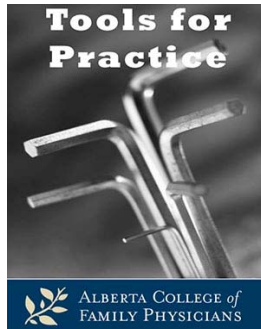


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Atrial fibrillation patients needing brief interruptions in Warfarin: Bridge or not?

Clinical Question:

If non-valvular atrial fibrillation (AF) patients on warfarin require an interruption of warfarin, should we offer bridging with a heparin product?

Evidence

- Two recent Cohort studies offer some information on this question,
 - Study 1: Had 101 sites with 1024 patients having 1293 warfarin interruptions
 - 54% had AF (rest were prosthetic valves, DVT, etc).
 - Relatively low-risk procedures: colonoscopy, oral/dental surgery, ophthalmic surgery, biopsies, etc.
 - 8% bridged
 - Outcome/interruption after 30 days,
 - Thromboembolism:
 - 0% bridged vs. 0.6% not bridged
 - Duration of interruption increased risk:
 - 0.4% at ≤ 5 days
 - 2.2% at ≥ 7 days
 - Major bleeds: 3.7% bridged vs. 0.2% not bridged
 - Study 2: Had 1 site with 345 AF patients having 386 procedures (89% had interruptions warfarin)
 - Generally, higher-risk procedures: colonoscopy, urologic, cardiac procedures, orthopedic
 - 53% bridged
 - Over 3 months,
 - Cerebral ischemia: 1% bridged vs. 0.6% not bridged
 - Major hemorrhage: 3% bridged vs. 2.3% not bridged

Context

- Both studies^{1,2} are cohort design and have multiple limitations.
 - For example: Groups are not balanced (unequal number bridged, patients with previous stroke, etc).
- Unfortunately, no randomized controlled trials (RCT) address this question yet.

- The RCT on bridging will finish 2013 - strangely titled BRIDGE.
- Current European & US cardiology AF guideline³ recommend no bridging in lower risk cases but recommend bridging if
 - Mechanical valves,
 - High risk of thromboembolism (particularly a past history of thromboembolism), Or
 - Interruptions are >7 days.
- The American Chest Physicians⁴ suggest bridging for all interruptions in AF patients at moderate or higher risk of thromboembolism but
 - Not bridging low risks patients is a reasonable option.
 - They define low risk as AF patients on warfarin with CHADS score of ≤2.
 - To review CHADS scoring (in AF), please see [website](#).

Bottom-line: According to present evidence, non-valvular AF patients on warfarin at lower risk of thromboembolism do not require bridging for brief interruptions ≤7days (preferably ≤5days). Bridging is still recommended in higher risk (e.g. past stroke/TIA or CHADS score ≥3) and interruptions >7 days.

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1. [Arch Intern Med. 2008;168\(1\):63-69](#)
2. [Mayo Clin Proc. 2008;83\(6\):639-645](#)
3. [Circulation 2006;114:e257-e354](#)
4. [Chest 2008;133;299S-339S](#)

Tools for Practice is a biweekly article summarizing medical evidence with a focus on topical issues and practice modifying information. It is coordinated by G. Michael Allan, MD, CCFP and the content is written by practising family physicians. Archived articles are available on the Towards Optimized Practice website and the ACFP website.

This communication reflects the opinion of the author and does not necessarily mirror the perspective and policy of the Alberta College of Family Physicians.