



Valdoltra KNEE Arthroplasty Registry 2018

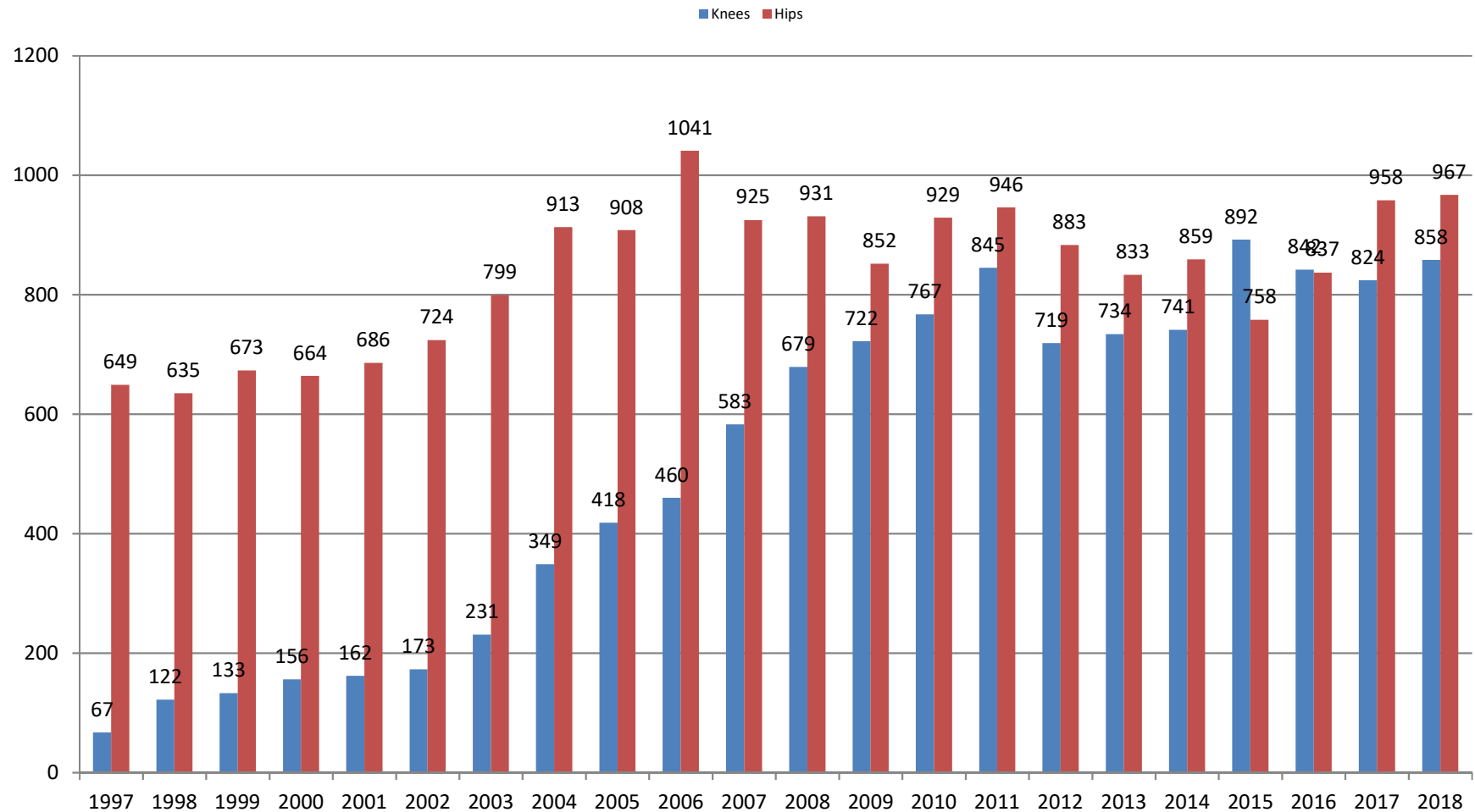
Dr. Vesna Levašič

Prof. dr. Ingrid Milošev

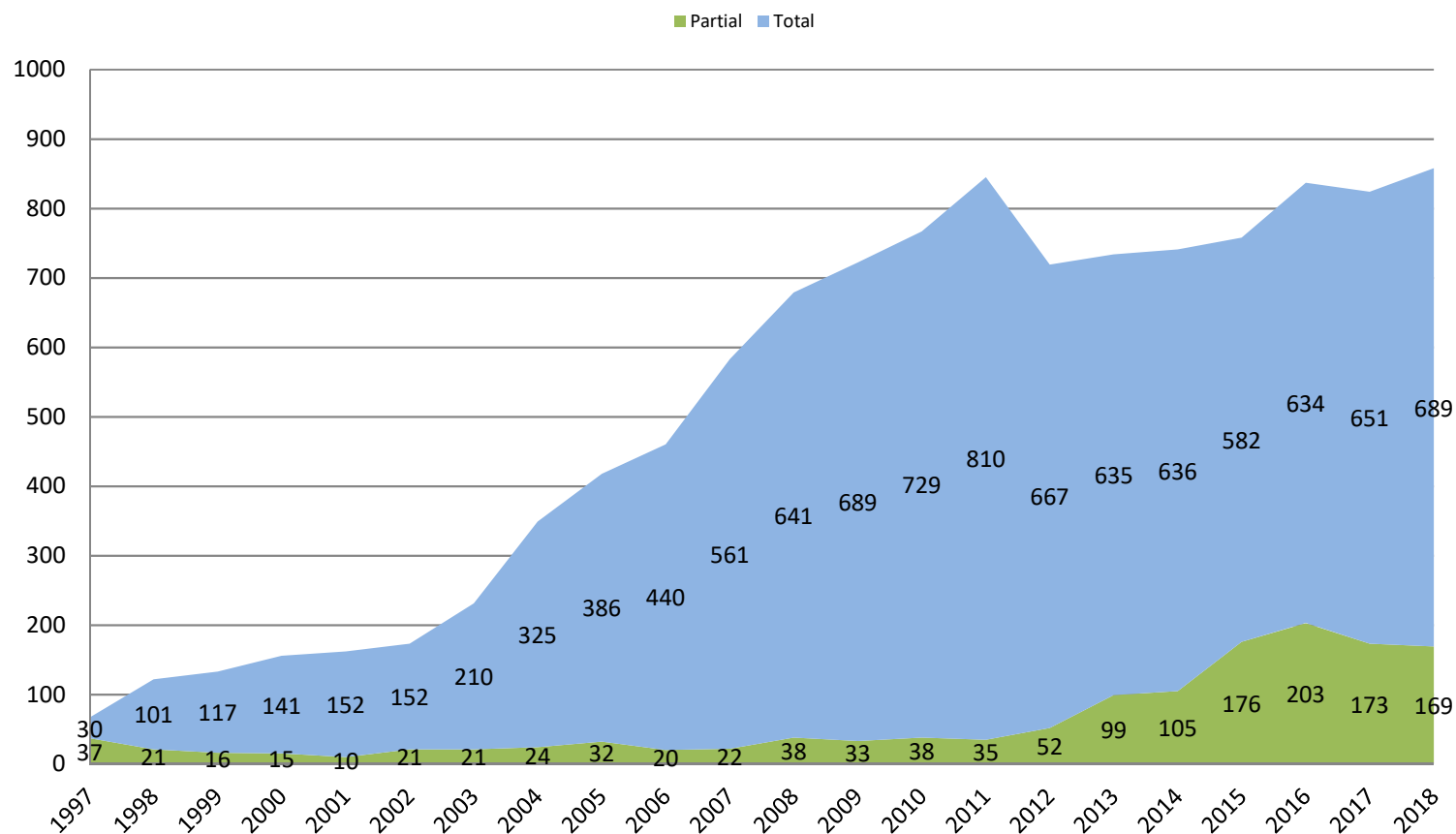
Denia Savarin

October 2019

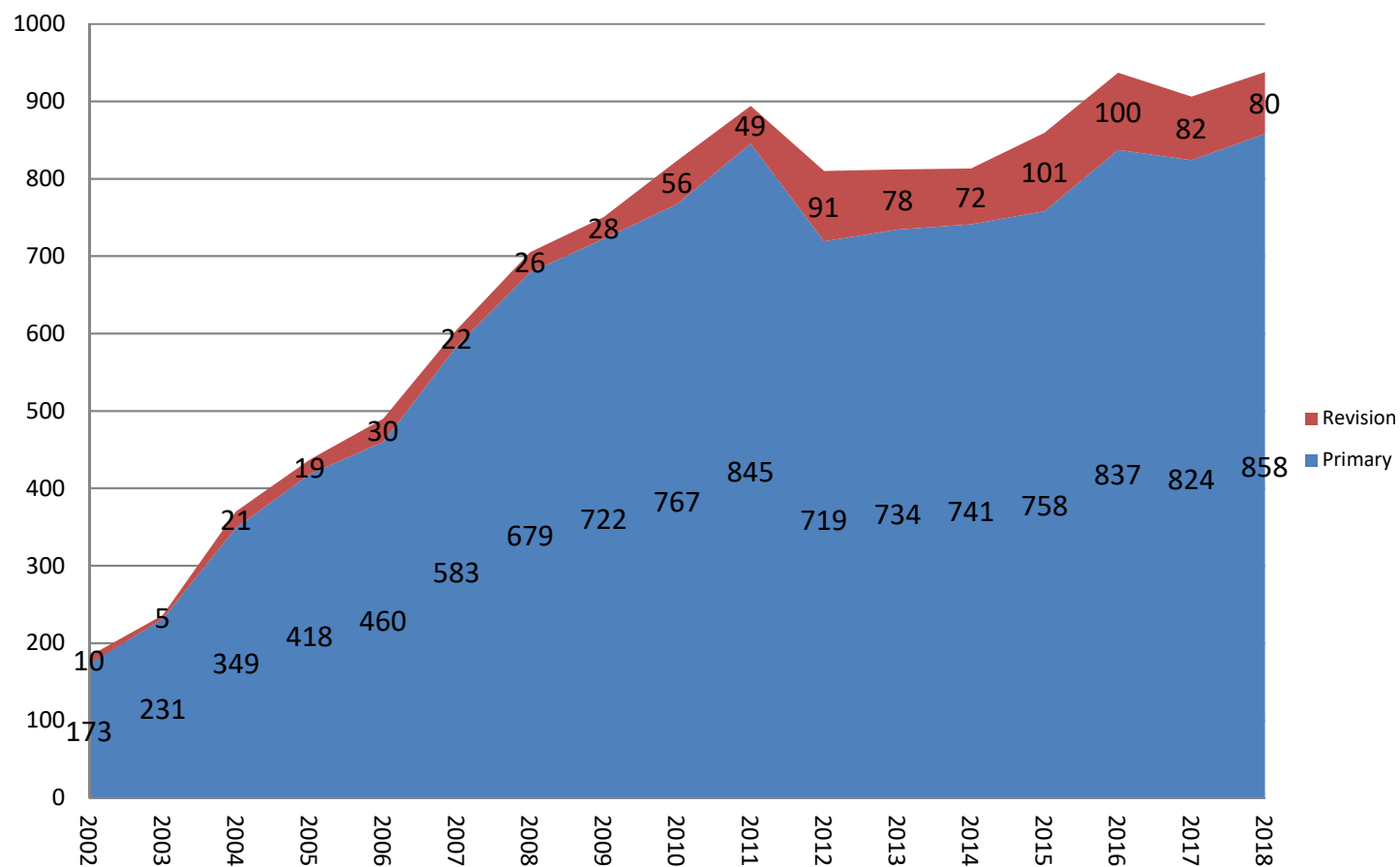
Primary Hip vs. Knee prostheses



Total and Partial Knee Joint Replacement

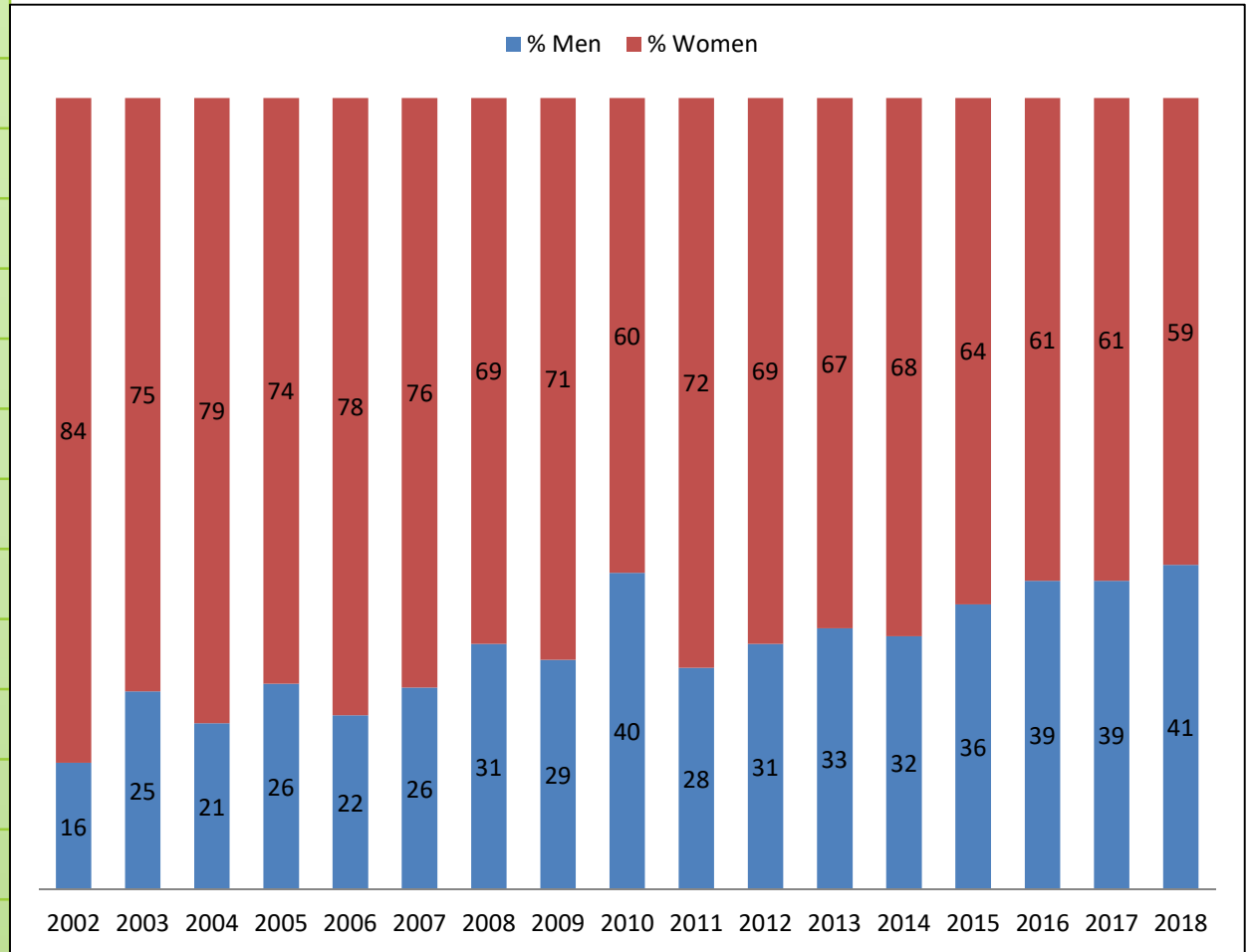


Primary vs. revision knee replacement

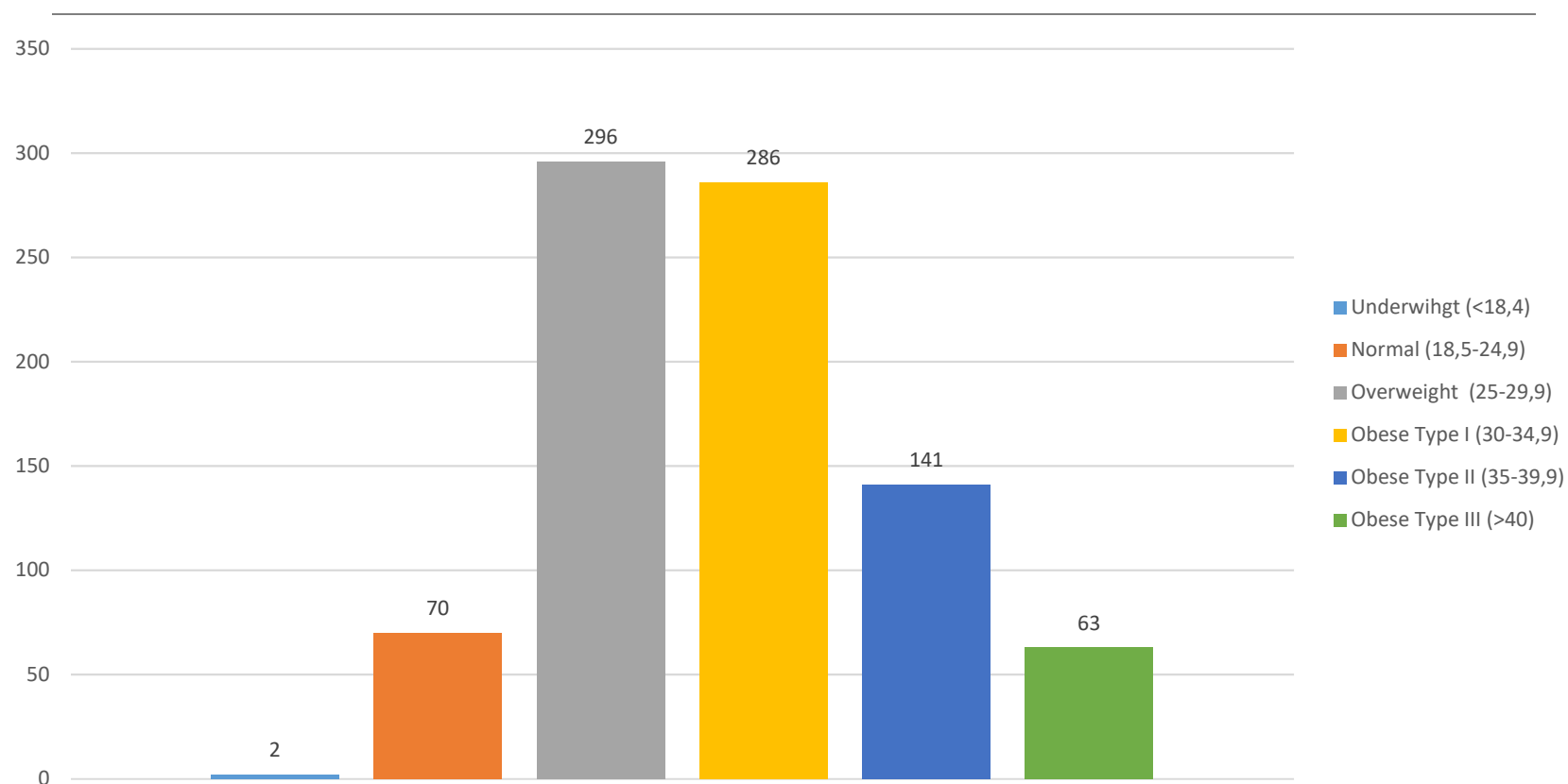


Patient data: age and gender at primaries

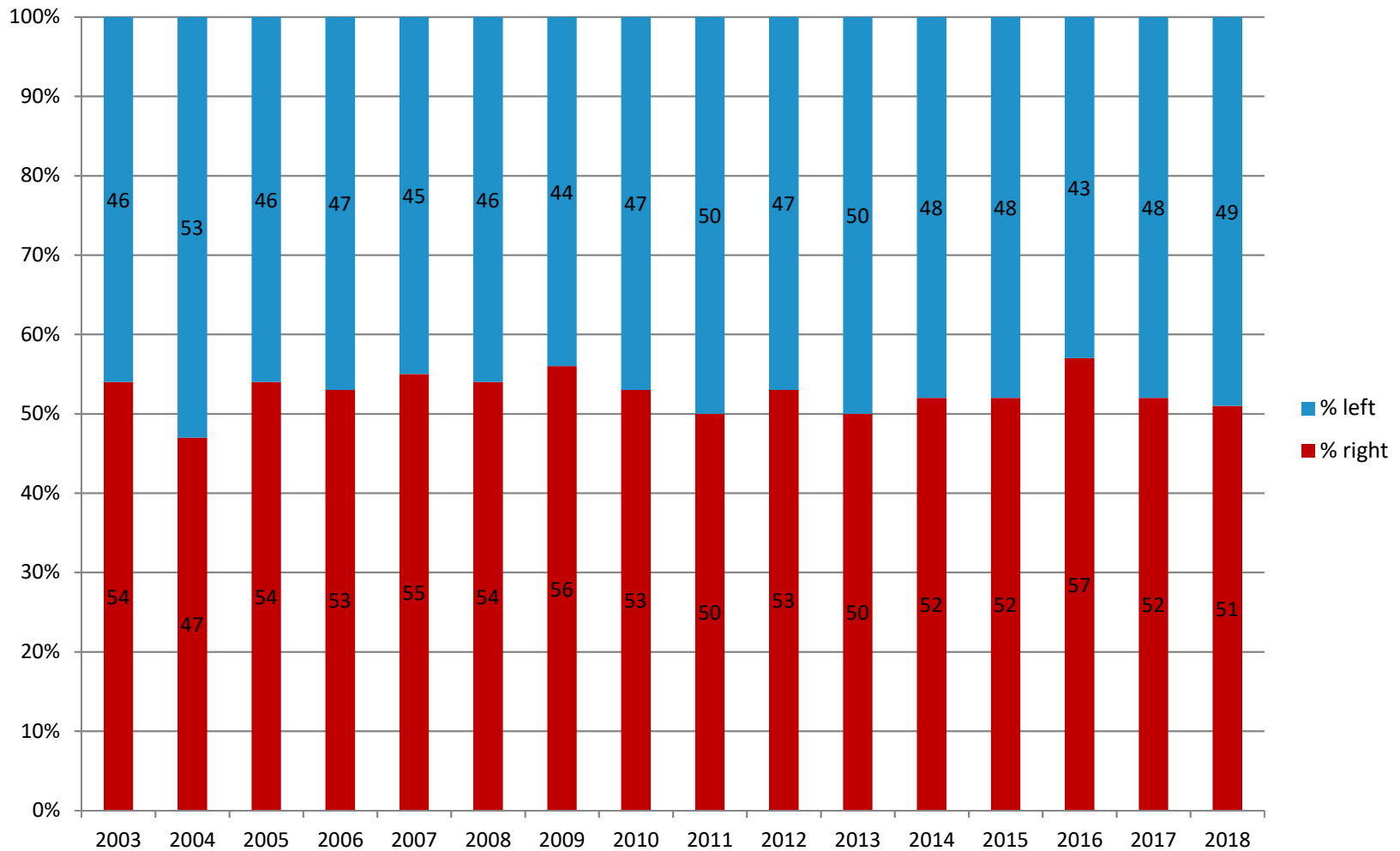
Year	Men	Women
2006	67 (40-80)	70 (43-84)
2007	69 (51-87)	71 (27-87)
2008	68 (40-85)	70 (32-87)
2009	68 (43-83)	71 (41-88)
2010	67 (33-86)	69 (40-87)
2011	67 (27-90)	70 (34-90)
2012	67 (41-82)	70 (48-89)
2013	67 (36-87)	70 (47-89)
2014	66 (30-87)	69 (41-89)
2015	67 (47-90)	70 (39-87)
2016	68 (43-89)	70 (40-88)
2017	67 (42-88)	70 (42-88)
2018	67 (29-88)	69 (28-91)



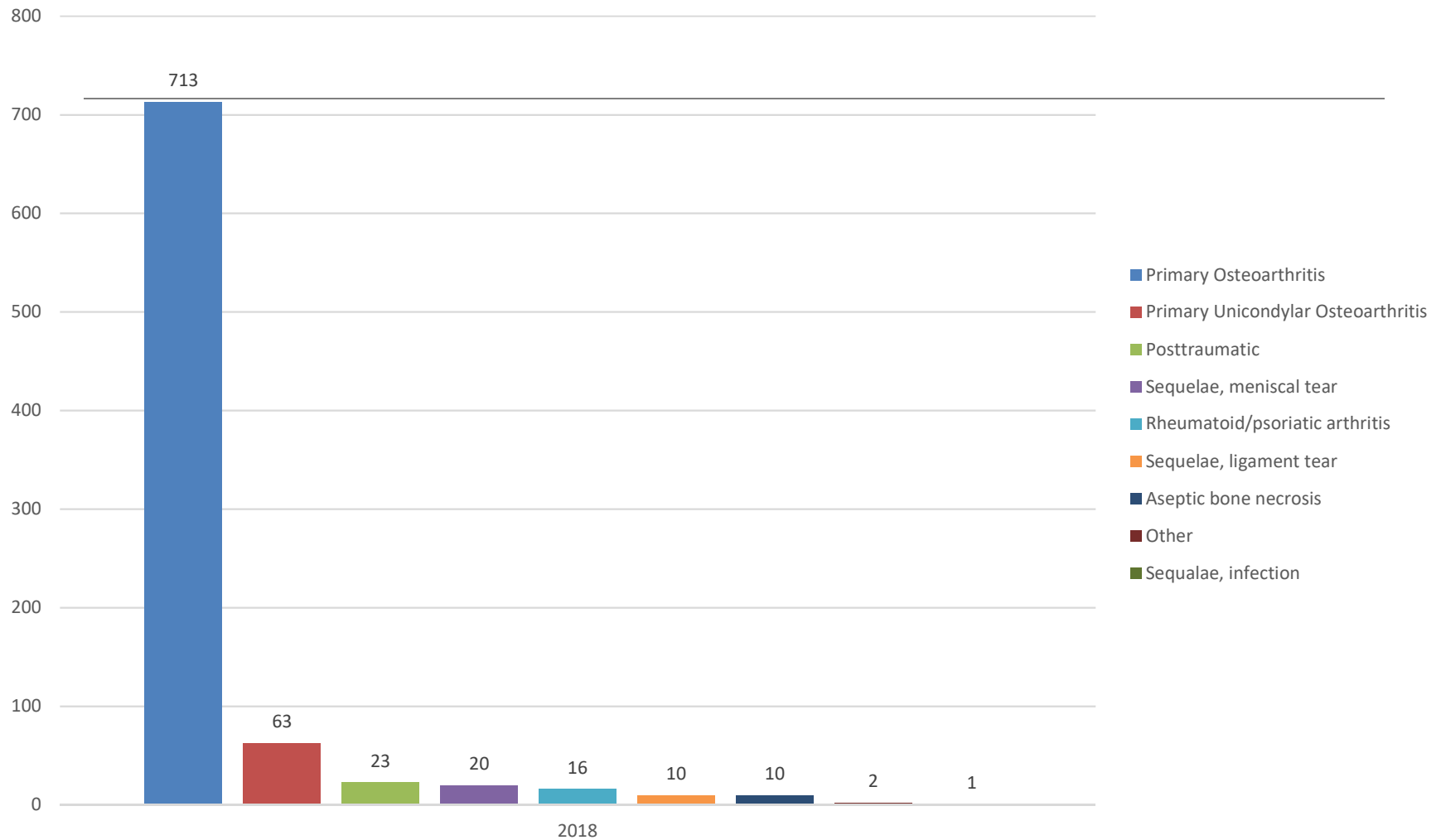
BMI of patients in 2018: average 31,5; min 17,5 in max 50,5



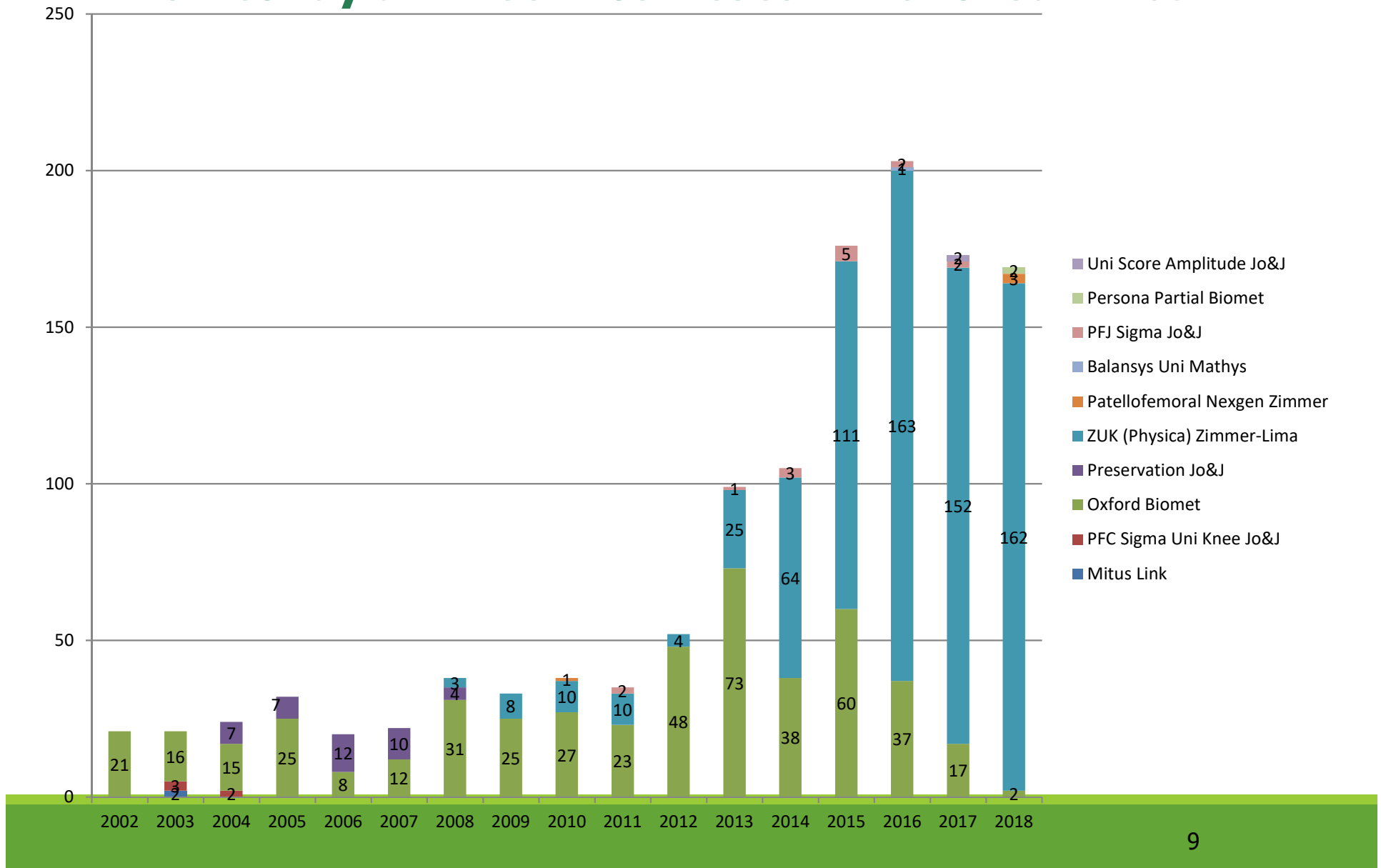
Operated knee side 2003-18



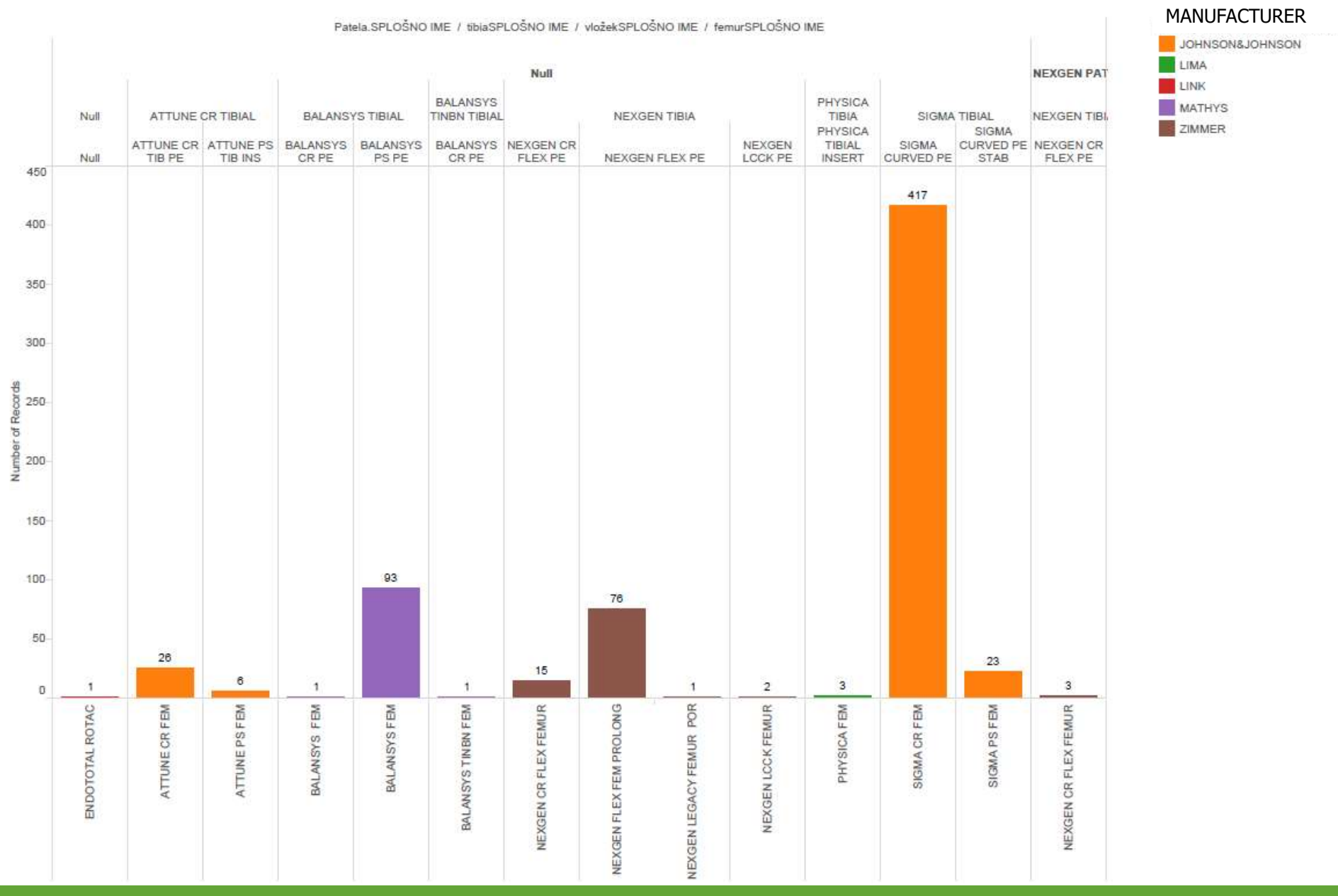
Preoperative diagnosis 2018



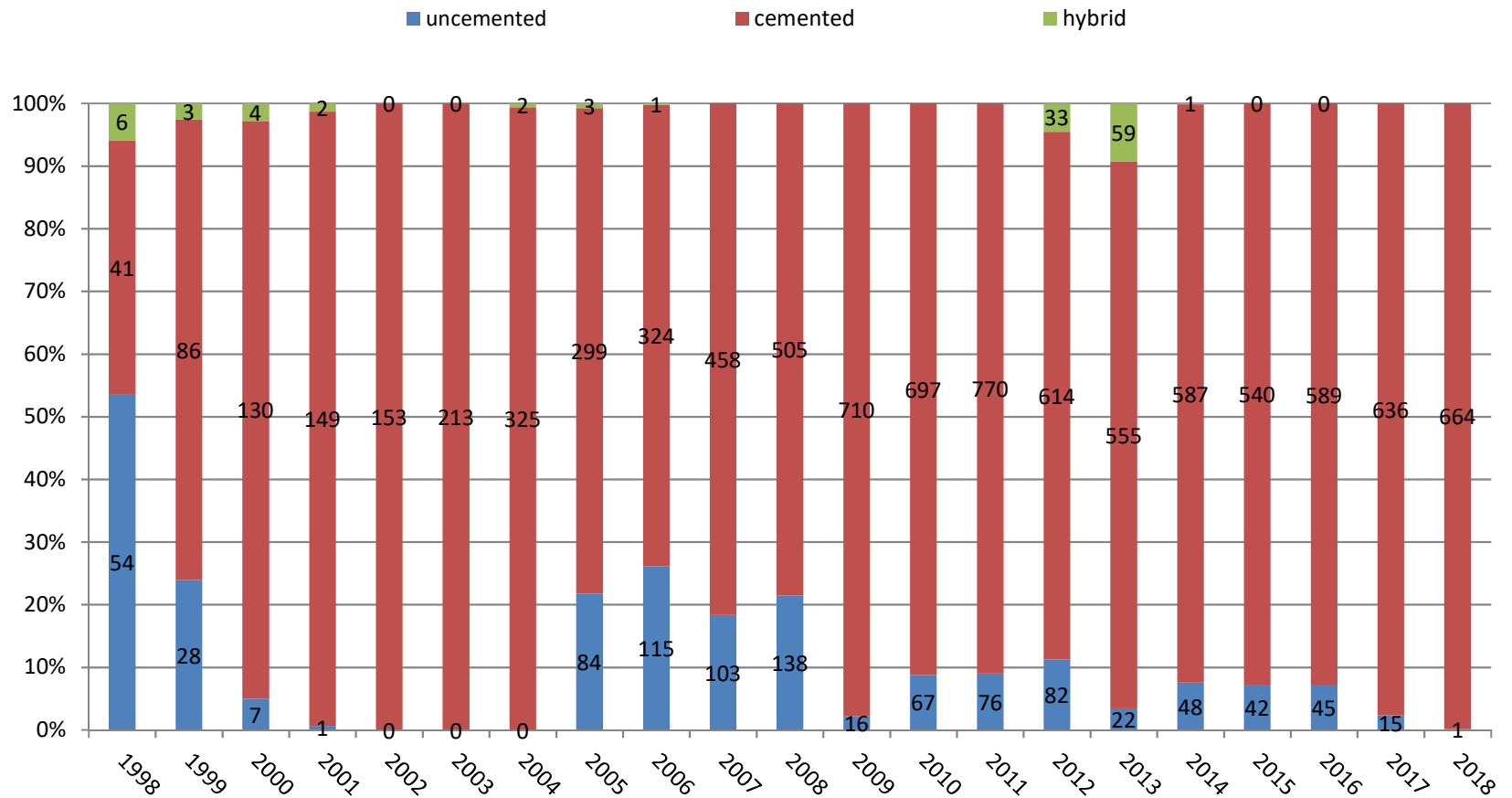
Unicondylar Knee Prostheses in 2018: sum 169



Primary TKR in 2017 by manufacturer



Knee replacement by use cement



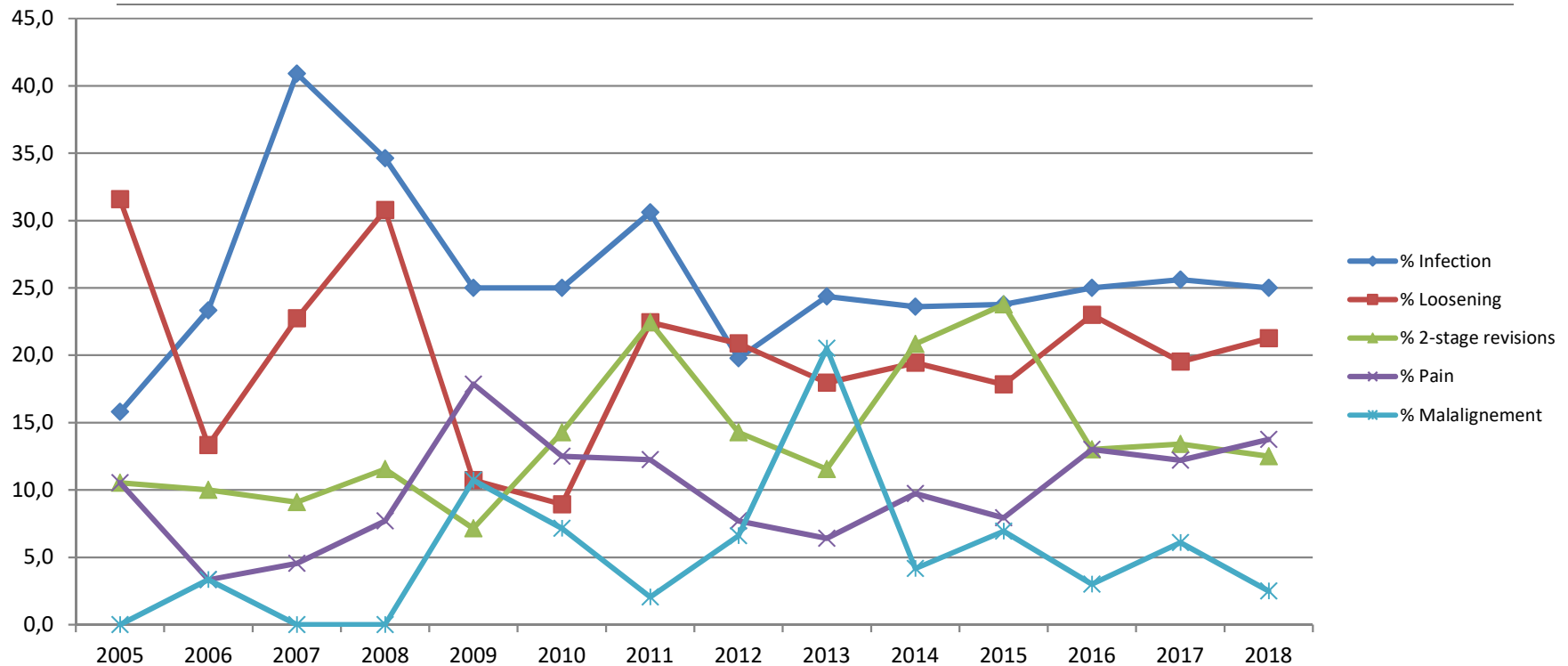
REVISION OPERATIONS OF KNEE JOINT REPLACEMENTS

2018: 80 REVISIONS IN 74 PATIENTS
(6 OPERATED 2X IN THE SAME YEAR).

Reasons for revision Knees vs. Hips 2002-2018

2002 - 2018	Knees (%)	Hips (%)
Deep infection	24,2	12,6
Aseptic loosening	20,2	56,4
Instability, malalignment, bad range of motion	14,4	0,0
2-stage revision	13,2	7,0
Pain	8,5	2,1
OA of the other compartment	7,6	0,0
Other	6,9	4,6
Periprosthetic fracture	2,5	7,4
Luxation (dislocation)	1,5	4,5
Implant broken	0,9	2,8
Osteolysis	0,0	2,4
Metallosis	0,0	0,2

Reasons for knee replacement revisions in % from 2005 to 2018



Revisions from other hospitals

Year	All revisions	Revisions from other hospitals	% from other hospitals
2002	10	2	20 %
2003	5	1	20 %
2004	21	5	24 %
2005	19	2	11 %
2006	30	4	13 %
2007	22	2	9 %
2008	26	2	8 %
2009	28	2	7 %
2010	56	8	7 %
2011	49	6	12 %
2012	91	12	13 %
2013	78	17	22 %
2014	72	12	17 %
2015	101	15	15 %
2016	100	12	12 %
2017	82	12	15 %
2018	80	11	13 %

Revision burden: all revisions: and revisions from infections in Valdoltra Hospital

Year	RB (revision burden) = N° of revisions*100/(N° of primaries+ N° of revisions) in %	N° of revisions for infection*100 / (N° of primaries+ N° of revisions) in %
2002	4,37	1,09
2003	1,69	0,00
2004	4,32	0,81
2005	3,89	0,92
2006	5,31	1,22
2007	3,31	1,49
2008	3,40	1,28
2009	3,47	0,93
2010	5,83	1,46
2011	4,81	1,23
2012	9,75	1,98
2013	7,51	1,60
2014	7,43	1,86
2015	10,01	2,56
2016	9,39	2,24
2017	7,73	1,99
2018	7,57	2,03
Avarage Valdoltra	5,86	1,45
Norway 18	8,58	1,28
NJR 18	5,81	1,32

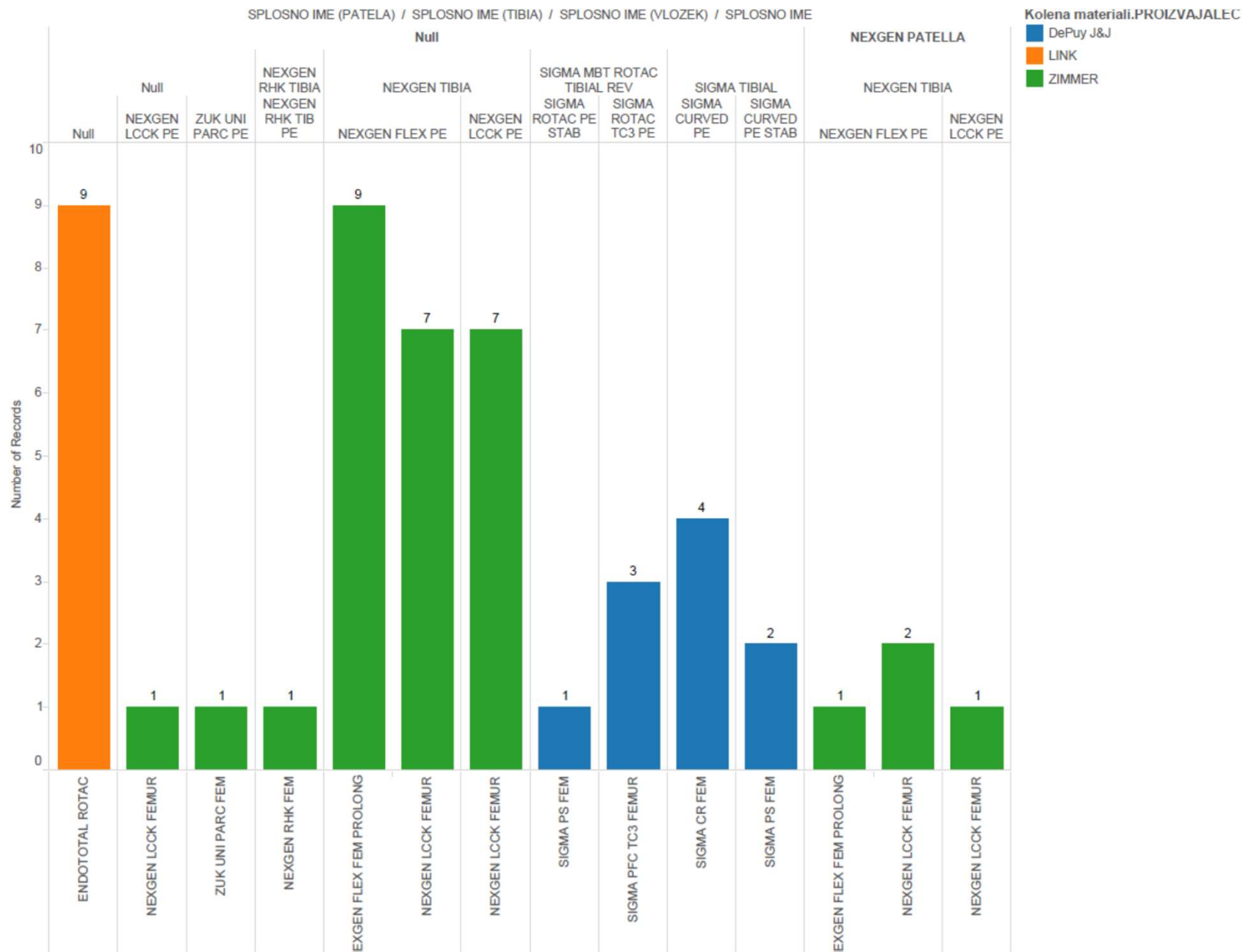
Revisions per 100 observed components year - knee

Year	Mean Follow up period (years)	Revision rate	Number primary cases	Number of all revisions	Number of first revisions in this FU period	Revision rate for revisions in this FU period	Observed component years	Revisions per 100 observed component years
2002	0,46	5,46	173	10	0	0,00	79,81	0,00
2003	0,88	3,58	404	15	0	0,00	354,16	0,00
2004	1,22	4,56	753	36	6	0,76	922,31	0,65
2005	1,60	4,49	1171	55	12	0,98	1873,54	0,64
2006	2,03	4,95	1631	85	21	1,22	3305,12	0,64
2007	2,36	4,61	2214	107	29	1,25	5216,43	0,56
2008	2,69	4,40	2893	133	39	1,29	7771,63	0,50
2009	3,05	4,26	3615	161	54	1,43	11015,85	0,49
2010	3,43	4,72	4382	217	82	1,78	15008,65	0,55
2011	3,79	4,84	5227	266	99	1,80	19818,78	0,50
2012	4,27	5,66	5946	357	136	2,16	25414,18	0,54
2013	4,75	6,11	6680	435	172	2,42	31728,17	0,54
2014	5,22	6,40	7421	507	208	2,62	38745,25	0,54
2015	5,69	6,92	8179	608	258	2,94	46531,09	0,55
2016	6,11	7,28	9016	708	320	3,29	55131,48	0,58
2017	6,56	7,43	9840	790	364	3,42	64524,19	0,56
2018	6,99	7,52	10698	870	410	3,54	74777,85	0,55

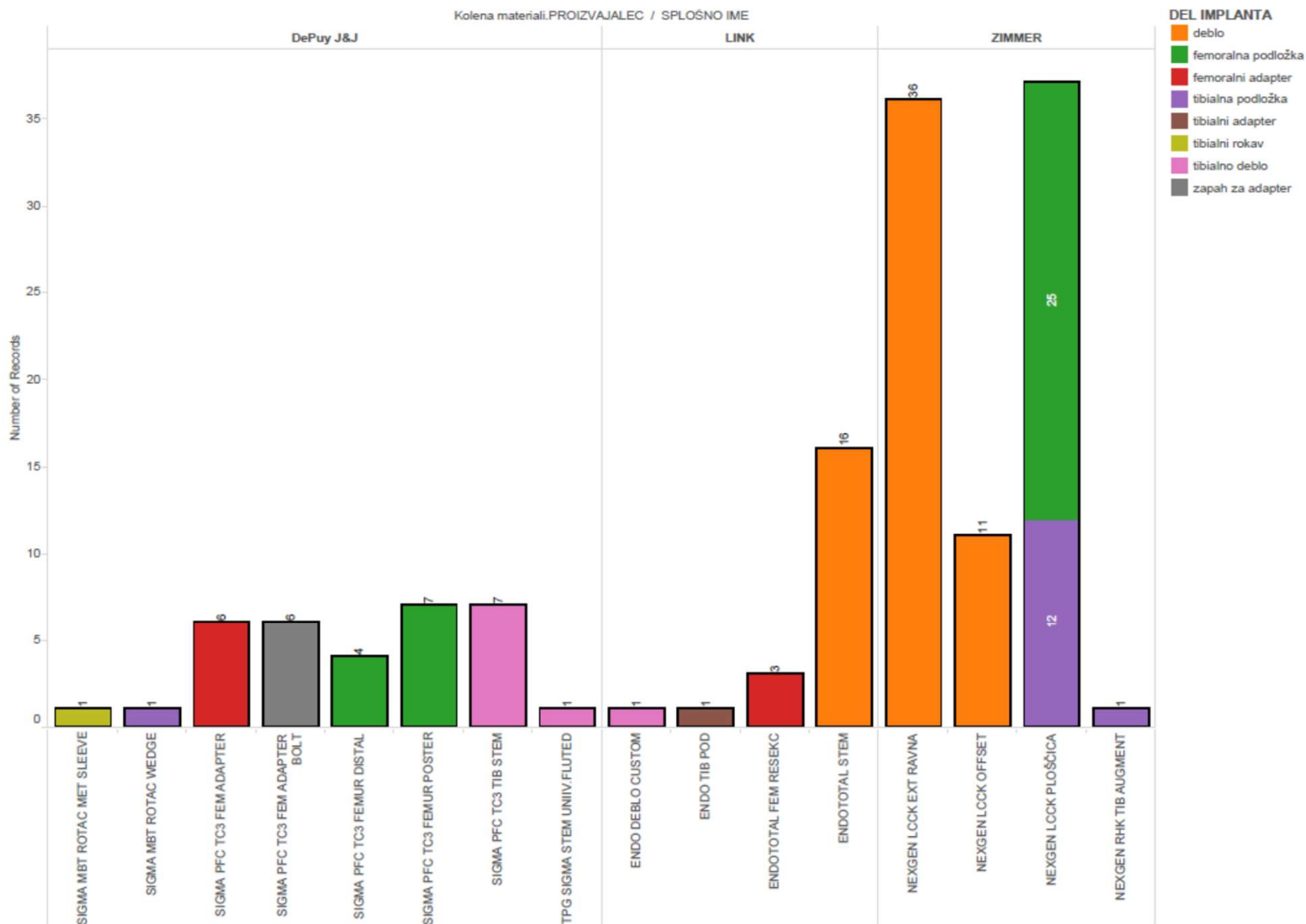
Revision rate for knee prostheses from 02 to 18

Name	Implanted 02-18	Remowed 02-18	% of revision
Attune Jo&J	99	0	0,00
PFJ Sigma Jo&J	15	0	0,00
Patellofemoral Nexgen Zimmer	4	0	0,00
Balansys Mathys	246	1	0,41
ZUK (Physica) Zimmer (Lima)	712	9	1,26
Sigma Jo&J	3793	62	1,63
Solution S&N	1152	29	2,52
Nexgen Monobloc Zimmer	859	26	3,03
Vanguard Biomet	531	18	3,39
AGC Biomet	747	30	4,02
Nexgen Knee Zimmer	1462	71	4,86
Endomodel LINK	57	4	7,02
Preservation Jo&J	40	3	7,50
Advance WRIGHT	300	23	7,67
Nexgen LCCK Zimmer	37	3	8,11
Oxford Biomet	478	50	10,46
Genesis S&N	33	4	12,12

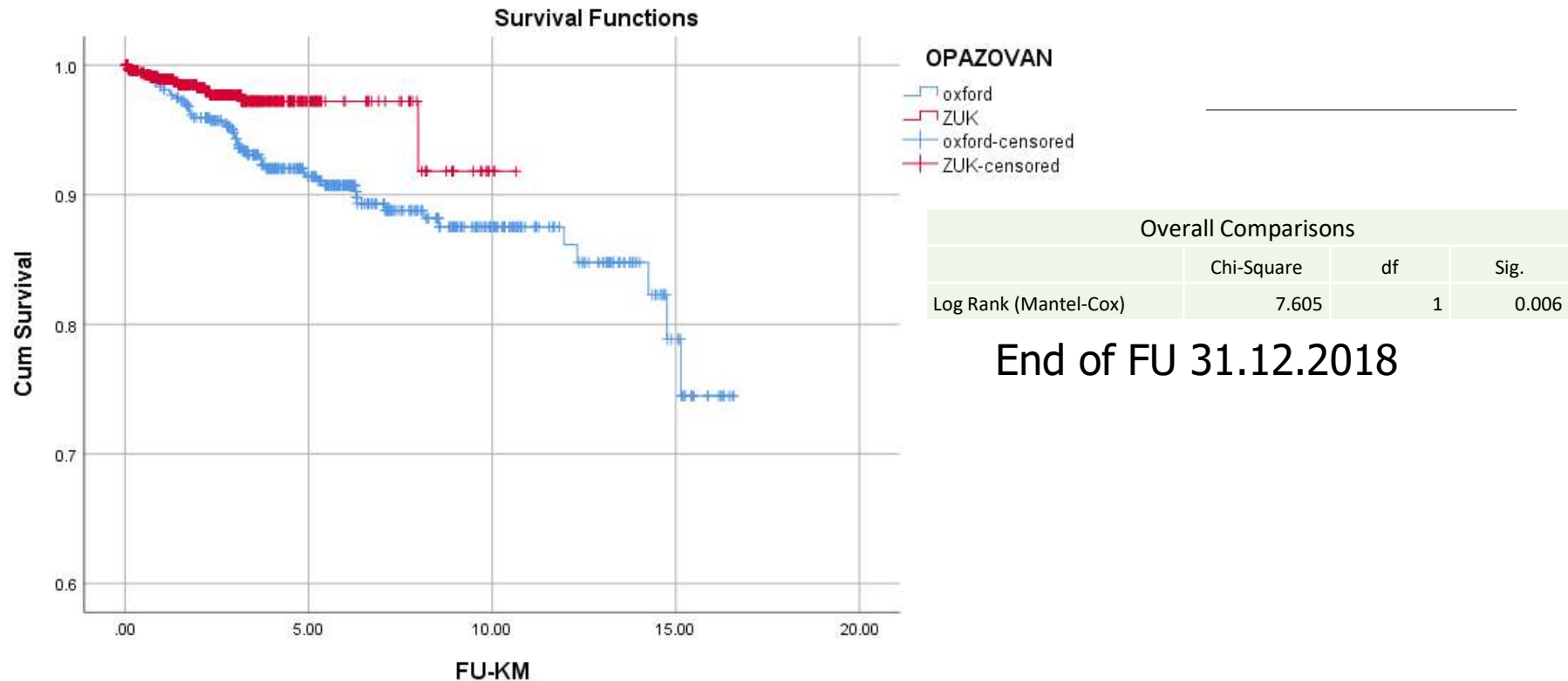
Revision TKR components in 2018 by manufacturers



Added stems, sleeves, augments and adapters in revisions in 2018



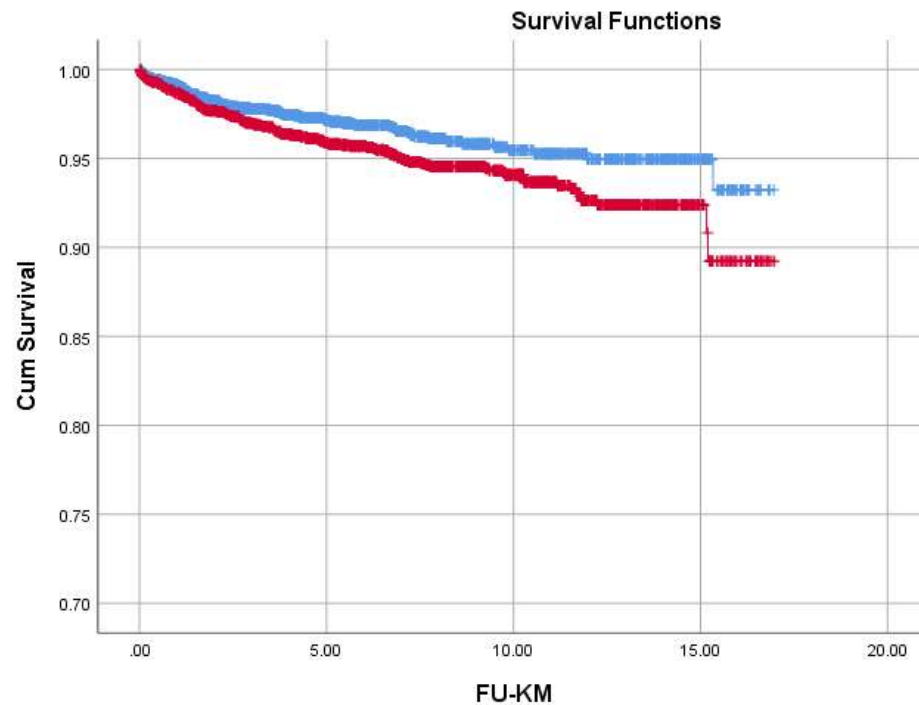
Survival of 2 unycondylar knee prostheses: Oxford Biomet, ZUK Zimmer (Lima)



Oxford Biomet: After **16,5** yrs survival **74,5 %** (95 % CI = **73,3 % - 75,7 %**)

ZUK Zimmer - Lima: After **10,7** yrs survival **91,8 %** (95 % CI = **90,8 % - 92,8 %**)

Survival of 2 total knee prostheses: Sigma De Puy Johnson, Nexgen Zimmer



OPAZOVANI

— SIGMA
— NEXGEN ZIMMER
+ SIGMA-censored
+ NEXGEN ZIMMER-censored

Overall Comparisons			
	Chi-Square	df	Sig.
Log Rank (Mantel-Cox)	7.323	1	0.007

End of FU 31.12.2018

Sigma DePuy JJ: After **17-ih** yrs survival **93,2 %** (95 % CI = **93,17 % - 93,24 %**)

Nexgen Zimmer: After **17-ih** yrs survival **89,2 %** (95 % CI = **89,16 % - 89,25 %**)

Removed prostheses – time in situ KNEES 2002 - 2018

Year	N° of removed	Time in situ of the removed (Years)
2002	7	4,8 (1 – 10)
2003	5	7,9 (2 – 19)
2004	18	3,9 (0 – 21)
2005	15	4,9 (0 – 13)
2006	25	5,3 (0 – 13)
2007	17	6,6 (0 – 20)
2008	21	6,5 (0 – 24)
2009	23	3,5 (0 – 12)
2010	36	3,8 (0 – 13)
2011	19	4,8 (0 - 18)
2012	42	3,2 (0 – 10)
2013	61	4,1 (0-20)
2014	45 (collected)	4,0 (0-18)
2015	61 (collected)	4,8 (0-19)
2016	66 (collected)	4,4 (0-20)
2017	52 (collected)	6,1 (0-21)
2018	30 (collected)	4,4 (0-18)
Sum	491	Avarage: 4,9 (0 - 24)

„ The longest time in situ“



IB Cremascoli
Time in situ: 17,8 years



Sigma PFC DePuy Jo & Jo
Time in situ: 15,6 years



Citation:

Levašič V, Savarin D, Milošev I. Valdoltra Arthroplasty Registry [Internet]. Valdoltra Orthopaedic Hospital. [cited 2019 October 15]. Available from: <http://www.ob-valdoltra.si/sl/international>