

Table S1. Summary of post-operative complications

Characteristic	Number
Type I Failure: Soft Tissue	
Restricted ROM	6
Wound healing complication	2
Joint instability (including dislocations)	5
Nerve lesion	1
Superficial infection	5
Type II Failure: Aseptic loosening	3
Type III Failure: Structural	
Mechanical Failure	2
Periprosthetic Fractures	1
Type IV: Deep Infection	9
Type V: Local Tumour Progression	3
Other Complications	
Amputation	4
Total complications	41

Table S2. Demographics of individual patients with Ewing's sarcoma across the 17 chosen studies.

Case	Study	Gender	Age	Location of Tumour	Prosthesis used	Other treatment	Complication
1	Benevenia 2015 [14]	-	16	Proximal Humerus	Repiphysis®	Neoadjuvant chemotherapy	Contracture
2	Benevenia 2015 [14]	-	11	Distal femur	Repiphysis®	Neoadjuvant chemotherapy	Contracture, Deep infection
3	Vijayan 2011 [15]	F	4	Distal femur	Stanmore	Neo adjuvant chemotherapy	Joint instability, flexion deformity
4	Torner 2016 [16]	F	12	Proximal femur	MUTARS®	Neo adjuvant + adjuvant chemotherapy	-
5	Hanna 2010 [17]	M	25	Femoral diaphysis	Stanmore	Neo adjuvant chemotherapy + radiotherapy	-
6	Hanna 2010 [17]	M	12	Femoral diaphysis	Stanmore	Adjuvant chemotherapy	-
7	Hanna 2010 [17]	F	10	Femoral diaphysis	Stanmore	Neo adjuvant chemotherapy	Deep infection
8	Yang 2017 [18]	F	26	Distal tibia	Stanmore	-	-
9	Schiller 1995 [19]	M	9	Distal tibia	HMRS	Neo adjuvant chemotherapy	Deep infection, joint instability
10	Dotan 2010 [20]	n/a	6	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Superficial infection (2), deep infection, contracture, dislocation, mechanical failure, wound dehiscence
11	Dotan 2010 [20]	n/a	8	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Dislocation, aseptic loosening
12	Dotan 2010 [20]	n/a	14	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	-

13	Dotan 2010 [20]	n/a	9	Proximal tibia	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Contracture
14	Dotan 2010 [20]	n/a	11	Distal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Deep infection
15	Dotan 2010 [20]	n/a	11	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Aseptic loosening, superficial infection, peri prosthetic fracture
16	Dotan 2010 [20]	n/a	11	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Superficial infection, deep infection
17	Dotan 2010 [20]	n/a	14	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	-
18	Dotan 2010 [20]	N	9	Distal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	-
19	Dotan 2010 [20]	n/a	10	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	-
20	Dotan 2010 [20]	n/a	7	Proximal tibia	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Deep infection, contracture, mechanical failure, aseptic loosening

21	Dotan 2010 [20]	n/a	13	Proximal femur	Kotz	Neoadjuvant chemotherapy + adjuvant chemotherapy + radiotherapy	Deep Infection, amputation due to local recurrence
22	Yoshida 2011 [21]	M	12	Proximal tibia	Kotz	Neo adjuvant + adjuvant chemotherapy and radiotherapy	Amputation due to local recurrence
23	Shekkeris 2009 [22]	F	42	Distal tibia	Stanmore	Neo adjuvant + adjuvant chemotherapy and radiotherapy	-
24	Shekkeris 2009 [22]	M	15	Distal tibia	Stanmore	Neo adjuvant + adjuvant chemotherapy and radiotherapy	-
25	Raciborska 2021 [23]	M	6	Distal tibia	MUTARS	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
26	Raciborska 2021 [23]	M	18	Distal tibia	MUTARS	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
27	Raciborska 2021 [23]	M	15	Distal tibia	MUTARS	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
28	Raciborska 2021 [23]	M	13	Distal tibia	MUTARS	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
29	Yoshida 2008 [24]	F	8	Distal femur	Stanmore	Neo adjuvant chemotherapy	-
30	Yoshida 2008 [24]	M	7	Distal femur	Kotz	Neo adjuvant chemotherapy	-
31	Yoshida 2008 [24]	M	12	Proximal tibia	Kotz	Neo adjuvant chemotherapy	-

32	Erol 2021 [25]	F	38	Periacetabular	LUMiC	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
33	Erol 2021 [25]	F	34	Periacetabular	LUMiC	Neo adjuvant chemotherapy + adjuvant chemotherapy	Amputation due to local recurrence
34	Erol 2021 [25]	M	34	Periacetabular	LUMiC	Neo adjuvant chemotherapy + adjuvant chemotherapy	Dislocation
35	Erol 2021 [25]	F	36	Periacetabular	LUMiC	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
36	Erol 2021 [25]	F	46	Periacetabular	LUMiC	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
37	Erol 2021 [25]	F	17	Periacetabular	LUMiC	Neo adjuvant chemotherapy + adjuvant chemotherapy	-
38	Puri 2012 [26]	M	17	Femoral diaphysis	RESTOR	Adjuvant chemotherapy	-
39	Ayoub 1999 [27]	F	10	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	-
40	Ayoub 1999 [27]	F	8	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	Amputation due to pain
41	Ayoub 1999 [27]	M	11	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	-
42	Ayoub 1999 [27]	M	7	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	Wound dehiscence
43	Ayoub 1999 [27]	F	11	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	-
44	Ayoub 1999 [27]	M	8	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	-
45	Ayoub 1999 [27]	M	6	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	Radial nerve palsy

46	Ayoub 1999 [27]	F	10	Proximal humerus	Stanmore	Chemotherapy + Radiotherapy	-
47	Wafa 2015 [28]	F	15	Proximal humerus	Stanmore	Neo adjuvant + adjuvant chemotherapy	-
48	Wafa 2015 [28]	F	32	Proximal humerus	Stanmore	Neo adjuvant + adjuvant chemotherapy	-
49	Wafa 2015 [28]	F	9	Proximal humerus	Stanmore	Neo adjuvant + adjuvant chemotherapy	Superficial wound
50	Wafa 2015 [28]	F	8	Proximal humerus	Stanmore	Neo adjuvant + adjuvant chemotherapy	-
51	Wafa 2015 [28]	F	12	Proximal humerus	Stanmore	Neo adjuvant + adjuvant chemotherapy	Periprosthetic infection
52	Wafa 2015 [28]	F	7	Proximal humerus	Stanmore	Neo adjuvant + adjuvant chemotherapy	-
53	Wafa 2015 [28]	F	10	Proximal humerus	Stanmore	Neo adjuvant + adjuvant chemotherapy	-
54	Ji 2019 [29]	M	10	Distal femur	Non hinged CCK	Neo adjuvant + adjuvant chemotherapy	-
55	Ji 2019 [29]	M	9	Distal femur	Non hinged CCK	Neo adjuvant + adjuvant chemotherapy	-
56	Lewis 1986 [30]	F	10	Femoral Diaphysis	Lewis	Neo adjuvant + adjuvant chemotherapy and radiotherapy	-
57	Lewis 1986 [30]	F	13	Femoral diaphysis	Lewis	Neo adjuvant + adjuvant chemotherapy and radiotherapy	-