Atrial fibrillation (AF) A Pakistan Perspective: AF patients presented to a tertiary care, University hospital have high CHA2DS2VASC score and associated with higher in-hospital mortality.

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**Introduction**: Atrial fibrillation (AF) is the most common cardiac arrhythmia, associated with significant mortality and morbidity. Studies identifying management and characteristics of AF in Pakistani population is lacking. This study identified the management, association and characteristics of AF patients admitted in a tertiary center, university hospital of Pakistan.

**Methods**: This was a retrospective observational study. Data analysis was performed by reviewing patient’s hospital records after approval by the hospital ethical review committee. Initially hospital records of 212 patients admitted with AF from July 1st 2018 to September 30th 2018 was studied. All patients either previously diagnosed to have AF or developed AF during hospitalization were included in the study. Data were analyzed by using descriptive methods.

**Result**: N=212, 49 % (105) were males. Mean age= 68.5 ±12.09 years. 90.6 %( 192) were admitted via emergency room and only 9.4 %( 20) patients had elective admissions. Mean hospital stay= 6.27 ±5.23 days. Admission diagnosis included Infection/sepsis in 36.8%(78), Congestive cardiac failure in 11.8%(25), Post-surgical procedure in 9.9%(21), Acute coronary syndrome in 8.5%(18), Cerebrovascular disease (CVA) 8.5%(18) and Chronic lung disease 8%(17) of them. Primary atrial fibrillation diagnosis were only seen in 1.9% (4) patients. Comorbidities include Hypertension 85.4 %( 181) of the patients. Hyperthyroidism 1.9 %( 4), Diabetes mellitus 58.5 % ( 124) and coronary artery disease 31.6 %( 67). Valvular heart disease mitral stenosis 5.7% (12), mitral regurgitation 62.7% (133), aortic stenosis 2.8 % (6) and tricuspid regurgitation 33% (70). Only 9% (19) patients had rheumatic heart disease. Mean left ventricular ejection fraction was 48.67% and mean left atrial volume index was 38.83ml/m2. New onset AF was observed in 40.1 %( 85), Paroxysmal AF in 21.7 %( 46), Persistent AF 38.2 %( 81). 73.1% (155) of the patients received Beta blockers, 41.1 %(85) Amiodarone and 9.9%(21) received non dihydropyridine calcium channel blockers. CHA2DS2VASC of ≥2 was seen 93.4 % (198), ≥ 3 in 78.95% (167 ), ≥ 4 in 58.55 % (124). Mean HASBLED score was 2.29. In hospital anticoagulation was given in 75.5% (160) of the patients and 67.4% (143) of all the patients were prescribed anticoagulation on discharge. 26% patients who are eligible for anticoagulation didn't receive anticoagulation on discharge. In hospital mortality was seen in 8% (17) of patient.

**Conclusion**: In Pakistani patients with AF presented to a private care tertiary center hospital, AF has been associated with higher in-hospital mortality of 8%. CHA2DS2VASC of ≥4 was seen in 58.55%.