**Background:** Patients with mechanical heart valves are considered high risk for thromboembolism if anticoagulation is suspended prior to device implantation. Unfractionated heparin is commonly used as bridging therapy in these patients, while warfarin is discontinued. Studies have suggested this may be associated with adverse outcomes; our aim was to investigate whether the use of intravenous heparin increased complications and hospital stay.

**Methods:** Case note review of consecutive patients from January 2008 to September 2010 with mechanical valves undergoing device implantation was performed. All patients were on warfarin. Patients were analysed in 2 groups: (1) patients who received intravenous heparin within the 5 days either side of implant; (2) those who did not.

**Results:** Fifty-one patients were identified: 19 had an aortic prosthesis, 15 mitral and 17 had 2 or more mechanical valves. Warfarin was discontinued in all patients. Haematoma prolonging hospitalisation or requiring evacuation, blood loss requiring transfusion and thromboembolus were more frequent in group 1 (41% versus 16%, \( p = 0.04 \)), and mean hospital stay was longer (7.6 ± 6.2 versus 2.4 ± 2.8 days, \( p < 0.01 \)).

**Conclusion:** In patients with mechanical heart valves undergoing device implantation, intravenous heparin as bridging anticoagulant is associated with increased risk of complications and longer hospital stay.

**Keywords:** cardiac implantable electronic device, intravenous heparin, mechanical heart valves