



## Service Priorities and Programmes Electronic Presentations

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### **The Use of Bridging Anticoagulation for Patients with High Thromboembolic Risk Undergoing Gastrointestinal Endoscopy – 12 years' Experience from a Single Center**

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#### **Introduction**

Many people worldwide are taking warfarin for treatment or prevention of thromboembolism. Before invasive procedure, temporary interruption of anticoagulation is often required. During the peri-procedural period, thromboembolic event may occur and bridging therapy (BT) has been advocated to minimize such risk. Traditionally, unfractionated heparin (UFH) was the therapy of choice particularly in patients with prosthetic heart valves. Recently, low-molecular-weight heparin (LMWH) is increasingly favored as the alternative. Nevertheless, the safety and efficacy of LMWH as BT has only been evaluated by a few studies.

#### **Objectives**

In this study, we aimed to report our long-term experience in using bridging anticoagulation for this specific group of patients.

#### **Methodology**

**Aim:** To evaluate the safety and efficacy of low-molecular-weight heparin (LMWH) and unfractionated heparin (UFH) bridging anticoagulation for patients with high thromboembolic risk. **Subjects:** Patients with high thromboembolic risk who underwent GI endoscopy were retrieved over a period of 12 years in a regional hospital. **Interventions:** Bridging therapy (BT) using LMWH and UFH. **Main outcome measures:** Thromboembolic and bleeding adverse events. Risk factors for post-polypectomy bleeding (PPB). Length of hospital stay.

#### **Result**

A total of 274 GI endoscopic procedures were performed in patients with high thromboembolic risk. Enoxaparin and UFH were used as BT in 148 (54.0%) and 126 (46.0%) patients respectively. Ischemic stroke occurred in 2 (1.6%) patients in UFH-bridged group and 1 (0.7%) patient in LMWH-bridged group ( $P=0.569$ ). Though the bleeding risk were not significantly different between the LMWH-bridged and UFH-bridged groups (17.1% versus 7.7%,  $P=0.448$ ), the overall PPB rate (13.1%) was remarkably high. Polyp size  $\geq 10$ mm was the only factor found to be predictive of

PPB (OR=11.0, 95% CI=2.13 to 56.3, P=0.005). For elective procedures, the use of LMWH was associated with a significantly shorter median length of hospital stay (1 versus 7 days, P<0.001).