

# SARS-CoV-2 Management

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|--------------------------|--|--|---|
| <b>Admission</b>         | <p><b>ECG at admission</b><br/> <b>Labs:</b> Ward standards plus differential blood count, CRP, PCT, IL-6, ferritin, D-dimer, NT-proBNP, TropT<br/> <b>Blood cultures at fever</b> and prior to initiation of empiric antibiotic Tx<br/> <b>Virology:</b> pharyngeal swab / tracheal secretion / bronchoalveolar lavage if appl. → resp. viruses <b>incl.</b> SARS-CoV-2 <b>plus</b> serum SARS-CoV-2 IgA-/IgG-assay<br/> <b>Microbiology:</b> tracheal secretion / bronchoalveolar lavage if appl. → Bacterial/fungi, mycoplasma and legionella PCR, panfungal PCR, galactomannan from TS/BAL, TBC<br/> <b>Study informed consent:</b> ISI, BioMASOTA, FLU 003 Plus</p> | <b>Follow-up</b>   | <p><b>Daily:</b> Ward standards plus differential blood count, CRP, PCT, IL-6, ferritin<br/> <b>Weekly:</b> SARS-CoV-2 IgA-/IgG-assay</p> <p><b>Blood cultures at fever</b> and prior to initiation of empiric antibiotic Tx<br/> <b>In case of deterioration:</b> D-dimer, NT-proBNP, TropT, SARS-CoV-2 IgA-/IgG-assay and SARS-CoV-2 PCR from blood, serum galactomannan (aspergillus-antigen) 3x weekly</p>  |
|                          | <p><b>Elevated ferritin plus fever or acute deterioration</b><br/> <b>Evaluation: Hemophagocytic lymphohistiocytosis</b></p>   |  |   |
| <b>Therapy</b>           | <p><b>Early stage</b><br/>(mild symptoms / regular ward)</p>   | <p><b>Advanced stage</b><br/>(moderate to severe symptoms / intensive care unit)</p> |   |
|                          | <p><b>Supportive therapy</b></p>   |  |   |
| <b>Clinical trials</b>   | <p><b>Remdesivir</b><br/>                 Adaptive COVID-19 Treatment Trial (ACTT-EU/UK)<br/>                 - in preparation: placebo-controlled study</p> <p><u>Main side effects:</u><br/>                 Increased liver enzymes</p>   |  | <p><b><u>Inflammation syndrome vs. bacterial superinfection vs. viral persistence?</u></b></p> <p><b>In preparation: clinical trial</b><br/>                 (Tocilizumab and sarilumab)</p>  |
|                          | <p><b>No treatment with protease inhibitors (e.g. Kaletra) beyond clinical trials<sup>1</sup></b></p>  |  | <p><b><u>Inflammation syndrome vs. bacterial superinfection vs. viral persistence?</u></b></p> <p>Several possible options (e.g. tocilizumab) with currently unknown risk-benefit ratio</p>   |
| <b>Compassionate use</b> | <p><b>Remdesivir</b><br/>                 Compassionate use program<br/>                 - Compassionate use request – permission of district government (Import §79 (5) AMG)<br/>                 - Informed consent for compassionate use and healing attempt, if possible</p> <p><u>Main side effects:</u><br/>                 Increased liver enzymes</p>   |  | <p><b><u>Strict indication</u></b><br/>                 (individual decision e.g. with begin of HighFlow, non-invasive ventilation, mandatory ventilation) – <i>in vitro</i> evidence for immunomodulatory effects<sup>2,3,4</sup>, single clinical trial with results subject for debate<sup>5</sup></p> <p><b>Hydroxychloroquine sulfate (Quensyl)</b><br/>                 CAVE: COVID-19 cardiac involvement / seizure disorders<br/>                 - Tablet: 400mg 1-0-1 on day 1, followed by 200mg 1-0-1 for 4 days, p.o. (grinding possible for application through feeding tube, substance sensitive to light, work quickly)</p> <p><u>Main side effects:</u><br/>                 Cardiac arrhythmia, QT prolongation</p> |
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**Discharge:** Discharge without restrictions: free of symptoms for min. 48h related to COVID-19 **plus** 2 neg. SARS-CoV-2-PCR tests within 24h. Obligation to document within file and to inform local health authorities.

- Discharge in domestic quarantine: inform local health authorities with regard to discharge and latest SARS-CoV-2-PCR-test result.

- All patients living in care facilities need to be tested with regard to SARS-CoV-2- prior to discharge and readmission to the care facility – **for daily updates refer to (6)**

**Referenzen:** (1) Cao N Engl J Med 2020 A Trial of Lopinavir–Ritonavir in Adults Hospitalized with Severe Covid-19 (2) Colson Int J Antimicrob Agents 2020 Chloroquine for the 2019 novel coronavirus SARS-CoV-2 (3) Liu Cell Discov 2020 Hydroxychloroquine, a less toxic derivative of chloroquine, is effective in inhibiting SARS-CoV-2 infection in vitro (4) Wang Cell Res 2020 Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro (5) Gautret IJAA 2020 Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial (6) [https://www.rki.de/DE/Content/Inf/InfAZ/N/Neuartiges\\_Coronavirus/Entlassmanagement.html?nn=13490888](https://www.rki.de/DE/Content/Inf/InfAZ/N/Neuartiges_Coronavirus/Entlassmanagement.html?nn=13490888)