AUSTRALIAN ORTHOPAEDIC ASSOCIATION

NATIONAL JOINT REPLACEMENT REGISTRY

Annual Report Supplementary

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AUSTRALIAN ORTHOPAEDIC ASSOCIATION
NATIONAL JOINT REPLACEMENT REGISTRY

ANNUAL REPORT

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INDEX

DEMOGRAPHIC DATA

LIST OF TABLES

HIPS

KNEES

LIST OF FIGURES

HIPS

KNEES

Demographics of patients undergoing Hip Replacement

Table S-H1: Number of Hip Replacements by sex

Type of hip replacement	*Female*		*Male*		*Total*	
	N	*%*	*N*	*%*	*N*	*%*
Unipolar Monoblock	10868	74.6	3703	25.4	14571	54.2
Unipolar Modular	3806	74.3	1314	25.7	5120	19.1
Bipolar	5287	73.7	1885	26.3	7172	26.7
Primary Partial	19961	74.3	6902	25.7	26863	100.0
Conventional Total	57818	55.5	46416	44.5	104234	92.0
Resurfacing	2537	28.4	6408	71.6	8945	7.9
Thrust Plate	45	30.4	103	69.6	148	0.1
Primary Total	60400	53.3	52927	46.7	113327	100.0
Revision	10987	54.5	9163	45.5	20150	100.0
Total	**91348**	**57.0**	**68992**	**43.0**	**160340**	**100.0**

Note: *In some tables entries may not sum to totals due to rounding*

Table S-H2: Summary statistics of age (by sex) for All Hip Replacements

	Female	*Male*	*All Patients*
Number	*91348*	*68992*	*160340*
%	*57.0*	*43.0*	*100.0*
Median	74	68	71
Minimum	13	13	13
Maximum	105	107	107
Mean	71.8	67.4	69.9
Standard Deviation	12.5	12.5	12.7

Table S-H3: Summary statistics of age (by sex) for Primary Partial Hip Replacement

	Female	*Male*	*All Patients*
Number	19961	6902	26863
%	74.3	25.7	100.0
Median	83	82	83
Minimum	17	17	17
Maximum	105	107	107
Mean	81.9	80.7	81.6
Standard Deviation	8.6	9.3	8.8

Figure S-H1: Age and Sex - Primary Partial Hip Replacement

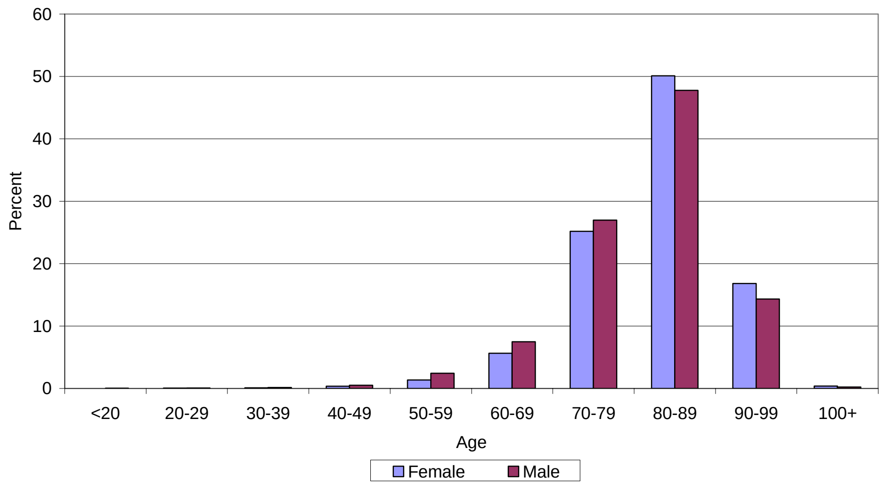


Table S-H4: Summary statistics of age (by sex) for Primary Total Hip Replacement

	All Primary Total			*Resurfacing Hips*			*Total Hip (excl Resurfacing and Thrust plates)*		
	Female	*Male*	*All Patients*	*Female*	*Male*	*All Patients*	*Female*	*Male*	*All Patients*
Number	*60400*	*52927*	*113327*	*2537*	*6408*	*8945*	*57818*	*46416*	*104234*
%	*53.3*	*46.7*	*100.0*	*2.2*	*5.7*	*7.9*	*51.0*	*41.0*	*92.0*
Median	70	66	68	53	55	54	71	68	69
Minimum	13	13	13	14	13	13	13	13	13
Maximum	100	102	102	81	81	81	100	102	102
Mean	68.6	65.2	67.0	51.7	54.1	53.4	69.3	66.7	68.1
Standard Deviation	11.8	11.8	11.9	8.9	9.2	9.2	11.3	11.3	11.4

Figure S-H2: Age and Sex – Conventional Primary Total Hip Replacement

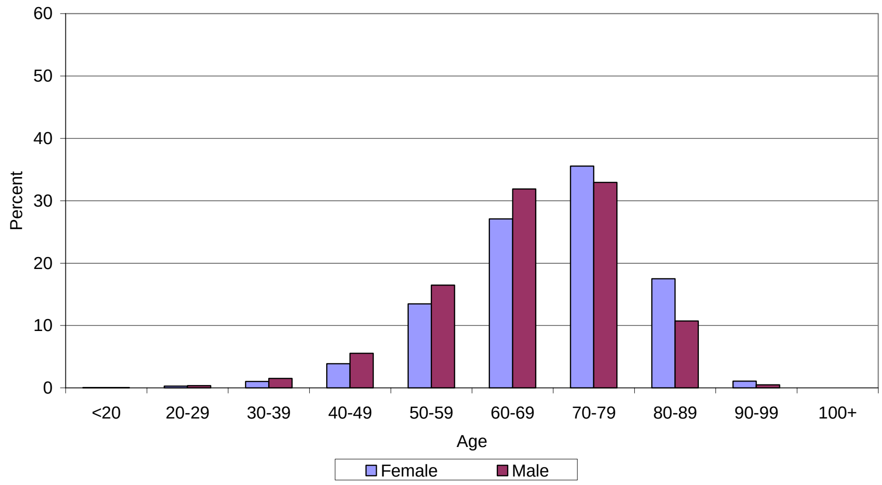


Figure S-H3: Age and Sex – Resurfacing Hip Replacement

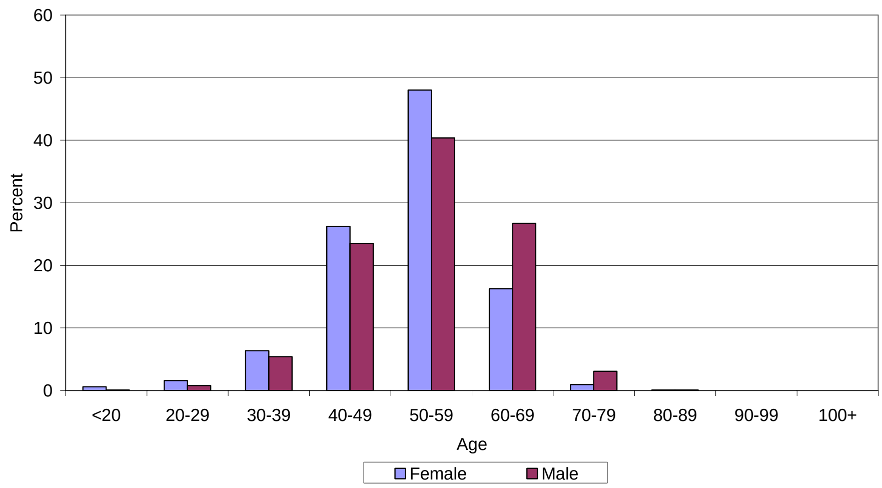
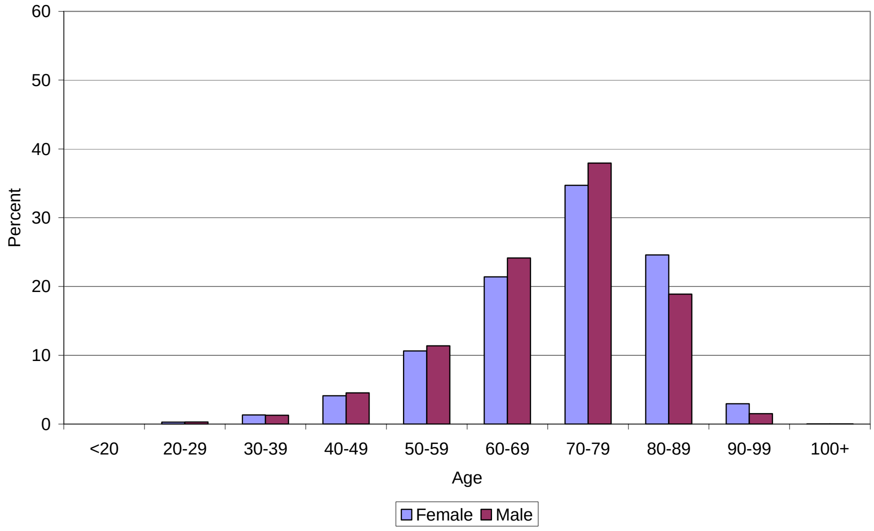


Table S-H5: Summary statistics of age (by sex) for Revision Hip Replacement

	Female	*Male*	*All Patients*
Number	*10987*	*9163*	*20150*
%	*54.5*	*45.5*	*100.0*
Median	73	72	73
Minimum	20	20	20
Maximum	100	100	100
Mean	71.4	70.0	70.8
Standard Deviation	12.2	11.6	11.9

Figure S-H4: Age and Sex - Revision Hip Replacement



Diagnosis for Hip Replacement - 1/9/1999 to 31/12/2006

Table S-H6: Principal Diagnosis - Partial Hip Replacement

Principal Diagnosis	*Number*	*%*
Fractured neck of femur	25335	94.3
Osteoarthritis	837	3.1
Tumour	351	1.3
Failed internal fixation	173	0.6
Avascular necrosis	118	0.4
Rheumatoid arthritis	24	0.1
Developmental dysplasia	21	0.1
Other	4	0.0
Total	**26863**	**100.0**

Table S-H7: Principal Diagnosis - Primary Total Hip Replacement

Principal Diagnosis	*Number*	*%*
Osteoarthritis	100537	88.7
Avascular necrosis	4363	3.8
Fractured neck of femur	3184	2.8
Developmental dysplasia	1760	1.6
Rheumatoid arthritis	1693	1.5
Tumour	618	0.5
Other inflammatory arthritis	597	0.5
Failed internal fixation	401	0.4
Arthrodesis takedown	62	0.1
Other	57	0.1
Fracture/dislocation	55	0.0
Total	**113327**	**100.0**

Table S-H8: Principal Diagnosis - Primary Conventional Total Hip Replacement

Principal Diagnosis	*Number*	*%*
Osteoarthritis	92020	88.3
Avascular necrosis	4163	4.0
Fractured neck of femur	3183	3.1
Rheumatoid arthritis	1654	1.6
Developmental dysplasia	1476	1.4
Tumour	614	0.6
Other inflammatory arthritis	553	0.5
Failed internal fixation	399	0.4
Arthrodesis takedown	61	0.1
Other	57	0.1
Fracture/dislocation	54	0.1
Total	**104234**	**100.0**

Table S-H9: Principal Diagnosis - Primary Resurfacing Hip Replacement

Principal Diagnosis	*Number*	*%*
Osteoarthritis	8379	93.7
Developmental dysplasia	284	3.2
Avascular necrosis	196	2.2
Other inflammatory arthritis	43	0.5
Rheumatoid arthritis	35	0.4
Other	8	0.1
Total	**8945**	**100.0**

Table S-H10: Diagnosis - Revision Hip Replacement

Diagnosis	*Number*	*%*
Loosening	10887	46.8
Dislocation of prosthesis	3488	15.0
Lysis	2338	10.1
Fracture	2049	8.8
Infection	2011	8.6
Wear acetabulum	772	3.3
Other	546	2.3
Pain	468	2.0
Implant breakage acetabular	461	2.0
Implant breakage stem	204	0.9
Implant breakage head	31	0.1
Total	**23255**	**100.0**

Note: *some patients had multiple diagnoses*

Table S-H11: Revision Diagnosis – Primary Partial Hip Replacement

Diagnosis	*Number*	*%*
Loosening	331	39.1
Fracture	151	17.8
Dislocation of prosthesis	124	14.6
Infection	89	10.5
Pain	88	10.4
Other	40	4.7
Wear acetabulum	11	1.3
Lysis	10	1.2
Implant breakage stem	2	0.2
Total	**846**	**100.0**

Note: *some patients had multiple diagnoses*

Table S-H12: Revision Diagnosis – Primary Total Hip Replacement

Diagnosis	*Number*	*%*
Dislocation of prosthesis	894	30.8
Loosening	765	26.3
Fracture	495	17.0
Infection	401	13.8
Other	166	5.7
Pain	63	2.2
Lysis	52	1.8
Implant breakage acetabular	34	1.2
Implant breakage stem	11	0.4
Implant breakage head	12	0.4
Wear acetabulum	12	0.4
Total	**2905**	**100.0**

Note: *some patients had multiple diagnoses*

Table S-H13: Revision Diagnosis – Primary Conventional Total Hip Replacement

Diagnosis	*Number*	*%*
Dislocation of prosthesis	885	33.5
Loosening	696	26.4
Infection	380	14.4
Fracture	371	14.1
Other	137	5.2
Pain	54	2.0
Lysis	46	1.7
Implant breakage acetabular	34	1.3
Implant breakage head	12	0.5
Wear acetabulum	12	0.5
Implant breakage stem	11	0.4
Total	**2638**	**100.0**

Note: *some patients had multiple diagnoses*

Table S-H14: Revision Diagnosis – Primary Resurfacing Hip Replacement

Diagnosis	*Number*	*%*
Fracture	123	46.8
Loosening	66	25.1
Other	29	11.0
Infection	21	8.0
Dislocation of prosthesis	9	3.4
Pain	9	3.4
Lysis	6	2.3
Total	**263**	**100.0**

Note: *some patients had multiple diagnoses*

Demographics of patients undergoing Knee Replacement

Table S-K1: Number of Knee Replacements by sex

Type of knee replacement	*Female*		*Male*		*Total*	
	N	*%*	*N*	*%*	*N*	*%*
UniSpacer	19	48.7	20	51.3	39	0.0
Patella/trochlear	650	76.6	199	23.4	849	0.5
Unicompartmental Knee	10766	48.9	11242	51.1	22008	12.8
Primary Total Knee	77537	57.5	57262	42.5	134799	78.2
Revision Knee	7611	51.9	7043	48.1	14654	8.5
Total	**96583**	**56.0**	**75766**	**44.0**	**172349**	**100.0**

Note: *In some tables entries may not sum to totals due to rounding*

Table S-K2: Summary statistics of age (by sex) for All Knee Replacements

	Female	Male	All Patients
Number	*96583*	*75766*	*172349*
%	*56.0*	*44.0*	*100.0*
Median	70	69	70
Minimum	13	12	12
Maximum	102	100	102
Mean	69.1	68.5	68.8
Standard Deviation	9.8	9.6	9.7

Table S-K3: Summary Statistics of age (by sex) for Primary UniSpacer Knee Replacements

	Female	Male	All Patients
Number	*19*	*20*	*39*
%	*48.7*	*51.3*	*100.0*
Median	56	55	55
Minimum	40	41	40
Maximum	69	75	75
Mean	54.1	55.1	54.6
Standard Deviation	8.4	9.5	8.9

Table S-K4: Summary statistics of age (by sex) for Patellar/trochlear Replacement

	Female	Male	All Patients
Number	*650*	*199*	*849*
%	*76.6*	*23.4*	*100.0*
Median	58	60	58
Minimum	22	27	22
Maximum	95	91	95
Mean	58.8	60.8	59.2
Standard Deviation	12.8	13.4	13.0

Figure S-K1: Age and Sex - Patellar/trochlear Knee Replacement

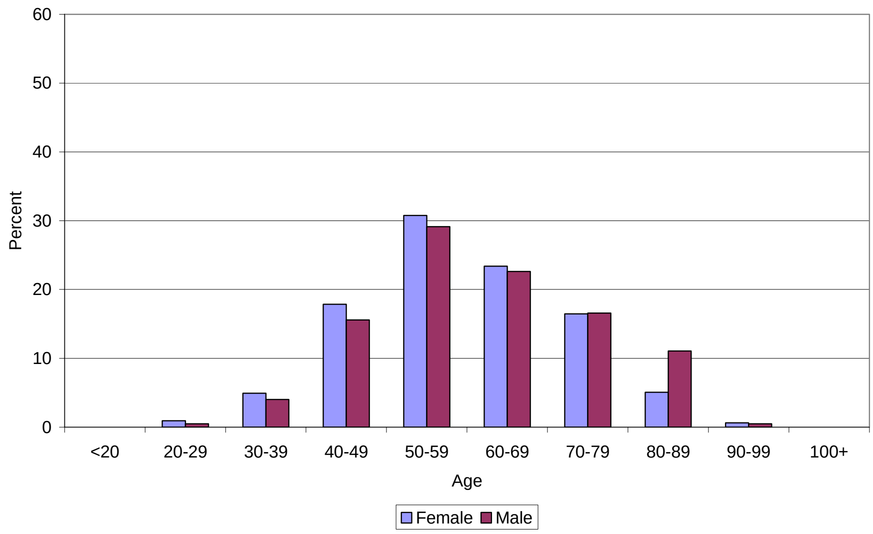


Table S-K5: Summary statistics of age (by sex) for Unicompartmental Knee Replacement

	Female	*Male*	*All Patients*
Number	*10766*	*11242*	*22008*
%	*48.9*	*51.1*	*100.0*
Median	65	66	66
Minimum	25	29	25
Maximum	95	97	97
Mean	65.2	66.1	65.6
Standard Deviation	10.3	9.6	10.0

Figure S-K2: Age and Sex - Unicompartmental Knee Replacement

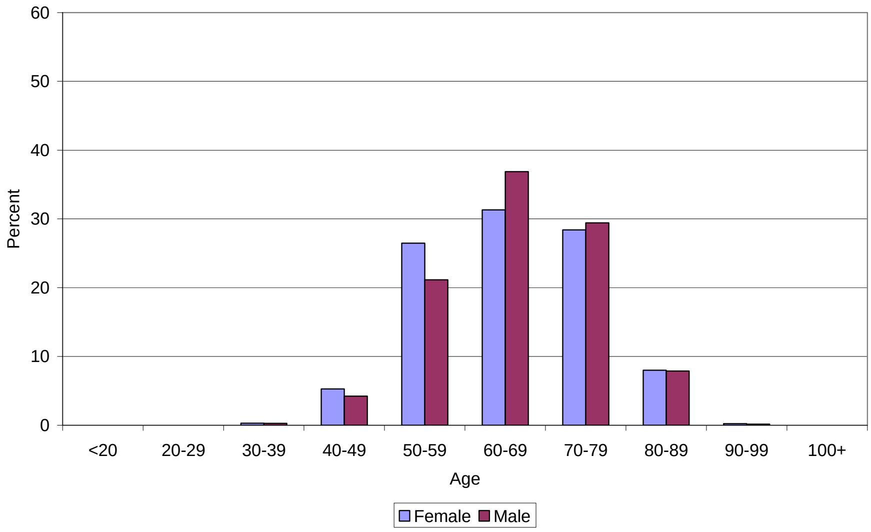


Table S-K6: Summary statistics of age (by sex) for Primary Total Knee Replacement

	Female	*Male*	*All Patients*
Number	*77537*	*57262*	*134799*
%	*57.5*	*42.5*	*100.0*
Median	71	70	70
Minimum	13	12	12
Maximum	102	100	102
Mean	69.7	68.9	69.3
Standard Deviation	9.5	9.4	9.4

Figure S-K3: Age and Sex - Primary Total Knee Replacement

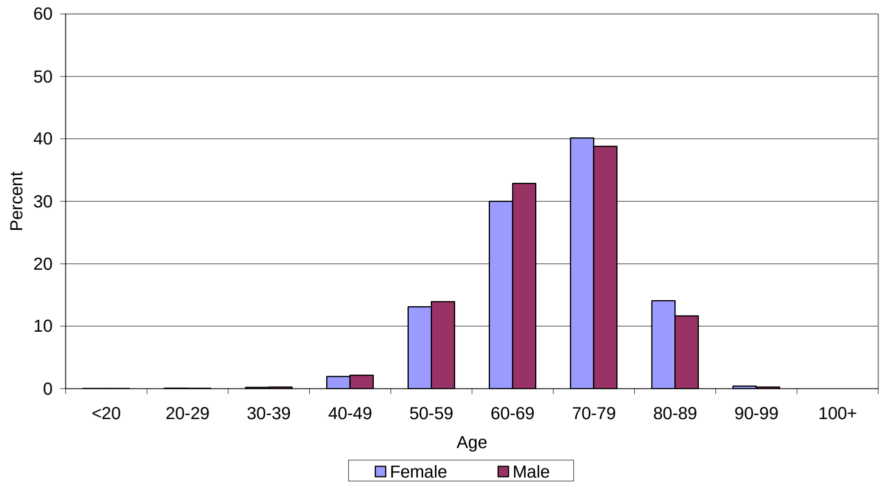
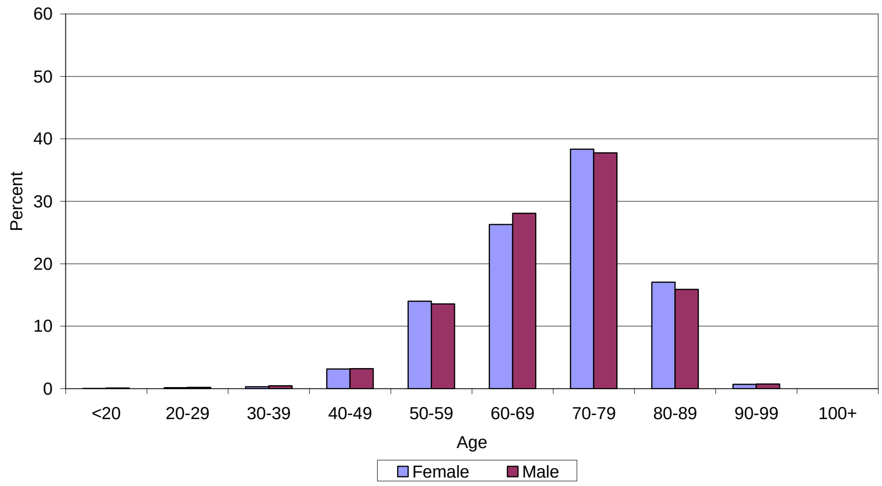


Table S-K7: Summary statistics of age (by sex) for Revision Knee Replacement

	Female	*Male*	*All Patients*
Number	*7611*	*7043*	*14654*
%	*51.9*	*48.1*	*100.0*
Median	71	71	71
Minimum	17	16	16
Maximum	97	98	98
Mean	69.8	69.4	69.6
Standard Deviation	10.5	10.5	10.5

Figure S-K4: Age and Sex - Revision Total Knee Replacement



Diagnosis for Knee Replacement -1/9/1999 to 31/12/2004

Table S-K8: Principal Diagnosis - Patella/trochlear Replacement

Diagnosis	*Number*	*%*
Osteoarthritis	842	99.2
Other Inflammatory Arthritis	7	0.8
Total	**849**	**100.0**

Table S-K9: Principal Diagnoses - Unicompartmental Knee Replacement

Diagnosis	*Number*	*%**
Osteoarthritis	21742	98.8
Avascular Necrosis	157	0.7
Rheumatoid Arthritis	75	0.3
Other Inflammatory Arthritis	26	0.1
Other	8	0.0
Total	**22008**	**100.0**

Table S-K10: Principal Diagnosis - Primary Total Knee Replacement

Diagnosis	*Number*	*%*
Osteoarthritis	130377	96.7
Rheumatoid Arthritis	2919	2.2
Other Inflammatory Arthritis	699	0.5
Avascular Necrosis	534	0.4
Tumour	159	0.1
Other	111	0.1
Total	**134799**	**100.0**

Table S-K11: Diagnosis - Revision Knee Replacement

Diagnosis	*Number*	*%*
Loosening	6191	37.1
Infection	2447	14.6
Wear tibial	1294	7.7
Pain	1171	7.0
Lysis	1170	7.0
Patello femoral pain	863	5.2
Implant breakage tibial	569	3.4
Instability	462	2.8
Progression of disease	462	2.8
Fracture	356	2.1
Other	303	1.8
Arthrofibrosis	262	1.6
Implant breakage patella	229	1.4
Wear patella	183	1.1
Malalignment	162	1.0
Implant breakage femoral	118	0.7
Synovitis	100	0.6
Bearing/dislocation	100	0.6
Incorrect sizing	81	0.5
Patella maltracking	76	0.5
Dislocation	73	0.4
Avascular necrosis	26	0.2
Heterotopic bone	11	0.1
Total	**16709**	**100.0**

Note: *some patients had multiple diagnoses*

Table S-K12: Revision Diagnosis – Primary Patella/Trochlear Knee Replacement

Diagnosis	*Number*	*%*
Pain	20	27.8
Progression of disease	14	19.4
Loosening	13	18.1
Patella maltracking	7	9.7
Other	7	9.7
Implant breakage patella	5	6.9
Infection	2	2.8
Wear Patella	2	2.8
Synovitis	2	2.8
Total	**72**	**100.0**

Note: *some patients had multiple diagnoses*

Table S-K13: Revision Diagnosis – Primary Unicompartmental Knee Replacement

Diagnosis	*Number*	*%*
Loosening	651	49.4
Pain	179	13.6
Progression of disease	177	13.4
Infection	63	4.8
Fracture	53	4.0
Bearing/Dislocation	42	3.2
Lysis	29	2.2
Wear Tibial	19	1.4
Malalignment	17	1.3
Other	13	1.0
Patello femoral pain	11	0.8
Instability	11	0.8
Implant breakage Tibial	11	0.8
Avascular necrosis	10	0.8
Incorrect sizing	9	0.7
Implant breakage femoral	8	0.6
Arthrofibrosis	6	0.5
Synovitis	5	0.4
Dislocation	3	0.2
Total	**1317**	**100.0**

Note: *some patients had multiple diagnoses*

Table S-K14: Revision Diagnosis – Primary Total Knee Replacement

Diagnosis	***Number***	***%***
Loosening	1027	31.4
Infection	712	21.8
Patello femoral pain	391	12.0
Pain	352	10.8
Instability	155	4.7
Arthrofibrosis	133	4.1
Fracture	82	2.5
Malalignment	65	2.0
Other	52	1.6
Lysis	51	1.6
Wear Tibial	43	1.3
Incorrect sizing	37	1.1
Implant breakage tibial	27	0.8
Dislocation	24	0.7
Implant breakage patella	23	0.7
Patella maltracking	22	0.7
Wear patella	20	0.6
Bearing/Dislocation	19	0.6
Synovitis	19	0.6
Implant breakage femoral	14	0.4
Total	**3268**	**100.0**

Note: *some patients had multiple diagnoses*