

INR Clinic Procedure: Perioperative Management of Anticoagulation Therapy

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Background

Introduction to Perioperative Bridging

Management of anticoagulation therapy during invasive procedures is a concern for patients and clinicians involved in the Guelph Family Health Team (GFHT) INR Clinic. Patients requiring long-term oral anticoagulation may be at an increased risk of embolic complications if warfarin is interrupted for surgery. However, continuation of warfarin during the perioperative period may result in an increased risk of bleeding.

The risk of both thromboembolism and hemorrhage may be minimized by temporarily discontinuing warfarin and replacing it with parenteral anticoagulation. This approach to anticoagulation is referred to as bridging anticoagulation. This can be defined as the administration of a therapeutic-dose or prophylactic-dose regimen of a parenteral short-acting anticoagulant for approximately 8 to 14 days during interruption of warfarin therapy when the INR is not within therapeutic range.

The therapeutic goal of bridging is to minimize the time patients are not receiving anticoagulant therapy, thereby minimizing the risk for thromboembolism. This should be done in a manner that minimizes patients' risk for perioperative bleeding. The nature of the perioperative anticoagulant treatment will depend on patient clinical characteristics and the type of procedure they are undergoing.

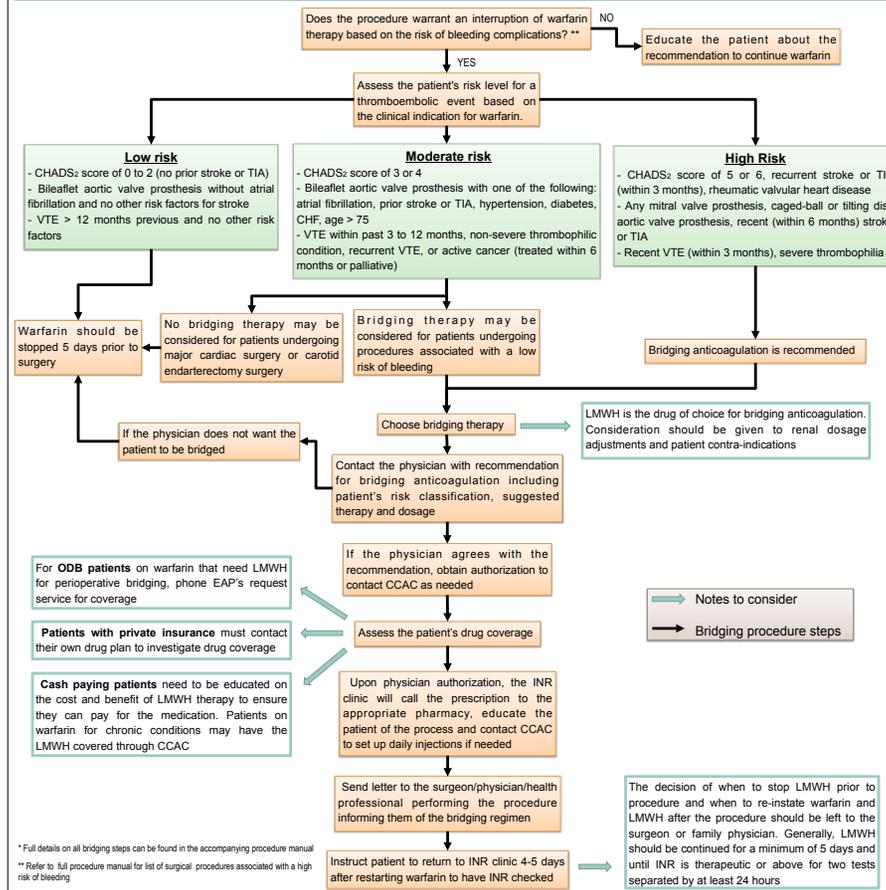
Why These Services are Offered at the INR Clinic

- To provide evidence-based recommendations for patients who are receiving anticoagulation therapy with warfarin, managed by the INR Clinic, and who may require temporary treatment interruptions when undergoing surgical procedures.
- To create a systematic approach to be followed for every patient of the GFHT INR Clinic during the perioperative period
- To decrease the burden placed on other health care professionals and to utilize the knowledge and expertise of the INR clinic staff
- To reduce the risk of thromboembolism associated with improper anticoagulation management during the perioperative period
- To establish a collaborative multidisciplinary approach and improve communication between health care providers and patients

System Leadership

Process

GFHT Perioperative Anticoagulation Bridging Procedure* (Adapted from CHEST 2012 Guidelines)



Organizational Capacity

System Navigation

Outcomes

INR Bridging Statistics

The following table contains statistics taken from the Guelph INR Clinic over a 6-month period from January 2013 to June 2013.

	Number of Patients Seen	Number of Patient Visits	Time spent
Entire INR Clinic	963	6566	26 hrs/week
INR Clinic anticoagulation bridging	49	110	27.5 hrs

Testimonials

"I would love to see bridging therapy options available for my patients. For example a referral for bridging in high risk patients would result in any necessary EAP, CCAC and prescriptions being arranged for the patient prior to the procedure." - Dr. Kotachchi, Gastroenterologist

"The INR Clinic has been a great benefit to my practice. Not only are people at target more than previously when I managed them, I also have less administration to do each day. A real time saver for me." - Dr. Rosebush, General Practitioner

"The current process has streamlined the bridging process for my patients as well as myself. People are very clear on the steps taking place and are getting consistently good education from our INR Clinic staff. Keep up the good work." - Dr. Potter, General Practitioner

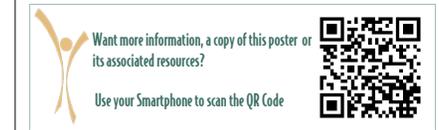
"I find that the INR Clinic staff has been one of the most beneficial FHT programs to myself and my patients. I would be interested in having a FHT pharmaceutical opinion on the novel anticoagulation vs. Coumadin." - Dr. Pavanel, General Practitioner

"Makes complicated process smooth and effortless for doctors. Reduces risk of communication errors and mix-ups." - Dr. Kotalik, General Practitioner

"It's a wonderful program. It saves physician's time and also provides convenient, consistent care to patients. We love it!" - Dr. Song, General Practitioner

"I am pleased to have access to the services of the INR Clinic in Guelph. Continuity and rapidly available data makes the anticoagulation management more effective. In my practice this particularly impacts on peri operative management allowing smooth transition on and off oral anticoagulants. It also makes establishing new anticoagulation for our patients easier to implement and represents significant advance in therapy in this important area." - Dr. Pardon, Endocrinologist

"I was bridged at the INR clinic at Yarmouth and found the experience very helpful. The staff were quite understanding and explained the procedure and what to expect. It made me less apprehensive about stopping my Coumadin." - Michelle M, INR bridging patient



Sustainability