	5.5 (7)	5.8 (8)	3.5 (9)
<i>Periprosthetic fracture</i>	1.9 (9)	2.1 (9)	4.1 (9)	6.5 (7)
<i>Unspecified removal</i>	1.1 (10)	2.0 (10)	2.0 (10)	1.8 (11)
<i>Bearing dislocation</i>	0.3 (12)	0.5 (11)	2.0 (10)	2.4 (10)
<i>Patellar dislocation</i>	0.3 (12)	0.3 (13)	0.7 (12)	0.9 (12)
<i>Pain and wear inlay</i>	0.7 (11)	0.4 (12)	0.1 (14)	0.3 (14)
<i>Arthrofibrosis</i>	0.0 (15)	0.3 (13)	0.4 (13)	0.7 (13)
<i>Patellar dislocation and wear inlay</i>	0.1 (14)	0.0 (15)	0.0 (15)	0.0 (15)
<i>Other</i>	8.6 (6)	13 (3)	13 (4)	18 (2)

6 Multiple reasons may be recorded for each revision; therefore, cumulative percentages can exceed 100%.

7 “Unspecified removal” was defined as explantation of the primary UKA followed by re-implantation of a

8 knee prosthesis without a specified explanation.

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**Table S3. Reasons for revision compared between different proportional hospital volumes**

	Proportional hospital volume groups			
	<8.8% (n = 849) % (rank)	8.8–14.3% (n = 849) % (rank)	14.4–25.4% (n = 853) % (rank)	>25.4% (n = 846) % (rank)
<i>Progression of osteoarthritis</i>	21 (2)	22 (1)	17 (1)	15 (3)
<i>Loosening</i>	25 (1)	19 (2)	15 (3)	12 (4)
<i>Instability</i>	9.6 (5)	13 (3)	13 (4)	16 (2)
<i>Malalignment</i>	13 (3)	10 (4)	9.5 (5)	7.5 (7)
<i>Patellar pain</i>	8.0 (6)	9.8 (6)	9.4 (6)	7.6 (6)
<i>Infection</i>	4.2 (8)	4.3 (8)	6.9 (7)	9.3 (5)
<i>Wear inlay</i>	4.6 (7)	5.9 (7)	3.7 (9)	5.2 (8)
<i>Periprosthetic fracture</i>	2.5 (9)	2.5 (9)	4.2 (8)	5.2 (8)
<i>Unspecified removal</i>	1.4 (10)	0.9 (10)	1.3 (11)	3.1 (10)
<i>Bearing dislocation</i>	0.3 (13)	0.7 (11)	2.3 (10)	1.3 (11)
<i>Patellar dislocation</i>	0.6 (11)	0.0 (14)	1.1 (12)	0.5 (12)
<i>Pain and wear inlay</i>	0.4 (12)	0.5 (12)	0.1 (14)	0.4 (14)
<i>Arthrofibrosis</i>	0.0 (15)	0.4 (13)	0.4 (13)	0.5 (12)
<i>Patellar dislocation and wear inlay</i>	0.1 (14)	0.0 (14)	0.0 (15)	0.0 (15)
<i>Other</i>	10 (4)	10 (5)	16 (2)	16 (1)

10 Multiple reasons may be recorded for each revision; therefore, cumulative percentages can exceed 100%.

11 “Unspecified removal” was defined as explantation of the primary UKA followed by re-implantation of a

12 knee prosthesis without a specified explanation.

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