

Supplementary data

Table 5. Surgical-related characteristics of TKA with ALBC by registry (2010–2020)

Variable	AJRR	AOANJRR	DKR	EPRD	FAR	JointCare	KP	LROI	NAR	NJR	NZJR	PABZ	PATN	RAR	SAR	SIRIS	Total
TKA with ALBC, n	241,866	393,897	37,442	139,673	83,395	829	51,463	195,155	40,709	810,644	60,173	4,540	970	17,818	123,088	91,784	2,293,446
Right side ^a	124,351 (52)	211,123 (54)	19,225 (51)	72,761 (52)	43,564 (52)	439 (53)	26,602 (52)	103,063 (53)	21,554 (53)	427,167 (53)	31,914 (53)	2,383 (53)	527 (54)	9,329 (52)	64,311 (52)	48,359 (53)	1,206,672 (52)
Fixation ^b																	
Both/all cemented	232,921 (96)	280,082 (71)	26,327 (70)	131,087 (94)	82,676 (99)	606 (73)	50,960 (99)	186,530 (96)	33,614 (83)	806,902 (100)	58,546 (97)	4,352 (96)	944 (97)	17,818 (99)	122,615 (100)	73,815 (80)	2,109,795 (94)
Hybrid (tibia cemented)	6,086 (2.5)	91,538 (23)	11,033 (30)	8,564 (6.1)	105 (0.1)	223 (27)	156 (0.3)	8,548 (4.4)	7,042 (17)	3,224 (0.4)	1,498 (2.5)	172 (3.8)	22 (2.3)		101 (0.1)	16,905 (18)	155,217 (6.8)
Hybrid (tibia cementless)	1,199 (0.5)	2,943 (0.7)	92 (0.2)	22 (0.02)	402 (0.5)		22 (0.04)	77 (0.04)	53 (0.1)	518 (0.1)	129 (0.2)	16 (0.4)	4 (0.4)		213 (0.2)	574 (0.6)	6,264 (0.3)
Cemented patella only	1,660 (0.7)	19,334 (4.9)		21 (0.0)			126 (0.2)								96 (0.1)	21,526 (1.0)	
Patella resurfacing ^c	na	266,143 (68)	31,934 (85)	15,233 (11)	9,622 (12)	201 (24)	50,922 (99)	40,616 (21)	2,134 (5.2)	324,484 (40)	28,017 (47)	16 (0.4)	82 (8)	4,209 (24)	3,380 (2.7)	26,751 (29)	803,744 (35)
Bearing mobility			na		na						na	na	na				
Fixed	211,195 (88)	344,392 (87)		119,496 (86)		684 (83)	48,423 (94)	170,276 (87)	31,127 (77)	638,303 (79)				15,254 (86)	122,729 (100)	43,316 (47)	1,634,941 (72)
Mobile	28,959 (12)	49,422 (13)		20,177 (14)		145 (17)	1334 (2.6)	22,618 (12)	9,582 (23)	35,124 (4.3)				2,311 (13)	374 (0.3)	28,015 (31)	308,300 (14)
Missing	1,712 (0.7)	83 (0.0)					1,706 (3.3)	2,261 (1.2)		137,217 (17)				253 (1.4)	26 (0.0)	20,453 (22)	163,685 (7.2)
Stability	na				na								na				
Minimally stabilized		285,440 (73)	33,735 (90)	109,506 (79)		70 (8.4)	20,842 (41)	85,059 (444)	38,711 (95)	513,989 (63)	41,119 (68)	1,923 (42)		108 (0.6)	113,958 (93)	60,250 (66)	1,047,814 (46)
Posterior stabilized		108,375 (27)	3,551 (9.5)	27,941 (20)		507 (61)	30,033 (58)	107,717 (55)	1,979 (4.9)	58,326 (7.2)	15,605 (26)	2,118 (47)		15,747 (88)	9,125 (7.4)	28,545 (31)	409,569 (18)
Other (unspecified)/missing		82 (0.0)	138 (0.4)	2,226 (1.6)		252 (30)	588 (1.1)	2,379 (1.2)	19 (0.0)	238,329 (29)	3,449 (5.7)	199 (4.4)		1,963 (11)		2,989 (3.3)	252,512 (11)

Missing cases: ^a AJRR (n = 284); ^b FAR (n = 191); RAR (n = 131); SAR (n = 54); SIRIS (n = 490). ^c FAR (n = 51); LROI (n = 538); SIRIS (n = 65). na = not available.

Table 6. Demographic characteristics of TKA with plain bone cement by registry (2010–2020)

Variable	AJRR	AOANJRR	DKR	EPRD	FAR	JointCare	KP	LROI	NAR	NJR	NZJR	PABZ	PATN	RAR	SAR	SIRIS	Total
TKA with plain cement, n	533,831	20,637	11,935	2,263	74	10	71,955	3,609	na	5,124	13,571	4	180	12,998	41	1,679	677,911
Female sex ^a	320,208 (60)	11,797 (57)	7,320 (61)	1,509 (67)	49	8	44,760 (62)	2,328 (65)	na	2,947 (58)	6,905 (51)	2	110 (61)	9,976 (77)	25	978 (58)	408,922 (60)
Age group ^b																	
< 55	44,722 (8.4)	1,248 (6.0)	723 (6.1)	122 (5.4)	3		4,514 (6.0)	296 (8.2)		278 (5.4)	1,057 (7.8)		4 (2.2)	590 (4.5)	3	156 (9.3)	53,716 (7.9)
55–64	150,956 (28)	5,264 (26)	2,643 (22)	471 (21)	19	1	20,454 (28)	978 (27)		1,120 (22)	3,815 (28)		31 (17)	3,866 (30)	7	438 (26)	190,063 (28)
65–74	216,523 (41)	8,200 (40)	5,148 (43)	718 (32)	27	2	29,571 (41)	1,303 (36)		1,996 (39)	5,398 (40)	4	85 (47)	6,416 (49)	14	627 (37)	276,032 (41)
≥ 75	121,630 (23)	5,925 (29)	3,421 (29)	954 (42.2)	25	7	17,416 (24)	1,030 (29)		1,730 (34)	3,301 (24)		60 (33)	2,126 (16)	17	458 (27)	158,100 (23)
ASA score	na		na			na			na					na			
ASA I		860 (7.5)		5 (0.2)	1		932 (1.3)	546 (15)		606 (12)	1,490 (11)	1	7 (3.9)		11	150 (8.9)	4,609 (0.7)
ASA II		6,376 (56)		33 (1.5)	6		44,835 (62)	2,518 (70)		3,661 (71)	8,496 (63)	3	62 (34)		22	1008 (60)	67,020 (9.9)
ASA III		4,118 (36)		30 (1.3)	9		24,808 (35)	533 (15)		837 (16)	3,317 (24)		9 (5.0)		7	250 (15)	33,918 (5.0)
ASA IV–V		135 (1.2)		1 (0.04)			316 (0.4)	8 (0.2)		20 (0.4)	56 (0.4)				1	0	537 (0.1)
Missing		9,148 (44)		2,201 (97)	58		1,064 (1.5)	4 (0.1)			112 (1.6)		102 (57)			271 (16)	13,060 (19)
BMI category									na			na	na	na			
Underweight (<18.5)	893 (0.3)	13 (0.2)	22 (0.2)	1 (0.4)			93 (0.1)	2 (0.1)		6 (0.1)	13 (0.1)					0	4 (0.2)
Normal (18.5–<25)	27,874 (10)	751 (11)	1,709 (14)	161 (7.1)	1	1	8,900 (12)	238 (6.6)		381 (7.4)	979 (7.2)				11	285 (17)	41,291 (6.1)
Pre-obese (25–<30)	75,635 (28)	2,238 (34)	3,552 (30)	364 (16)	7	8	23,889 (33)	630 (18)		1,165 (23)	2,941 (22)				20	518 (31)	110,967 (16)
Obese Class 1 (30–<35)	78,913 (30)	1,978 (30)	2,422 (20)	248 (11)	7	1	22,423 (31)	508 (14)		1,031 (20)	2,805 (21)				8	374 (22)	110,718 (16)
Obese Class 2 (35–<40)	51,774 (19)	1,040 (16)	1,044 (8.8)	116 (5.1)			12,372 (17)	202 (5.6)		544 (11)	1,400 (10)				2	173 (10)	68,667 (10)
Obese Class 3 (≥ 40)	33,743 (13)	610 (9.2)	381 (3.2)	81 (3.6)			4,239 (5.9)	94 (2.6)		257 (5.0)	836 (6.2)				0	42 (2.5)	40,283 (5.9)
Missing	264,999 (50)	14,007 (68)	2,805 (24)	1,292 (57)	12		39 (0.1)	1,935 (54)		1,740 (34)	4,597 (34)					283 (17)	291,709 (43)

Missing cases: ^a AJRR (n = 1,840); LROI (n = 3). ^b LROI (n = 2). c BMI categories are based on WHO classification. na = not available. NB: NAR (Norway) uses ALBC 100%.

Table 7. Surgical-related characteristics of TKA with plain bone cement by registry (2010–2020)

Variable	AJRR	AOANJRR	DKR	EPRD	FAR	JointCare	KP	LROI	NAR	NJR	NZJR	PABZ	PATN	RAR	SAR	SIRIS	Total
Right side ^a	275,863 (52)	11,013 (53)	5,805 (49)	1,184 (52)	42	7	37,515 (52)	1,897 (53)	na	2,678 (52)	7,112 (52)	3	104 (58)	6,742 (52)	24	876 (52)	350,865 (52)
Fixation ^b									na								
Both/all cemented	510,279 (96)	7,775 (38)	9,512 (80)	2,183 (97)	69	10	68,028 (95)	3,370 (93)	na	5,070 (99)	12,763 (94)	4	179 (99)	12,998 (100)	41	1,539 (92)	633,820 (96)
Hybrid (tibial cemented)	11,954 (2.2)	6,636 (32)	2,416 (20)	80 (3.5)	1		2,335 (3.2)	239 (6.6)		52 (1.0)	469 (3.5)				0	6 (0.4)	24,188 (3.6)
Hybrid (tibial cementless)	3,399 (0.6)	121 (0.6)	7 (0.1)				105 (0.1)			2 (0.04)	339 (2.5)		1 (0.6)		0	130 (7.7)	4,104 (0.6)
Cemented patella only	8,199 (1.5)	6,105 (30)					473 (0.7)								0	0	14,938 (2.1)
Patellar resurfacing ^c	na	14,634 (71)	8,331 (70)	186 (8.2)	18	10	70,602 (98)	346 (9.6)	na	2,472 (48)	5,562 (41)	4	37 (21)	6,256 (48)	2	535 (32)	108,995 (16)
Bearing mobility			na		na				na			na	na	na			
Fixed	485,758 (92)	16,339 (79)		1,163 (51)		10	69,430 (97)	2,973 (82)		3,452 (67)				12,106 (93)	13	362 (22)	591,606 (84)
Mobile	43,503 (8.2)	4,291 (21)		1,100 (49)			1,433 (2.0)	636 (17.6)		202 (3.9)				804 (4.6)	28	86 (5.1)	52,083 (7.4)
Missing		7 (0.0)					1,092 (1.5)			1,470 (29)				88 (0.7)		1,231 (73)	3,888 (0.5)
Stability	na				na				na				na				
Minimally stabilized		17,627 (83)	11,177 (94)	2,004 (89)			18,348 (26)	2,231 (62)		2,568 (50)	8,873 (65)	2		371 (2.9)	38	1,476 (88)	64,715 (9.5)
Posterior stabilized		3,003 (15)	716 (6.0)	251 (11)		10	52,894 (74)	1,375 (38)		173 (3.4)	4,148 (31)	2		11,494 (88)	3	173 (10)	74,246 (11)
Other (unspecified)/missing		7 (0.0)	42 (0.4)	8 (0.4)			713 (1.0)	3 (0.1)		2,383 (47)	550 (4.1)			1,133 (8.7)		30 (1.8)	4,862 (0.7)

Missing cases: ^a AJRR (n = 528). ^b FAR (n = 4); SIRIS (n = 4) ^c DAR (n = 20); LROI (n = 3).
na = not available. NB: NAR (Norway) uses ALBC 100%.