**Appendix Table C4. Treatment characteristics: Ewing’s tumors**

| **Study (Investigator, country, year)** | **Record Number** | **Group (N)** | **Stem Cell Source** | **Type of HSCT** | **Prior Treatment** | **Conditioning Regimen** | **Immunosuppressive therapy for GVHD prophylaxis** | **Supportive Care** | **Comparative Treatment** | **Comparative Treatment Dose/Regimen** | **Comment** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Bernstein, USA/Canada 2006 | 6290 | 110 |  |  |  |  |  |  | CT +/- complete surgical resection +/- full-dose RT or lower dose RT to microscopic residual dz.Up to 3 metastatic sites excl BM with RT | CT: I, E, vincr, doxorub, CPM) |  |
| Bhatia,USA, 2007 | 43210 | 60 |  |  |  |  |  |  | high-intensity CT | doxorubicin, CPM and ifos |  |
| Burdach, Germany and Austria, 2000 | 14310 | 28 | for auto [n=21] BM n=2 PB n=17 BM+ PB n=2  for allo [n=7] all BM | auto n=21  allo n=7 |  | MEL, Eto, Carbo, TBI n=10  MEL, E, TBI n=15  MEL, E, carbo n=1  MEL, TBI n=1  E, TBI n=1 |  |  |  |  |  |
| Burdach, Germany, 2003 | 10030 | <+17 yrs  single HSCT n=18  tandem n=14 |  | single auto or tandem auto auto | all pts recd local RT to met sites | single TBI,MEL,E +/-carboplatin  tandem MEL, E times 2 |  |  |  |  |  |
| Burke, USA 2007 | 4060 | 7 | pb | single auto n=1  tandem auto n=6 | complete surgical resection n=6  no surgery n=1  RT n=2 (one to primary tumor and one to an orbital met) | 1st: Eto, Carboplatin, CPM  2nd: MEL, CPM n=4; Thio, CPM n=1; MEL and TBI n=1 |  | rec'd for fever, nutrition and hematologic indications prn (n=7) |  |  | All pts achv'd CR after first HSCT; only 6 went on to 2nd HSCT b/c one pt progressed with local and metastatic dz 30 days after 1st HSCT |
| Costa, USA, 2008 | 1710 | 1 | NR | auto | vincristine, CY, doxorubicin, ifos, VP-16 |  |  |  |  |  |  |
| Drabko, Poland 2005 | 6680 | 21 | pb | auto |  | BUS, MEL n=12  MEL, VP-16, TBI n=1  MEL, VP16, CBCA n=6  Treo, Mel n=2 |  |  |  |  |  |
| Fazekas, Austria, 2008 | 2720 | 1 |  | auto | hemipelvectomy | BUS, MEL |  |  |  |  |  |
| Hara , Japan 1998 | 17950 | 3 | bm or pb or both | auto | no preHSCT surgery or RT | double- conditioning regimen thio and MEL |  | TPN, Abx |  |  |  |
| Harimaya, Japan, 2003 | 9850 | 2 | pb | auto | surgery n=2 (one partially resected; one en bloc)  RT n=1 (pt partially resected) | carboplat and E n=1  carboplat, E, ifos n=1 |  |  | partial surgical resection, multiagent CT, RT | VAIA |  |
| Hawkins, USA 2000 | 15360 | 16 | pb n=15  bm n=1 | auto n=14  syngeneic n=1  allo n=1 (HLA-matched sibling) |  | grp 1: BUS, MEL, Thio followed by HSCT then total marrow myeloablative RT followed by a second HSCT  grp 2: BUS, MEL, Thio |  | prophylactic Abx if low granulocyte count |  |  |  |
| Kasper, Germany, 2006 | 2570 | 5 | pb | auto |  | MEL and E n=2  BUS and MEL n=3 |  |  |  |  |  |
| Kogawa, Japan, 2004 | 8410 | 1 | pb | auto | surgery and RT | NR |  |  |  |  |  |
| Koscielniak Germany 2005 | 7860 | 1 | mismatched related | allo | tandem auto-auto  local RT | BUS, Thio, Flu, CPM |  |  |  |  |  |
| Kushner, USA, 1995 | 21430 | 2 |  | auto | surgery GTR n=1 no surg n=1 | MEL, TBI |  |  | non met dz CT, surg, RT | CT CPM, doxo, VIN, ifos, E  nonmets: GTR n=14 inoperable n=2 amputation n=1 RT n=7  met dz: GTR n=3 no surg n=4 RT 71 % (n=5) |  |
| Kushner, USA, 2001 | 14240 | 5 | bm and pb n=3  bm n=2 | auto | RT n=4 | TBI, MEL or thio, carboplatin |  |  | induction CT and in one pt RT |  |  |
| Laws, Germany, 2003 | 9450 | 2 |  | auto | resection of primary tumor with wide margins n=2  RT to mets n=2 | TBI, MEL, E n=1  NR n=1 |  |  |  |  |  |
| Lucas, USA 2008 | 2450 | 1 |  | allo, matched mother | chemotherapy leading to resolution of disease at primary tumor site, BM, and lungs and stable disease in the vertebrae and ribs for 6 months | BUS, MEL thymoglobulin | cyclosporin and methotrexate |  |  |  |  |
| Lucidarme, France, 1998 | 17610 | 3 | bm or pb | auto x 1 (n=1)  auto x 2 (n=2) | surgery for primary tumor n=1 (pt with PD) and RT after HSCT    after | thio  RT n=1 |  | TPN Abx |  |  |  |
| Meyers, USA, 2001 | 13670 | 23 | pb | auto | local RT of primary tumor and mets sites | TBI, MEL, Eto |  | filgrastim | repeated cycles of CT |  | 9 patients were not transplanted b/c did not achieve good response in primary tumor and all mets sites |
| Milano, Italy, 2006 | 43290 | 36 |  |  |  |  |  |  | CT n =16  conservative surgery after CT n=14  RT n=3 | ICE/CAV n=18  ICE n=2  CECAT n=16 |  |
| Navid, US and Canada, 2006 | 5930 | 9 |  | auto | surgery n=6 RT n=7 | CPM and E n=3 CPM, Topotecan n=2 |  |  | 4 patients did not undergo HSCT b/c did not achieve PR or CR with induction CT. |  |  |
| Numata, Japan, 2002 | 12130 | 1 | pb | auto | conventional CT and regional RT | carboplatin, e, ifo |  |  |  |  |  |
| Oberlin, France, 2008 | 46850 |  |  |  |  |  |  |  |  |  |  |
| Ozkaynak, USA 1998 | 18540 | 15 | bm n=7  bm and pb n=8 | auto |  | MEL, Carbopl, E +/- CPM |  |  |  |  |  |
| Pession, Italy, 1999 | 16120 | 3 | bm | auto | one patient RT to primary tumor | BUS, E, thio |  |  |  |  |  |
| Prete, Italy 1998 | 17210 | 17 | pb | auto |  | BUS, E, Thio (n=16)   L-PAM (n=1) |  |  |  |  |  |
| Sari, Turkey, 2010 | 42790 | 36 |  |  |  |  |  |  | CT only 8% CT and RT 55% CT and surgery 6% CT,RT and surg 22% | CT EVAIA vincr, ifos, mesna, E, adriamy, actino-D |  |
| Tanaka, Japan, 2002 | 11770 | 6 | PB | auto | surgery n=2 RT n=2 both surg and RT n=2 |  |  |  |  |  |  |
| van Winkle, USA, 2005 | 43550 | 22 |  |  |  |  |  |  | CT | ICE |  |
| Yaniv, Israel, 2004 | 9100 | 11 | pb and bm | auto |  | MEL, E , carbopl or BUS and MEL |  |  |  |  |  |
| Ladenstein, Austria, France, UK, Switzerland, Netherlands, Germany, Sweden, 2010 | 2270 | n=99 | autologous | myeloablative | resection of primary and metastatic tumor sites | induction VIDE x 6 cycles and one cycle of VAI high dose CT oral busulfan and melphalan |  |  |  |  |  |
| Ilari, Italy, 2010 | 2230 | 24 | auto | myeloablative | local therapy (surgery with or without RT)- surgery could have been at diagnosis (n=2) or after 4 courses CT (n=13) or after HSCT (n=5); in inoperable pts, RT was after HSCT | etoposide, thiotepa and CY |  |  |  |  |  |
| Diaz, Spain, 2010 | 2135 | 47 |  | auto | 64% local radiation | high-dose busulfan and melphalan |  |  |  |  |  |
| Kwon, Korea, 2010 | 2268 | 1 | auto | sequential high-dose (2 consequent courses of RIC followed by a high-dose with auto HSCT) | 4 cycles of chemotherapy No surgical resection of primary tumor | RIC: etoposide, cyclophosphamide, carboplatin high-dose: carboplatin , etoposide, melphalan with or without TBI |  |  |  |  |  |
| Burdach, Germany and Austria, 2010 | 2077 | 21 | auto n = 8 (one pt received auto followed by allo b/c of progression after initial auto SCR) | myeloablative chemotherapy EVAIA and/or VAIA | TB-MRI assessment surgery and/or irradiation | VAIA and E/VAIA high-dose melphalan x 2 and etoposide allo: BU and CY or |  |  | induction chemo VAIA and E/VAIA |  |  |