The real-world data confirmed the long-term consistency of effectiveness and safety of NOACs in relative to warfarin in NVAF patients in Taiwan's real-world practice. There is a high prevalence of lower-dosage NOAC prescription for SPAF in Taiwan's real-world practice. The real-world data showed that off-label lower-dose is not safer but harmful than on-label NOAC in risk of stroke in Taiwan's real-world practice. Conversely, offlabel over-dose NOAC is not more effective in stroke prevention but harmful than onlabel NOAC in bleeding in Taiwan's real-world practice. We recommend using CG rather than MDRD or EPI formula to estimate renal function and determine labeling NOAC dosage in line with the guideline and RCT trials. The real-world data confirmed the effectiveness and safety of NOACs in relative to warfarin in high-risk patients with NVAF (very elderly, ICH, advanced liver disease, thyroid disease, anemia, thrombocytopenia, cancer, or high atherosclerotic burden...) in Taiwan's real-world practice. Of note, in AF patients of ≥ 80 y/o not appropriate candidates for labelingdoses of NOACs, EDOX 15 was approved for SPAF in Taiwan (ELDERCARE-AF). However, the effectiveness and safety of VLD NOACs (EDOX 15) vs. RD NOACs (EDOX 60/30) need further evaluation.