**Introduction** : Atrial fibrillation (AF) is the most common arrhythmia of clinical significance. AF is associated with increased morbidity, especially stroke and heart failure, and increased mortality. Thus, with the aging of the population and improved survival after the occurrence of myocardial infarction and CHF, AF is emerging as a major public health concern. Observational study like registry is a very effective tool to observe the course of the disease and evaluate the effectiveness and safety of the treatment and identify other variant of clinic occurrence. Therefore, registry of AF is very important. However, the registry of AF is not available in North Sumatera Province. We started to collect data in Hadrianus Sinaga hospital, located in the remote area of North Sumatera that have limited source of treatment and diagnostic tools. This registry has a purpose to identify AF diagnosis and treatment in this hospital and evaluate the obedience to clinic guideline.

**Methods** : This was a descriptive observational study in Hadrianus Sinaga Hospital, North Sumatera, Indonesia. This study was done from November 2018 – July 2019. We collect data from patient that willing to be followed up for 24 months. We use CHA2DS2-VASc score and ATRIA score to evaluate the treatment of AF patients. Anticoagulation and Risk Factors in Atrial Fibrillation (ATRIA) study group described a new bleeding risk scheme for AF, which includes five weighted risk factors: anemia, severe renal disease, age ≥ 75 years, previous hemorrhage, and diagnosed hypertension.

**Result** : Until July 2019, we had collected data from 25 patients. From 25 patients, all patients (100%) came to hospital with symptom. Most of the symptom was breathlessness (15 patients/60%), followed by palpitation (5 patients/20%), dizziness (3 patients/12%), and chest pain (2 patients/8%). The majority of AF patients that came to hospital was persistent AF (16 patients/64%), followed by long standing persistent (5 patients/20%), permanent AF (2 patients/8%), and paroxysmal type of AF (2 patients/8%). The classification of AF patients based on ATRIA score showed that the biggest proportion is patient with ATRIA score <4 (18 patients/76,2%), followed score 3 (4 patients/14,3%) and score >4 (3 patients/9,5%). The proportion of female patients that has CHA2DS2-VASc score > 3 and got therapy of anticoagulant is 11 patients (91.7%). The proportion of male patients that has CHA2DS2-VASc score > 2 and got therapy of anticoagulant is 10 patients (76.9%).

**Conclusion** : Hadrianus Sinaga Hospital registry showed that most of patients that came to the hospital is patient AF with symptomatic with the biggest proportion of persistent AF. Most of the patients that include criteria got therapy according the guideline of AF treatment for stroke prevention.