VALDOLTRA HIP ARTHROPLASTY REGISTRY REPORT 2016

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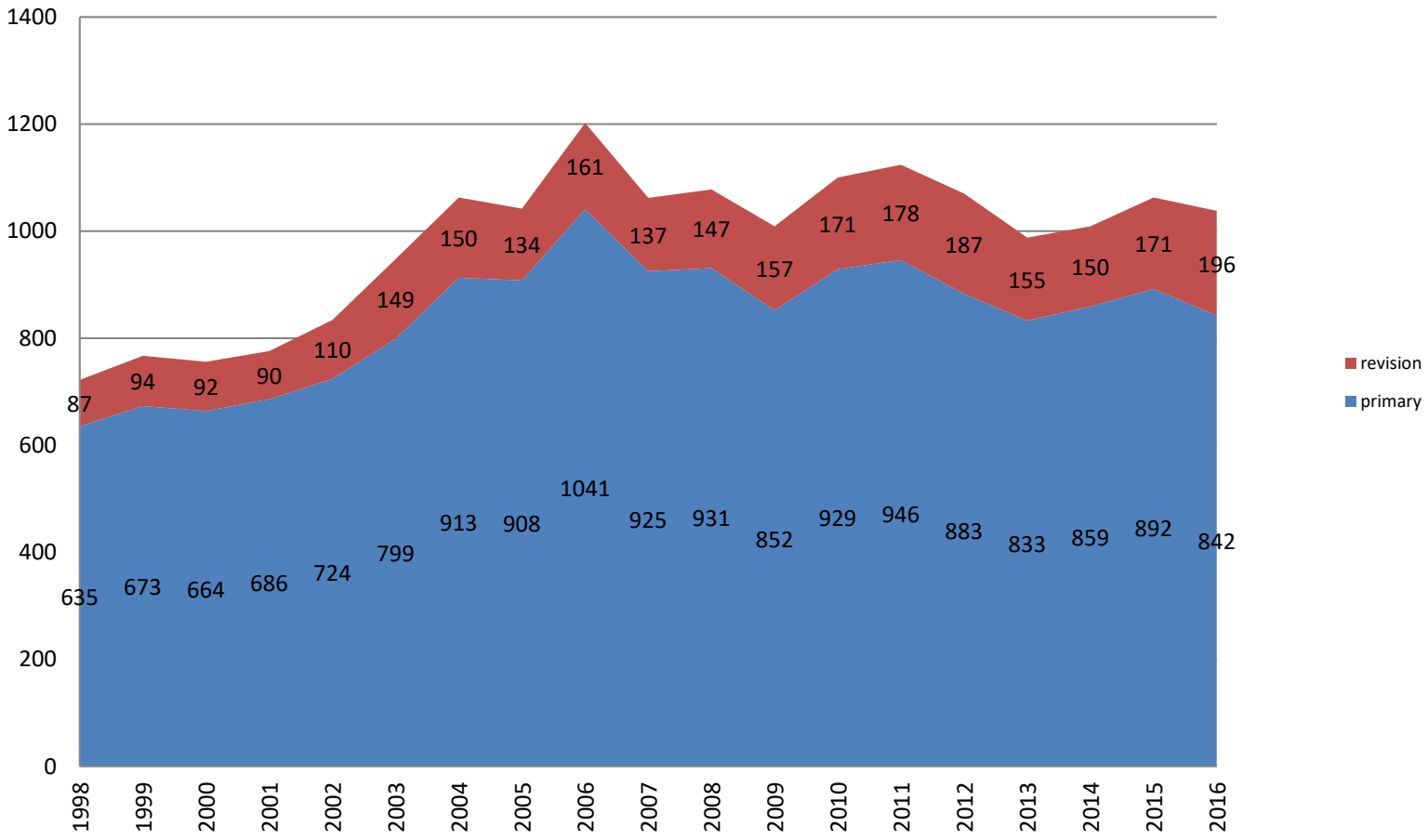
Valdoltra

Arthroplasty Registry

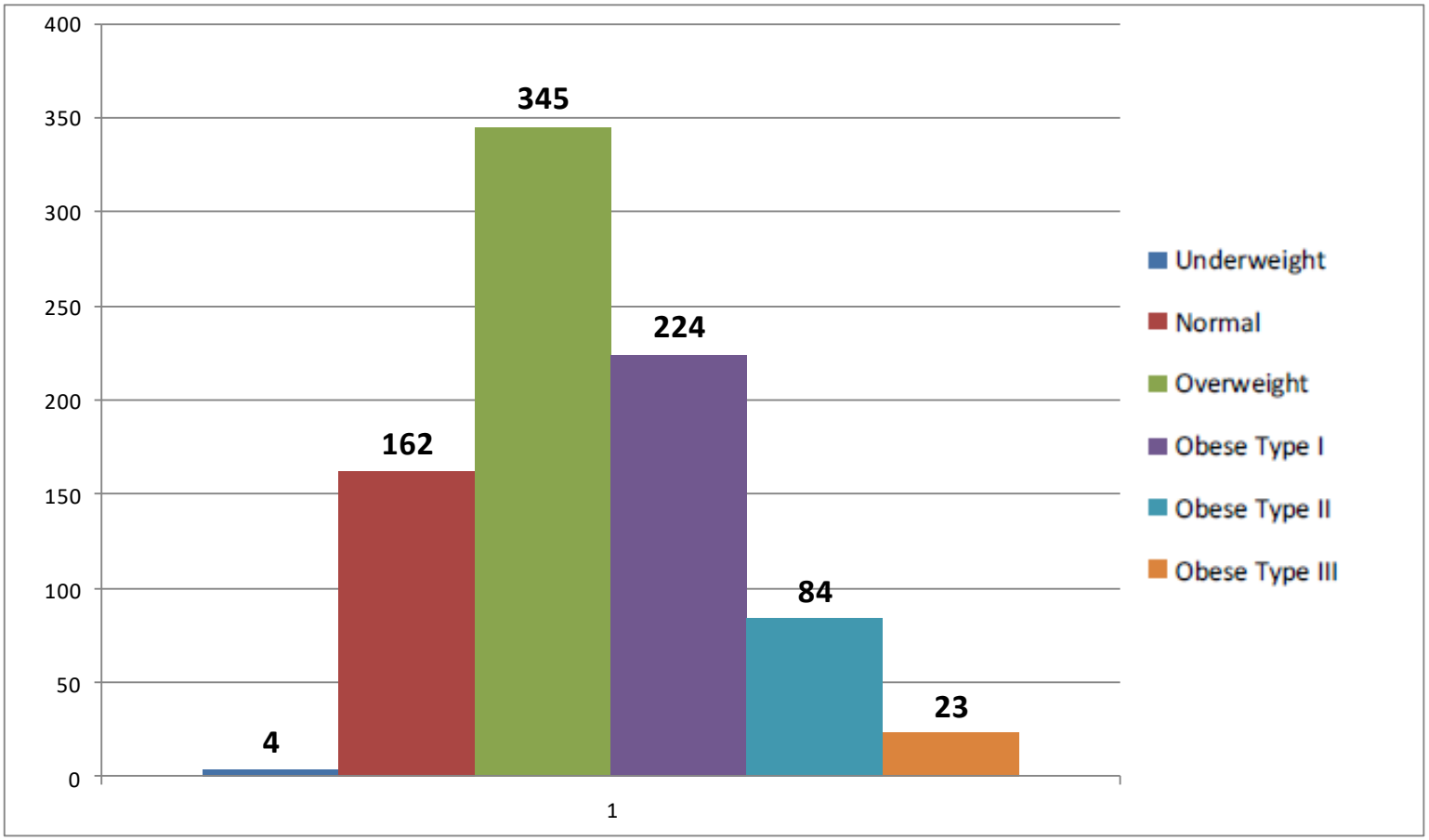
Primary and revision THR by year



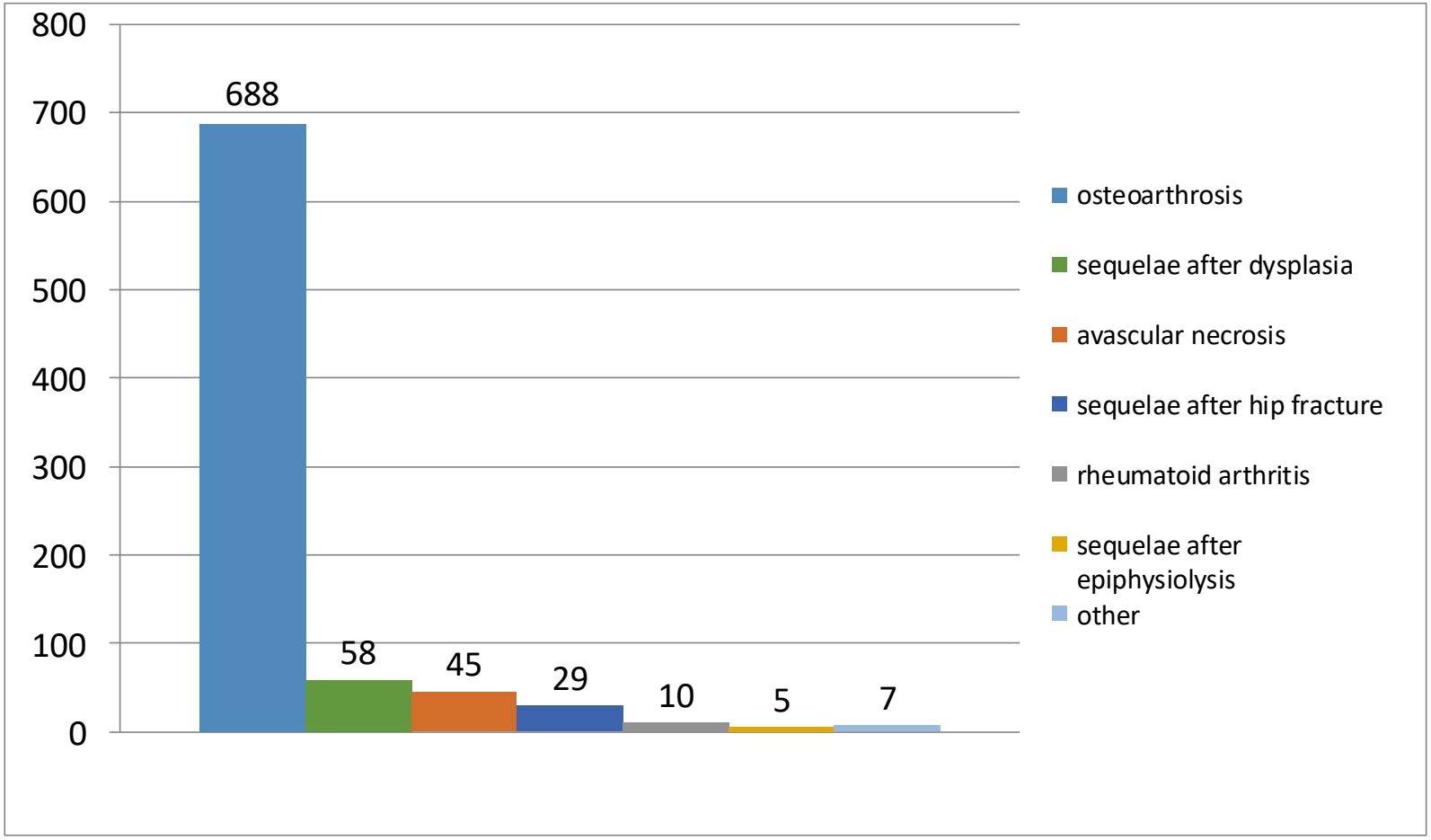
Patient data for primary THR 2016

- Men – Women = 45% oz. 55%
- Average age = 65 y men and 69 y women
- Right - left = 54% and 46%
- Average preoperative Harris Hip Score = 52$\pm$17 pts
- Approach: 73 % direct lateral; 25 % anterior and 2 % anterolateral
- Average duration of operation 67 $\pm$ 16 min
- Systemic antibiotic prophylaxis at all operation except 1 (allergy)

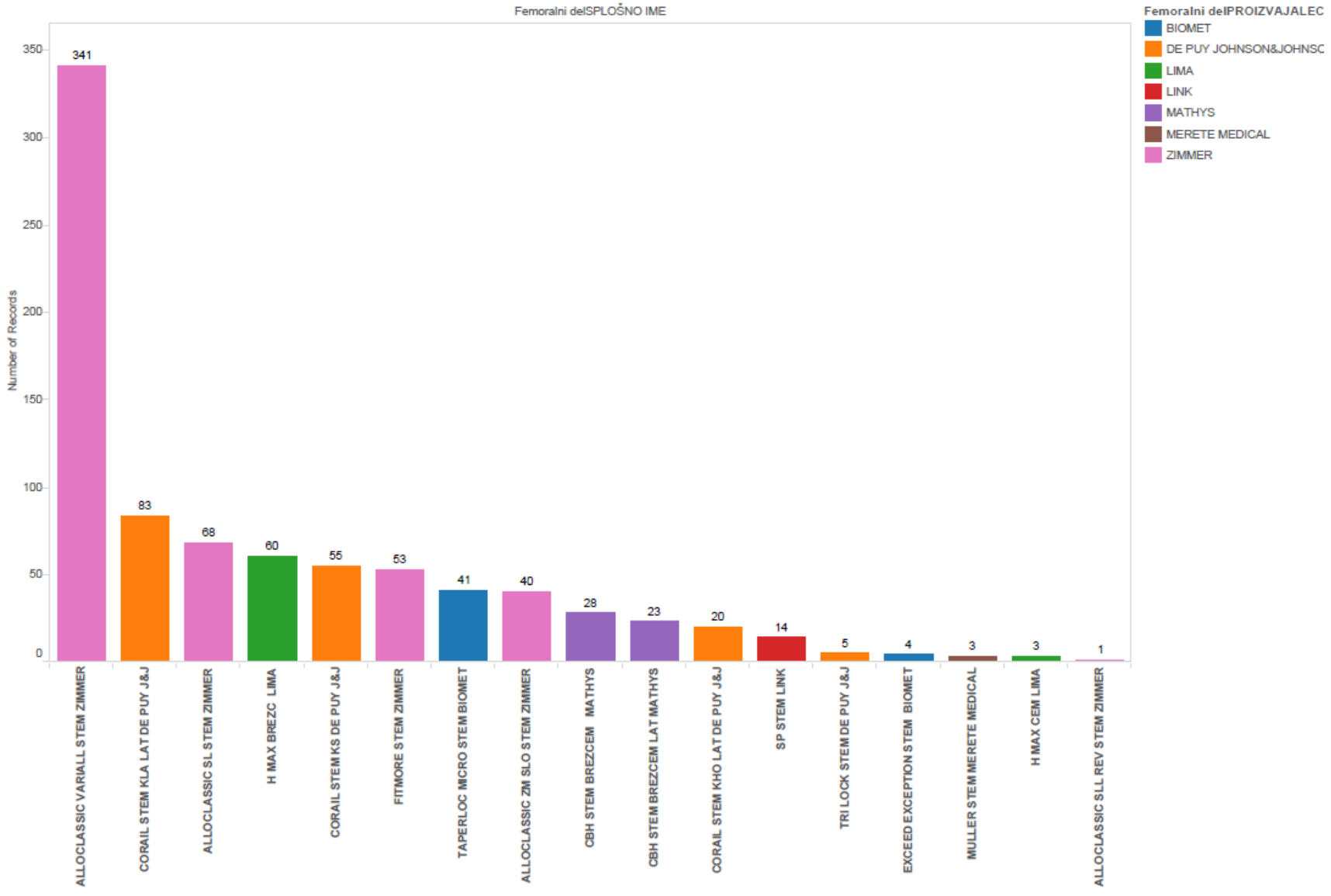
BMI index for primary THR



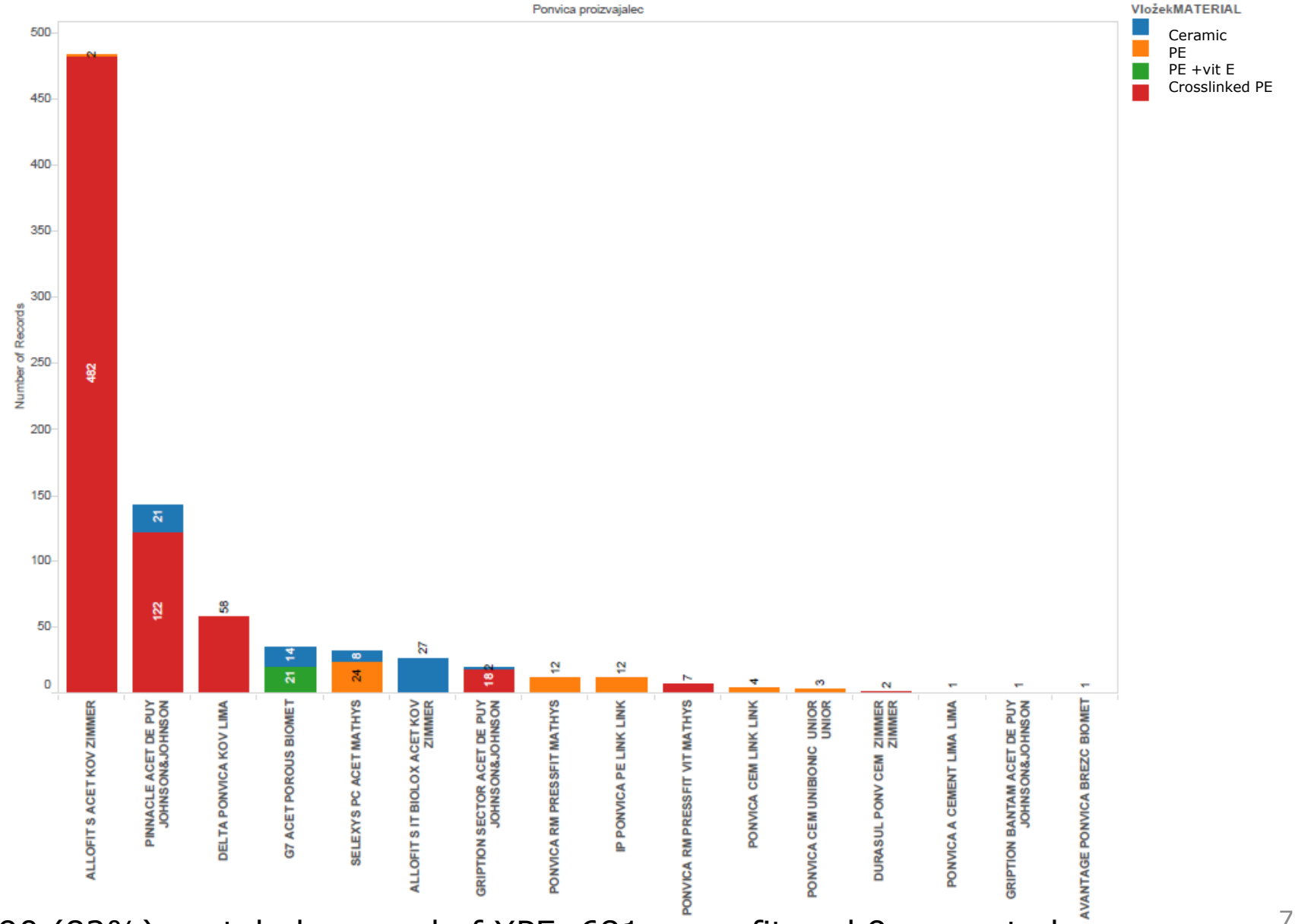
Preoperative diagnosis for primary THR in 2016



PRIMARY STEMS in 2016, sum 842

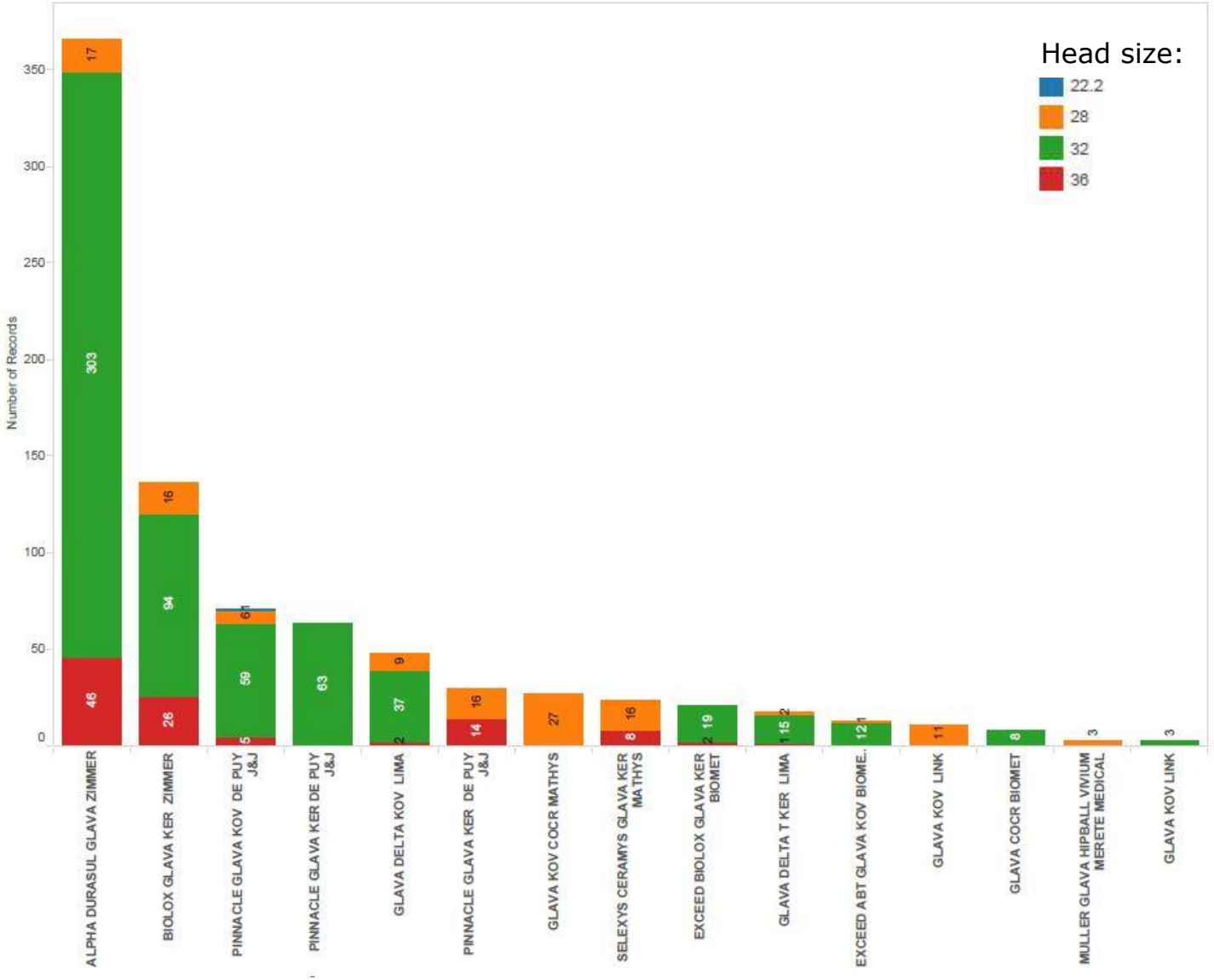


PRIMARY ACETABULAR COMPONENTS in 2016, sum 842

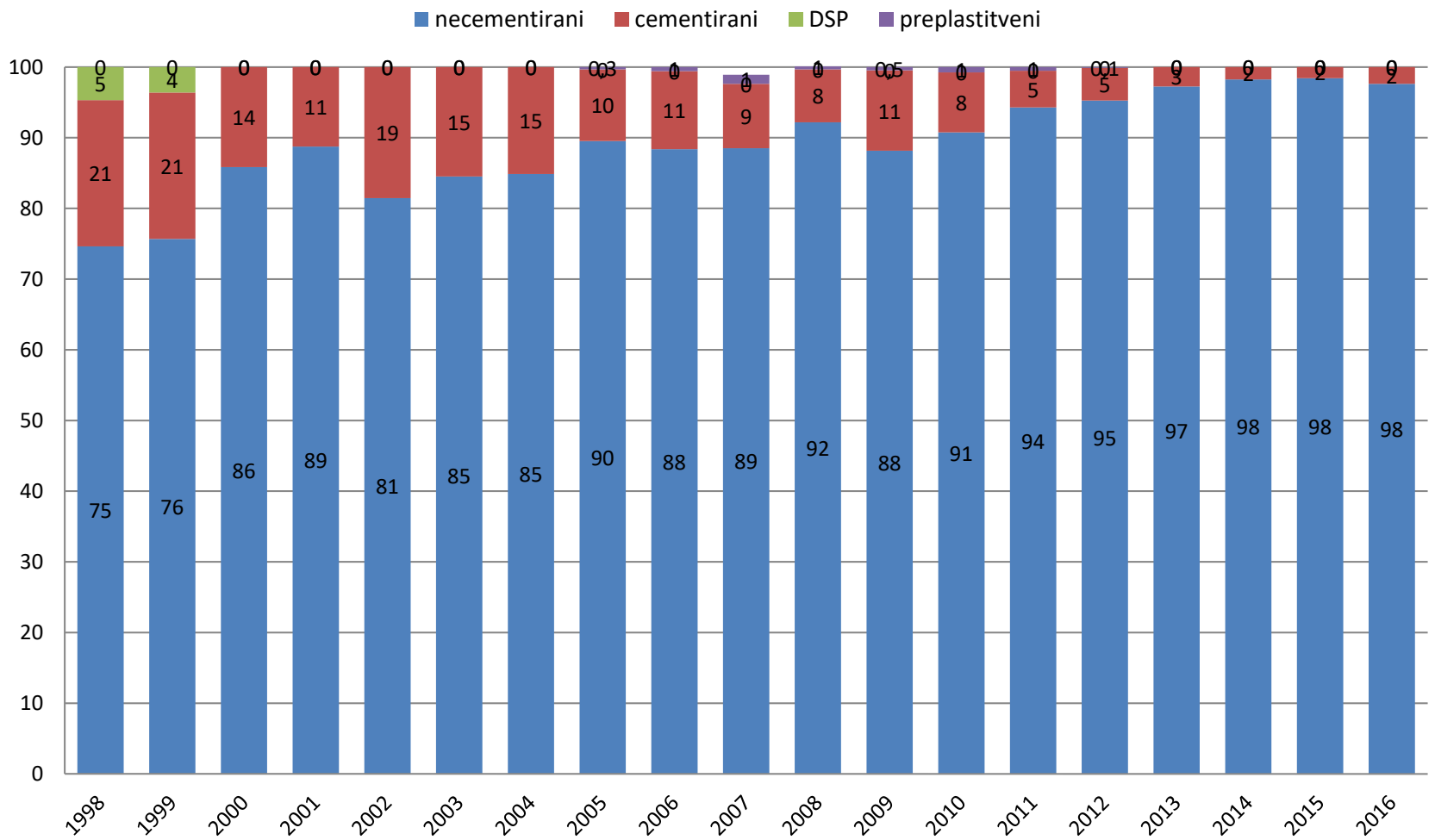


690 (82%) acetabulum mad of XPE, 681 press fit and 9 cemented.

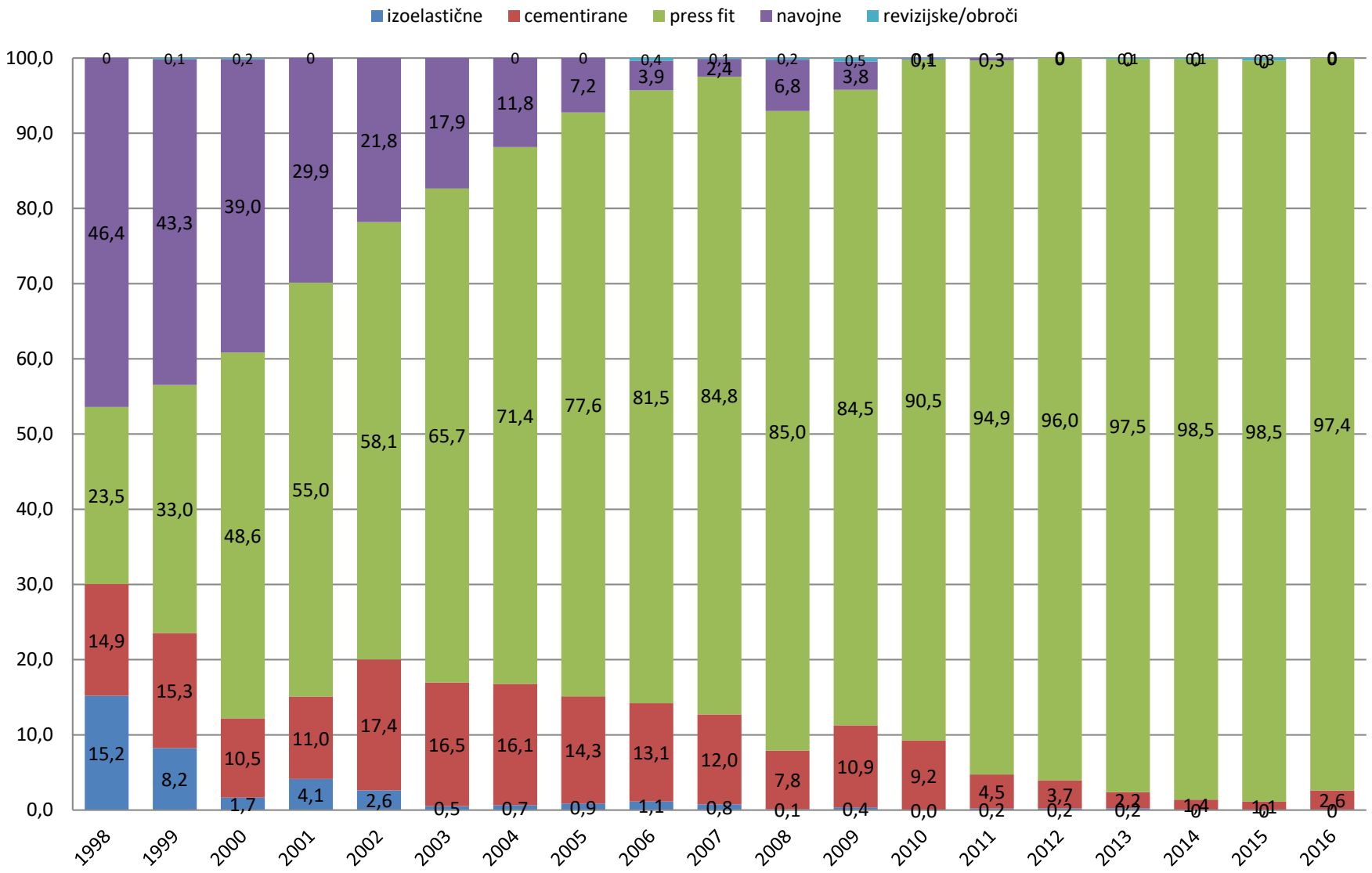
PRIMARY HEADS in 2016, sum 842



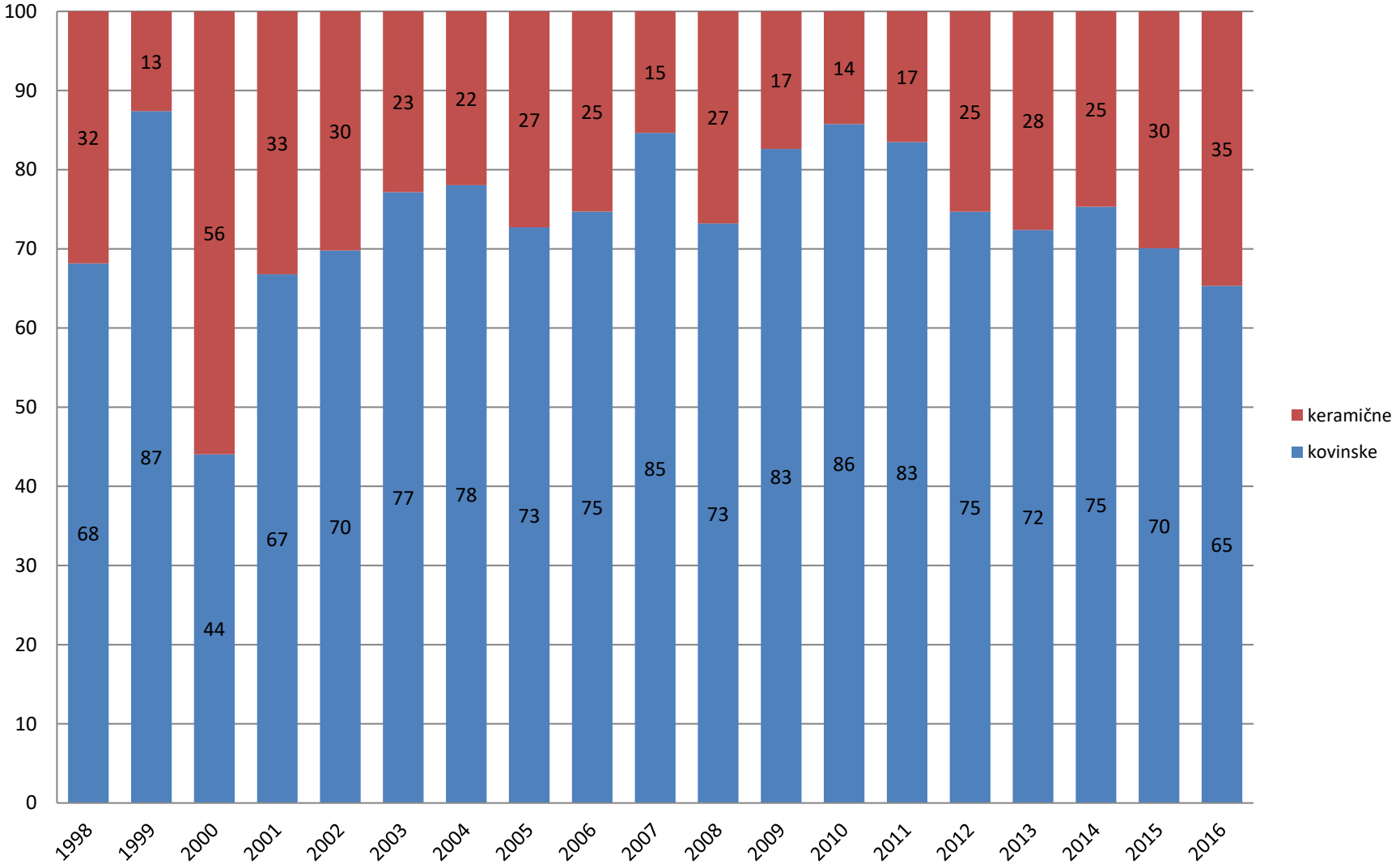
Cemented, uncemented stems, trust-plate and resurfacing prostheses 1998 - 2016



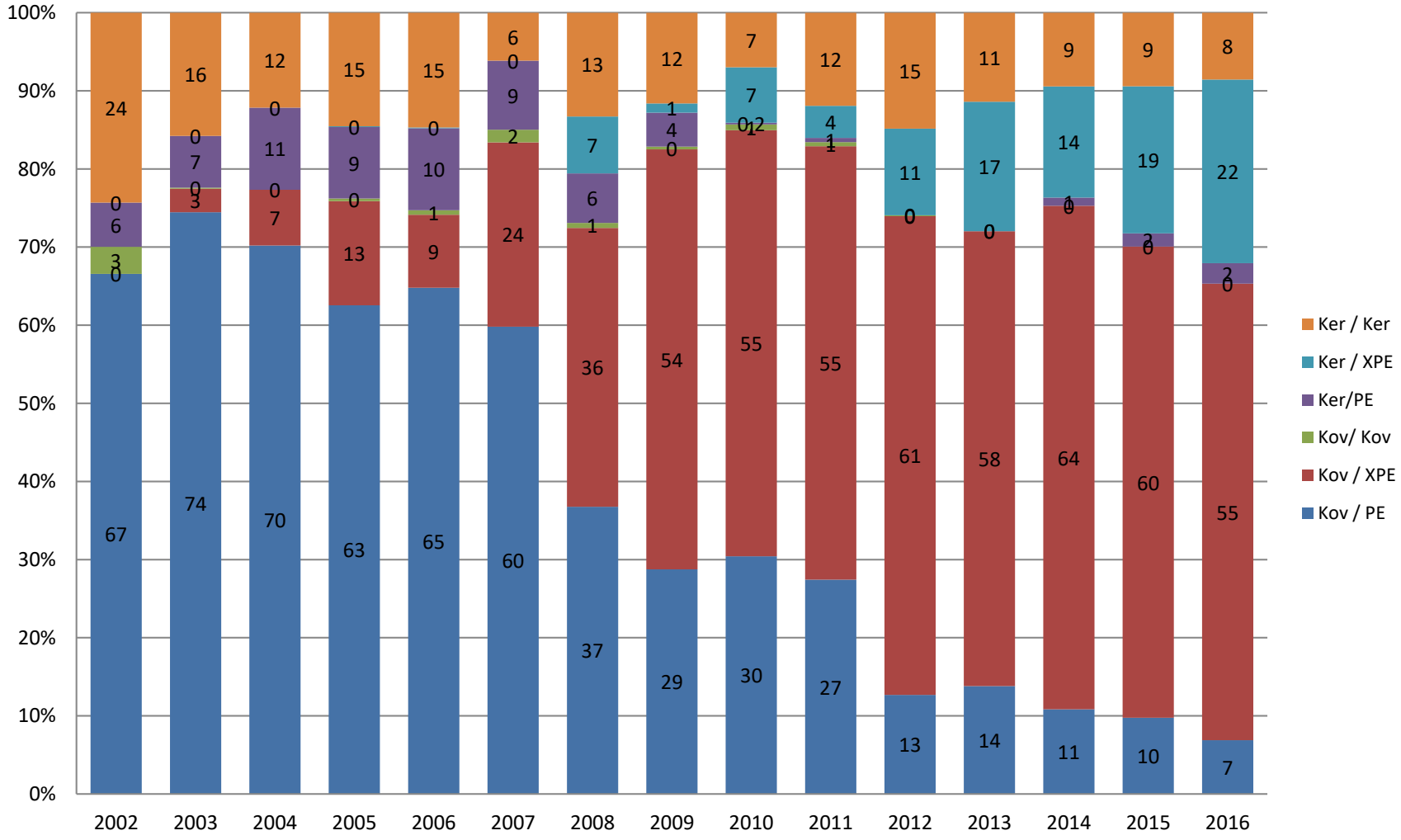
Primary cups by fixation 1998 - 2016



Percentage of metal and ceramic heads 1998 - 2016



Bearing surface
2002 - 2016



REVISION OPERATIONS IN 2016

196 revisions at 175 patients

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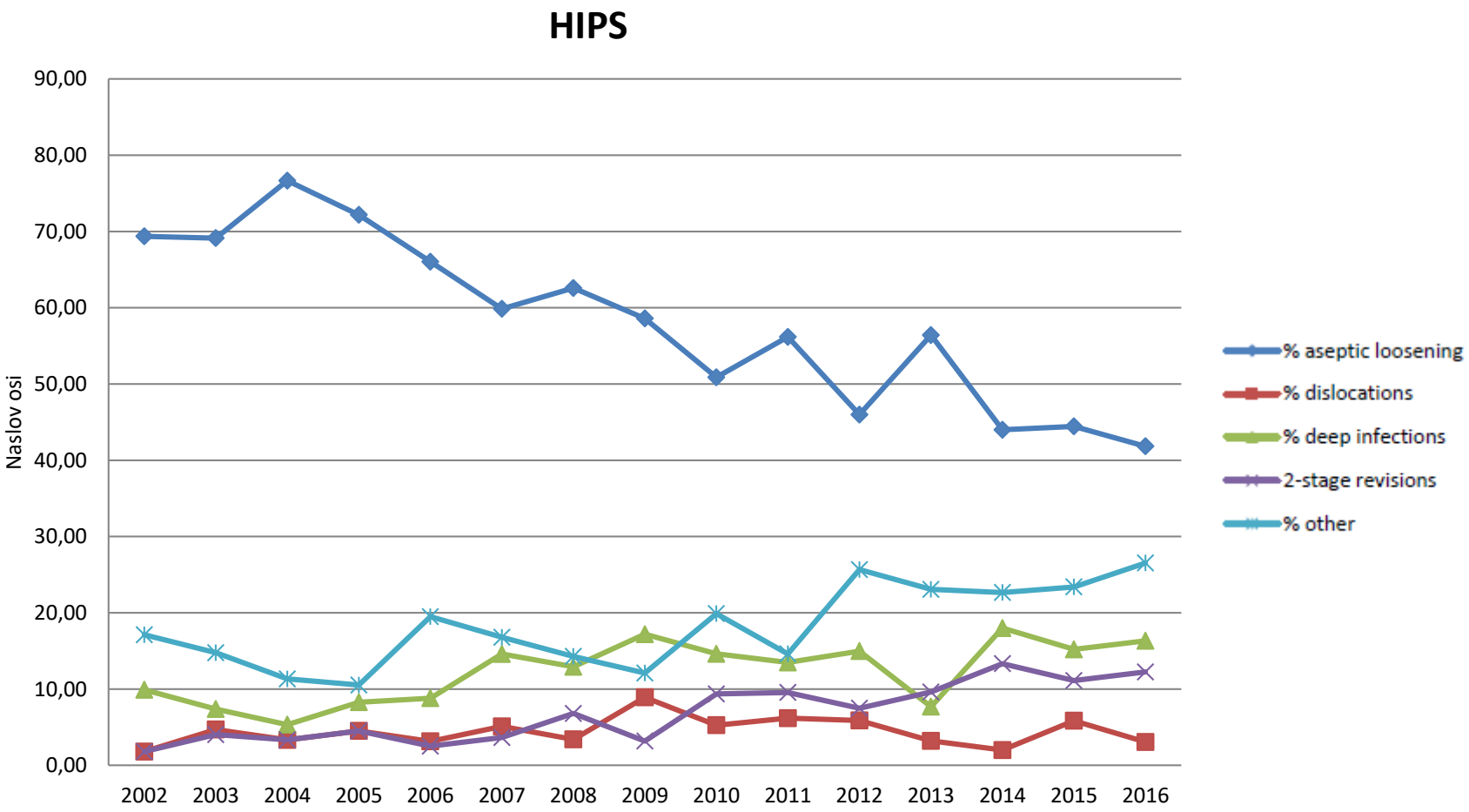
Patient data for revisions 2016

- Men – Women = 43% oz. 57%
- Average age = 70±12 y men and 73 ±12 y women
- Right - left = 43% and 57%
- Average preoperative Harris Hip Score = 46±18 pts
- 80% overweight od obese (BMI≥25)
- Approach in 84 % direct later
- Average duration of operation 122± 48 min

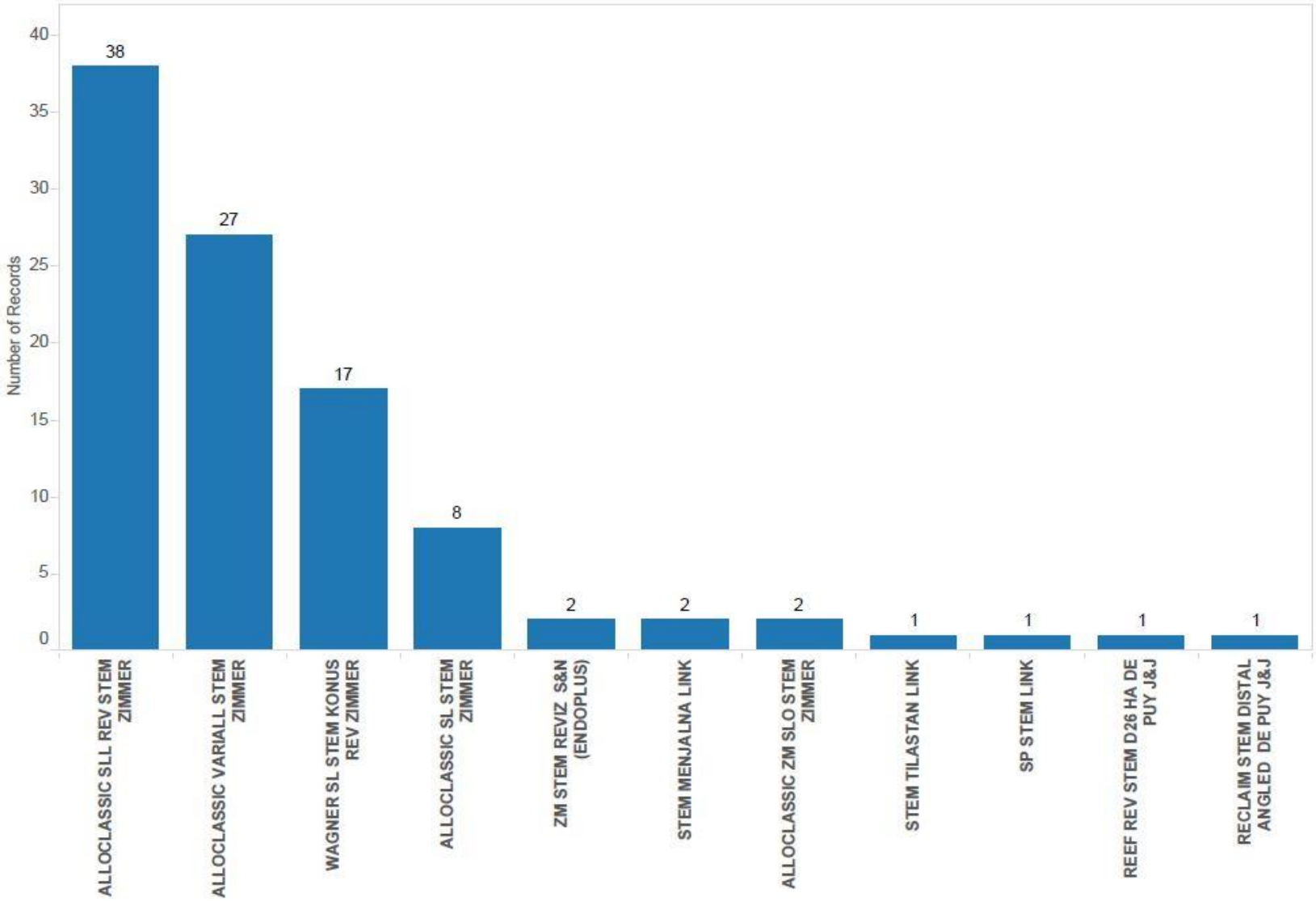
Reasons for revisions hips vs. knees

Period 2002-2016	Hips (%)	Knees (%)
Aseptic loosening	58,26	20,23
Deep infection	12,34	24,05
Periprosthetic fracture	7,19	2,47
2-stage revision	6,83	13,23
Dislocation	4,42	1,5
Other	3,95	7,63
Implant broken	2,67	0,92
Osteolysis	2,32	0
Pain	2,01	7,88
Instability, nonalignment, poor ROM	0	14,33
OA od other compartment	0	7,76

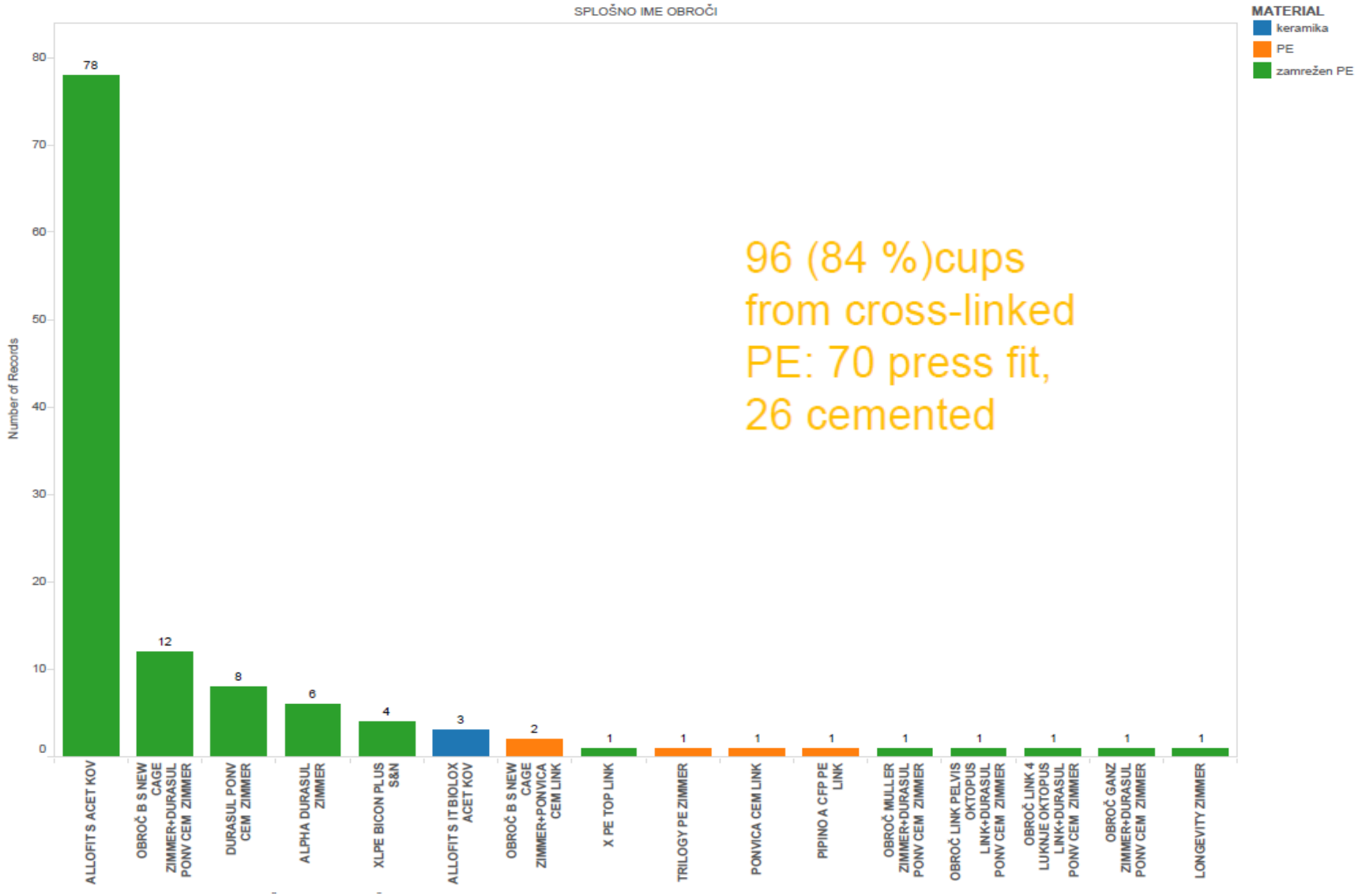
Reasons for revision THR from 2002 to 2016



Stems, used in revisions 2016, sum 100

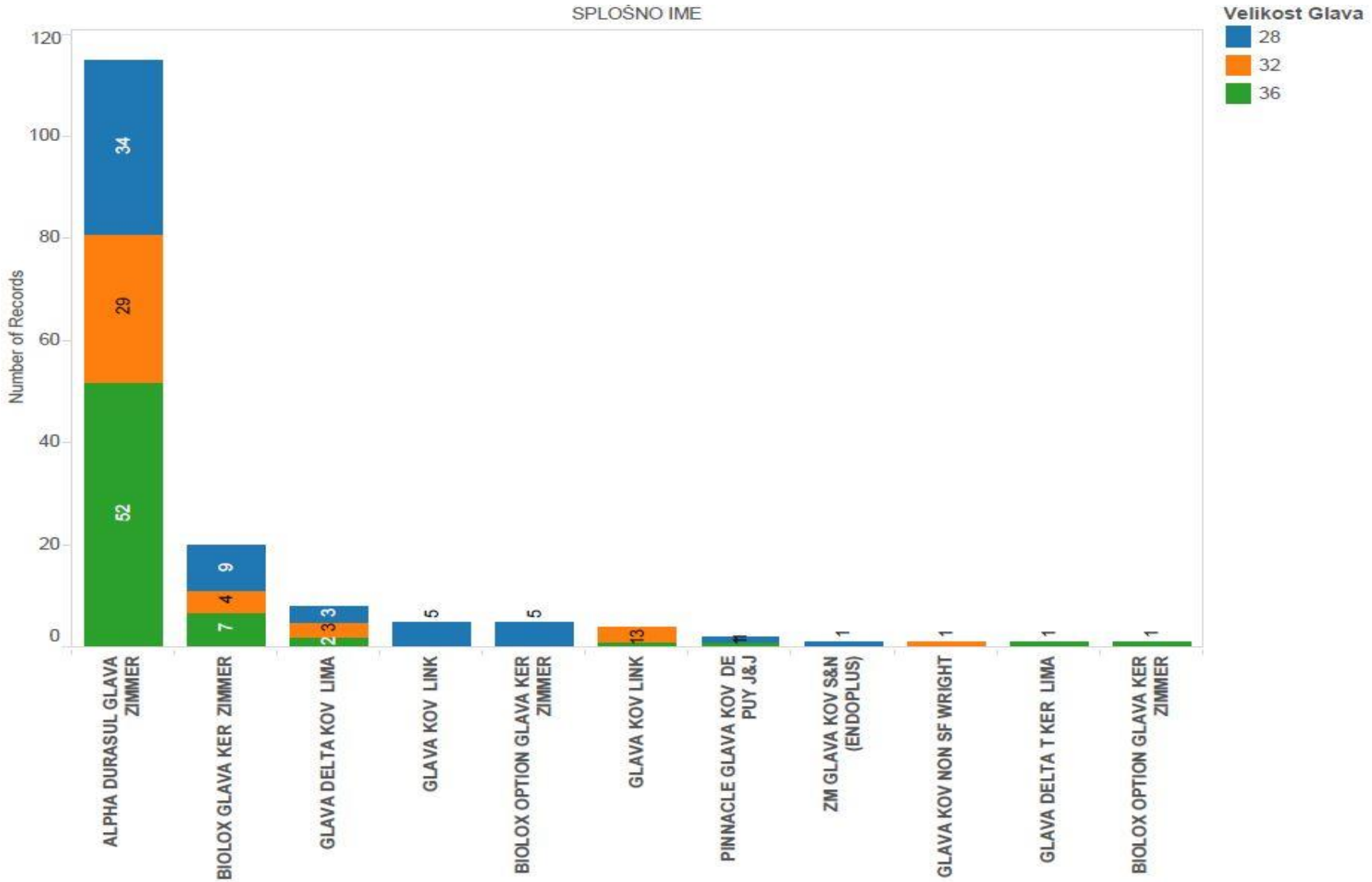


Cups, used in revision 2016, sum 122



96 (84 %)cups from cross-linked PE: 70 press fit, 26 cemented

Heady, used in revisions in 2016, sum 145



Revision burden for Valdoltra till 2016

	RB (revision burden) = Nº of revisions*100/(Nº of primaries+ Nº of revisions) in %	Nº of revisions for infection*100 / (Nº of primaries+ Nº of revisions) in %
2002	10,91	1,20
2003	12,66	0,63
2004	11,48	0,66
2005	11,14	0,67
2006	11,75	1,17
2007	11,68	1,79
2008	11,60	1,21
2009	13,59	1,79
2010	12,91	1,55
2011	13,17	1,51
2012	13,74	2,15
2013	13,06	1,01
2014	12,00	2,08
2015	12,98	1,98
2016	15,21	2,60
Average OBV	12,52 %	1,47 %
Avstralija AONJRR 17	8,9 %	2,83 %
Sweden SHAR 15	12,40 %	1,6 %

Revisions per 100 observed component years - hips

Year	Mean FU (years)	Revision rate	Number of primary	N° of all revisions	N° of first revisions in this FU	Revision rate in FU period	Observed components years	Revisions per 100 observed component years
2002	0,53	**12,45**	724	103	6	**0,73**	384	**1,56**
2003	0,97	**14,20**	1523	252	14	**0,79**	1482	**0,94**
2004	1,41	**14,16**	2436	402	24	**0,85**	3428	**0,70**
2005	1,88	**13,79**	3344	535	30	**0,77**	6302	**0,48**
2006	2,31	**13,66**	4385	694	49	**0,96**	10140	**0,48**
2007	2,82	**13,53**	5310	831	75	**1,22**	14970	**0,50**
2008	3,32	**13,55**	6241	978	103	**1,43**	20749	**0,50**
2009	3,86	**13,79**	7093	1135	147	**1,79**	27410	**0,54**
2010	4,36	**14,00**	8022	1306	192	**2,06**	34961	**0,55**
2011	4,84	**14,20**	8968	1484	247	**2,36**	43442	**0,57**
2012	5,37	**14,50**	9851	1671	305	**2,65**	52888	**0,58**
2013	5,91	**14,60**	10684	1826	348	**2,78**	63182	**0,55**
2014	6,43	**14,62**	11543	1976	400	**2,96**	74250	**0,54**
2015	6,93	**14,73**	12424	2147	454	**3,12**	86136	**0,53**
2016	7,46	**15,07**	13266	2354	511	**3,27**	99009	**0,52**

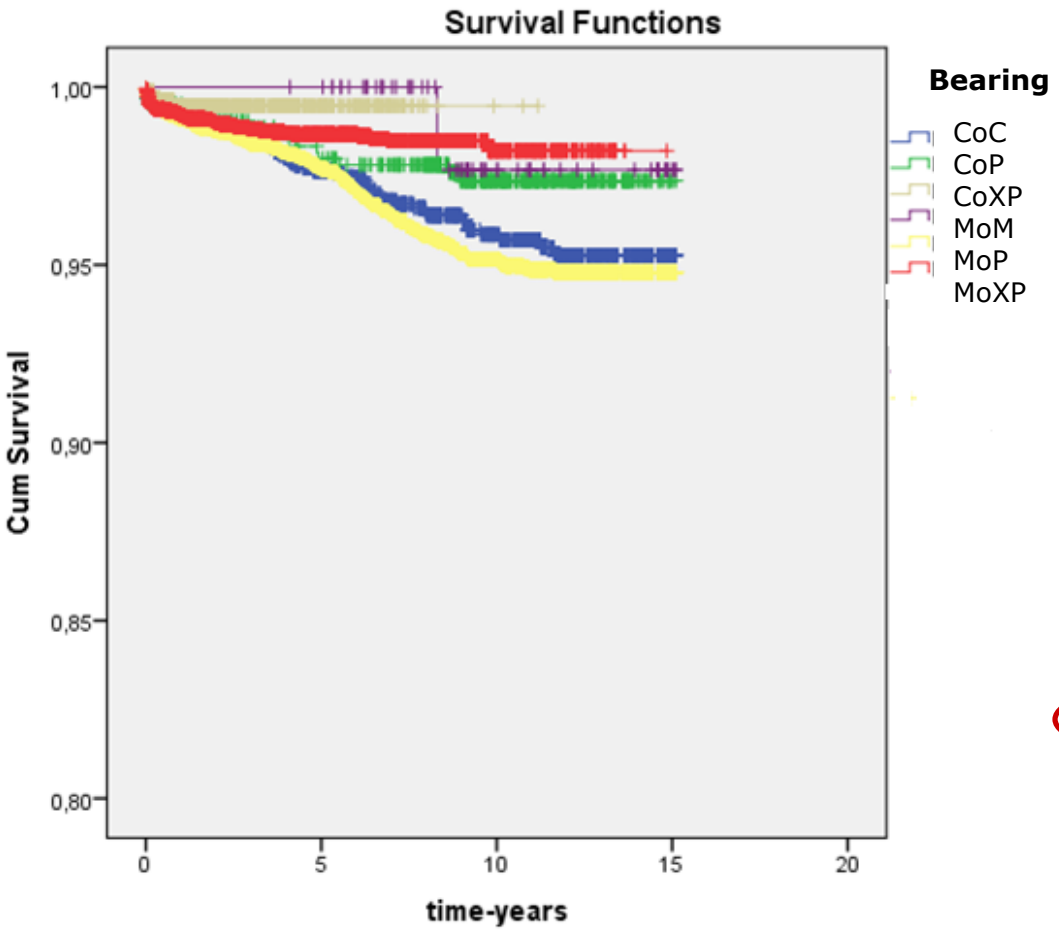
Name	All primaries 02-16	All removed 02-16	% revisions
cem Conserve Wright	44	0	0
Taperloc micro Biomed	41	0	0
Alloclassic ZM stem Zimmer	40	0	0
cem SP Lubinus Link	684	2	0,29
Alloclassic SL stem Zimmer	336	1	0,3
H-MAX stem Lima	203	1	0,49
Corail Jo&J	1170	7	0,6
Varial Alloclassic Zimmer	3834	45	1,17
Exception stem Biomet	166	2	1,2
Fiber Metal Zimmer	69	1	1,45
Fitmore Zimmer	199	3	1,51
CBH stem Mathys	351	6	1,71
C2 LIMA	279	6	2,15
cem Basis SL Smith&Nephew	44	1	2,27
AHS Cremascoli	86	2	2,33
Elite Plus Jo&J	76	2	2,63
Versys Zimmer	1017	28	2,75
ZM Endoplus-S&N	2682	80	2,98
Profemur Z Cremascoli	1104	39	3,53
cem Metabloc Zimmer	24	1	4,17
Pipino FP LINK	69	3	4,35
rebrasta LINK	135	7	5,19
Copf (Chendo+Unior)	128	8	6,25
ATL Unior	17	2	11,76

Revision rate for femoral stems from 2002 to 2016

Revision rate for acetabular components from 2002 to 2016

Name	All primaries 02-16	All removed 02-16	% revisions
Conserve Wright	47	0	0
press fit Selexys Mathys	92	0	0
G7 Porous Biomet	35	0	0
Gripton Bantam Jo&J	21	0	0
press fit Pinnacle Jo&J	882	1	0,11
press fit Delta Lima	491	3	0,61
press fit Exceed ABT BIomet	157	1	0,64
cem IP Link	326	2	0,65
press fit Allofit Zimmer	5270	48	0,91
press fit Duraloc Jo&J	388	4	1,03
press fit RM Mathys	279	3	1,07
press fit Procoty Wright	149	2	1,34
press fit Trilogy Zimmer	1711	30	1,64
cem Apollo Biomet	174	3	1,75
cem Surgival	105	2	1,9
press fit Mallory Biomet	51	1	1,96
press fit ANCA Cremascoli	37	1	2,7
press fit MPF Endoplus	212	6	2,83
cem LIMA	340	15	4,41
press fit Pipino CFP Link	444	20	4,5
navojna Bicon Endoplus	619	37	5,98
press fit SPH Lima	46	3	6,52
cem Smith&Nephew	45	3	6,67
cem Durasul Zimmer	74	5	6,75
press fit EHS-E Crem/Wright	317	23	7,25
cem Ultima Jo&J	60	6	10
press fit DOETS Endoplus	515	64	11,42
izoelastična Mathys	59	7	11,86

Survival of different bearings



	Chi-Square	df	Sig.
Log Rank (Mantel-Cox)	36,967	5	0,000

CoC: After **15,11** y observed survival is **0,95** (SE=0,007)

CoP: After **15,11** y observed survival is **0,97** (SE=0,007)

CoXP: After **11,17** y observed survival is **0,99** (SE=0,003)

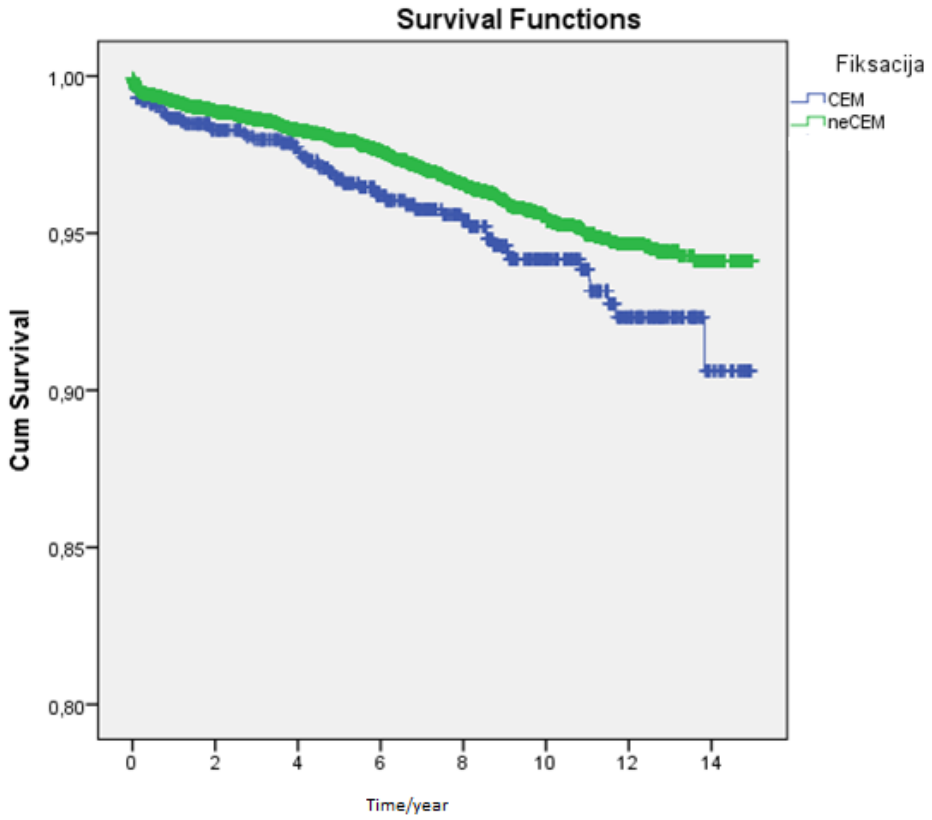
MoM: After **15,10** y observed survival is **0,97** (SE=0,023)

MoP: After **15,11** y observed survival is **0,95** (SE=0,004)

MoXP: After **14,71** y observed survival is **0,98** (SE=0,003)

From 47 MoM bearings 44 is resurfacing, no revisionof the late till now.

Survival of cemented/uncemented femoral stems

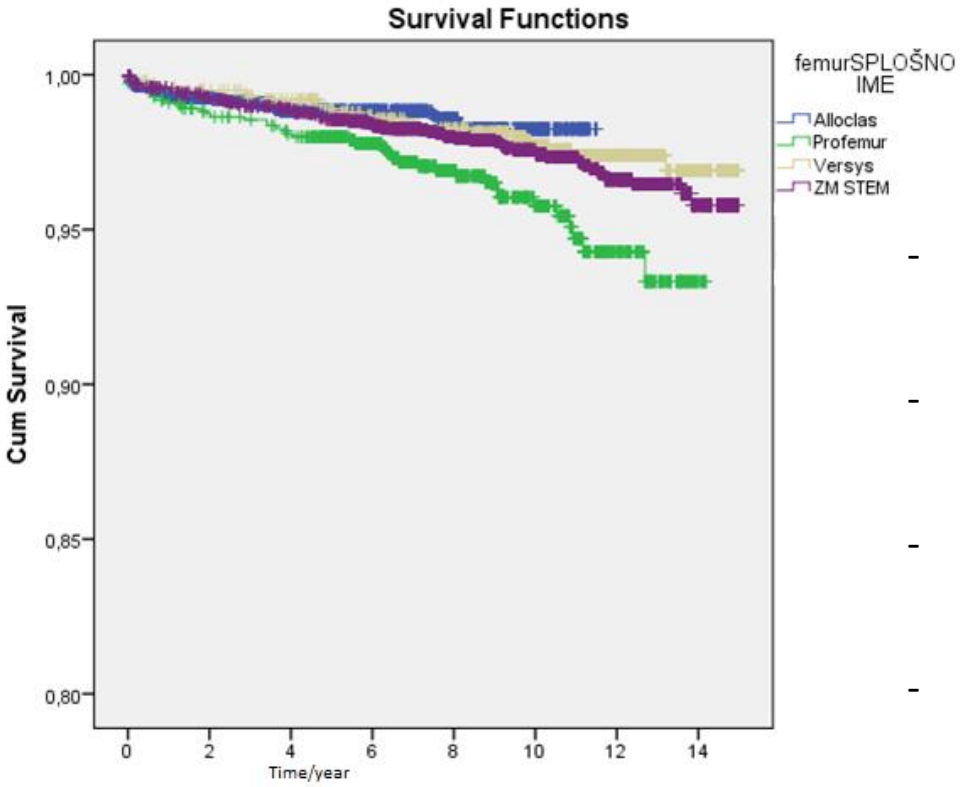


	Chi-Square	df	Sig.
Log Rank (Mantel-Cox)	5,878	1	0,015

cemented: After **14,96** y observed survival is **0,91** (SE= **0,021)**

uncemented: After **14,99** y observed survival is **0,94** (SE= **0,004)**.

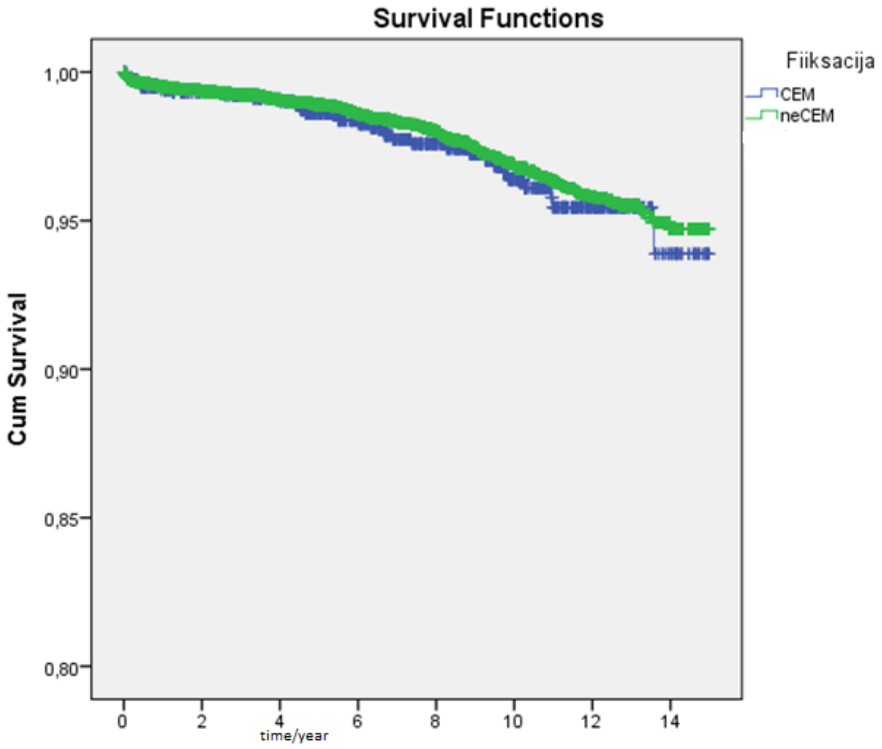
Survival of the most common femoral stems



	Chi-Square	df	Sig.
Log Rank (Mantel-Cox)	13,347	3	0,004

- Alloclassic: After **11,51** y observed survival is **0,982** (SE= **0,004)**
- Profemur: After **14,19** letih y observed survival is **0,933** (SE= **0,014)**.
- Versys: After **14,99** y observed survival is **0,969** (SE=**0,007)**.
- ZM Stem: After **14,98** y observed survival is **0,962** (SE=**0,006)**.

Survival of cemented/uncemented acetabular components

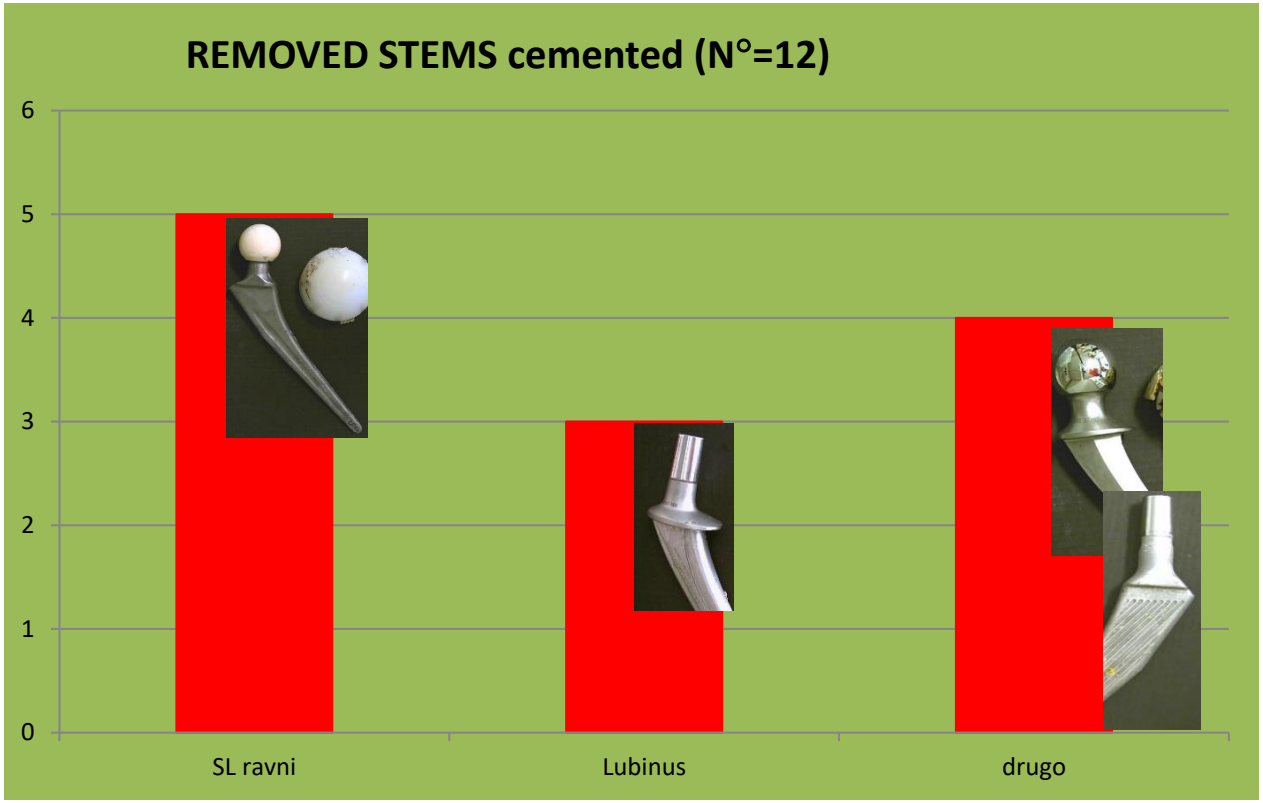


Overall Comparisons			
	Chi-Square	df	Sig.
Log Rank (Mantel-Cox)	0,484	1	0,486

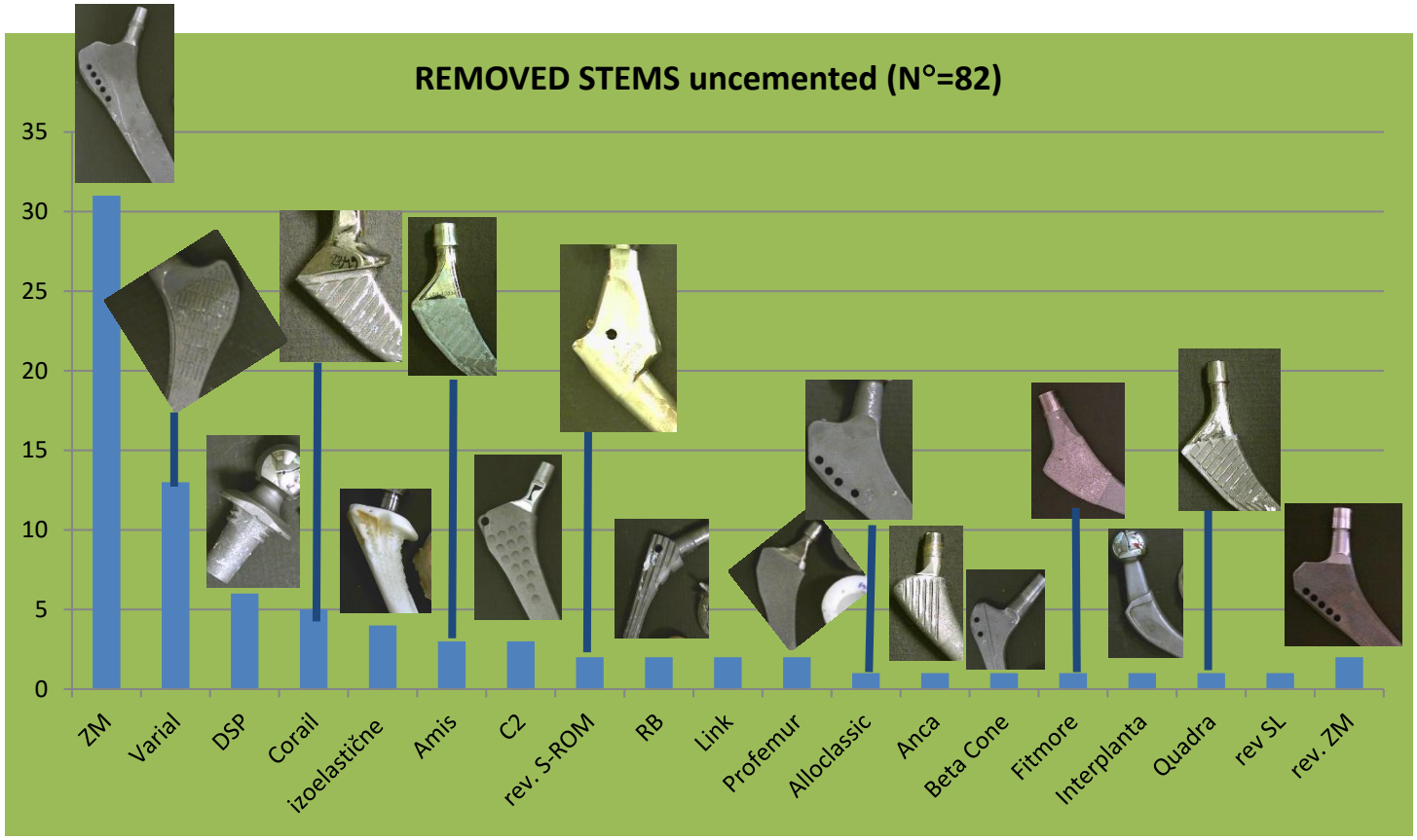
- cemented: After **14,99** y observed survival is **0,94** (SE= **0,018)**

- uncemented: After **14,99** y observed functions is **0,95** (SE= **0,005)**.

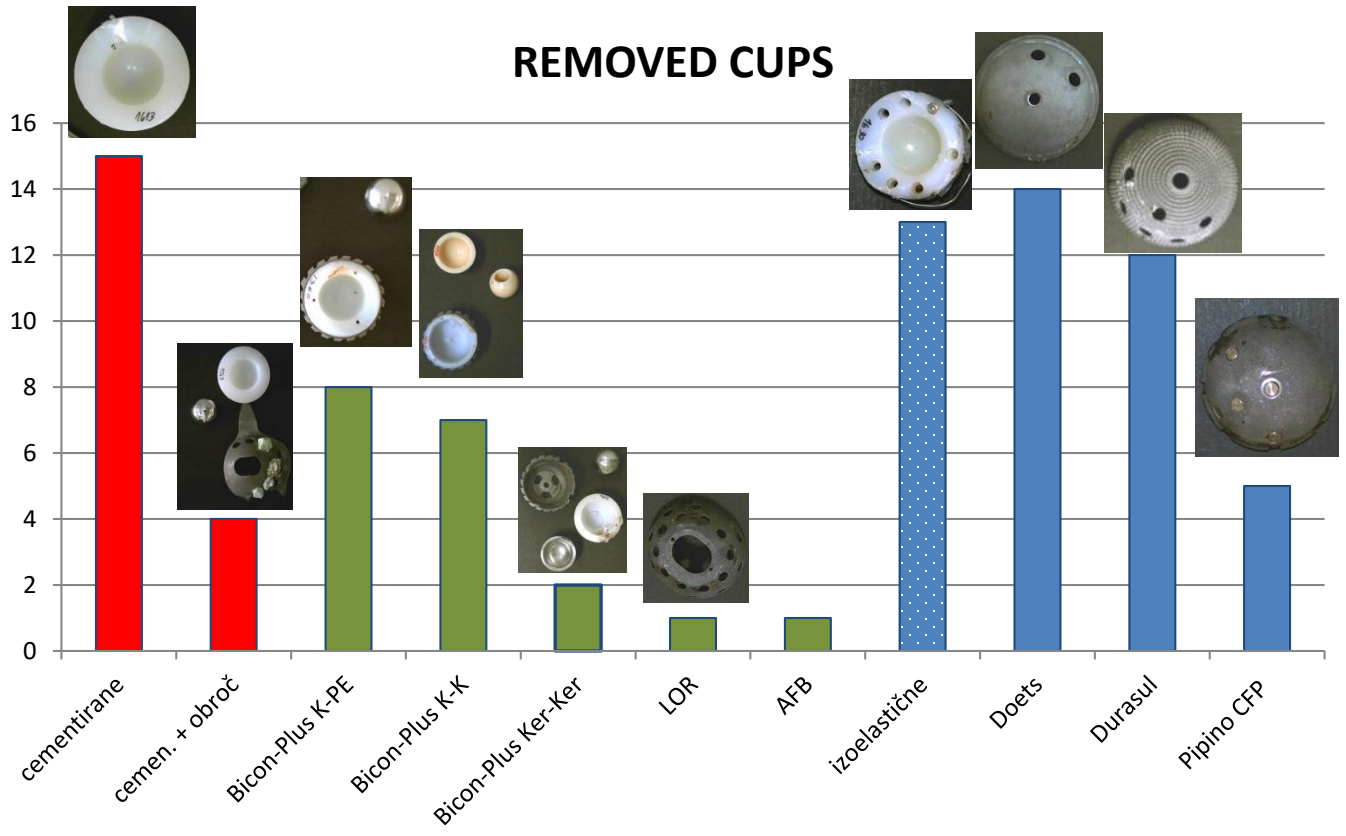
Removed and collected femoral components in 2016 (N° 94)



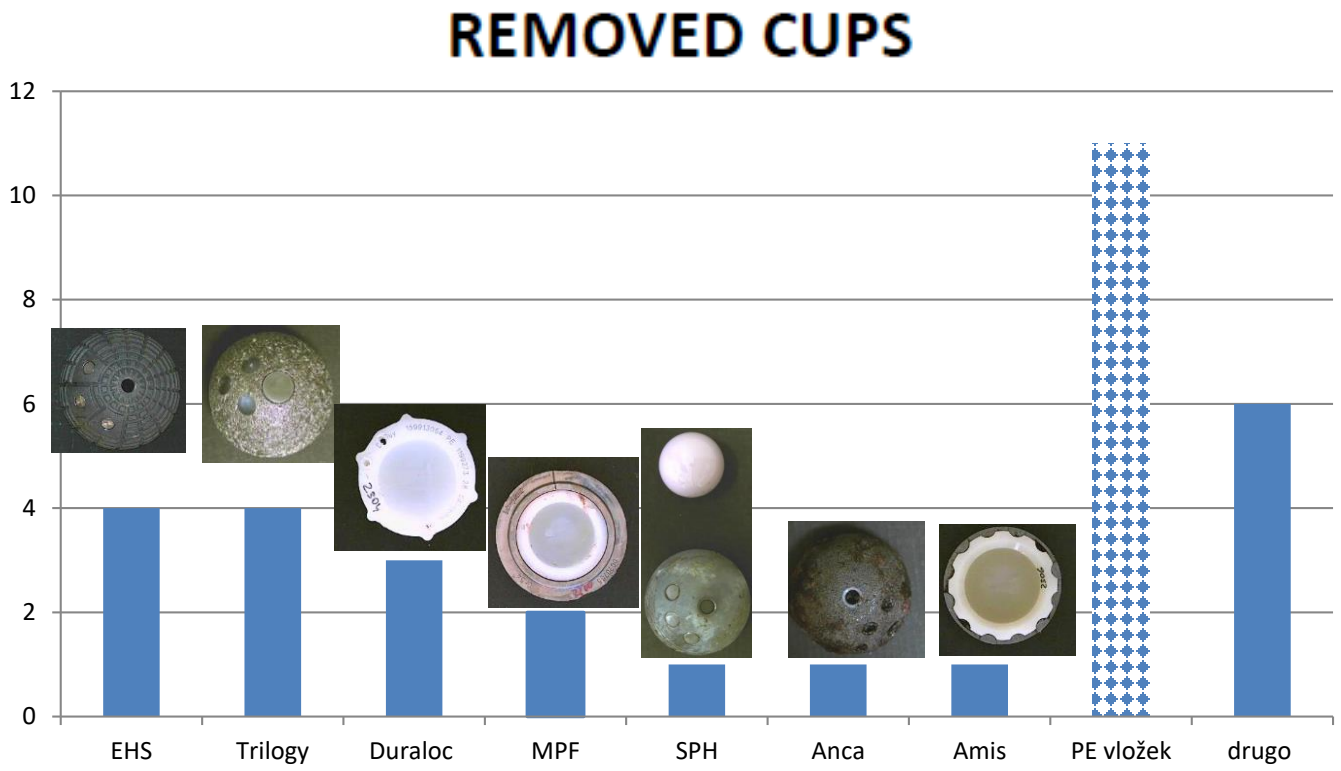
Removed and collected femoral components in 2016 (N° 94)



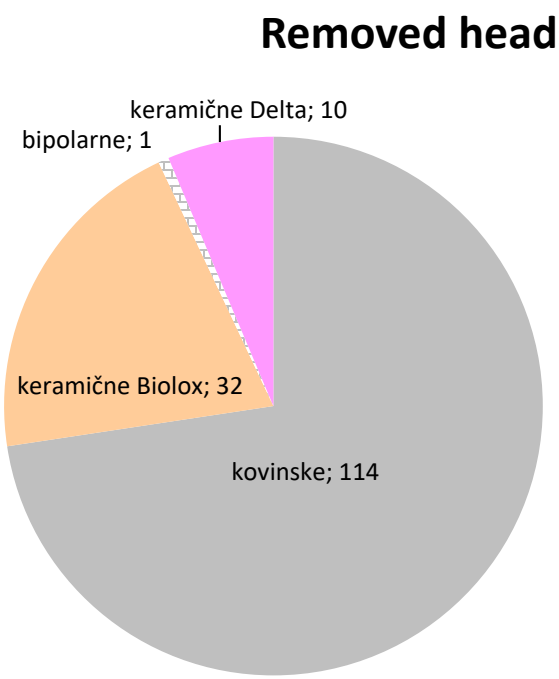
Removed and collected acetabular components in 2016 (N°115)



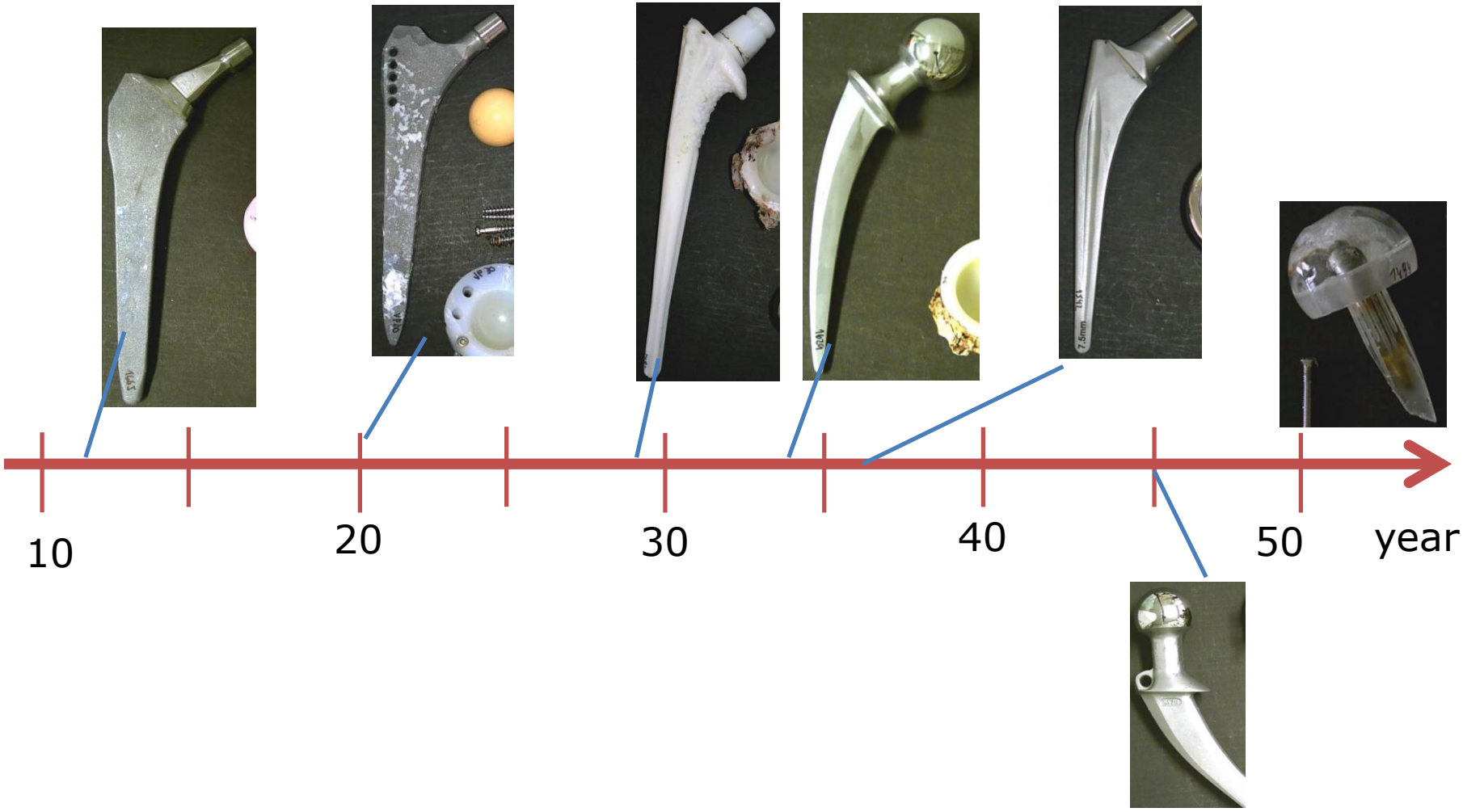
Removed and collected acetabular components in 2016 (N°115)



Removed and collected head components in 2016 (N° 157)



„The longest time in situ“



Citation:

Levašič V, Milošev I. Valdoltra Arthroplasty Registry [Internet]. Orthopaedic Hospital Valdoltra. [cited 2018 Apr 15]. Available from: http://www.ob-valdoltra.si/sl/international