









# Managing periprocedural cardiac tamponade in an invasive laboratory setting

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Pericardial tamponade is the most common major complication during invasive electrophysiology (EP) procedures, particularly in atrial flutter and atrial fibrillation ablations. According to a multicenter analysis, the incidence of tamponade in atrial fibrillation ablation is 0.67%, while in atrial flutter ablation it is 0.27%, and the highest incidence is during ventricular tachycardia ablations, with an incidence of 2.2%. Tamponade requires urgent care, including pericardiocentesis, and can be fatal if not promptly recognized and treated. Mortality associated with ablations is 0.17%, with tamponade contributing to 9.7% of all deaths following these procedures.<sup>1</sup> The most common procedure in most centers for treating tamponade begins with fluoroscopy-guided pericardiocentesis, typically through an anterior subxiphoid approach. After puncture, a pigtail catheter is inserted for continuous drainage of pericardial fluid. Protamine is routinely administered in most centers either immediately after diagnosis or after complete aspiration of blood from the pericardium. Auto-transfusion of aspirated blood is also standard in more than 70% of centers, while the decision for surgical intervention is made if bleeding is not controlled within 60 to 80 minutes.<sup>1</sup> Nurses play a key role in recognizing early symptoms of tamponade, quickly activating emergency protocols, and assisting during pericardiocentesis. Their responsibilities include monitoring vital signs, administering protamine to neutralize heparin, and performing auto-transfusion of aspirated blood, thereby contributing to the stabilization of the patient.<sup>2</sup> Establishing an effective, agreed-upon emergency protocol for cases such as tamponade is crucial for reducing risk and improving treatment outcomes, especially in hospitals with limited resources or without constant availability of cardiac surgery.<sup>1</sup>

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## LITERATURE

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