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Algorithm A - For patients with QTcF >500 ms

QTcF >500 ms confirmed by repeat ECG done ≥30 min apart
Note: Calculate QTcF manually following the recommended procedure.

Asymptomatic

- ✓ Consider hospitalization.
- ✓ Check electrolytes (K, Mg, and Ca) and manage accordingly (refer to the full CTB Guide for QTc monitoring).
- ✓ Stop QT-prolonging drugs **sequentially** starting with ancillary drugs* and DR-TB drugs with the shortest half-life Mfx/Lfx, followed by Cfz, Dlm, then Bdq.**
- ✓ **Repeat ECG after ≥24 hours but < 48 hours.**

Signs/Symptoms present: e.g., palpitations, tachycardia, light-headedness, fainting, syncope, chest pain, loss of consciousness

- ✓ Hospitalize.
- ✓ Check electrolytes (K, Mg and Ca) and manage accordingly (refer to the full CTB Guide for QTc monitoring).
- ✓ Stop **ALL** QT-prolonging drugs.
- ✓ **Repeat ECG after ≥24 hours but < 48 hours.**

QTcF still >500 ms and still asymptomatic

- ✓ Check TSH and manage accordingly (refer to the full CTB Guide for QTc monitoring).
- ✓ Check Hgb and consider blood transfusion, as necessary.
- ✓ Refer to the Case management committee, if needed.
- ✓ **Do at least weekly ECG until normal.**

QTcF still >500 ms and signs/symptoms still present

- ✓ Check TSH and manage accordingly (refer to the full CTB Guide for QTc monitoring).
- ✓ Check Hgb and consider blood transfusion, as necessary.
- ✓ Refer to the Case Management Committee, if needed.
- ✓ **Do at least weekly ECG until normal.**

QTcF <450 ms (M)/<470 ms (F); patient stable

- ✓ **Critical QT-prolonging drugs can be added back.**
- ✓ Consider the following adjustments, in consultation with the case management committee:
  - Use Lfx if previously on Mfx, and DST shows susceptibility.
  - Restart Bdq/Dlm, if previously on Bdq/Dlm (while suspending all other QT-prolonging drugs).
  - Suspend Cfz permanently, if not critical.
- ✓ **Do weekly ECG and on an ad hoc basis until stable.**

*List of QT-prolonging drugs: https://crediblemeds.org/new-drug-list/
** Half-life of medicines: Mfx: 15-16 hrs; Lfx: 6-8 hrs; Cfz: 25 days; Dlm: 38 hrs; Bdq: 5.5 months

Note: Because of the long half-life of Bdq, if the QTcF is prolonged even if the drug is no longer being given, continue ECG monitoring until the QTcF normalizes.

Algorithm B: For patients with QTcF ≥450 ms (M)/≥470 ms (F) but ≤ 500 ms

QTcF ≥450 ms (M)/ ≥470 ms (F) but ≤ 500 ms confirmed by repeat ECG done ≥30 min apart
Note: Calculate QTcF manually following recommended procedure.

Asymptomatic

- ✓ Check electrolytes (potassium, magnesium and calcium) and manage accordingly (refer to the full CTB Guide for QTc monitoring).
- ✓ Consider replacing QT-prolonging ancillary drugs, e.g., haloperidol, amitriptyline, ondansetron, etc.
- ✓ ARTs are usually not stopped or replaced.
- ✓ Consider changing Mfx to Lfx, or decreasing Mfx if given high dose.
- ✓ **Do weekly ECG.**

QTcF ≥450 (M)/ ≥470 (F) ms but ≤500 ms

- ✓ Check TSH and manage accordingly (refer to the full CTB Guide for QTc monitoring)
- ✓ Check Hgb and consider blood transfusion, as necessary.
- ✓ Continue weekly ECG until normal.

QTcF > 500 ms Manage as in Algorithm A.

Signs/Symptoms present: e.g., palpitations, tachycardia, light-headedness, fainting, syncope, chest pain, loss of consciousness

Manage as in Algorithm A.

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