

# Antithrombotic Therapy

## Evaluation of the safety of performing core needle biopsy of the breast without suspending medication

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**BACKGROUND:** Patients are increasingly presenting for outpatient breast biopsy while taking medically necessary antithrombotic therapy. Cessation of this medication prior to biopsy increases patients' risk of vascular complications.

**OBJECTIVES:** This article evaluates the safety of performing core needle biopsies of the breast in patients without suspending prescription antithrombotic therapy.

**METHODS:** In this retrospective chart review study, patients continued prescription antithrombotic therapy prior to and including the day of biopsy. Follow-up telephone assessment, relying on patient self-report, was completed on the same or next business day. The chart review included report of bleeding as a postprocedure complication.

**FINDINGS:** None of the 42 women who completed core needle biopsy of the breast while on antithrombotic therapy reported postdischarge bleeding, and 2 reported hematoma, supporting the safety of continuing antithrombotic therapy in patients who undergo core needle biopsy of the breast.

### KEYWORDS

anticoagulants; antiplatelets; antithrombotic therapy; core needle breast biopsy

### DIGITAL OBJECT IDENTIFIER

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**MAMMOGRAPHY AND SUBSEQUENT BREAST BIOPSY** are frequently performed diagnostic interventions. Sixty-seven percent of women aged 40 years or older have had a mammogram within the past two years (National Center for Health Statistics, 2015). More than 39 million mammography procedures are performed annually in the United States (U.S. Food and Drug Administration, 2017). The breast biopsy rate in women screened for breast cancer each year for 10 years is 5%–7% (Dahabreh et al., 2014).

According to the National Center for Health Statistics (2015), the percentage of individuals aged 65 years or older who took a prescription antithrombotic therapy medication in the past 30 days has more than doubled, from 6% in 1988–1994 to 16% in 2009–2012. Patients on chronic antithrombotic therapy to decrease their risk of life-threatening events (e.g., stroke, myocardial infarction, pulmonary embolism) have an additional component of safety for providers to consider (Zhang & Liu, 2017).

All three English-language studies published within the diagnostic imaging specialty since 2000 compared bleeding complications after core needle biopsy of the breast in patients with and without concurrent antithrombotic therapy (Chetlen, Kasales, Mack, Schetter, & Zhu, 2013; Melotti & Berg, 2000; Somerville, Seifert, Destounis, Murphy, & Young, 2008). Melotti and Berg's (2000) anticoagulation group included patients on warfarin, heparin, and aspirin; Somerville et al. (2008) evaluated aspirin, warfarin, and aspirin/acetaminophen/caffeine (Excedrin®); and Chetlen et al. (2013) compared patients with aspirin, warfarin, clopidogrel, or daily nonsteroidal anti-inflammatory drug (NSAID) use to those in the non-antithrombotic patient group. These studies indicated that antithrombotics did not increase the incidence of clinically significant hematoma formation and that stopping or altering antithrombotic therapy presents medical risks to patients that exceed the procedural bleeding risk (Chetlen et al., 2013; Melotti & Berg, 2000).

Dunn and Turpie's (2003) systematic review of perioperative management of patients receiving oral anticoagulants identified that, historically, the literature provided limited evidence for guiding practice. A 2005 study by Ihezue, Smart, Dewbury, Mehta, and Burgess concluded that warfarin need not be discontinued prior to prostate biopsy; however, expert opinions at that time differed about whether the practice change would increase