Cost of Stroke Among High-Risk AF Patients

In a hypothetical population of 1000 high-risk atrial fibrillation (AF) patients, 8.2% fewer ischemic stroke events occur when anticoagulant use is increased by 10%.
Patients treated with anticoagulants would experience lower ischemic stroke risk than untreated patients.\(^2\)

AF = Atrial Fibrillation

### Stroke Risk\(^1\)

- **Total Population of AF Patients at Risk for Stroke\(^*\):**
  - Low Risk: 8%
  - Moderate Risk: 27%
  - High Risk: 66%

### Anticoagulant Use\(^1\)

- **Hypothetical Model of High-Risk (CHADS\(_2\) ≥2) AF Population (n = 1000):**
  - 60% High Risk Untreated\(^1\)
  - 40% High Risk Treated\(^1\)

61% of patients with high stroke and low bleed risk are not being treated with an anticoagulant\(^1\)

### Cost Per Nonfatal Stroke Event

- **Ischemic\(^3\):** $80,969
- **Hemorrhagic\(^3\):** $112,321

### Cost Per Bleed Event

- **Intracranial\(^3\):** $112,321
- **Extracranial\(^3\):** $6130

### Number of Total Events\(^4\)

- 45 Ischemic Stroke Events
- 7 Extracranial Bleeds
- 2 Intracranial Bleeds

(high stroke risk regardless of bleed risk per 1000 patients)

### Total Cost\(^4\)

- **about $3.4 million**

All amounts converted to 2013 US dollars using the medical care component of the Consumer Price Index.

---

\(^*\)See back page for additional details on AQuIA tool

\(^1\)Percentages may not sum up to 100% due to rounding

\(^2\)% of anticoagulant use based on AQuIA results
An increase in anticoagulant use could result in fewer stroke events and commensurate reductions in overall costs.

In a hypothetical population of 1000 high stroke risk AF patients:

- Increasing Anticoagulant Use By 10% results in:
  - Change in Cost: -$260,652
  - Change in Ischemic Stroke Cost: -$236,349
  - More Extracranial Bleed Cost: $1839
  - More Intracranial Bleed Cost: $22,464

An increase in anticoagulant use could result in fewer stroke events and commensurate reductions in overall costs.
Truven Health MarketScan® Medicare Supplemental database was used to generate stroke and anticoagulant use. Analysis was conducted by the Anticoagulant Quality Improvement Analyzer (AQuIA).

AQuIA is a condition-specific software tool designed to evaluate population characteristics, population health risks, and appropriateness of medication use by allowing health plans to upload their pharmacy and medical claims data via a simple point-and-click method.

References
1. Data generated from Anticoagulant Quality Improvement Analyzer (AQuIA).
4. Data generated from Cost of Clot Model.