**SUPPLEMENTARY MATERIAL**

**Figure S1.**

**Figure S1**: 12-lead ECG was recorded and transmitted using the nurse smartphone as internet access point for Home-treated patients.

**Immagine che contiene interni, persona, tavolo, sedendo

Descrizione generata automaticamente**

**Figure S2**

**Figure S2 –** Fridericia QTc distribution at T0 (upper panels) and at last available ECG (lower panels) for the three different clinical settings. Median values reached at last available ECG resulted comparable among different clinical settings.

Immagine che contiene testo, barca, sedendo, largo

Descrizione generata automaticamentePanel A1/A2: Home therapy; Panel B1/B2: Medical Ward; Panel C1/C2: ICU.   
Dot-dash line: median value

**Figure S3**

**Figure S3**: the image shows the relation between changes in body temperature between T0-2 and changes in Heart Rate between T0-2; an increase in body temperature significantly correlates (p < 0.001) with an increase in heart rate

Immagine che contiene testo, mappa, fotografia, bianco

Descrizione generata automaticamente

**Figure S4**

**Figure S4:** linear correlation between differences in Heart Rate (bpm) and QT/QTc variations (ΔQT / ΔQTc) (ms).

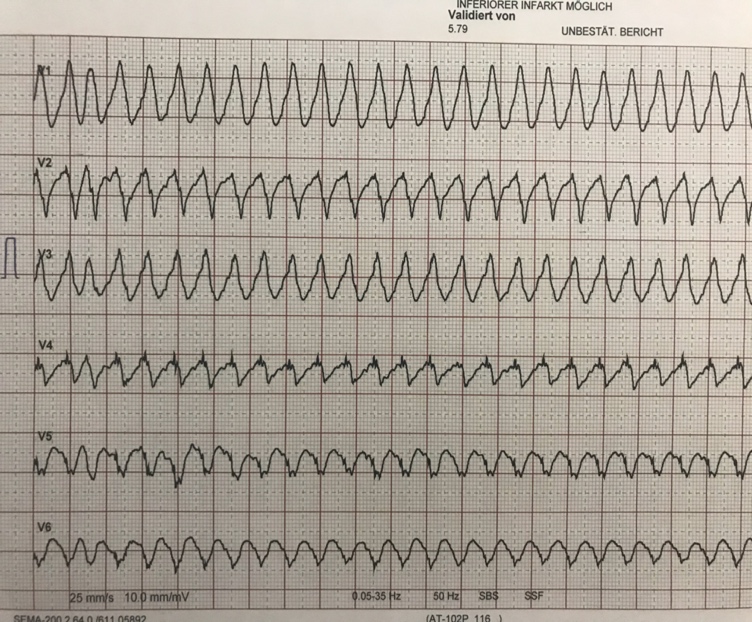
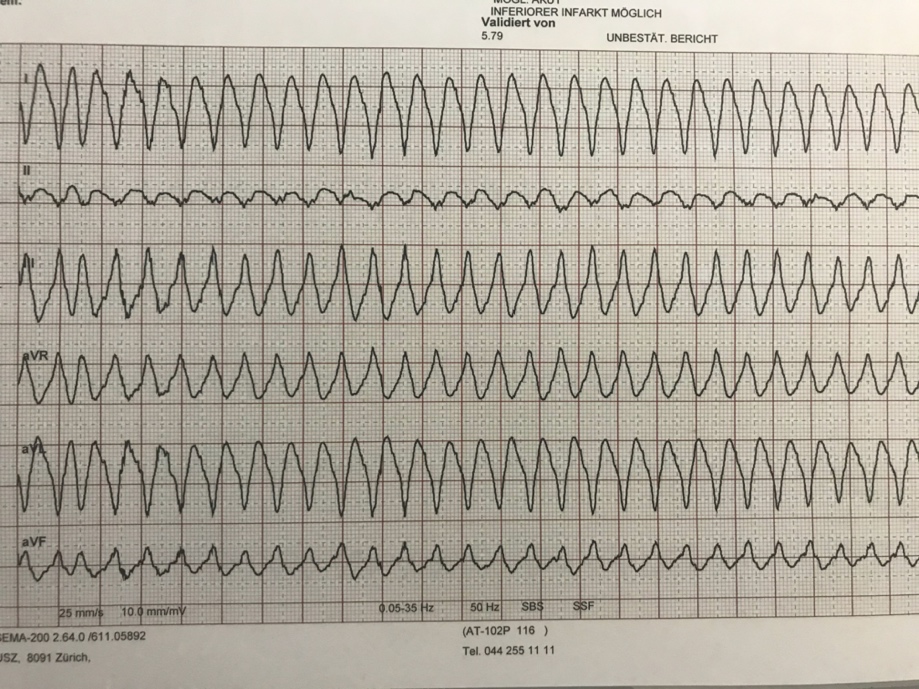
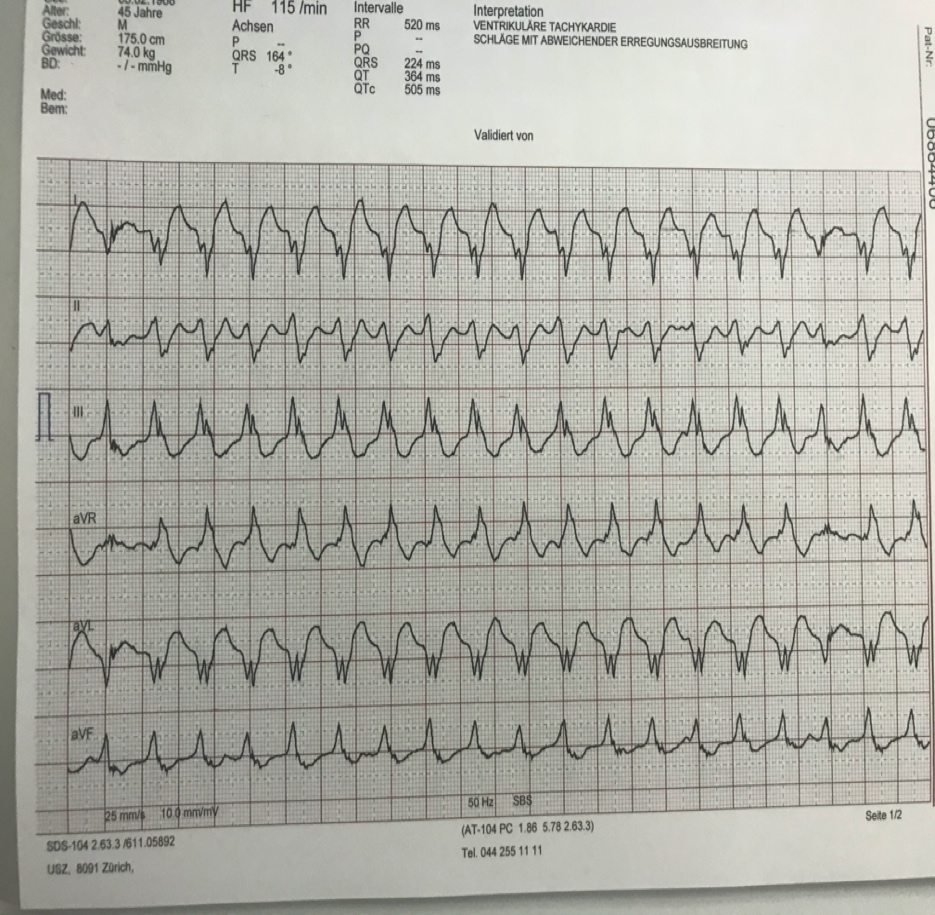
Panel A – QT interval; Panel B – QTc Bazett; Panel C: QTc Fridericia; Panel D: QTc Framingham

**Immagine che contiene testo, mappa

Descrizione generata automaticamente**

**Figure S5**

**Figure S5:** tracing of monomorphic ventricular tachycardia events in patients treated with hydroxychloroquine. Panel A-B: patient 1; panel C-D: patient 2



**A**

**B**

**C**

**D**

**Table S2 –** QT/QTc modifications per clinical setting: no significant differences in the entity of the QT/QTc modification from baseline was observed among groups

DQT/QTc represents a difference between the QT/QTc value at overall and at baseline ECG trace.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TableS1 – QT/QTc modifications per clinical setting | | | | |
|  | HT  (n=126) | MW  (n=495) | ICU  (n=28) | p |
| DQToverall-0 (ms), median [IQR] | +14  [+11; +18] | +13  [+9; +18] | +3  [-21; +23] | 0.498 |
| DQTc Bazettoverall-0 (ms), median [IQR] | -1  [-5; +4] | +7  [+2; +12] | +23  [-2; +48] | 0.065 |
| DQTc Fridericiaoverall-0 (ms), median [IQR] | +5  [+1; +9] | +9  [+5; +13] | +15  [-4; +31] | 0.382 |
| DQTc Framinghamoverall-0 (ms), median [IQR] | +5  [+1; +8] | +9  [+5; +13] | +13  [-6; + 34] | 0.333 |

**TableS2 -** Univariate Impact on QT prolongation at different time points

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | On ECG at T1 (n=348) | | | | | | | |
| CoeffdQT | p | CoeffdQTc (Bz) | p | CoeffdQTc (Fri) | p | CoeffdQTc (Fra) | p |
| Age (years) |  | 0.847 |  | 0.798 |  | 0.780 |  | 0.833 |
| Female gender |  | 0.367 |  | 0.149 |  | 0.483 |  | 0.616 |
| DHR1-0(bpm) | -0.45  [-0.54;-0.36] | **< 0.001** | +0.98  [+0.75;+1.2] | **< 0.001** |  | 0.08 |  | 0.8 |
| Fever | -16.55  [-31.97;-1.122] | **0.036** | -27.3  [-44.6;-10.0] | **0.002** | -23.4  [-37.9;-8.8] | **0.002** | -20.2  [-33.8;-6.6] | **0.004** |
| Baseline QT(ms) | -0.33  [-0.41;-0.26] | **< 0.001** | -0.27  [-0.36;-0.18] | **< 0.001** | -0.47  [-0.55;-0.39] | **< 0.001** | -0.48  [-0.56;-0.40] | **<0.001** |
| Azithromycin |  | 0.976 |  | 0.715 |  | 0.769 |  | 0.547 |
| Lopinavir/Ritonavir |  | 0.901 |  | 0.088 |  | 0.180 | +8.61  [+0.16;+7.1] | **0.046** |
| Boost dose |  | 0.139 | -12.0  [-20.1 -3.9] | **0.004** |  | 0.107 |  | 0.07 |
|  | **On ECG at T2 (n=404)** | | | | | | | |
| CoeffdQT | p | CoeffdQTc (Bz) | p | CoeffdQTC (Fr) | p | CoeffdQTc (Fra) | p |
| Age(years) |  | 0.571 |  | 0.086 |  | 0.141 |  | 0.340 |
| Female gender |  | 0.870 |  | 0.768 |  | 0.822 |  | 0.914 |
| DHR2-0(bpm) | -1.32  [-1.47;-1.16] | **< 0.001** | +0.90  [0.72;+1.1] | **< 0.0001** |  | 0.520 |  | 0.274 |
| Fever |  | 0.987 | +16.4  [+4.7;+28.1] | **0.006** | +13.9  [+4.0;+23.7] | **0.006** | +13.0  [+3.9;+22.2] | **0.005** |
| Baseline QT(ms) | -0.52  [-0.60;-0.44] | **< 0.001** | -0.57  [-0.66;-0.48] | **< 0.001** | -0.55  [-0.64;-0.48] | **< 0.001** | -0.55  [-0.63;-0.47] | **<0.0001** |
| Azithromycin | +9.3  [+0.25;+18.4] | **0.044** |  | 0.275 |  | 0.085 |  | 0.065 |
| Lopinavir/Ritonavir |  | 0.357 |  | 0.690 |  | 0.897 |  | 0.864 |
| Boost dose |  | 0.079 |  | 0.238 |  | 0.093 |  | 0.092 |
| DT (oC)# |  | 0.121 |  | 0.115 |  | 0.693 |  | 0.739 |
|  | **On Overall ECG\* (n=649)** | | | | | | | |
| CoeffdQT | p | CoeffdQTc (Bz) | p | CoeffdQTC (Fr) | p | CoeffdQTc (Fra) | p |
| Age(years) |  | 0.757 |  | 0.827 |  | 0.802 |  | 0.829 |
| Female gender |  | 0.797 |  | 0.177 |  | 0.531 |  | 0.606 |
| DHRoverall-0(bpm) | -1.35  [-1.47;-1.22] | **< 0.001** | +0.97  [+0.75;+1.19] | **<0.001** |  | 0.159 |  | 0.791 |
| Fever |  | 0.987 | -27.0  [-44.2;-9.9] | **0.002** | -23.2  [-37.7;-8.7] | **0.002** | -20.2  [-33.7;-6.6] | **0.004** |
| Baseline QT (ms) | -0.45  [-0.51;-0.36] | **< 0.001** | -0.52  [-0.60;-0.44] | **< 0.001** | -0.47  [-0.55 ;-0.40] | **< 0.001** | -0.474  [-0.55;-0.39] | **< 0.001** |
| Azithromycin |  | 0.198 |  | 0.493 |  | 0.599 |  | 0.575 |
| Lopinavir/Ritonavir |  | 0.359 | +11.1  [+0.5;+21.7] | **0.004** |  | 0.113 |  | 0.052 |
| Boost dose |  | 0.152 | -12.9  [-20.8;-4.9] | **0.002** |  | 0.077 |  | 0.074 |

# This sub-analysis was performed on 144 pts, as described in the result section

**\***Overall analysis was performed on the last ECG available, and time was defined as number of days from beginning of the therapy to last available ECG

DHR1-0; 2-0; overall-0: difference in heart rate between Time 1 and baseline, Time 2 and baseline, and overall and baseline ECG, respectively

DT: difference in temperature between Time 2 and baseline

|  |  |  |
| --- | --- | --- |
| Table S3 – Multivariate models | | |
| Multivariate Analysis on dQT | | |
|  | Coeff | p |
| Baseline QT (ms) | -0.29  [-0.34;-0.23] | **< 0.001** |
| DHRoverall-0 (bpm) | -1.14  [-1.27;-1.0] | **< 0.001** |
| Fever |  | 0.87 |
| Lopinavir/Ritonavir |  | 0.730 |
| Dose Boost |  | 0.315 |
| Multivariate Analysis on dQTc (Bazett) | | |
|  | Coeff | p |
| Baseline QTc (ms) | -0.44  [-0.53;-0.36] | **< 0.001** |
| DHRoverall-0 (bpm) | +0.71  [+0.51;+0.91] | **< 0.001** |
| Fever | -18.7  [-32.6;-4.8] | **0.009** |
| Lopinavir/Ritonavir |  | 0.235 |
| Dose Boost |  | 0.162 |
| Multivariate Analysis on dQTc (Fridericia) | | |
|  | Coeff | p |
| Baseline QTc (ms) | -0.48  [-0.59;-0.39] | **< 0.001** |
| DHRoverall-0 (bpm) |  | 0.360 |
| Fever | -16.9  [-29.6;-4.2] | **0.009** |
| Lopinavir/Ritonavir |  | 0.376 |
| Dose Boost |  | 0.072 |
| Multivariate Analysis on dQTc (Framingham) | | |
|  | Coeff | p |
| Baseline QT (ms) | -0.48  [-0.56;-0.40] | **< 0.001** |
| DHRoverall-0 (bpm) |  | 0.795 |
| Fever | -14.7  [-26.6;-2.8] | **0.015** |
| Lopinavir/Ritonavir |  | 0.266 |
| Dose Boost |  | 0.083 |

**TableS3 – Multivariate models for QT/QTc modifications**

DHRoverall-0: difference in heart rate from baseline ECG to overall ECG

**Supplementary Bibliography**

1. Tisdale JE, Jaynes HA, Kingery JR, Mourad NA, Trujillo TN, Overholser BR, Kovacs RJ. Development and Validation of a Risk Score to Predict QT Interval Prolongation in Hospitalized Patients. *Circ Cardiovasc Qual Outcomes* 2013;**6**:479–487.