

The Hematopoietic Cell Transplant-Co-morbidity Index (HCT-CI)

The following worksheet can be used to calculate the HCT-CI as reported by [Sorrer et al., *Blood*, 2005 Oct 15; 106\(8\): 2912-2919](#). Although the HCT-CI score is not reported on the CIBMTR data collection forms, the HCT-CI worksheet may assist centers in determining which diseases or conditions to report in the co-morbid condition sections of the Pre-TED Form 2400 and the Baseline Form 2000.

Directions for completing the HCT-CI worksheet:

- 1) If the recipient has a documented history of any of the conditions listed in the “definition/compartments” column, check the corresponding “yes” box.
- 2) If any box within a category is checked “yes”, then the number in the “score” column should be counted.
- 3) The total of all the boxes with a score represents the final score of the index.

Assign scores appropriately if the recipient has any of these co-morbidities
 UPN _____ CIBMTR Center # _____ CRID _____ Date _____

Co-morbidity	Definition/compartments	Yes	Score
1. Arrhythmia	-Atrial fibrillation* -Atrial flutter* -Sick sinus syndrome* -Ventricular arrhythmia*	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1
2. Cardiovascular	-Coronary artery disease* -Congestive heart failure* -Myocardial infarction* -Ejection fraction $\leq 50\%$ §	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1
3. Inflammatory bowel disease	-Crohn's disease* -Ulcerative colitis*	<input type="checkbox"/> <input type="checkbox"/>	1
4. Diabetes	-Treated with insulin or oral hypoglycemic drugs§	→	1
5. Cerebro-vascular	-Transient ischemic attacks* -Cerebro-vascular ischemic or hemorrhagic stroke*	<input type="checkbox"/> <input type="checkbox"/>	1
6. Depression/anxiety	-Requiring psychological consultation and/or specific treatments§	→	1
7. Hepatic - mild	-Chronic hepatitis§ -Bilirubin $>ULN$ - 1.5 X ULN§ -AST/ALT $>ULN$ - 2.5 X ULN§	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1
8. Obesity	-Body mass index >35 (adults)§ -Body mass index-for-age $\geq 95\%$ percentile (children)§	<input type="checkbox"/> <input type="checkbox"/>	1
9. Infection	-Requiring anti-microbial treatment before, during, and after the start of conditioning§	→	1
10. Rheumatologic	-Requiring Treatment*	→	2
11. Peptic ulcer	-Confirmed by endoscopy and requiring treatment*	→	2
12. Renal	-Serum creatinine $>2\text{mg/dl}$ (or $>177\mu\text{mol/L}$)§ -On dialysis§ -Prior renal transplantation*	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	2
13. Pulmonary - Moderate	-DLco corrected for hemoglobin 66-80% of predicted§ -FEV1 66-80% of predicted§ -Dyspnea on slight activity§	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	2
14. Pulmonary - Severe	-DLco corrected for hemoglobin $\leq 65\%$ of predicted§ -FEV1 $\leq 65\%$ of predicted§ -Dyspnea at rest or requiring oxygen therapy§	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3
15. Heart valve disease	-Except asymptomatic mitral valve prolapse§	→	3
16. Prior solid malignancy	-Treated with surgery, chemotherapy, and/or radiotherapy, excluding non-melanoma skin cancer*	→	3
17. Hepatic - moderate/severe	-Liver cirrhosis§ -Bilirubin $> 1.5 \text{ X ULN}$ § -AST/ALT $> 2.5 \text{ X ULN}$ §	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3
Total Score			

*Diagnosed at any time in the patient's past history

§Detected at the time of pretransplant assessment - ULN indicates upper limit of normal; DLco, diffusion capacity of carbon monoxide; FEV1, forced expiratory volume in one second; AST, aspartate aminotransferase; and ALT, alanine aminotransferase