The "QT Clock" to Improve Detection of QT Prolongation in Long QT Syndrome Patients – Supplementary Material

We computed an additional set of "QT clocks" describing the LQTS cohorts with and without beta-blockers (Figure 1), using the the 5th-95th percentile for each minute-based QTc measurement (Figure 2), and for the symptomatic and asymptomatic LQTS patients (Figure 3).

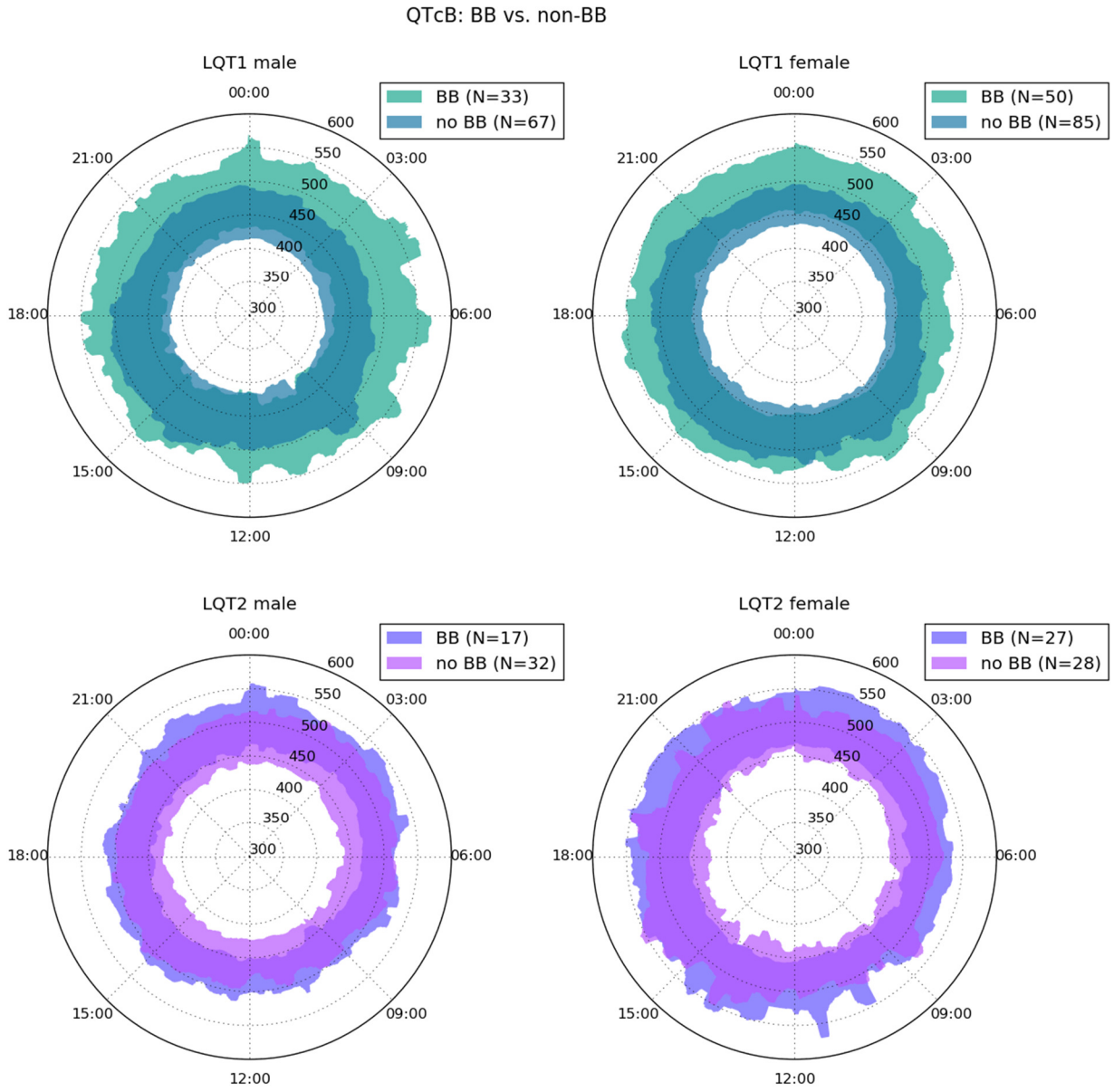

Figure 1: Comparing QTc in Holters of patients on vs. off beta blockers. The range shown is the 16th-84th percentile. As expected, the LQTS patients on beta blockers reveal longer QTc, since it is one of the clinical phenotypes required for the prescription of beta blockers.

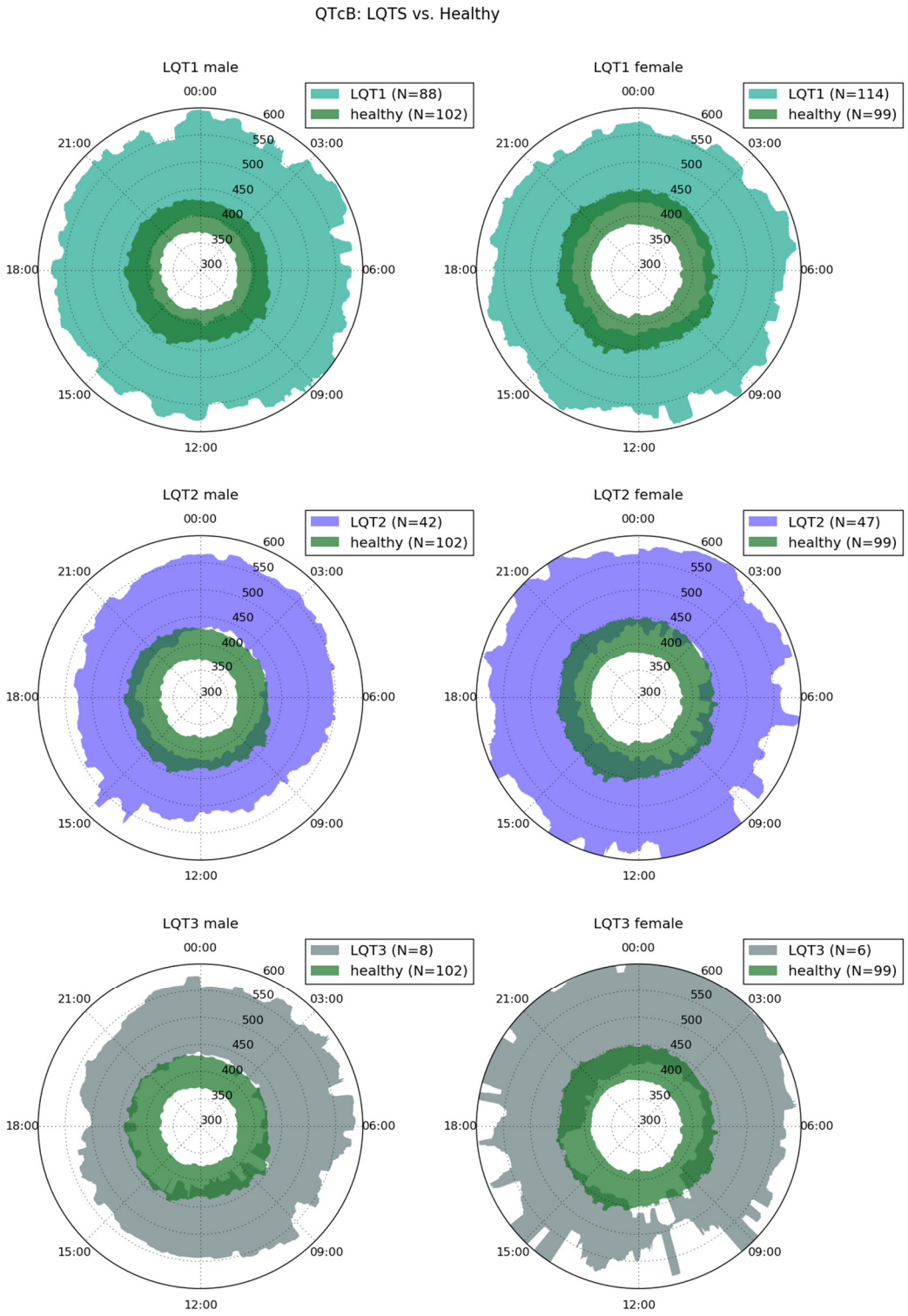

Figure 2: QTc clocks in LQTS patients vs. healthy subjects using the 5th-95th percentile of the distribution of QTc within each minute of the day. In the main article, we present the QT clocks with a narrower percentile range (inner 68%) that emphasized the differences between the groups but eliminated the concealement one would expect to observe in our patient cohorts. We inserted these plots to illustrate the effect of changing the statistical range in the QT clock.

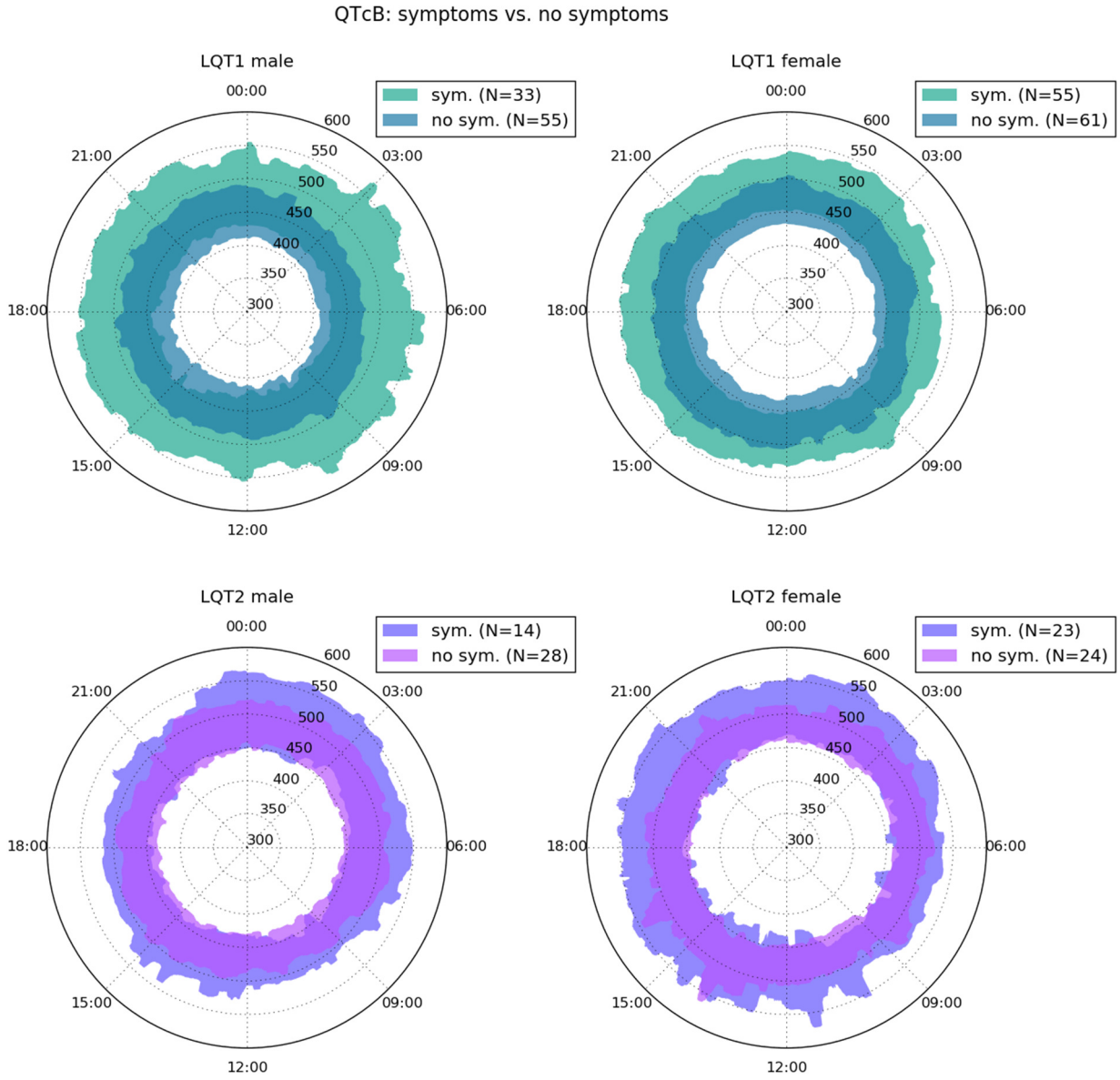

Figure 3: QTc in patients with and without symptoms. The range shown is the 16th-84th percentile. As expected, the symptomatic patients have a longer QTc interval throughout the day.