S-Table 1 Definitions (type of events and conditional judgment)

**Stroke:** ICD-10 codes I60, I61, I62, I63, and I64

- All of the following numbers (1–3) are satisfied:
  1. Imaging (MRI or CT) is performed after the date of a definitive diagnosis of atrial fibrillation. Imaging (MRI or CT) is performed during the evaluation period of stroke events in cardioembolic stroke.
  2. Diagnosis of stroke defined by ICD codes I60–I64 in the same month as the date of imaging.
  3. Either of the following conditions is satisfied:
     - Rehabilitation of cerebrovascular diseases within 30 days from the date of imaging
     - Death within 30 days from the date of imaging

**Systemic embolic events:** ICD-10 codes H34, I21.9, I24.0, I74, K55.0, and N28.0

- Retinal vascular occlusions
  All of the following numbers (1–2) are satisfied:
  1. An ophthalmic examination is performed after the date of a definitive diagnosis of atrial fibrillation or cardioembolic stroke.
  2. Diagnosis of H34 retinal vascular occlusion in the same month as the date of the ophthalmic examination.

- Other than retinal vascular occlusions
  All of the following numbers (1–4) are satisfied:
  1. MRI, CT, roentgenography, or vascular echo is performed after the date of a definitive diagnosis of atrial fibrillation or cardioembolic stroke.
  2. Systemic embolism is diagnosed and recorded as the name of disease during hospitalization in the same month as the date of imaging.
  3. On the date of imaging or on the next day, either of the following conditions is satisfied:
     - Treatment with heparin >5000 units or thrombectomy on the day of imaging or the next day
     - Death within 30 days from the date of imaging
  4. Fees for emergency medicine administration or specific intensive care management on the day of imaging are calculated.

**Bleeding requiring blood transfusion:** transfusion of more than 800 mL of blood

**Intracranial hemorrhage:** ICD-10 codes I60-63 and S06

- All of the following numbers (1–3) are satisfied:
  1. Imaging (MRI or CT) is performed after the date of a definitive diagnosis of atrial fibrillation. Imaging (MRI or CT) is performed during the evaluation period of stroke events in cardioembolic stroke.
  2. Diagnosis of stroke defined by ICD codes I60–I63 and S06 in the same month as the date of imaging.
  3. Either of the following conditions is satisfied:
     - Rehabilitation of cerebrovascular diseases within 30 days from the date of imaging
     - Death within 30 days from the date of imaging

**Intraocular hemorrhage:** ICD-10 codes H00-H59, S00.1, and S05.1

- All of the following numbers (1–2) are satisfied:
  1. An ophthalmic examination is performed after the date of a definitive diagnosis of atrial fibrillation or cardioembolic stroke.
  2. Diagnosis of H00-H59, S00.1, and S05.1 in the same month as the date of the ophthalmic examination.

**Upper gastrointestinal bleeding:** ICD-10 codes K20-K31, K92, I85.0, and I86.4

- All of the following numbers (1–2) are satisfied:
  1. A gastroduodenal fiber or fecal occult blood test is performed after the date of a definitive diagnosis of atrial fibrillation or cardioembolic stroke.
  2. Diagnosis of K20-K31, K92, I85.0, and I86.4 in the same month as the date of the examination.

**Lower gastrointestinal bleeding:** ICD-10 codes K55-K63, K65-K67, K92, and N98.8

- All of the following numbers (1–2) are satisfied:
  1. A colon fiberscopy or fecal occult blood test is performed after the date of a definitive diagnosis of atrial fibrillation or cardioembolic stroke.
  2. Diagnosis of K55-K63, K65-K67, K92, and N98.8 in the same month as the date of the examination.

MRI, magnetic resonance imaging; CT, computed tomography; ICD, International Classification of Diseases.