Cardiovascular implantable electronic device (CIED) therapy in patients with renal insufficiency has a lot of problems. The opposite site of the shunt of hemodialysis is usually chosen for the CIED implantation site. However, the shunt is sometimes moved to the CIED implantation site due to the shunt troubles. Renal insufficiency increases the risk of complications of CIED implantation such as bleeding and device-related infection. The risk of complications parallels the severity of chronic kidney disease. Chronic kidney disease is associated with increased mortality in patients who received CIED, especially ICD (implantable cardioverter-defibrillator) therapy. In cardiac resynchronization therapy, responder rate is lower and mortality is greater in patients with renal insufficiency than that without. Chronic kidney disease is an independent predictor of all cause mortality. However, the reverse remodeling by CRT may bring about a good outcome even in patients with chronic kidney disease.

**Keywords:** cardiovascular implantable electronic device, renal insufficiency, cardiac resynchronization therapy