Cyclization of 1-[4-(piperidin-1-yl)benzylidene]thiosemicarbazide with hydrazonoyl chlorides afforded 1,3-thiazole derivs., which underwent intramol. cyclization to give 1,3-thiazolo[2,3-c]-1,2,4-triazole derivs. Cyclization of 2-cyano-3-[4-(piperidin-1-yl)phenyl]prop-2-enethioamide with hydrazonoyl chlorides yielded 1,3-thiazoles. On the other hand, treatment of 3-oxo-3-(piperidin-1-yl)propanenitrile with Ph isothiocyanate in the presence of KOH resulted 3-anilino-3-mercapto-2-[(piperidin-1-yl)carbonyl]acrylonitrile; which underwent cyclization with hydrazonoyl chlorides to yield the corresponding 1,3,4-thiadiazole derivs., e.g, I. All the synthesized compds. were screened for their anti-arrhythmic activity. Some of them showed promised anti-arrhythmic activity.