

The HCT-CI score is one of the strongest predictors of non-relapse mortality (NRM) and overall survival (OS) for HCT (BMT) patients. ^{1, 2}

Complete the assessment to calculate the HCT-CI score not more than 10 days prior to commencement of the conditioning regimen. Calculation of the HCT-CI can be performed online at: www.hctci.org

A score of 0 indicates low risk, a score of 1-2 indicates intermediate risk and any score ≥ 3 indicates a high risk of non-relapse mortality. ^{1, 2, 3}

Comorbidities	HCT-CI weighted scale	Patient's score
Cardiac		
<i>Atrial fibrillation or flutter, sick sinus syndrome, or ventricular arrhythmias requiring treatment</i>	1	
<i>Coronary artery disease requiring treatment, congestive heart failure, myocardial infarction, or EF of $\leq 50\%$</i>	1	
<i>Heart valve disease: except asymptomatic mitral valve prolapse</i>	3	
Bowel disease		
<i>Crohn's disease or ulcerative colitis requiring treatment</i>	1	
Diabetes		
<i>Requiring treatment with insulin or oral hypoglycaemic, but not controlled with diet alone</i>	1	
Cerebrovascular disease		
<i>Transient ischemic attacks or cerebrovascular accident</i>	1	
Psychiatric disturbance		
<i>Depression/anxiety requiring psychiatric consult and/or treatment at the time of HCT</i>	1	
Hepatic		
Mild: Chronic hepatitis, bilirubin $>ULN$ to $1.5 \times ULN$, or AST/ALT $>ULN$ to $2.5 \times ULN$	1	
Moderate to severe: Liver cirrhosis, bilirubin $>1.5 \times ULN$, or AST/ALT $>2.5 \times ULN$	3	
Renal		
Moderate to severe: Serum creatinine >176 micromol/L, on dialysis, or prior renal transplant	2	
Obesity		
<i>Patients with a BMI of >35 for adults</i>	1	
Infection		
<i>Suspected or proven infection requiring treatment until after HPC infusion</i>	1	
Rheumatologic		
<i>Rheumatologic or connective tissue disorder requiring treatment at any time</i>	2	

Peptic ulcer		
Requiring treatment	2	
Pulmonary		
Moderate: DLCO (corrected for Hb) and/or FEV1 66%-80% or dyspnoea on slight activity	2	
Severe: DLCO (corrected for Hb) and/or FEV1 \leq 65% or dyspnoea at rest or requiring oxygen	3	
Prior malignancy		
Treated at any time point in the patient's history, excluding non-melanoma skin cancer. Exclude malignancies of same lineage as current malignancy requiring transplant.	3	
Total score:		
Date:	Name:	Signature:

Additional information from the original author regarding calculation of the HCT-CI is available in the How I Treat collection in Blood ⁴.

A composite age / co-morbidity score can be calculated by adding one point for patients \geq 40 years ⁵. This score identifies patients at lowest (score = 0), moderate (score = 1-2), high (score = 3-4) and highest (score \geq 5) risk of non-relapse mortality.

References

1. Raimondi R, Tosi A, Oneto R et al. 2012. "Validation of the hematopoietic cell transplantation – specific comorbidities index: A prospective, multicentre GITMO study". Blood Aug 9; 120:1327-1333.
2. Sorror ML, Logan BR, Zhu X et al. 2015. "Prospective validation of the predictive power of the hematopoietic cell transplantation comorbidity index: a Center for International Blood and Marrow Transplant Research study". Biol Blood and Marrow Transplant 21:1479-1487.
3. Sorror ML, Maris MB, Storb R et al. 2005. "Hematopoietic cell transplantation (HCT)-specific comorbidity index: a new tool for risk assessment before allogeneic HCT". Blood Oct 15; 106:2912-2919
4. Sorror ML. 2013. "How I assess comorbidities before hematopoietic stem cell transplantation". Blood April 11; 121(15):2854-2863.
5. Sorror ML, Storb RF, Sandmaier BM et al. 2014. "Comorbidity-age index: a clinical measure of biologic age before allogeneic hematopoietic cell transplantation". J Clin Oncol 32:3249-3256.