Modeli procjene rizika u terminalnoj fazi zatajivanja srca Risk scores in end stage heart failure

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Modeli procjene rizika mogu imati važnu ulogu u prognozi bolesnika s zatajivanjem srca. Među prvim razvijen je Heart Failure Survival Score (HFSS) osmišljen za pomoć pri selekcioniranju bolesnika za transplantaciju srca. Enhanced Feedback for Effective Cardiac Treatment (EFFECT) može bolje pretkazati bolnički mortalitet nego regresijsko stablo (ADHERE risk score). Seattle Heart Failure Model (SHFM) je kontinuirani model izveden iz PRAISE-1 studije, validiran je na uzorku od oko 10.000 izvanbolničkih bolesnika. SHFM je visoko prediktivan model u proporciji ukupnog mortaliteta, ali i mortaliteta od iznenadne smrti te smrti zbog zatajivanja srca. Meta-Analysis Global Group in Chronic Heart Failure (MAGGIC) model rizika je široko primjenjiv za bolesnike u stabilnoj fazi bolesti. Novi, internetski kalkulator (BCN Bio-HF calculator), uključuje biomarkere NT-proBNP, hs-cTnT and ST2. Procjena rizika mortaliteta u bolesnika s implantiranim LVAD je izuzetno važna za odabir kandidata, kao i u komunikaciji bolesnika i liječnika. Destination Therapy Risk Scores (DTRS) je često upotrebljavan rizični model za bolesnike s implantiranim LVAD-om, razvijen je za bolesnike s Heart Mate XVE radi utvrđivanja stope 90-dnevnog mortaliteta nakon implantacije LVAD-a. INTERMACS klasifikacija se zasniva na kliničkoj procjeni podjele NYHA skupine IIIB/IV u 7 podskupina i također je razvijen za bolesnike s implantiranim pulsnom crpkom. Heart Mate II Risk scores (HMRS) omogućuje procjenu rizika mortaliteta za bolesnike s implantiranom kontinuiranom crpkom neovisno o indikaciji „bridge to transplant“ ili „destination therapy“. HMRS je važan i u utvrđivanju preoperacijskih čimbenika rizika na kojima bi intervencija mogla dovesti do poboljšanja preživljenja nakon implantacije LVAD-a. Moguća aplikacija rizičnih modela može biti u boljem identificiranju kandidata za transplantaciju srca ili LVAD implantaciju ili kao pomoć za intenziviranje bolničke ili izvanbolničke terapije.

Risk model can play an important role in understanding of likely outcome. Among the first was Heart Failure Survival score (HFSS) developed for the selection of transplant candidate. Enhanced Feedback for Effective Cardiac Treatment (EFFECT) predicted in-hospital mortality in patients hospitalized with heart failure (HF) more accurately than did regression trees (ADHERE risk score). Seattle Heart Failure Model (SHFM) is continuous risk score derived with data from PRAISE-1 trial, and validated in cohort of 10000 outpatients population. The SHFM is highly predictive of the proportion of total mortality that resulted from sudden death versus pump-failure death. Meta-Analysis Global Group in Chronic Heart Failure (MAGGIC) risk score is most applicable for patients at a stable point in their disease. A novel web-based calculator (BCN Bio-HF calculator) incorporating NT-proBNP, hs-cTnT and ST2. LVAD mortality risk prediction is important for candidate selection and communicating expectations to patients and clinicians. Destination therapy risk scores (DTRS) is the most commonly applied LVAD risk prediction tool and was derived from patients in the HeartMate XVE to estimate patient risk for 90-day in-hospital mortality after LVAD implant. INTERMACS classification relies on clinical assessment to divide NYHA class IIIB/IV into 7 more granular profiles, also derived from patients in the pulsatile pump. The Heart Mate II Risk scores (HMRS) providing patient-level LVAD mortality risk assessment regardless of BTT or DT indication. The HMRS also identifies important pre-operative risk factors that might serve as targets for goal-directed interventions meant to improve LVAD candidate survival. Potential applications of risk scores include selection of transplant or LVAD candidates or for intensified in hospital or post discharge therapy.

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