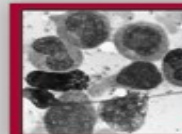


T-Cell Depleted Hematopoietic Stem Cell Transplant

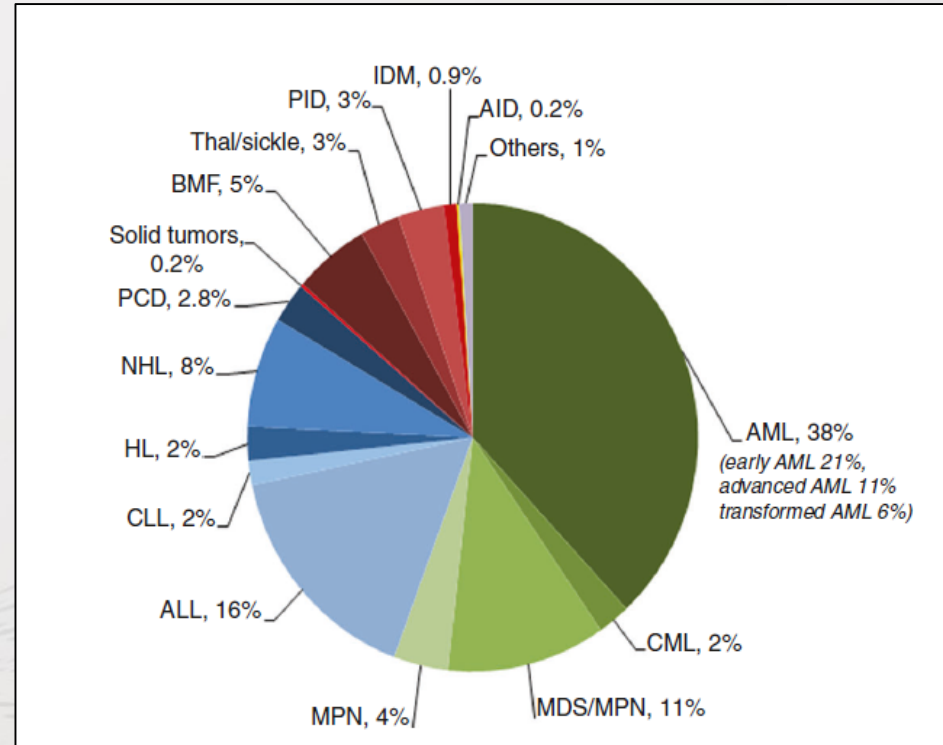
Request for a New ICD-10 Procedure Code
September 11, 2018

Presented by: Stephanie Farnia, MPH
American Society of Blood and Marrow Transplantation

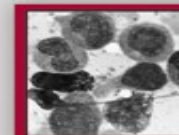


Background on Allogeneic Stem Cell Transplants

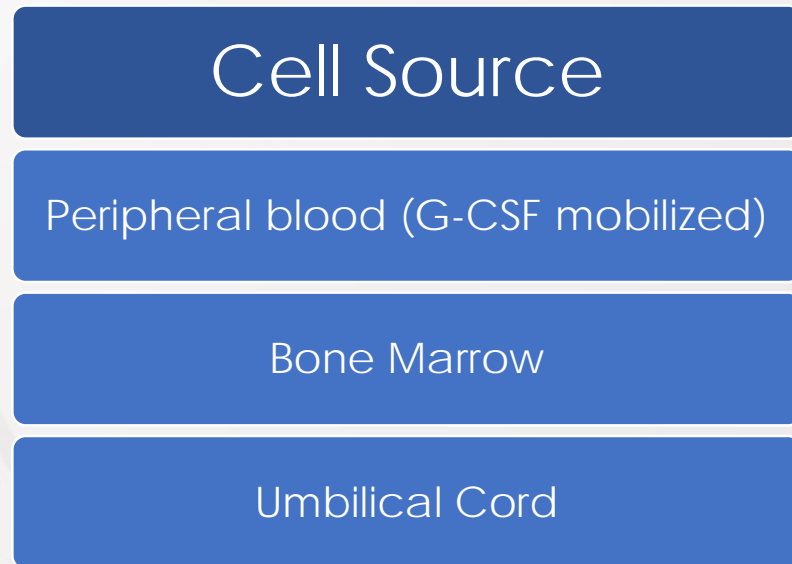
- When a patient is diagnosed with certain blood cancers (i.e., leukemia, multiple myeloma, and some types of lymphoma), the physician may recommend an allogeneic hematopoietic stem cell (HSC) transplant as a treatment option.
- An allogeneic HSC by definition requires donor cells to be collected and given to the patient from either the donor's bone marrow, peripheral blood, or from a cord blood unit



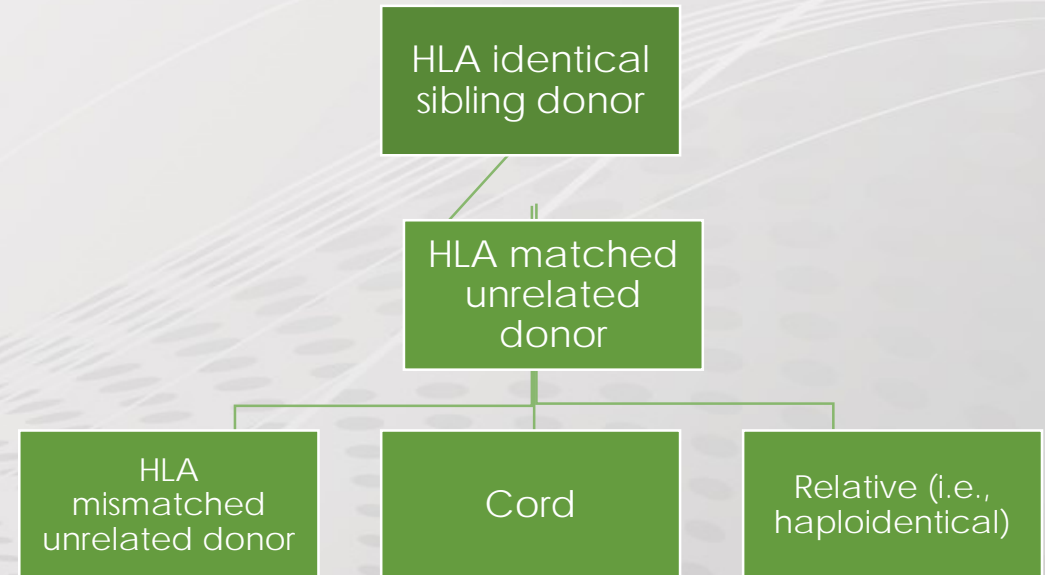
Passweg, (2018) Bone Marrow Transplantation doi:10.1038/s41409-018-0153-1



Cell Sources and Donor Options for Allogeneic Transplantation

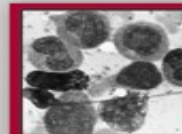
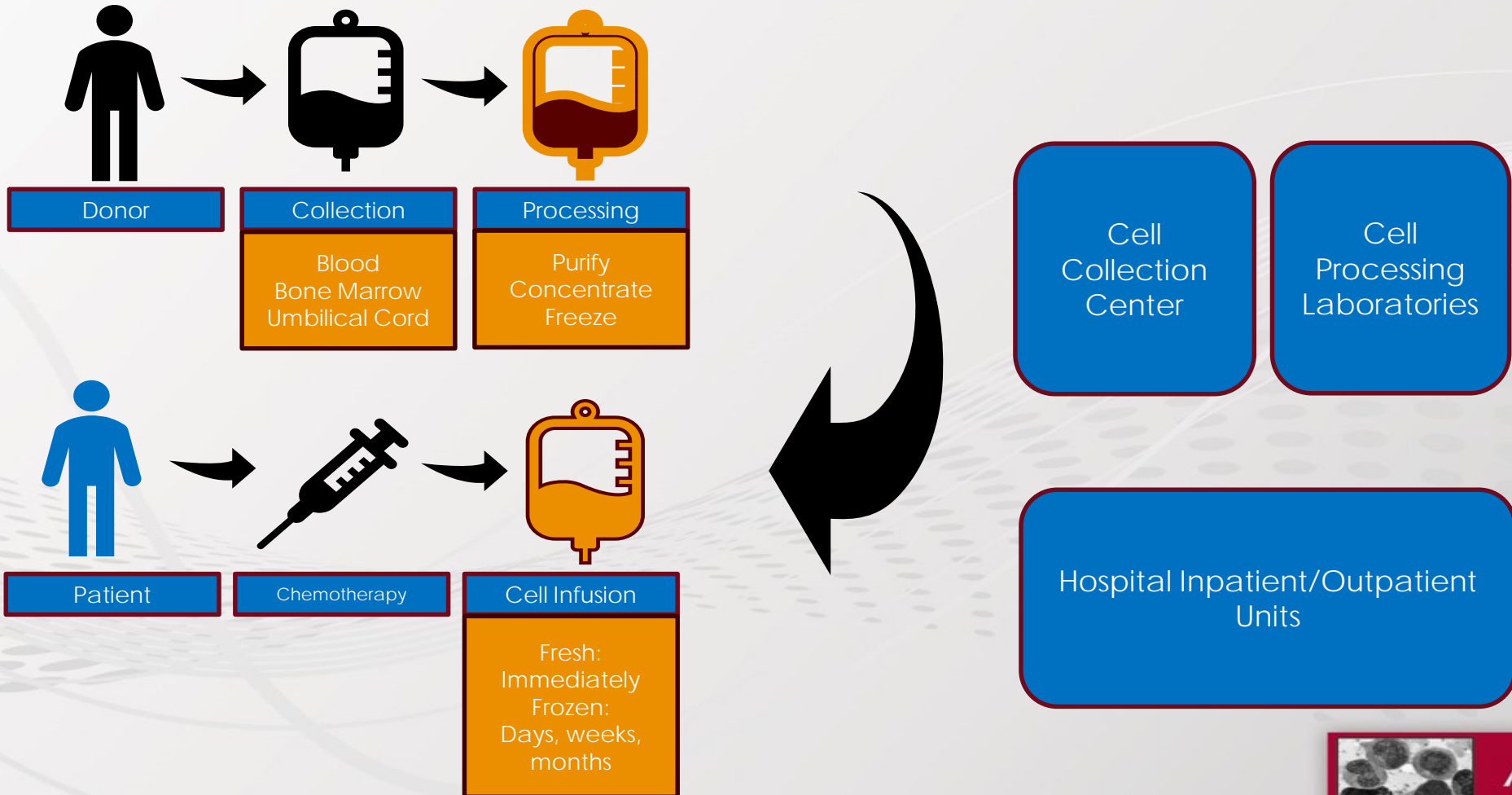


Donors Options



Physicians choose donor type and cell source based on patient, disease, and severity of illness

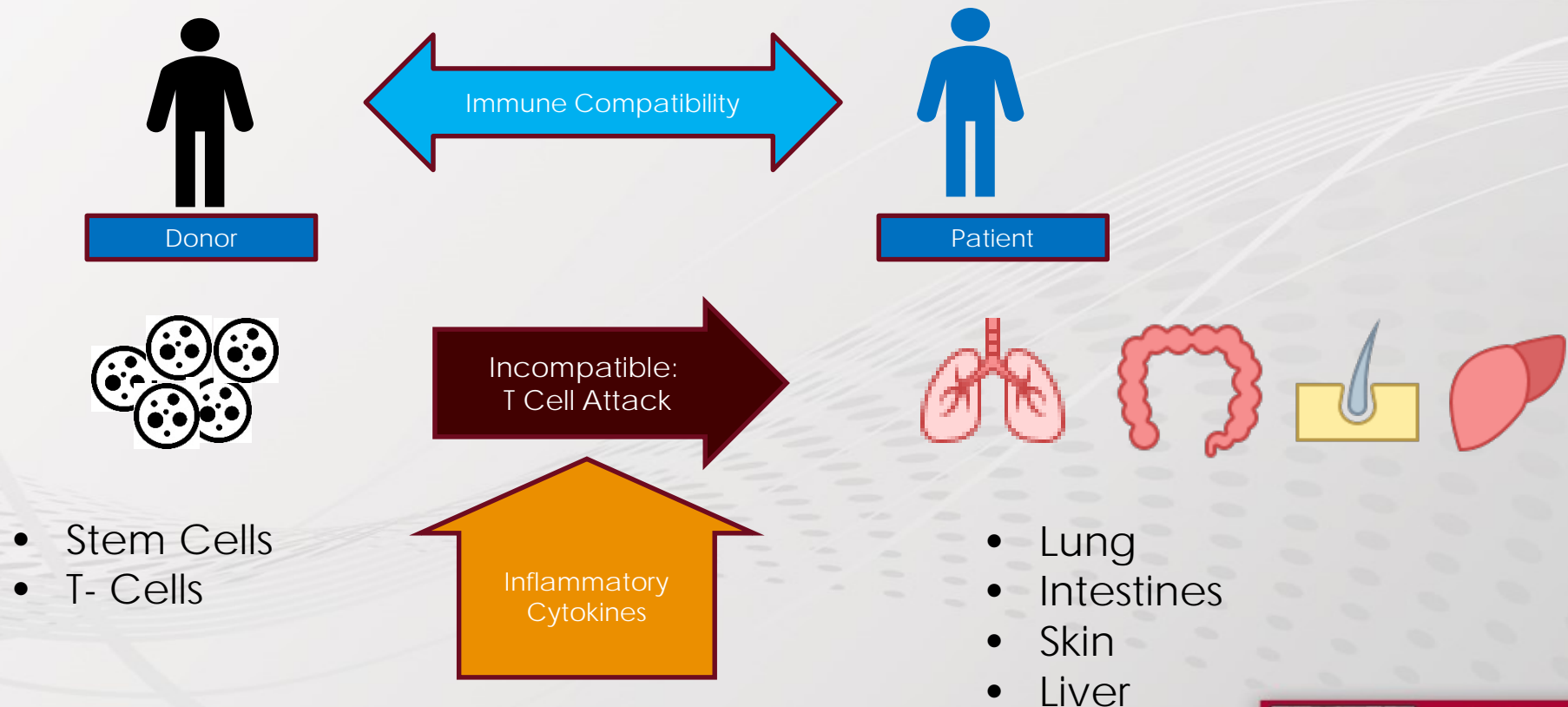
Summary of the Allogeneic Hematopoietic Stem Cell Transplant Process



More on Donor Selection and Associated Issues

- All allogeneic transplants come with a risk of Graft versus Host Disease (GVHD), which is a serious known complication that significantly increases post-transplant cost both during the transplant stay as well as after in cases where patients must be readmitted.
- The risk of developing GVHD after HSC transplant increases when cells from unrelated donors as well as other relative donors (i.e., haploidentical donors) are used compared to HLA-identical siblings.
- As the result of the increased use of alternative donors and increased proficiency in refining the HSC collected from peripheral blood, transplant physicians are actively researching methods to decrease the incidence of GVHD, as well as manage it after diagnosis.

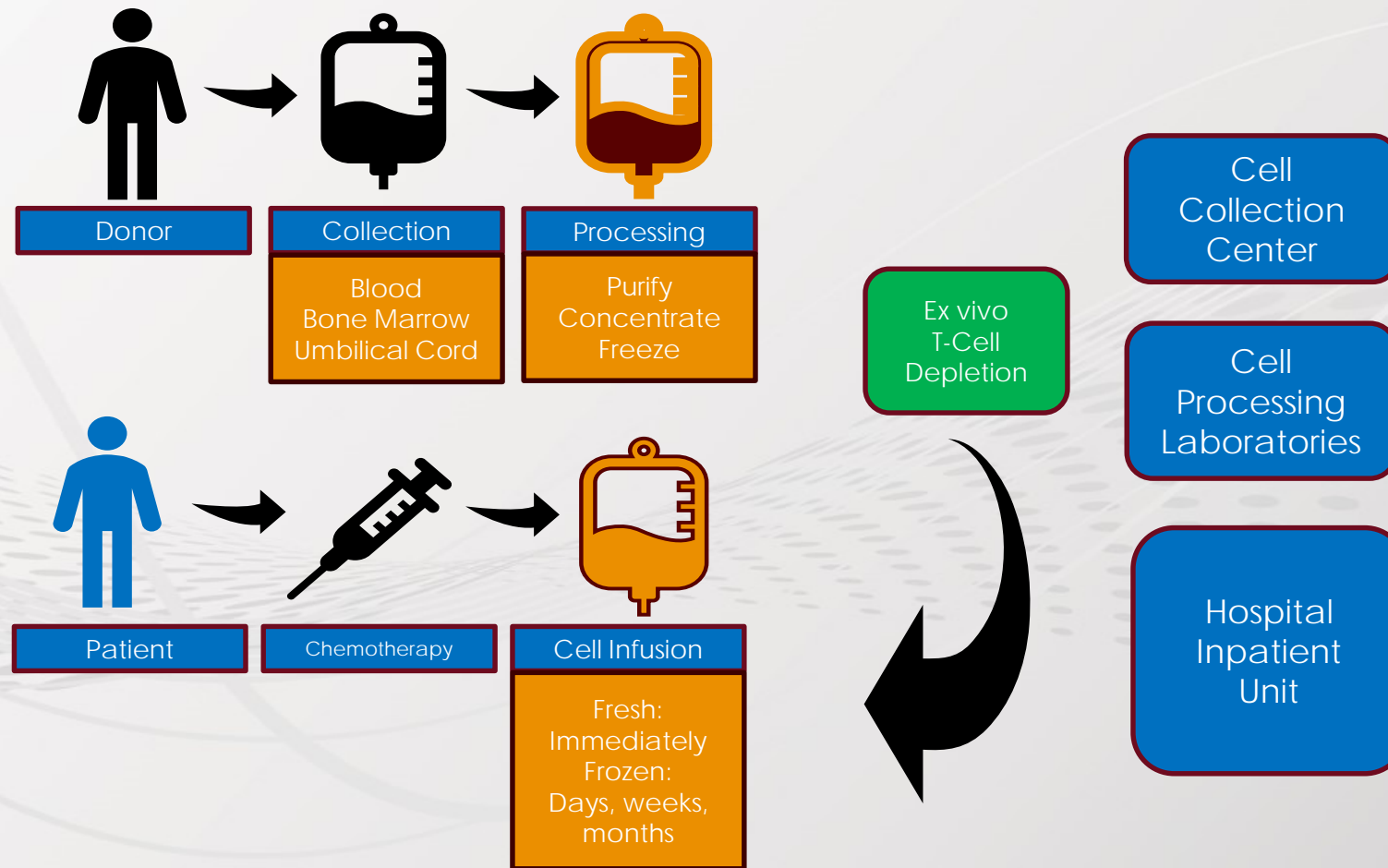
Pathophysiology of Graft versus Host Disease



Addressing GVHD

- Advancements have been made to reduce the incidence of GVHD, including refining the graft source by removing T-cells from HSCs before infusing them into transplant recipients.
- T-cell depletion is an approved therapeutic procedure performed on the collected HSC prior to the infusion (i.e., administration)
- Inpatient setting: No code to identify a stem cell transplant that utilized a T-cell depleted graft

T-Cell Depleted Hematopoietic Stem Cell Transplant



Proposal

- The ASBMT requests the addition of code as shown in the yellow highlighted text in the table on the next slide, in the “Substance” column so that hospital coders can accurately report when T-cell depleted cells are used for inpatient HSC transplants.

ICD-10-PCS Administration table:

<i>Section</i>	3	Administration	
<i>Body System</i>	0	Circulatory	
<i>Operation</i>	2	Transfusion: Putting in blood or blood products	
<i>Body System / Region</i>	<i>Approach</i>	<i>Substance</i>	<i>Qualifier</i>
3 Peripheral Vein 4 Central Vein	0 Open 3 Percutaneous	A Stem Cells, Embryonic	Z No Qualifier
3 Peripheral Vein 4 Central Vein	0 Open 3 Percutaneous	G Bone Marrow X Stem Cells, Cord Blood Y Stem Cells, Hematopoietic * Stem Cells, Hematopoietic, T-cell depleted	0 Autologous 2 Allogeneic, Related 3 Allogeneic, Unrelated 4 Allogeneic, Unspecified

Impact/Benefit of the New Code

- Providing the requested ICD-10 code will allow hospital coders to more specifically report what the transplant physician documents in the patient's inpatient medical record with respect to the utilization of a T-cell depletion procedure associated with hematopoietic stem cell transplants
- Enabling hospitals, payers, researchers, etc. to conduct comprehensive analyses about patient outcomes and cost differences associated with things such as the incidence of GVHD, the use of intensive care, re-admission, etc. associated with stem cell transplants by type of graft utilized (i.e., T- cell depleted vs. vs. bone marrow vs. peripheral blood stem cells vs. cord blood)