



*Register artroplastike*  
**Valdoltra**

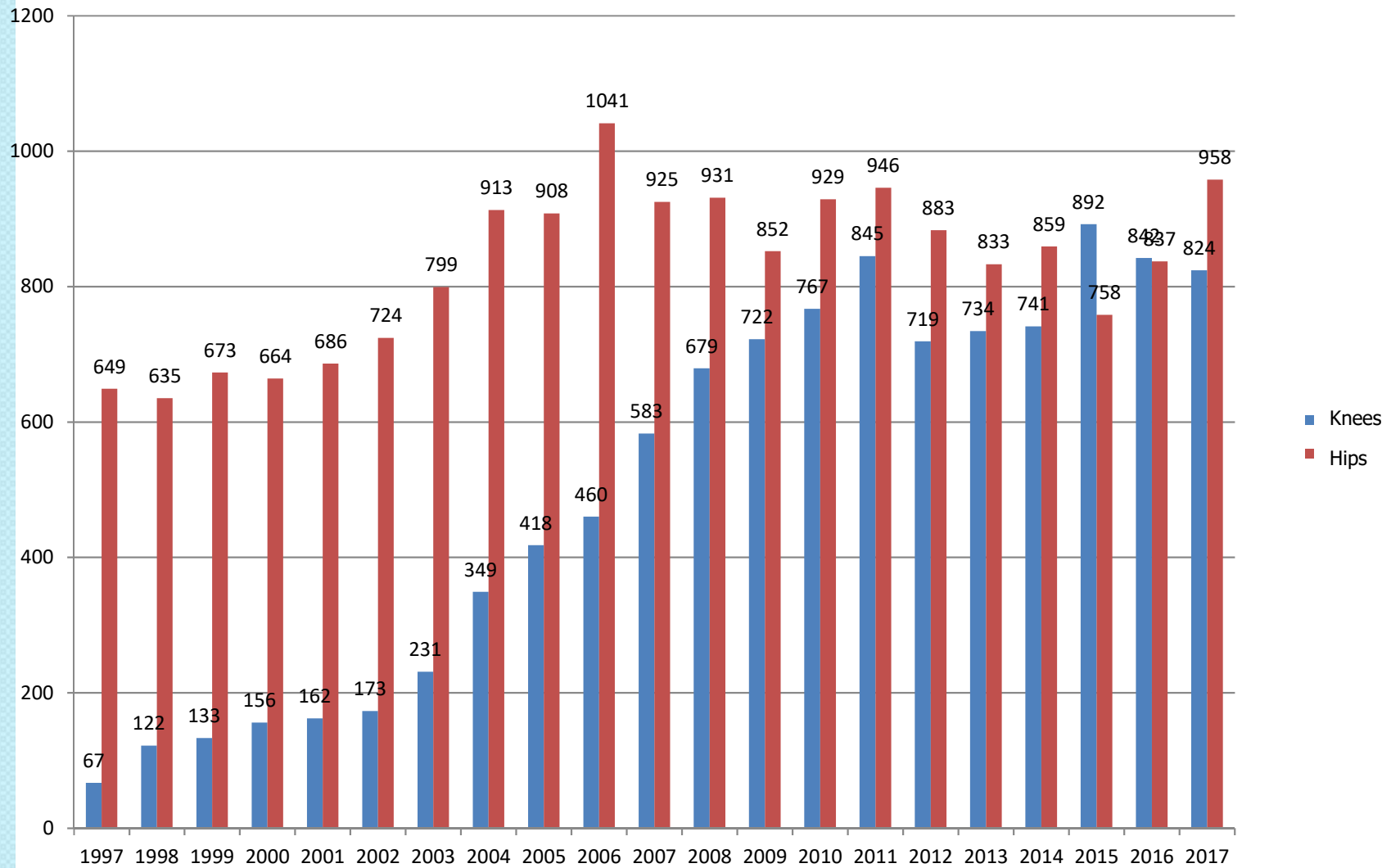


# **Valdoltra KNEE Arthroplasty Registry 2017**

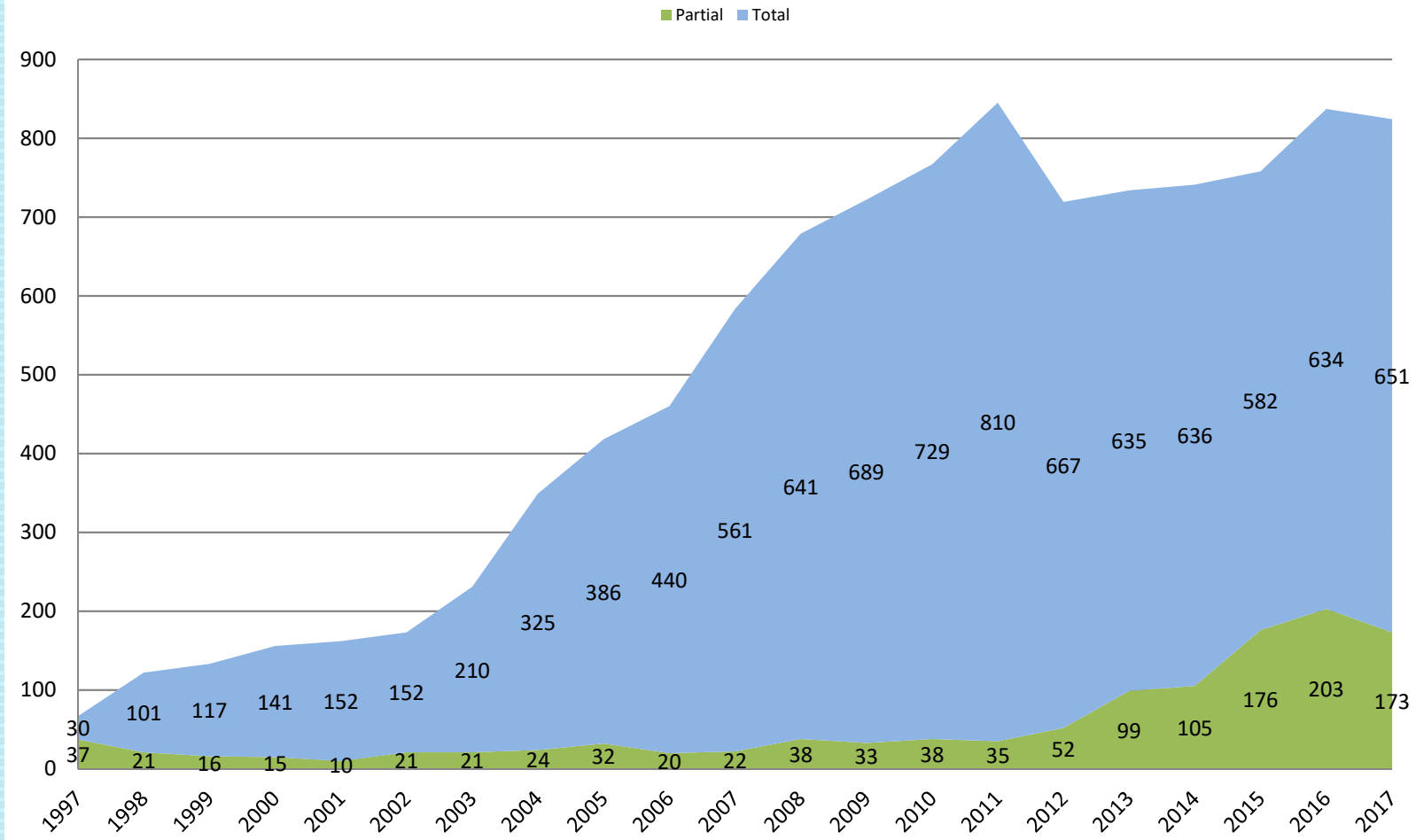
Dr. Vesna Levašič  
Prof. dr. Ingrid Milošev  
Denia Savarin

March 2019

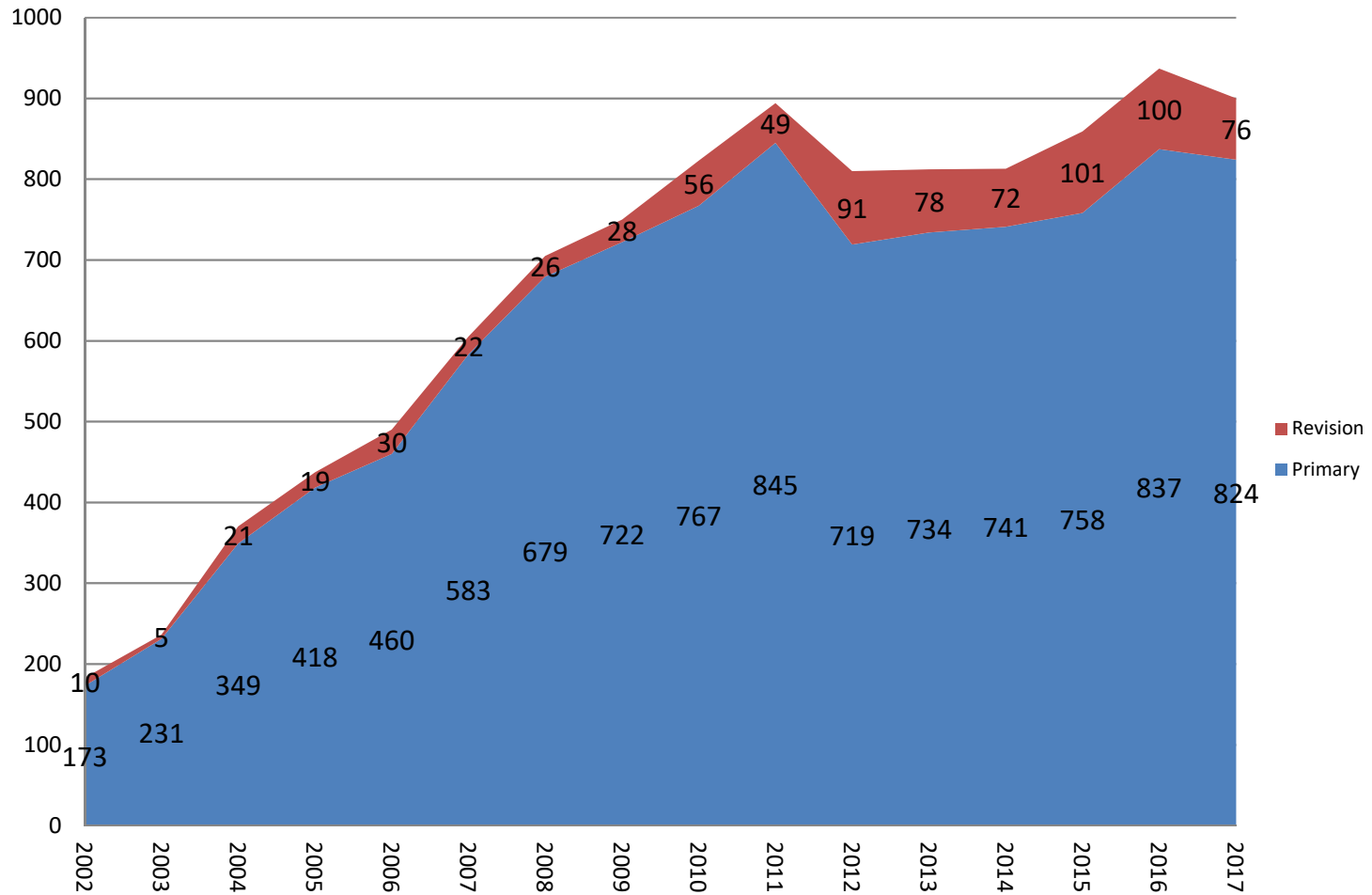
# Primary Hip vs. Knee prostheses



# Total and Partial Knee Joint Replacement

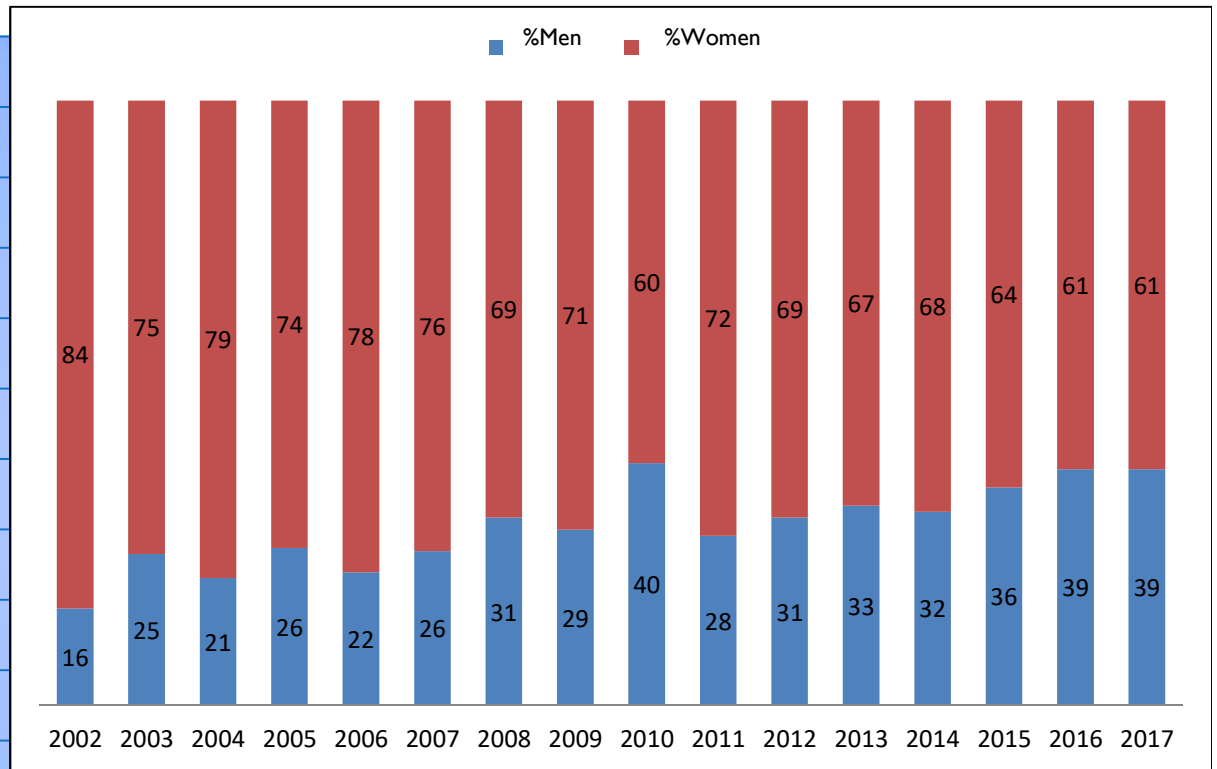


# Primary vs. revision knee replacement

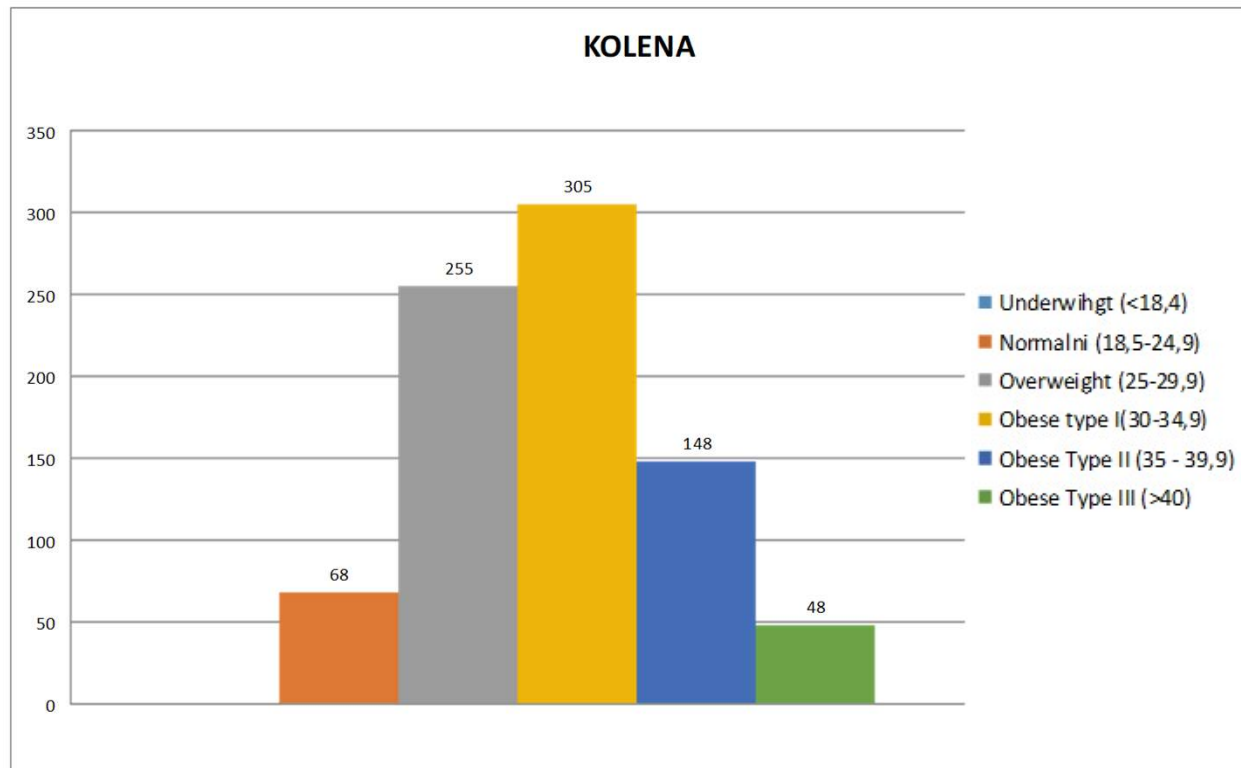


# Patient data: age and gender at primaries

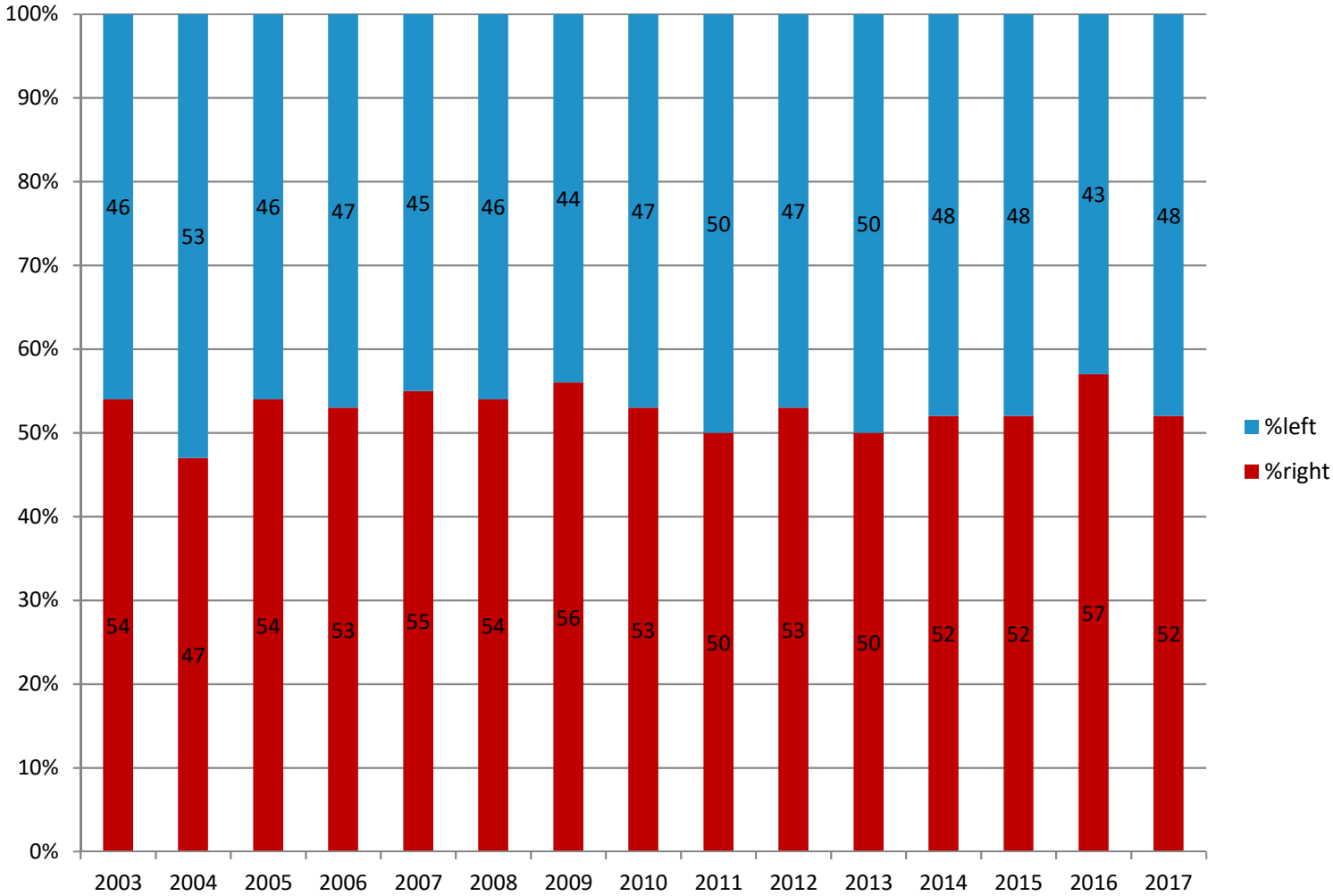
Year	Men	Women
2006	67 (40-80)	70 (43-84)
2007	69 (51-87)	71 (27-87)
2008	68 (40-85)	70 (32-87)
2009	68 (43-83)	71 (41-88)
2010	67 (33-86)	69 (40-87)
2011	67 (27-90)	70 (34-90)
2012	67 (41-82)	70 (48-89)
2013	67 (36-87)	70 (47-89)
2014	66 (30-87)	69 (41-89)
2015	67 (47-90)	70 (39-87)
2016	68 (43-89)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



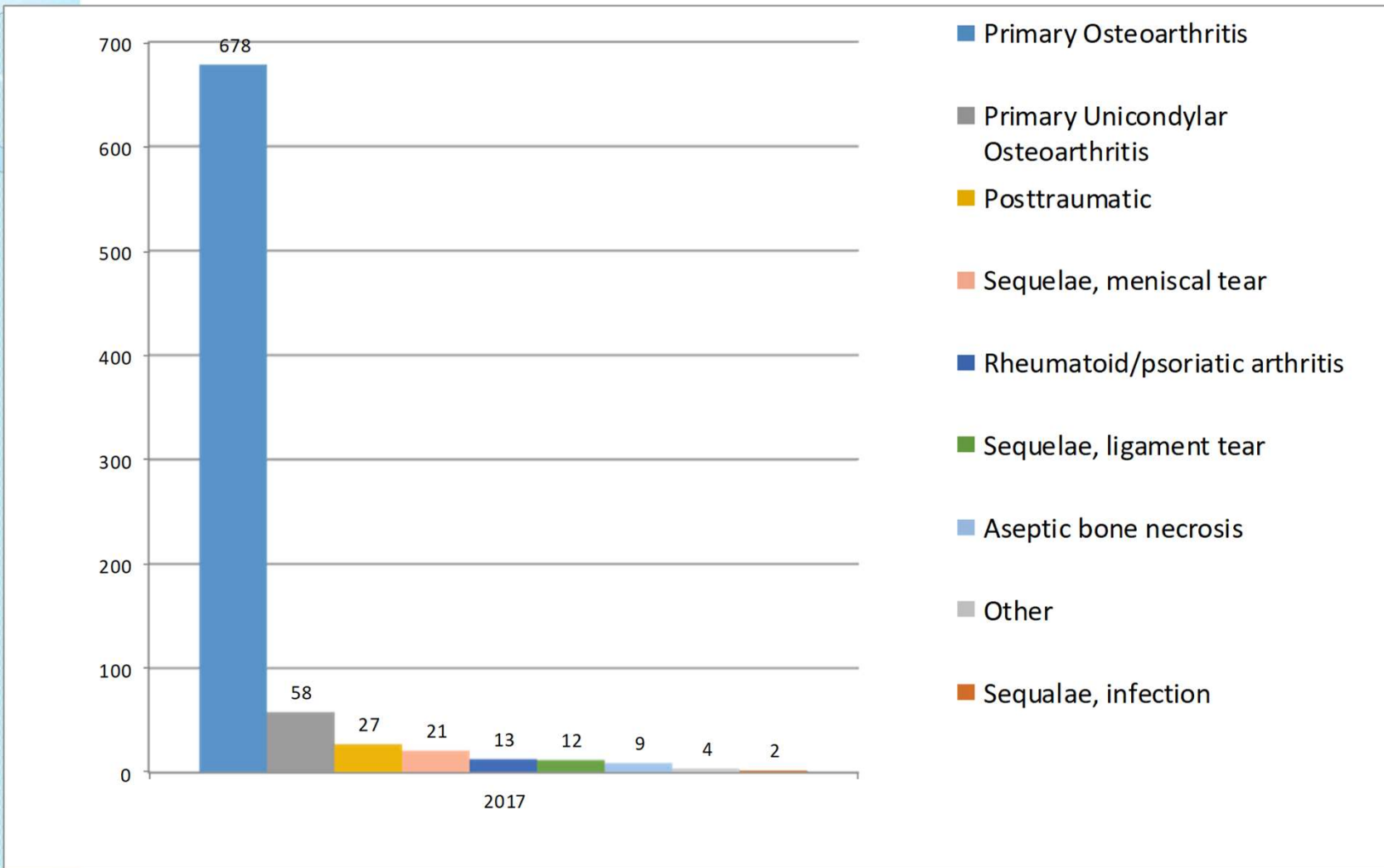
# BMI of patients in 2017: average 31,6; min 19,7 in max 4,8



# Operated knee side 2003 - 17

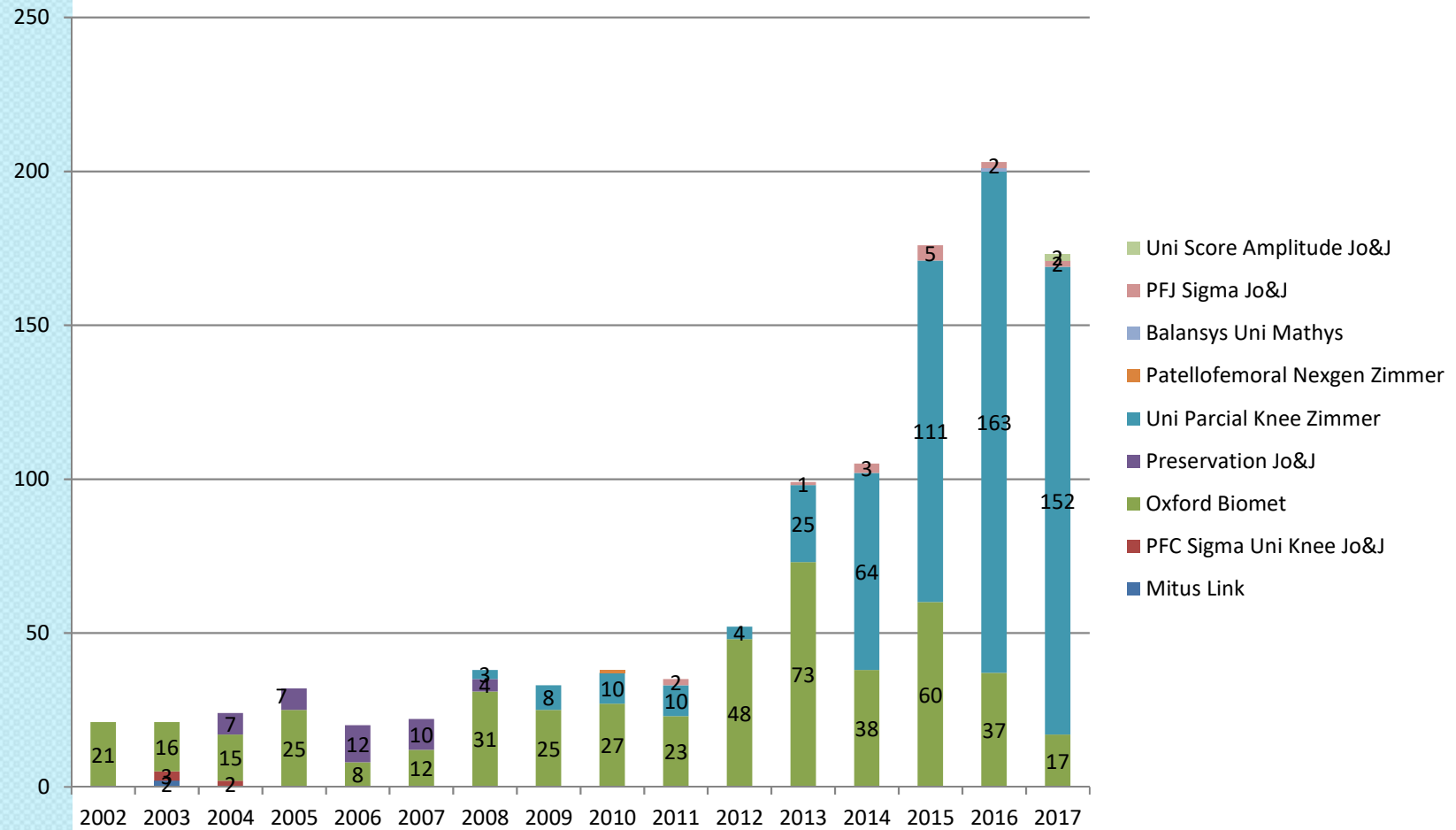


# Preoperative diagnosis 2017

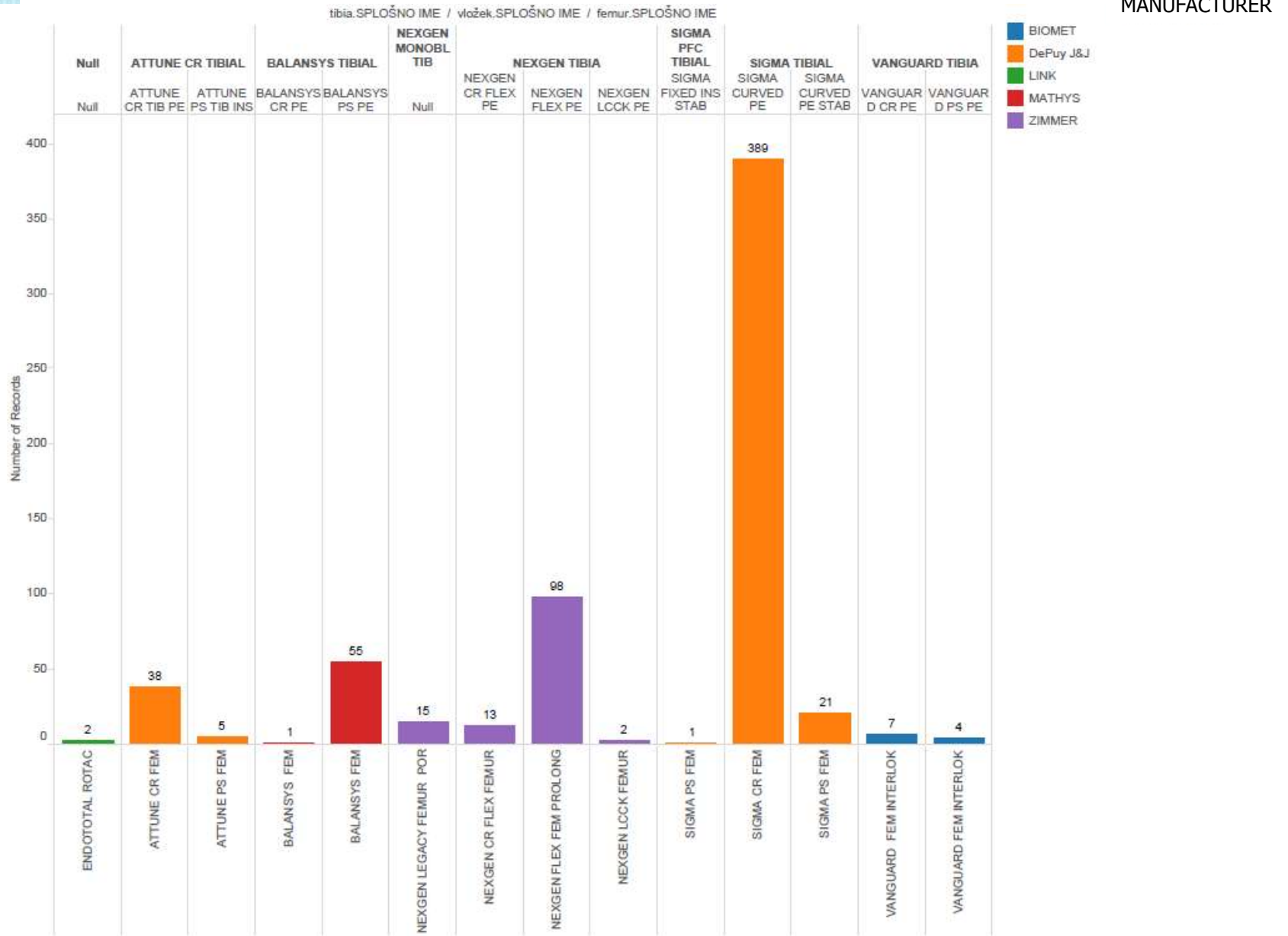




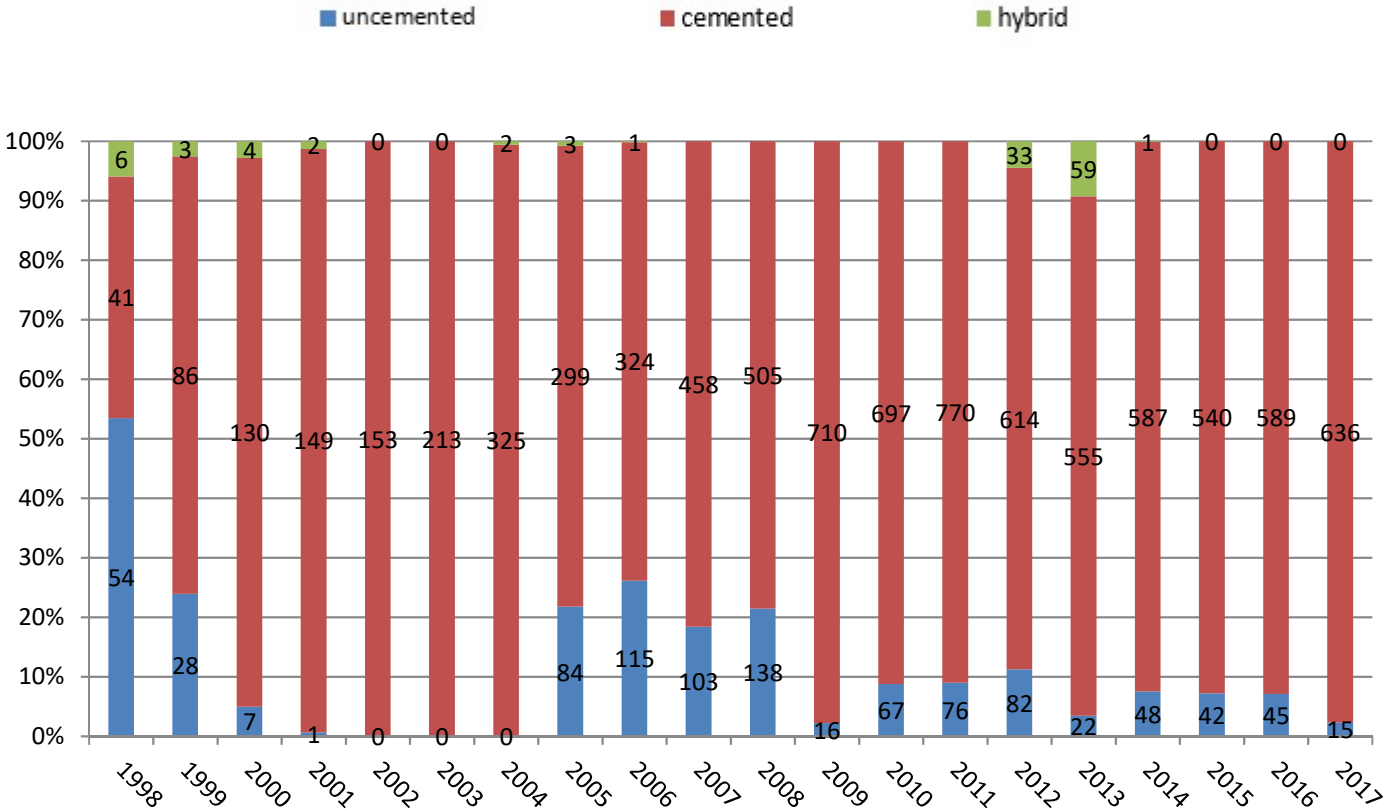
# Unicondylar Knee Prostheses in 2017: sum 173



# Primary TKR in 2017 by manufacturer



# Knee replacement by use cement





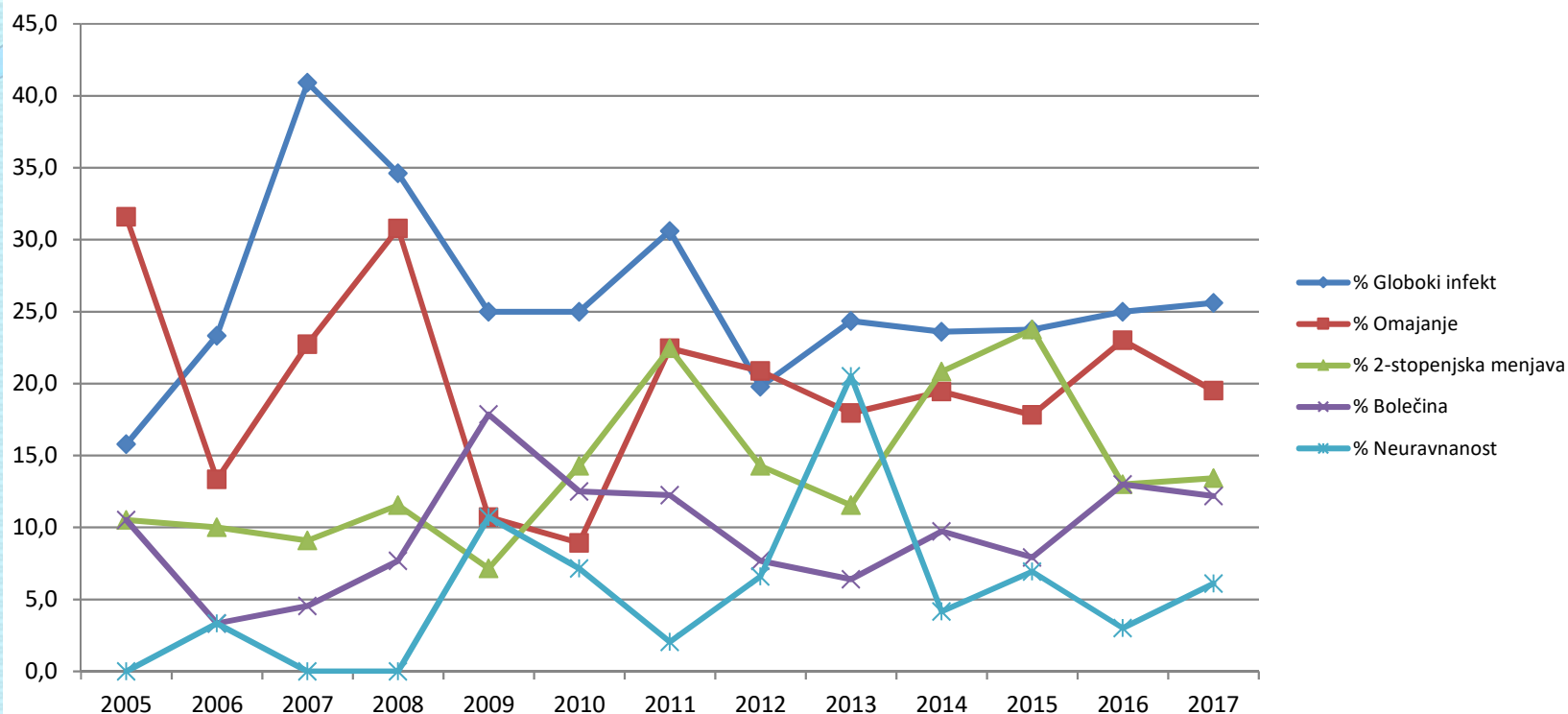
# REVISION OPERATIONS OF KNEE JOINT REPLACEMENTS

**2017: 82** revisions in 73 patients  
(9 operated 2x in the same year)

# Reasons for revision Knee vs. Hips 2002-2017

obdobje 2002 - 2017	Kolena (%)	Kolki (%)
Globoki infekt	24,7	12,2
Omajanje	19,5	57,4
Nestabilnost, neuravnanost, slaba gibljivost	16,7	0,0
2-stopenjska revizija	15,1	7,0
Bolečina	9,5	2,1
Artoza drugega kompartenta	6,3	0,0
Ostalo (obraba PE, ...)	4,3	4,5
Izpah (dislokacija)	1,6	4,3
Periprotetični zlom	1,5	7,0
Zlom implanta	0,8	2,8
Osteoliza	0,0	2,4

# Reasons for knee replacement revisions in % from 2005 to 2017




## Revisions from other hospitals

Predhodna operacija drugje	Vse revizije	Število predhodno operiranih drugje	Procent
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	77	17	22 %
2014	72	12	17 %
2015	85	15	15 %
2016	88	12	12 %
2017	70	12	15 %

## 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
<b>Average Valdoltra</b>	<b>5,76</b>	<b>1,42</b>
<b>Norway 17</b>	<b>8,27</b>	<b>1,36</b>
<b>NJR 17</b>	<b>5,85</b>	<b>0,96</b>





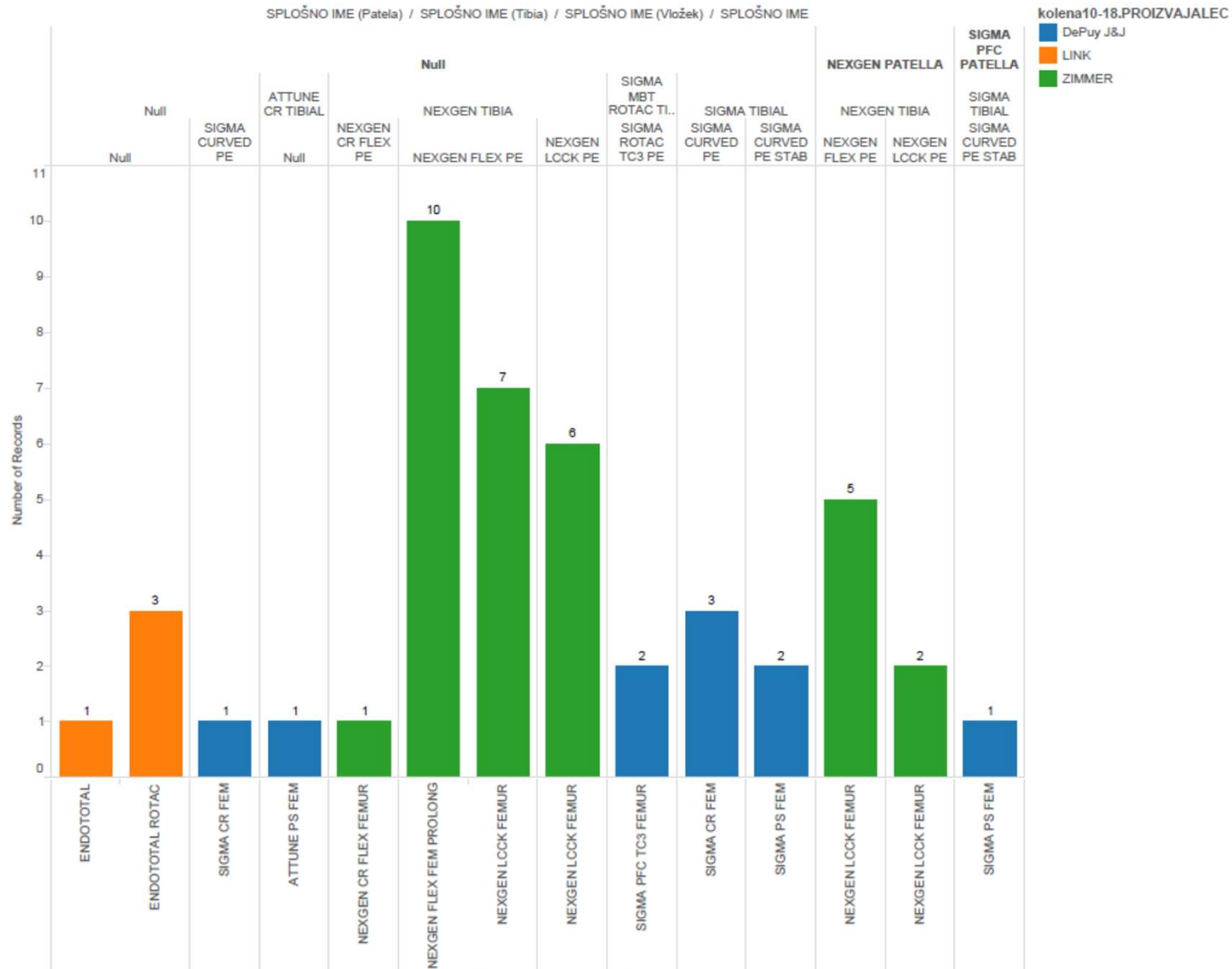
# Revisions per 100 observed components year - knee

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	<b>5,46</b>	173	10	0	<b>0,00</b>	79,81	<b>0,00</b>
2003	0,88	<b>3,58</b>	404	15	0	<b>0,00</b>	354,16	<b>0,00</b>
2004	1,22	<b>4,56</b>	753	36	6	<b>0,76</b>	922,31	<b>0,65</b>
2005	1,60	<b>4,49</b>	1171	55	12	<b>0,98</b>	1873,54	<b>0,64</b>
2006	2,03	<b>4,95</b>	1631	85	21	<b>1,22</b>	3305,12	<b>0,64</b>
2007	2,36	<b>4,61</b>	2214	107	29	<b>1,25</b>	5216,43	<b>0,56</b>
2008	2,69	<b>4,40</b>	2893	133	39	<b>1,29</b>	7771,63	<b>0,50</b>
2009	3,05	<b>4,26</b>	3615	161	54	<b>1,43</b>	11015,85	<b>0,49</b>
2010	3,43	<b>4,72</b>	4382	217	82	<b>1,78</b>	15008,65	<b>0,55</b>
2011	3,79	<b>4,84</b>	5227	266	99	<b>1,80</b>	19818,78	<b>0,50</b>
2012	4,27	<b>5,66</b>	5946	357	136	<b>2,16</b>	25414,18	<b>0,54</b>
2013	4,75	<b>6,11</b>	6680	435	172	<b>2,42</b>	31728,17	<b>0,54</b>
2014	5,22	<b>6,40</b>	7421	507	208	<b>2,62</b>	38745,25	<b>0,54</b>
2015	5,69	<b>6,92</b>	8179	608	258	<b>2,94</b>	46531,09	<b>0,55</b>
2016	6,11	<b>7,28</b>	9016	708	320	<b>3,29</b>	55131,48	<b>0,58</b>
2017	6,56	<b>7,43</b>	9840	790	364	<b>3,42</b>	64524,19	<b>0,56</b>

## Revision rate for knee prostheses from 02 to 17

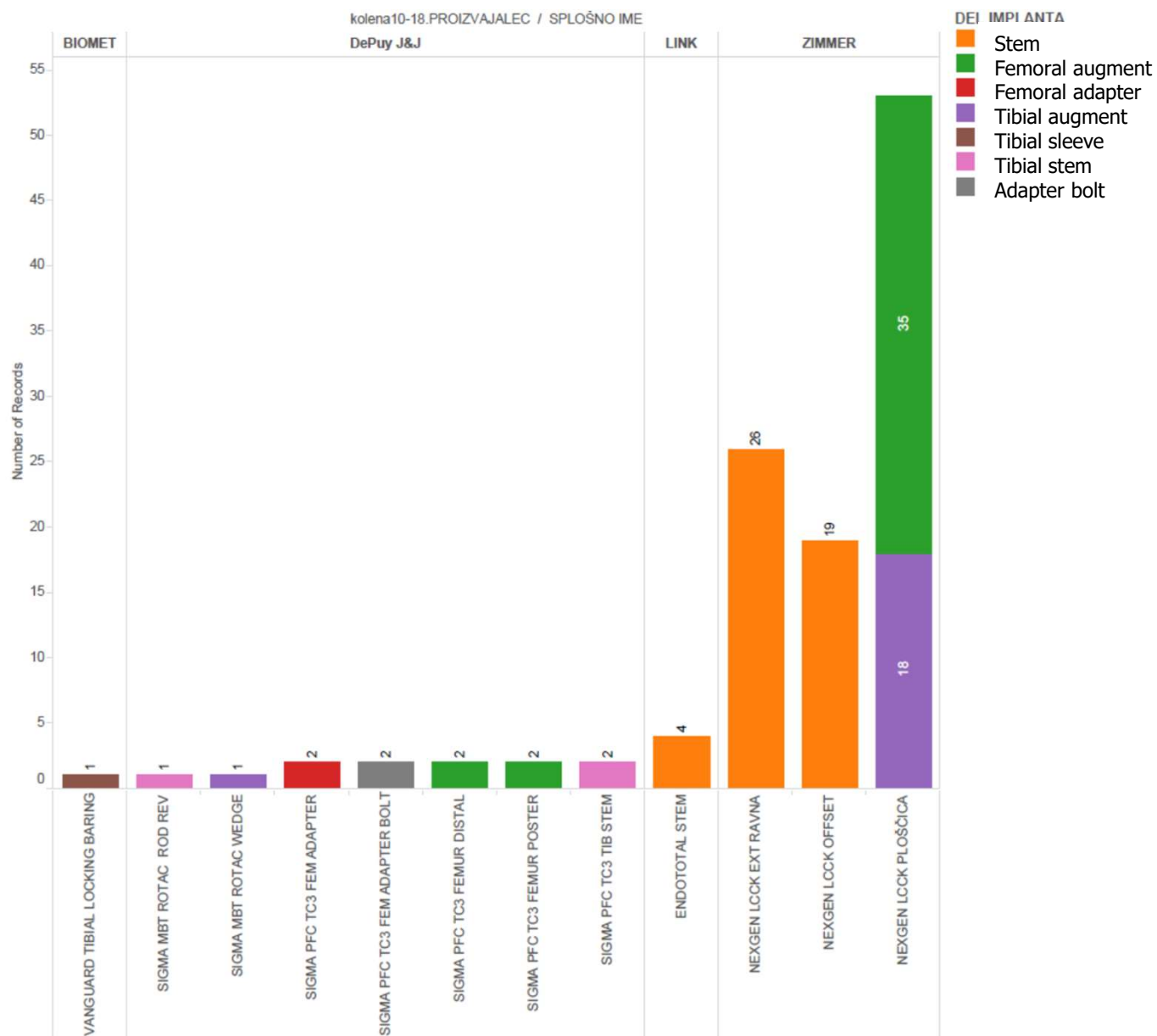
Name	Implanted 02-17	Removed 02-17	% of revisions
PFJ Sigma Jo&J	15	0	0,00
Attune Jo&J	67	0	0,00
Balansys Mathys	151	1	0,66
Uni Parcial NexGen Zimmer	550	7	1,27
Sigma Jo&J	3338	58	1,74
Solution S&N	1152	28	2,43
Nexgen Monobloc Zimmer	859	22	2,56
Vanguard Biomet	531	14	2,64
AGC Biomet	747	28	3,75
Nexgen Knee Zimmer	1361	65	4,78
Nexgen LCCK Zimmer	35	2	5,71
Endomodel LINK	56	4	7,14
Advance WRIGHT	300	22	7,33
Preservation Jo&J	40	3	7,50
Genesis S&N	33	3	9,09
Oxford Biomet	476	46	9,66

# Revision TKR components in 2017 by manufacturers



Sum of Number of Records for each SPLOŠNO IME broken down by SPLOŠNO IME (Patela), SPLOŠNO IME (Tibia) and SPLOŠNO IME (Vložek). Color shows details about kolena10-18.PROIZVAJALEC.

# Added stems, sleeves, augments and adapters in revisions in 2017



## Removed knee prostheses in 2017

Name	N° of all removed
Nexgen Monobloc Zimmer	0
Endomodel Link	1
Sigma Rotational Jo&J	1
Vanguard Biomet	1
Preservation Jo&J	1
Robert Brigham Jo&J	1
PFC Sigma Uni Knee Jo&J	1
IB Cremascoli	2
Scorpio Stryker	2
Solution S&N	2
Nexgen LCCK	3
Uni Parcial NexGen Zimmer	5
Advance Wright	5
Sigma PFC Jo&J	6
Oxford Biomet	7
Nexgen Knee Zimmer	10



TKR (40)

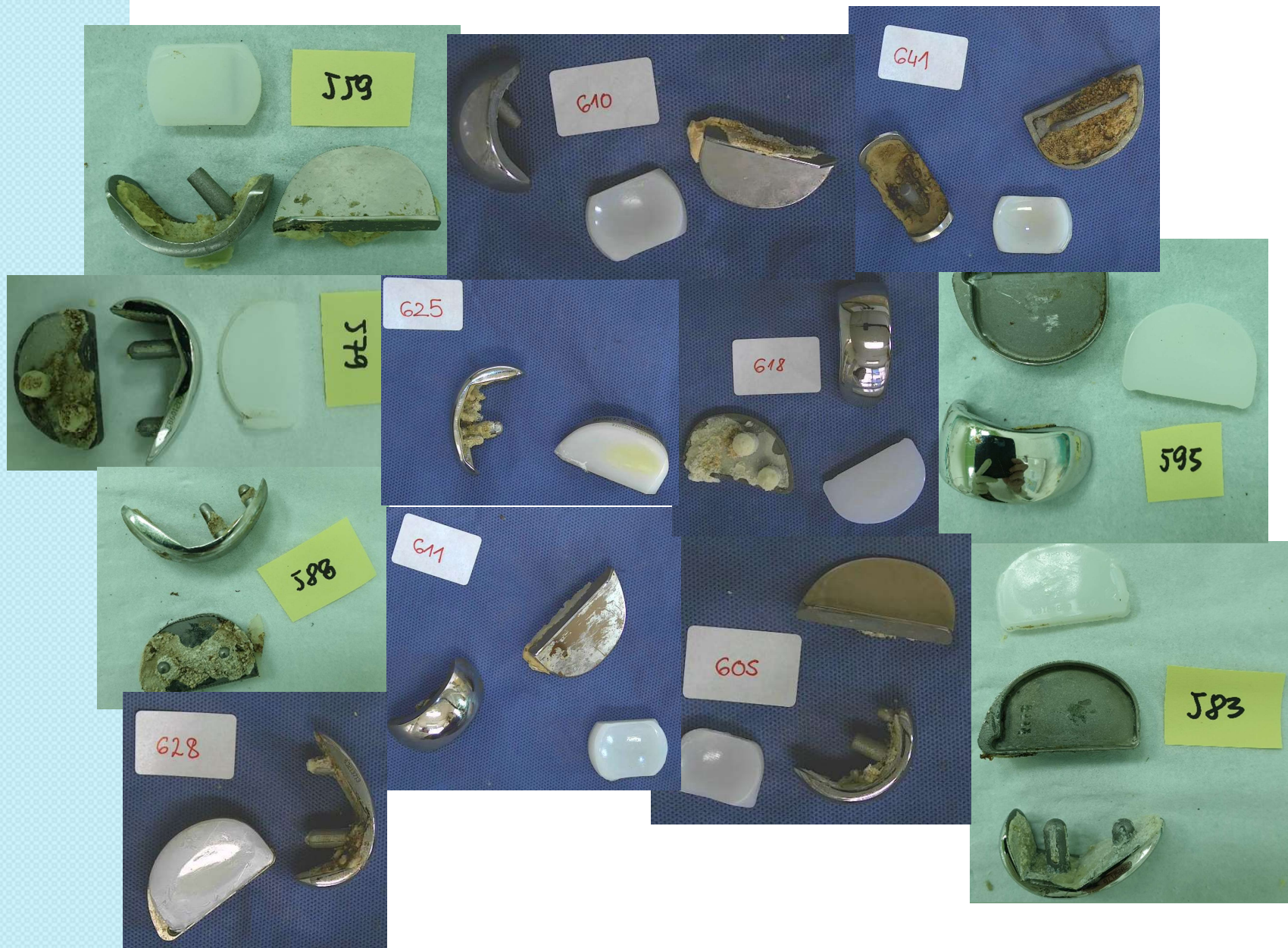
## Some of the collected TKR in 2017





Partial knee prostheses (12)

Collected PKR in 2017



## Removed prostheses – time in situ KNEES 2002 - 2017

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)
Sum	461	Average: 4,9 (0 - 24)



# „The longest time in situ“



IB Cremascoli Wright,  
Time in situ: 20,9 years



Partial DePuy Johnson & Johnson,  
Time in situ: 19,8 years



***Valdoltra***  
*Arthroplasty Registry*

Citation:

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