

CLINICAL CORONA UPDATE

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**WORLD ROWING
SPORTS MEDICINE
COMMISSION**



WEAR
FACE MASK



SANITIZE
YOUR HANDS



KEEP
DISTANCE



- Wear Face mask
- Wash your hands frequently for a minimum of thirty seconds with soap and hot water.
- Stay at least 1.5 m away from people.

Steinacker JM, 14-05-2021

- Virus is called Sars-CoV-2
- The resulting disease Covid-19
- The virus is apparently easily transmissible via infected individuals with and without obvious symptoms.
- Covid-19 can be transmitted by healthy-appearing carriers.
- The time between infection and manifestation of disease is between 2-7 days (median) and up to 10 days
- Infects primarily the throat which makes it so contagious
- The disease is easily transmitted when many people convene close to each other (events, meetings, restaurants, work situation, sports, leisure,

- Fever
- Dry cough
- Disturbed smell and taste
- Inflammation of the eyes - conjunctivitis
- mild diarrhea
- tiredness
- shortness of breath (often a sign of more severe disease)

Steinacker JM, 14-05-2021

TRANSMISSION - DROPLETS AND AEROSOLS

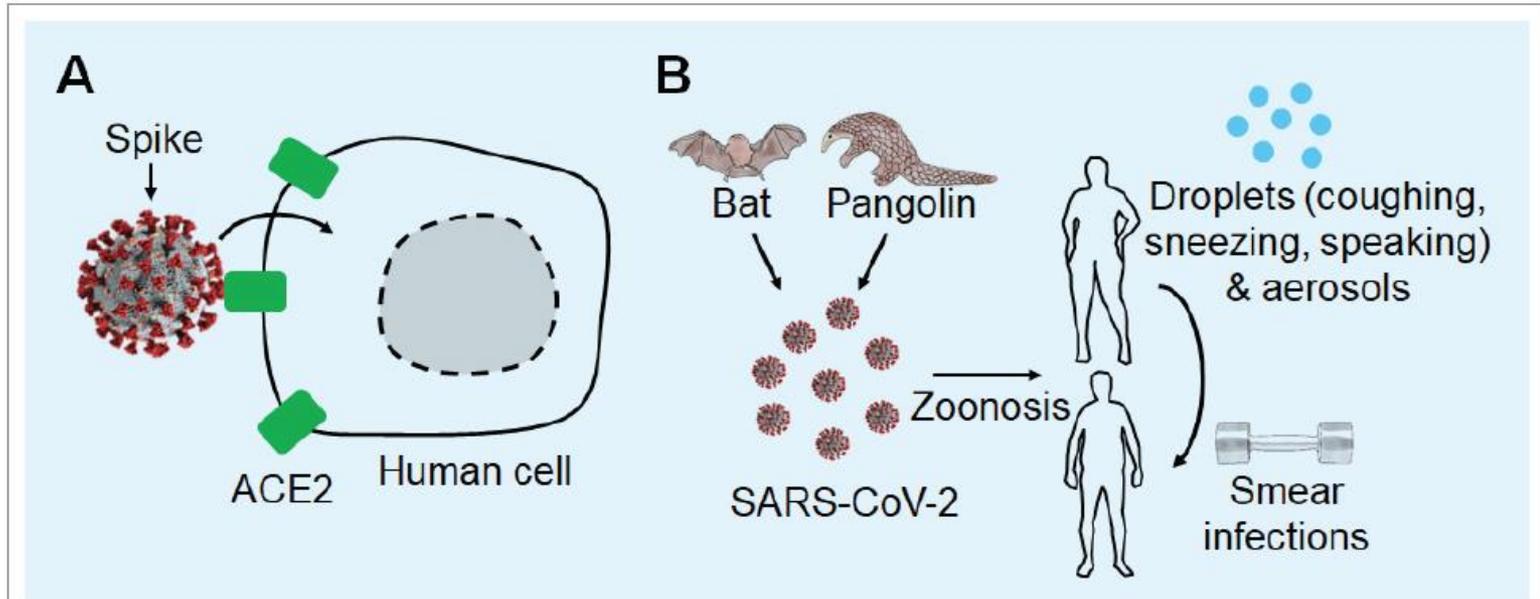


Figure 1

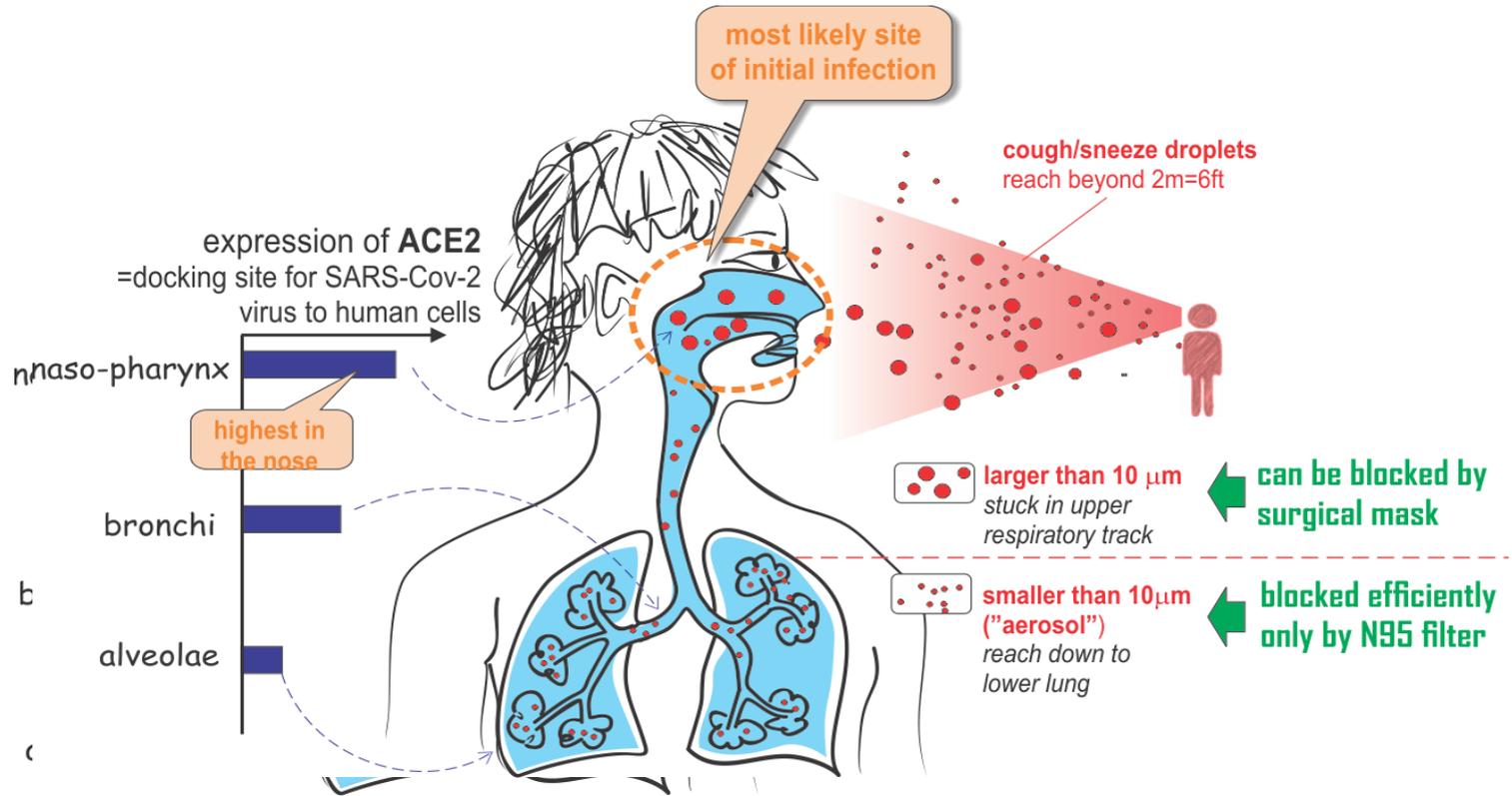
A=The Spike protein of SARS-CoV-2 binds ACE2 on the surface of human cells to initiate entry. B=The SARS-CoV-2 coronavirus probably moved from bats or pangolins into humans (zoonosis). In humans, SARS-CoV-2 infections occur via aerosols or smear infections.

Wackerhage H, et al. Sport, exercise and COVID-19, the disease caused by the SARS-CoV-2 coronavirus. Dtsch Z Sportmed. 2020; 71: E1-E12.

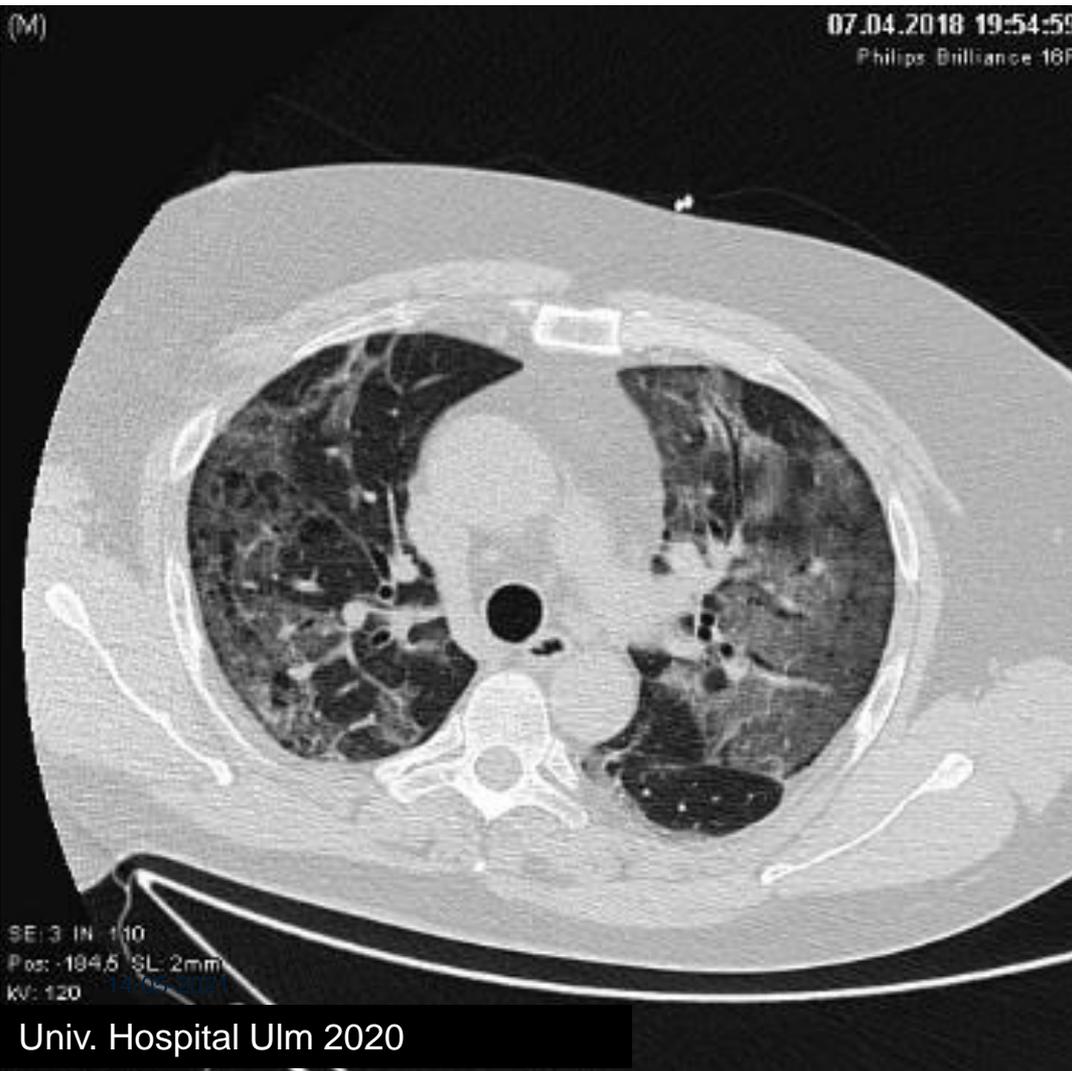
doi:10.5960/dzsm.2020.441

Sui Huang: <https://medium.com/@Cancerwarrior/covid-19-why-we-should-all-wear-masks-there-is-new-scientific-rationale-280e08ceee71>

DROPLETS AND INHALATION



Sui Huang: <https://medium.com/@Cancerwarrior/covid-19-why-we-should-all-wear-masks-there-is-new-scientific-rationale-280e08ceee71>



- The disease has a significant death toll between 0,6% of young and 7 % of aged people
- Death rate in overwhelmed health care systems and hospitals is much higher

When only 10 % of ill people will have more serious disease and only 2.5 % need ICU-care:

This means for 1000 infected with symptoms

100 need medical care

50 need oxygen

25 need respirator therapy for 2-3 weeks

For each 100.000 infected people:

2.500 patients need respirator therapy

How many doctors and ICU beds do

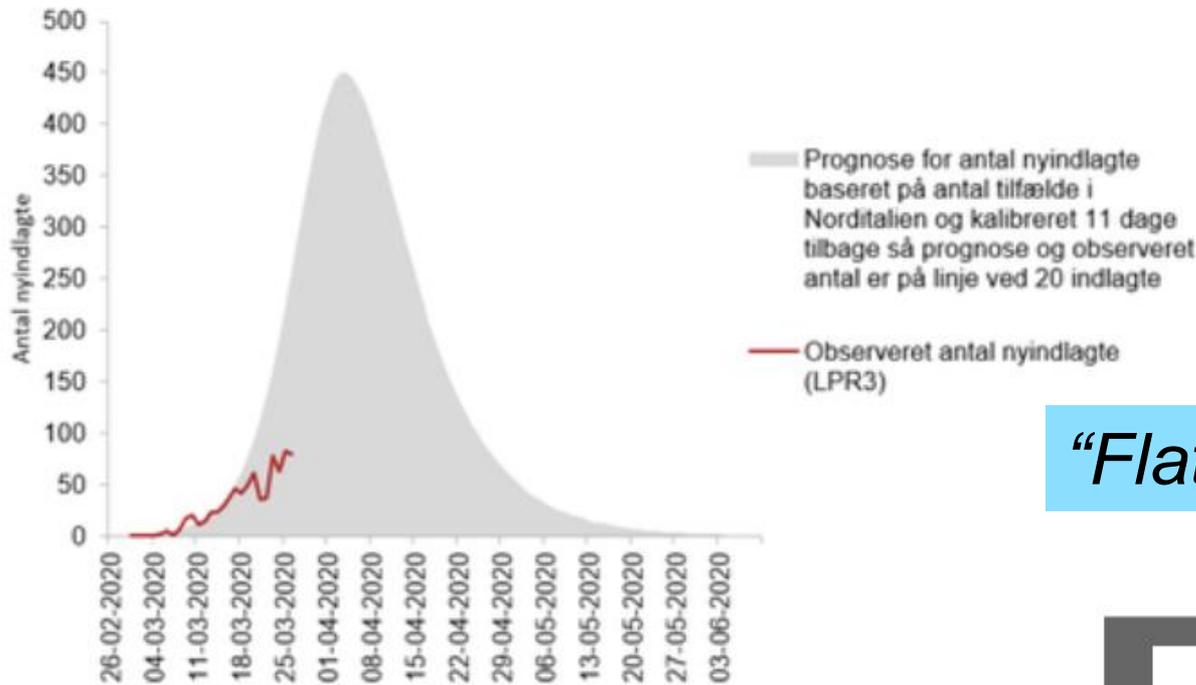
you have?



Jürgen M. Steinacker, FISA Sports Med Commission

DELAYING THE SURGE OF ILL PATIENTS TO HOSPITALS IS IMPORTANT OVERLOADED HOSPITALS ARE MAYOR HEALTH ISSUES

Figur 19. Antal nyindlagte COVID-19 tilfælde per epidemiuge i Danmark i forhold til en model baseret på det norditalienske (Lombardiet, Veneto og Emilia Romagna) scenarie



“Flatten the curve”

Cout. of Henning Bay-Nielsen



Figur udarbejdet af Statens Serum Institut d. 30.marts 2020

14-05-20

Table 1: WHO terminology of outbreaks^{6,21}

Definition	Disease activity	WHO-phase	Description
LOCAL OUTBREAK	Low	1-3	Animal to human transmission in single cases and small clusters
SPREADING PERIOD	Moderate	4	Human to human transmission in clusters and communities, disease is progressing to likely be declared pandemic
PEAK PERIOD	High	5	Significant daily community transmission with increasing new cases daily in a country
	Extra-ordinary	6	
POST PEAK PERIOD	Moderate	4	Levels of pandemic virus have dropped due to containment below peak levels with sustained decrease in community transmission
POST PANDEMIC PERIOD	low - None	1-3	Levels of virus activity have returned to low (normal) levels, but a new wave can be expected

WHERE PEOPLE GET INFECTED?

Table 1. Summary of gathered reported events as of 20th April 2020. Where only one study for this set cases in the cluster and/or total cluster size correspond to this single reported number (if given). Total cluster size references see the online database, accessible at <https://bit.ly/3ar39ky>.

Setting type	Number of reported events	Secondary cases			Total cluster size			Total number of cases across all clusters
		Min	Median	Max	Min	Median	Max	
Bar	12	2	9	16	3	13	80	319
Building site	4	/	/	/	5	20.5	49	95
Conference	5	/	/	/	3	10	89	148
Elderly care	17	/	/	/	5	19	167	638
Food processing plant	9	2	2	2	3	84	518	1207
Funeral	1	3	3	3	4	4	4	4
Hospital	9	1	3	14	2	10	118	224
Hotel	2	/	/	/	3	5	7	10
Household	36	1	3	11	2	4	12	168
Meal	17	1	3	10	2	5	47	134
Prison	4	351	351	351	66	226	353	871
Public	4	/	/	/	10	10	27	57
Religious	15	1	18	52	2	23	130	570
School	8	1	1	131	2	22	133	349
Ship	5	619	619	619	78	662	1156	3597
Shipyards	1	/	/	/	22	22	22	22
Shopping	9	5	10	19	7	20	163	361
Sport	6	1	1	1	2	7.5	65	95
Transport	1	1	1	1	3	3	3	3
Wedding	3	/	/	/	13	43	98	154
Work	12	6	7	11	4	8.5	97	198
Worker dormitories	21	/	/	/	3	24	797	1702

High risk:

- Bars
- Household
- Meals
- Elderly care
- Worker dormitories
- Food processing
- Work environment
- religious

eclerc QJ, Fuller NM, Knight LE et al. What settings have been linked to SARS-CoV-2 transmission clusters? Wellcome Open Research 2020, :83 <https://doi.org/10.12688/wellcomeopenres.15889.2>



15 % probability of becoming infected in this room through aerosols

According to model calculations, an average of **2 people** would become infected with SARS-CoV-2.

Your Room



< 1 % probability of becoming infected in this room through aerosols i

According to model calculations, an average of **0 people** would become infected with SARS-CoV-2.

Your Room



< 1 % probability of becoming infected in this room through aerosols i

According to model calculations, an average of **0 people** would become infected with SARS-CoV-2.

Your Room



<https://idom.worldathletics.org/>

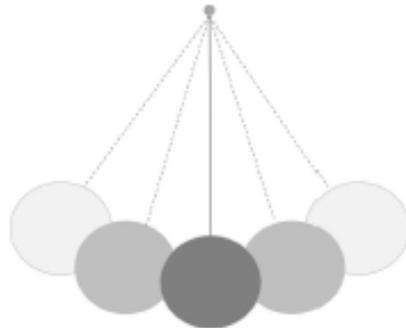


Figure 1. Pendulum of risk – the pandemic has various phases in different countries, regions

Infectious Diseases Outbreak Management Tool for endurance mass participation sporting events: an international effort to counteract the COVID-19 spread in the endurance sport setting

Paolo Emilio Adami ^{1,2}, John Cianca ^{3,4}, Brian McCloskey ^{5,6},
Wayne Derman ^{7,8,9}, Juergen Michael Steinacker ^{10,11},
Francis O'Connor ^{3,12}, Sergio Migliorini ¹³, Richard Budgett ¹⁴,
Fumihiko Yamasawa ^{1,3,15}, Inggard Lereim ^{16,17}, Xavier Bigard ^{18,19},
Chris Troyanos ³, Frederic Garrandes ¹, Stephane Bermon ^{1,20}

COVID-19 work group:

Dr. Jürgen Steinacker, Germany (lead)

Dr. Mikio Hiura, Japan

Dr. Henning Bay Nielsen, Denmark

Dr. Tomislav Smoljanovic, Croatia

Dr. Michael Wilkinson, Canada

Dr. Petra Zupet, Slovenia

Dr. Kathryn Ackerman, United States of America

- Steinacker JM, J Hannafin, M Hiura, M Wilkinson, D Koubaa , P Poli, P Zupet, T Smoljanovic, HB Nielsen, F Wilson, K Ackerman (2020) World Rowing - Covid-19 Pandemic: Advice for post-peak and post-pandemic periods. <http://www.worldrowing.com/fisa/publications/medical-publications>
- Steinacker et al. Covid-19 Pandemic - Return to Staging Regattas Advice for Event Organisers and Member Federations in 2020
- Adami PE et la.. Br J Sports Med 2020; doi:10.1136/bjsports-2020-103091
- Muniz-Pardos, B. et al. (2020). Sports Med - Open 6, 35 (2020). <https://doi.org/10.1186/s40798-020-00267-6>
- Bloch W et al. . Dtsch Z Sportmed. 2020; 71: 83-84. Doi:10.5960/dzsm.2020.432
- Steinacker JM et al. . Dtsch Z Sportmed. 2020; 71: 85-86. doi: 10.5960/dzsm.2020.431
- Löllgen H et al. Br J Sports Med 2020 bjsports-2020-102985.R1 in press
- Muniz-Pardos B, Sports Medicine - Open (2020) 6:35 <https://doi.org/10.1186/s40798-020-00267-6>
- Shurlock J et al. Sports Medicine - Open (2020) in press

ROWING SPECIFIC RISK ANALYSIS AND MITIGATION STRATEGY



Here are the accreditation numbers:

	Poznan	Duisburg	Belgrade
EQUIPMENT	41	24	9
FISA	72	33	20
MEDIA	60	39	14
OC	425	320	245
TEAM	1029	1022	659
	1627	1438	947

Create a safe “bubble” for teams and staff

Control for health status at entrance

Limit possibilities of transmission

FISA Sports Med Commission (2020) Covid-19 Pandemic - Covid-19 Pandemic - Advice for post-peak and post-pandemic periods, May 28, 2020
 FISA Sports Med Commission (2020) Covid-19 Pandemic - Return to Staging Regattas Advice for Event Organisers and Member Federations
 WHO 2020, How to use WHO risk assessment and mitigation checklist for Mass Gatherings in the context of COVID-19. WHO-2019-nCoV-Mass_Gatherings_Sports-2020.1-eng.

HAPPY MASKED PEOPLE AT THE POZNAN 2020 CHAMPIONSHIPS

How to stay safe at the 2020 European Rowing Championships



<https://youtu.be/bUsA1ejEr54>

Approx. 2 % (Poznan) - 3.6 % (Belgrade) demonstrated COVID-symptoms after the Events

14 positive cases were reported in Poznan (4 clusters)

8 positive cases in Belgrade (1 cluster)

No significant transmission between teams at the event

Cases are imported with teams.

We have no information on OC´s staff.

Measures taken were appropriate

> 95 % participants felt well and safe

Conclusion for 2021:

Pre-screening before event and new WR-Bubble-Concept

Information on pre-event training in risk areas

Information on travel mode to the event?

Vaccination

Box 1 – Case Categories

- A) Positive SARS-CoV-2 test WITHOUT signs of infection or symptoms.
- B) Positive SRS-CoV-2 test WITH symptoms like fever with temperature above 38°C, cough, pain in muscles and extremities, headache, impaired sense of taste or smell, etc.) but WITHOUT confirmed pneumonia.
- C) Infection with SRS-CoV-2 WITH confirmed pneumonia.
- D) Infection with SARS-CoV-2 WITH suspected or confirmed myocarditis with/without pulmonary involvement with/without other symptoms.

Box 3 – Laboratory Analytics

Basic laboratory (I)

Differential blood count, C-reactive protein, transaminases, CK, creatinine, urin analysis.

Expanded laboratory (II)

Like (1), additionally depending on clinical picture and previous findings: ferritin, cardiac hsTroponin I or T, NT-proBNP, D-dimeres, IL-6, procalcitonin, antibody status for SARS-CoV-2, SARS-CoV-2-PCR from throat smear, etc.

Box 2 – History and Physical Examination

History

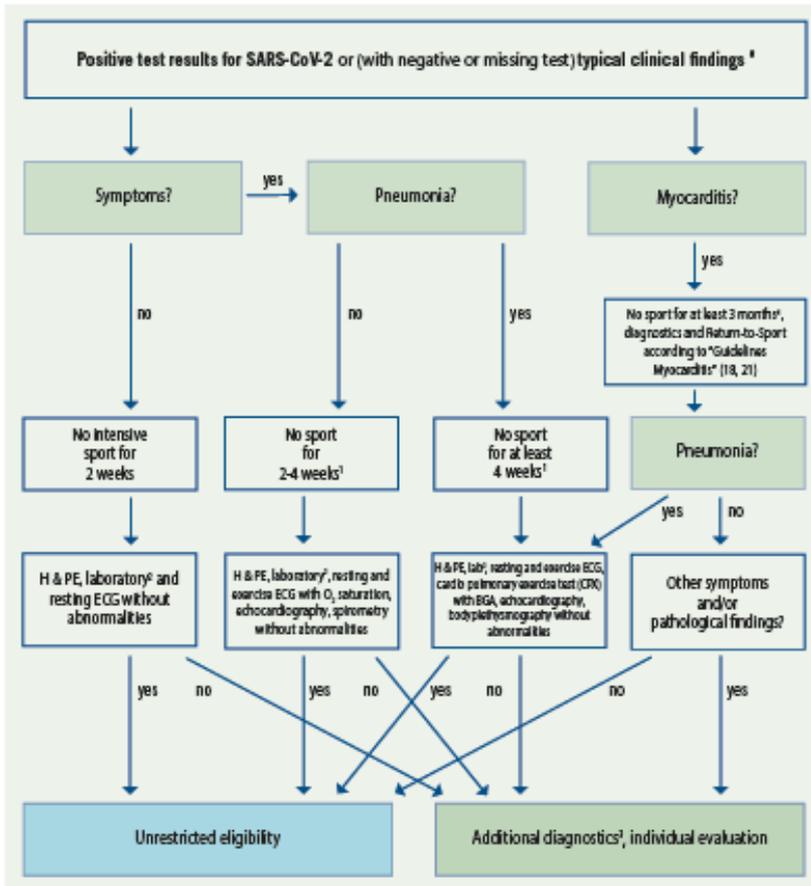
Severity of the course, exercise-dependent complaints such as Angina pectoris, cough and/or dyspnea, in each case exercise-induced, fever, dizziness, muscle pains, rapid fatigue, duration of fever, headache, anosomia, dysgeusia, mood swings, past and current medication, sport history.

Physical Examination

Lymph node status, lymphatic ring, heart rate, blood pressure, cardiac auscultation, pulmonary percussion and auscultation, abdominal palpation, pulse and vascular status, body temperature, basic neurological examination..

Nieß AM et al. **Position Stand: Return to Sport in the Current Coronavirus Pandemic** (SARS-CoV-2 / COVID-19) Dtsch Z Sportmed. 2020
DOI:10.5960/dzsm.2020.437

DECISIONAL ALGORITHM FOR RETURN-TO-SPORT IN SARS-COV-2 INFECTION

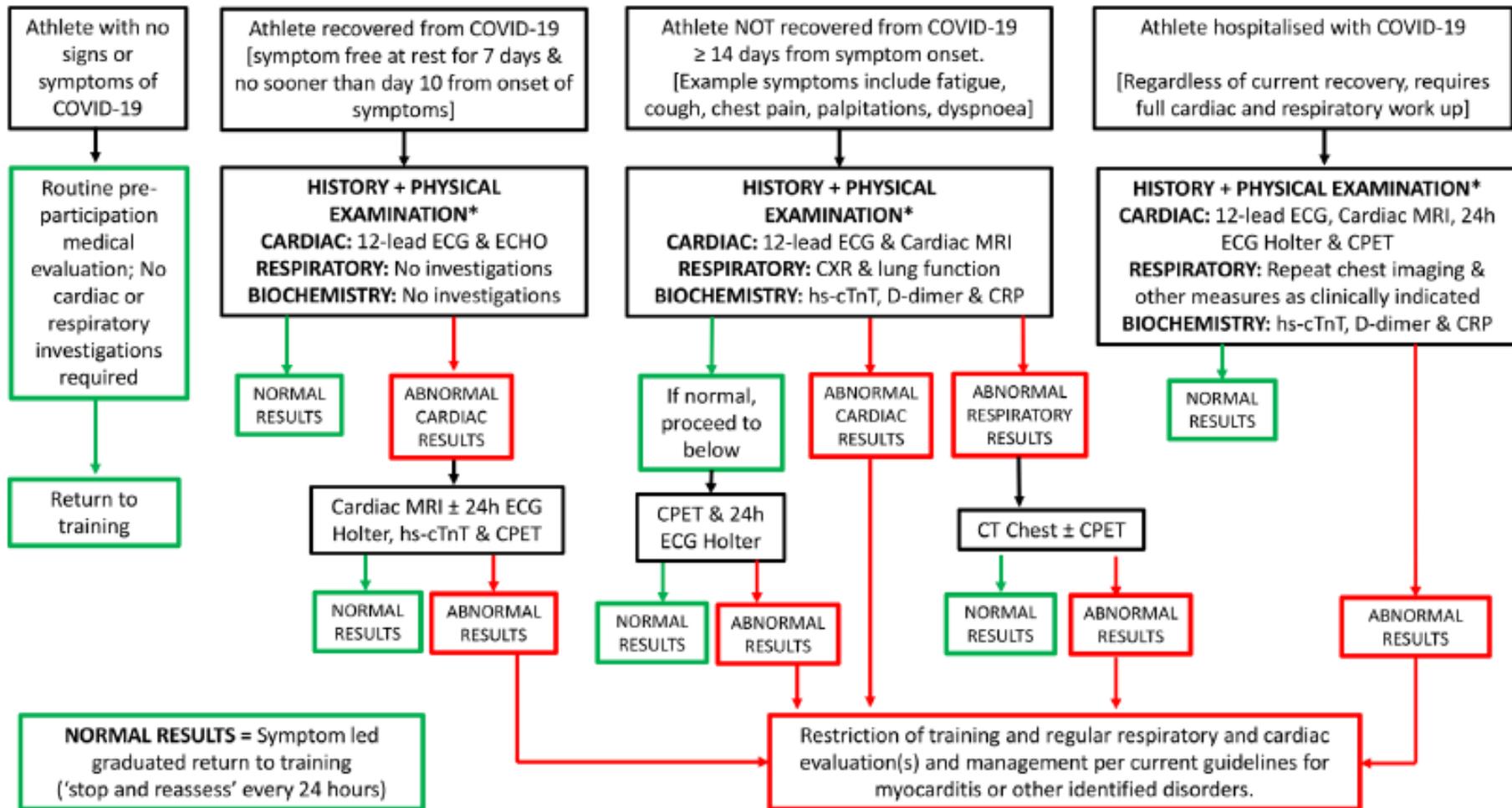


Proof of SARS-CoV-2 infection by PCR

1. Adaptation of restriction from sport based on thorough symptom history, additional conspicuous findings in other organ systems, the individual course and/or invasiveness of therapy applied
2. scope of laboratory tests by case constellation
3. where appropriate consultation with experts of other disciplines (e.g. neurology, pneumology)
4. following criteria should be met for return to sport after myocarditis: normalized systolic function (echocardiography), serum markers (for myocardial damage, inflammation, heart failure) returned to normal, no relevant cardiac arrhythmias in stress test and holter-ECG.

RETURN AFTER COVID-19

Wilson MG, et al. Br J Sports Med 2020;54:1157–1161. doi:10.1136/bjsports-2020-102710



RESOURCES

- Steinacker JM, J Hannafin, M Hiura, M Wilkinson, D Koubaa , P Poli, P Zupet, T Smoljanovic, HB Nielsen, F Wilson, K Ackerman (2020) World Rowing - Covid-19 Pandemic: Advice for post-peak and post-pandemic periods.
<http://www.worldrowing.com/fisa/publications/medical-publications>
- Löllgen H, Bachl N, Papadopoulou T, *et al.* Recommendations for return to sport during the SARS-CoV-2 pandemic. *BMJ Open Sport & Exercise Medicine* 2020;6:e000858. doi:10.1136/bmjsem-2020-000858
- Nieß AM *et al.* Position Stand: Return to Sport in the Current Coronavirus Pandemic (SARS-CoV-2 / COVID-19) *Dtsch Z Sportmed.* 2020 DOI:10.5960/dzsm.2020.437
- Baggish A *et al.* <https://blogs.bmj.com/bjsem/2020/04/24/the-resurgence-of-sport-in-the-wake-of-covid-19-cardiac-considerations-in-competitive-athletes/>
- Wilson MG, *et al.* *Br J Sports Med* 2020;54:1157–1161. doi:10.1136/bjsports-2020-102710

CONCLUSION

There is clear hope, that with all the efforts in the world will contain the disease

- Rower are part of this global effort
- Even with vaccination, the virus will be a thread

Rowing as Outdoor sport has low inherited risk

- Proofed concepts
- Support by the community
- Creating trust

The “bubble” concept is recommended for athletes to train under pandemic situation for future international competitions

Athletes which have been infected by SARS-CoV-2 and have COVID-19 disease

- During acute phase need time to recover: give time, rest, sleep, vitamin-C-rich fruits, vegetables
- Should be seen by team doctor before return to training
- Athletes with post-COVID-syndrome will need medical advice