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Best practices for highly sensitized candidates

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Sensitized heart transplant candidates usually have longer waiting time, and higher mortality rate while they are on the list. Allo-sensitization occurs due to pregnancy, prior transplant, and transfusions, homograft material used for congenital heart disease repair and left ventricular assist devices (LVADs). Moreover, these risks are often stacked, forming a seemingly insurmountable barrier in some cases. Although the prevalence of human leukocyte antigen (HLA) sensitization is increasing, current desensitization strategies are limited and not standardized. The usual cut-off to be considered sensitized is PRA >10% in heart transplantation. Risk factors for the development of antibodies include prior blood transfusions, pregnancies, prior organ transplantation, and use of human homograft tissue for vascular reconstruction in children and adults with congenital heart disease. Still, there are no agreed protocols for desensitization therapy. Many centers treat pre-transplant PRA >50% (average threshold 35%, range 10% to 100%). Approximately 45%of treated sensitized patients achieve significant reduction in circulating antibodies, and 73% undergo successful heart transplantation. In this presentation, several cases of highly sensitized patients underwent heart transplant will be discussed following the review of the literatures.