

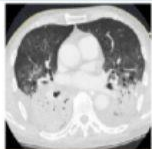


# INTENSIVE CARE MANAGEMENT

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IN THE COVID TIMES

INCUBATION PERIOD and ONSET OF SYMPTOMS 3 DAYS AGO		FIRST WEEK				SECOND WEEK				LONG TERM INFO PENDING
		WARD Illness day 4	WARD Illness day 5	WARD Illness day 6	WARD Illness day 7	WARD/ICU Illness day 8	ICU Illness day 9	ICU Illness day 10	ICU Illness day 11	
<b>Typical features according to current publications</b> Age Mean (SD) 55,5 (13.1), Male (68%) Exposure to Huanan seafood market in Wuhan, China (49%) Chronic medical underlying illness (51%) Admission to Intensive Care Unit (23%)										
REPEATED SAMPLING OF THE NASOPHARYNX AND TRACHEAL ASPIRATES (IF INTUBATED) BY rRT-PCR FOR THE COVID-19		Initial important viral shedding		Decrease of the viral shedding sometimes associated with transient respiratory deterioration		Respiratory failure, increase of the viral shedding and viremia or Decrease of the viral shedding, and superinfections			Duration of viral excretion unknown	
OXYGEN THERAPY AND MECHANICAL VENTILATION		NO		Consider oxygen support	FNC	FNC followed by MV	MV		MV	
ORGAN FAILURE		<b>Typical signs according to current publications</b> Fever, cough, and shortness of breath (15%) bilateral pneumonia (75%), lymphopenia (35%), thrombocytopenia (12%), prothrombin time decreased (30%), elevated liver enzyme levels (about 30%)		Deterioration of respiratory status with most often spontaneous recovery		ARDS If shock beware of superinfections ⚠️ Possible renal failure Neurological failure unlikely Hemostasis disorders			YES	
CO-INFECTION/SUPERINFECTION		NOT LIKELY				Consider a possible HAP/VAP and other nosocomial infections (see text for diagnostic procedures)			Profound immune paralysis and late onset infections	
ANTIBIOTICS		NO				Consider antibiotic therapy			YES	
ANTIVIRAL AGENTS		NO				Consider antiviral agents if deterioration <sup>a</sup>				

FNC = flow nasal cannula; HFNC = high flow nasal cannula; HAP = healthcare-associated pneumonia; VAP = ventilator-associated pneumonia; MV = Mechanical ventilation;

<sup>a</sup> The use of immunomodulation including corticosteroids is unlikely but debated

# COVID POINTS FOR ICU

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- **DIFFERENT COUNTRIES = DIFFERENT HEALTH SYSTEM**
- **15 % SEVERE NON CRITICAL = SAO2 < 93% RA**
- **5% CRITICAL = MORTALITY 30 TO 62%**
- **30% SHOCK = CARDIOMYOPATHY**

# COVID POINTS FOR ICU

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- **CAUSE OF DEATH RESPIRATORY + HEART = 86%**
- **15 % SEVERE NON CRITICAL = SAO2 < 93% RA**
- **HTN, DIABETES, CARDIAC DISEASE SEEM RELATED TO ICU ADMISSION RISK**
- **BIOCHEMICAL MARKERS PROPOSED**  
Troponin - D Dimer - LDH
- **12 - 19 DAYS MEDIAN TIME FROM SYMPTOMS TO VENTILATION**

# COVID MANAGEMENT IN ICU



- **PPE - HEALTHCARE ACQUISITION**

- **OXYGEN SUPPLEMENTATION**

NP - FACE MASK - HFO - CPAP - BIPAP

EFFICACY & SAFETY

- **CASE BY CASE ASSESSMENT**

- **MECHANICAL VENTILATION**

LUNG PROTECTIVE STRATEGIES

- **LOWER TV - LOW PP - LOW DP**

SEDATION - NMB - FLUID BALANCE - RECRUITMENT - PRONE -  
ECMO

# COVID MANAGEMENT IN ICU

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- **INTERHOSPITAL TRANSPORT**
- **ADMISSION CRITERIA**  
ETHICS
- **STAFF STRESS AND ANXIETY**
- **KEEPING SIMPLE - FAMILIAR - SAFE**
- **LOOK AFTER YOURSELF & YOUR TEAM**