**Suppl 1.** Allogeneic-HSCT in SOT Patients

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| Study | Type of SOT | Population | Immunosuppression post-SOT | Indication for HSCT | Duration SOT to HSCT | HSCT Conditioning Regimen | HSCT Donor Source | HLA Disparity Between SOT and HSCT | Immunosuppression post-HSCT | Time to Neutrophil Engraftment, days | Acute GVHD | Chronic GVHD | SOT Rejection | Overall Survival from HSCT, months | Living Status | Cause of Death |
| Bastin et al. (2023) | Unrelated Cadaveric Liver | Adult | Tacrolimus and MMF | Primary Myelofibrosis | Unknown | TBI, Fludarabine, and Busulfan | MRD | None | ATG, Tacrolimus and Methotrexate | 26 | - | - | - | 18 | Alive | N/A |
| Fujiwara et al. (2020) | Unrelated Cadaveric Lung | Adult | Tacrolimus, MMF, and Prednisone | MDS | 8 years | Fludarabine, Busulfan, and Melphalan | MUD-CBT | None | Tacrolimus and Methotrexate | 25 | - | - | - | 18 | Alive | N/A |
| Perz et al. (2009) | Unrelated Cadaveric Liver | Adult | Unknown | Myelofibrosis | >15 Years | Treosulfan and Fludarabine | MUD | None | ATG, Cyclosporine, and MMF | “Achieved Rapidly” | - | + | - | Unknown | Unknown | N/A |
| Perkins et al. (2001) | Unrelated Cadaveric Liver | Pediatric | Azathioprine and Prednisone | Aplastic Anemia | 7 months | TLI and Cyclophosphamide | MRD | None | Methotrexate, Cyclosporine, and Prednisolone | Unknown | - | - | - | 72 | Alive | N/A |
| Hägglund et al. (1997) | Unrelated Cadaveric Liver | Pediatric | Cyclosporine, Azathioprine, and Prednisolone | Aplastic Anemia | 6.5 months | Cyclophosphamide | MRD | None | ATG, Methotrexate, Cyclosporine, and Prednisolone | 11 | - | - | - | 36 | Alive | N/A |
| Trede et al. (1997) | Unrelated Cadaveric Liver | Pediatric | Tacrolimus and Prednisone | Aplastic Anemia | 19 weeks | Cyclophosphamide | MRD | None | Tacrolimus, Methotrexate, and Methylprednisolone -> Prednisone | 23 | - | - | - | 17 | Alive | N/A |
| Kawahara et al. (1991) | Unrelated Cadaveric Liver | Pediatric | Cyclosporine and Prednisone | Aplastic Anemia | ~ 2 years | Cyclophosphamide | MRD | None | ATG, Cyclosporine, Methortrexate, and Methylprednisolone | 21 | - | - | - | 22 | Alive | N/A |
| Matthes-Martin et al. (2000) | Related Living Liver | Pediatric | Tacrolimus and Methylprednisolone | Familial Hemophagocytic Lymphohistiocytosis | Unknown | Busulfan, Cyclophosphamide, and Thiothepa | MRD | None | ATG, Tacrolimus, and MMF | 10 | + | - | - | 3 | Alive | N/A |
| Umeda et al. (2002) | Related Living Liver | Pediatric | Tacrolimus and Prednisolone | Aplastic Anemia | 5 Years | TLI and Cyclophosphamide | MRD | Yes | Cyclosporine and Methotrexate | 12 | - | - | - | 9 | Alive | N/A |
| Yoshimi et al. (2009) | Related Living Liver | Adult | Unknown | Aplastic Anemia | Unknown | TLI and Cyclophosphamide | MRD | None | Methotrexate, Cyclosporine, and Methylprednisolone | 14 | - | - | - | 6 | Alive | N/A |
| Sasaki et al. (2018) | Related Living Liver | Adult | Tacrolimus | Ph+ ALL | >14 Years | Fludarabine and Melphalan | MRD | Yes | ATG, Tacrolimus, and Methylprednisolone | 10 | + | + | - | 26 | Alive | N/A |
| Sun et al. (2012) | Related Living Liver | Adult | Tacrolimus, MMF, and Prednisone | Aplastic Anemia | >3 Months | Cyclophosphamide, Alemtuzumab,  | MRD | Yes | Tacrolimus and Prednisone | Unknown | - | - | - | 45 | Alive | N/A |
| Stachel et al. (2002) | Unrelated Liver | Pediatric | Cyclosporine -> Tacrolimus and Prednisolone | Aplastic Anemia | First Transplant: 5 MonthsSecond Transplant: 10 Months | First Transplant: CyclophosphamideSecond Transplant: TLI and Cyclophosphamide  | First Transplant: MRDSecond Transplant: MRD | None | First Transplant: Cyclosporine and MethotrexateSecond Transplant: ATG, Cyclosporine, and Methotrexate | First Transplant: “Rapid”Second Transplant: “Rapid” | First Transplant: - Second Transplant: - | First Transplant: -Second Transplant: - | First Transplant: -Second Transplant: + | 96 | Alive | N/A |
| Zeiser et al. (2009) | Related Living Liver | Adult | Cyclosporine | AML | >3 Years | Fludarabine, Melphalan, and Thiotepa | MRD | Yes | ATG, Cyclosporine, and Prednisolone | Unknown | + | - | - | 12 | Deceased | Infection |
| Chaudhury et al. (2012) | Unrelated Cadaveric Liver | Pediatric | Tacrolimus, MMF, and Steroid | Atypical Mevalonic Aciduria | 28 Months | Fludarabine and Busulfan | MUD | Yes | ATG, Tacrolimus, and MMF | 10 | - | + | - | 30 | Alive | N/A |
| Mali et al. (2011) | Related Living Liver | Pediatric | Tacrolimus and Prednisolone | Aplastic Anemia | Unknown | Fludarabine, Cyclophosphamide, and Rituximab | MRD | Yes | ATG, Tacrolimus, Methotrexate, and Prednisolone | 14 (Bone Marrow Graft Rejection at 20 Days) | Unknown | Unknown | - | 12 | Alive | N/A |
| Mangat et al. (2007) | Cardiac | Pediatric | Tacrolimus, MMF, and Prednisolone | Relapsed AML | >2 Months | Busulfan and Cyclophosphamide | MRD | None | Cyclosporine -> Tacrolimus and Prednisolone | Unknown | + | - | - | 24 | Alive | N/A |
| Lin et al. (2013) | Cardiac | Adult | Cyclosporine -> Tacrolimus, MMF, and Prednisone | Monoblastic Therapy-Related Myeloid Neoplasm | 8 Months | Fludarabine, Melphalan, and Alemtuzumab | MRD | Yes | Tacrolimus and Prednisone | 13 | Unknown | Unknown | - | 4  | Deceased  | Hematologic Malignancy Relapse and Infection |
| Lister et al. (1997) | Cardiac | Adult | Cyclosporine -> Tacrolimus | PTLD-Lymphoma | >9.5 Years | Busulfan and Cyclophosphamide | MRD | None | Tacrolimus | 15 | - | - | - | 3 | Alive | N/A |
| Kobbe et al. (2002) | Cardiac | Adult | Cyclosporine, Azathioprine, and Steroids | MDS | 10 Years | TBI and Fludarabine | MRD | None | Cyclosporine and MMF | Unknown | + | - | - | 24 | Alive | N/A |
| Thaunat et al. (2005) | Cardiac | Adult | ATG, Tacrolimus, MMF, and Methylprednisolone | Multiple Myeloma | 6 Months | Busulfan and Cyclophosphamide | MUD | None | ATG, Tacrolimus, MMF, and Prednisone | Unknown | - | - | - | 18 | Alive | N/A |
| Ikeda et al. (2016) | Related Living Renal | Adult | Unknown | AML | First Transplant: 9 YearsSecond Transplant: 11 Years | First Transplant: TBI, Fludarabine, and BusulfanSecond Transplant: Fludarabine and Busulfan | First Transplant: MRDSecond Transplant: MRD | None | First Transplant: Tacrolimus, Methotrexate, and MethylprednisoloneSecond Transplant: Tacrolimus, MMF, and Methylprednisolone | First Transplant: 18Second Transplant: 11  | First Transplant: -Second Transplant: - | First Transplant: -Second Transplant: - | First Transplant: -Second Transplant: - | 16 | Alive | N/A |
| Aoki et al. (2013) | Related Living Renal | Adult | Cyclosporine, MMF, and Prednisolone | Multiple Myeloma | >5 Years | Fludarabine and Melphalan | MUD | Yes | Tacrolimus and Methotrexate | 18 | + | - | - | 8 | Alive | N/A |

SOT: solid organ transplantation; HSCT: hematopoietic stem cell transplantation; MMF: mycophenolate mofetil; MDS: myelodysplastic syndrome; AML: acute myeloid leukemia; PTLD: post-transplant lymphoproliferative disorder; Ph: Philadelphia chromosome; ALL: acute lymphocytic leukemia; TBI: total body irradiation; TLI: total lymphoid irradiation; MUD: matched unrelated donor; MRD: matched related donor; CBT: cord blood transplantation; HLA: human leukocyte antigen; ATG: anti-thymocyte globulin; GVHD: graft-versus-host disease.