Continuous veno-venous hemofiltration (CVVH) has gained wide acceptance within intensive care units as a method of renal replacement therapy. Small and medium sized molecules are removed by convection and replacement fluid is infused, thus preserving hemodynamic stability. Hemofiltration is most suitable in patients with cardiogenic shock and renal failure, where conventional hemodialysis may cause hemodynamic instability. It may also be used in patients with severe heart failure complicated with edema, fluid accumulation and renal failure and in patients after out of hospital cardiac arrest. Hemofiltration has been shown to be effective in preventing the deterioration of renal function due to contrast-agent–induced nephropathy after coronary interventions. We recently started a project of hemofiltration in our ICCU patients. The results of our first 35 patients treated with hemofiltration are as follows: Eleven patients came with ventricular fibrillation, eight of them (72%) regained consciousness. Of 6 patient with asystole or PEA, two regained consciousness. Thirteen patients came with shock and renal failure, 4 recovered and 9 died. Five patients with high creatinine were treated after coronary angiography. Two of them deteriorated to continuous hemodialysis. We conclude that hemofiltration may be highly effective in patient with out of hospital sudden death in addition to hypothermia, and it may help some of the patients with shock and renal failure.