

HYPERTENSION

- Although hypertension is a common side effect of mTOR inhibitors (e.g. sirolimus or everolimus), clinical trials showed no meaningful increase in the incidence of hypertension versus comparator agents. ^[1]

Optimal management of hypertension after transplantation includes

- Manipulating immunotherapy (when possible) to reduce exposure to cyclosporine.
- Conversion to sirolimus or everolimus. ^[1]
- Most patients still require at least one antihypertensive medication to control blood pressure ^[1]
- Calcium-channel blockers are often considered first-line agents for post-transplant hypertension because positive interactions with immunosuppressant may reduce the requirement for CNIs or mTOR inhibitors and reduce nephrotoxicity along with their potential ability to counteract the vasoconstrictive effects of CNIs ^{[1] [2]}
- Beta-blockers are recommended particularly for patients with congestive heart failure or history of myocardial infarction and are associated with better long-term survival of RTRs ^{[1] [2]}
- ACEI & ARBs should be used cautiously because they can exacerbate reductions in GFR, hyperkalaemia, and anaemia. In addition, increased rates of angioedema were noted when ACE inhibitors were combined with mTOR inhibitors. ^{[1] [2]}

[1]- Kaplan, B., Qazi, Y., & Wellen, J. (2014). Strategies for the management of adverse events associated with mTOR inhibitors. *Transplantation Reviews*, 28(3), 126-133. doi: 10.1016/j.tre.2014.03.002

[2]- Kuźmiuk-Glembin, I., Adrych, D., Tylicki, L., Heleniak, Z., Garnier, H., & Wiśniewski, J. et al. (2018). Treatment of Hypertension in Renal Transplant Recipients in Four Independent Cross-Sectional Analyses. *Kidney And Blood Pressure Research*, 43(1), 45-54. doi: 10.1159/000486905

