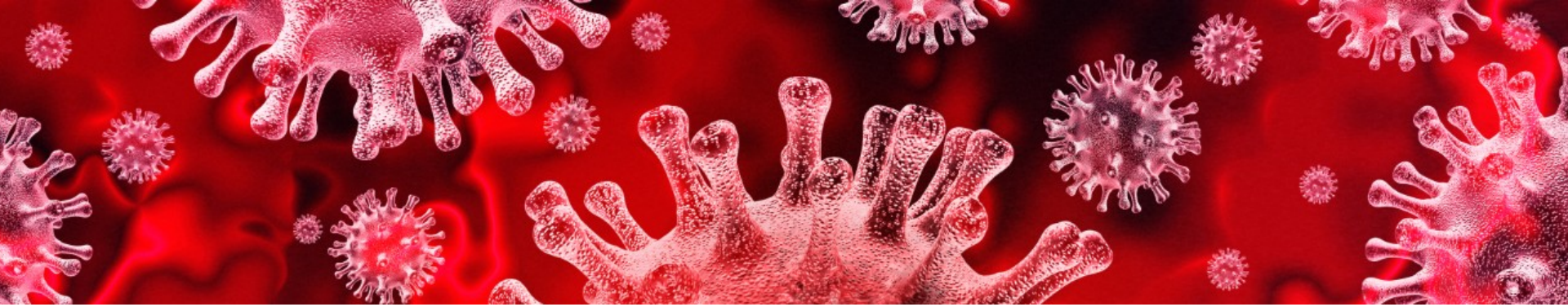

Sofrimento Cardiovascular com o COVID-19

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Pós-Graduação em Cardiogeriatria Incor-SP

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AFYA EDUCACIONAL UNIDEP PATO BRANCO • PR

CLÍNICA CATTANI CARDIOLOGIA

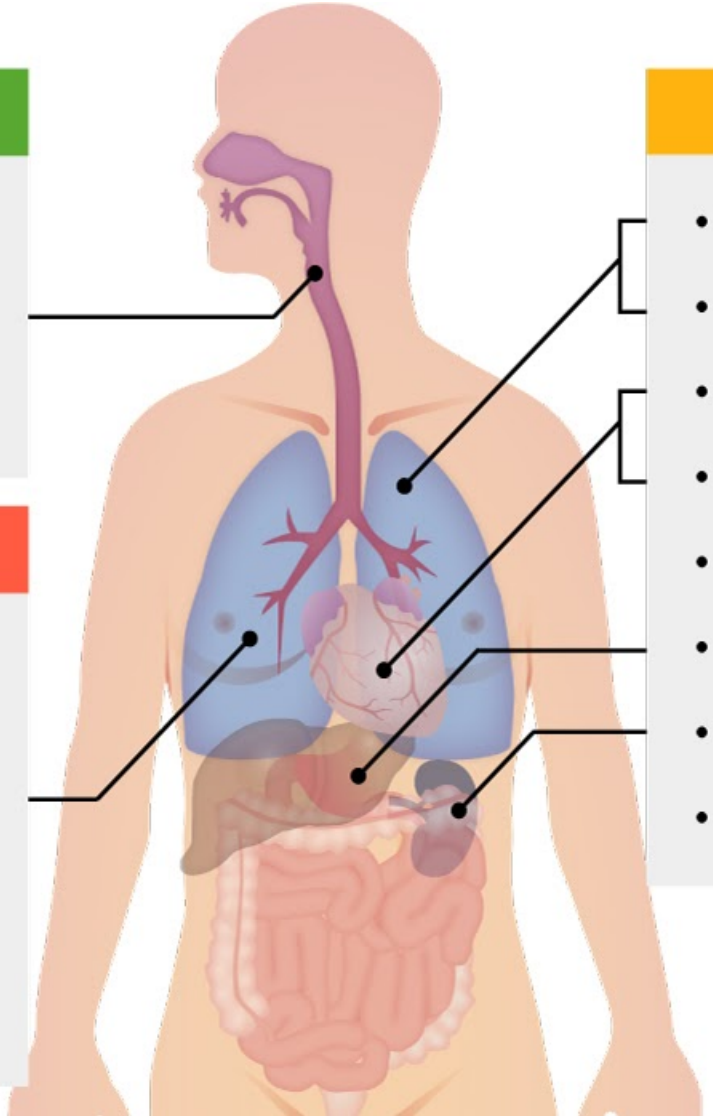
Manifestações Clínicas do COVID-19

Common symptoms

- Fever
- Dry cough
- Flu-like symptoms

Severe cases

- Dyspnea
- Chest pain
- Hemoptysis
- Crackles
- Respiratory insufficiency



Complications

- Pneumonia
- ARDS
- Cardiac injury
- Arrhythmia
- Septic shock
- Liver dysfunction
- Acute kidney injury
- Multi-organ failure

lecturio.com

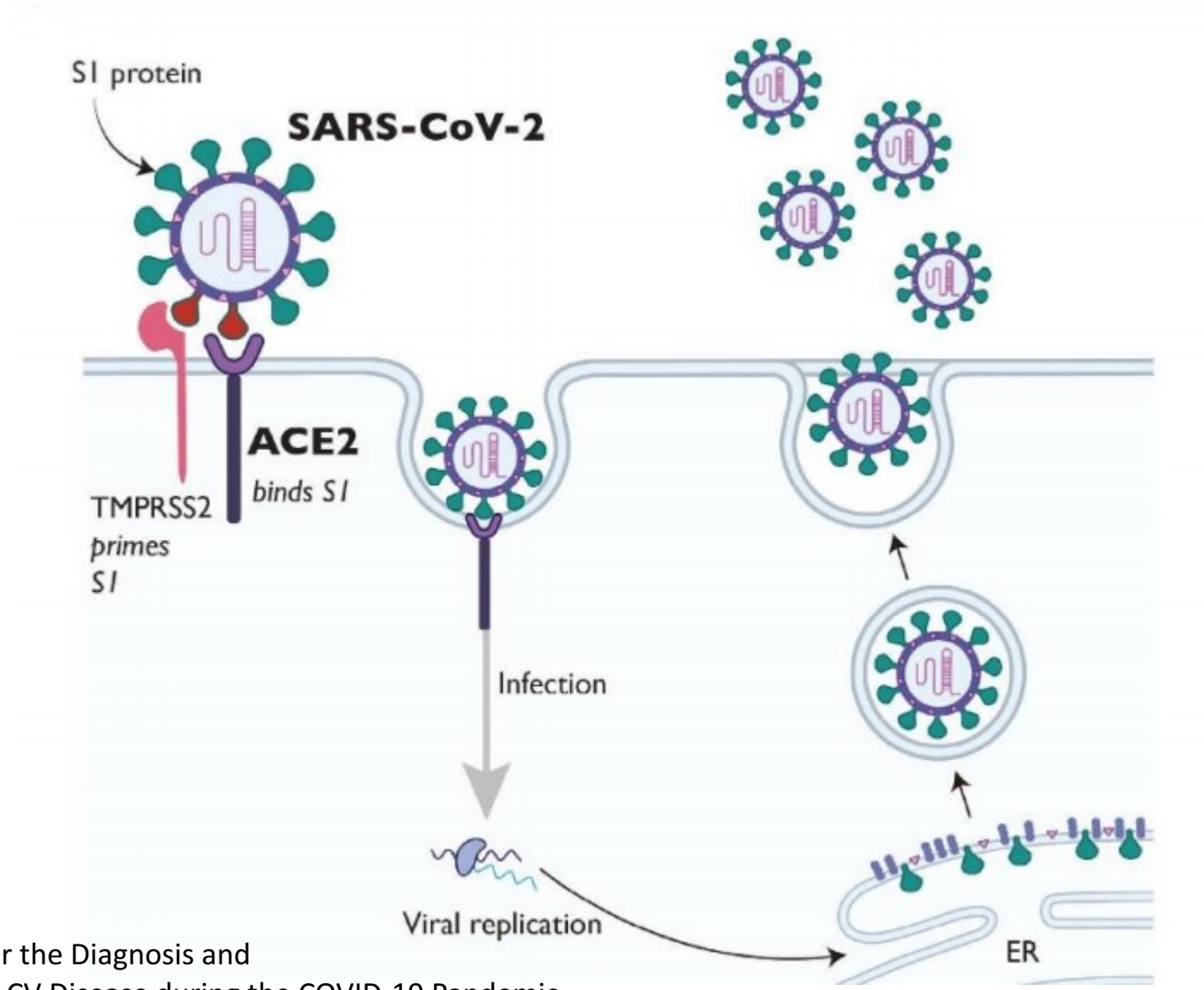
Mortalidade por Idade e Condições Clínicas Pré-Existente

Age (yrs)	Case Fatality Rate (%)
80	14.8
70-79	8.0
60-69	3.6
50-59	1.3
40-49	0.4
30-39	0.2
20-29	0.2
10-19	0.2
0-9	None

Pre-existing conditions	Case Fatality Rate (%)
Cardiovascular disease	10.5
Diabetes	7.3
Chronic respiratory disease	6.3
Hypertension	6.0
Cancer	5.6
No pre-existing conditions	0.9

Johns Hopkins ABX Guide

Ligação do SARS-COV2



ESC Guidance for the Diagnosis and Management of CV Disease during the COVID-19 Pandemic

Severe acute respiratory syndrome coronavirus 2 infection, angiotensin-converting enzyme 2 and treatment with angiotensin-converting enzyme inhibitors or angiotensin II type I receptor blockers

European Journal of Preventive Cardiology
0(0) 1–4
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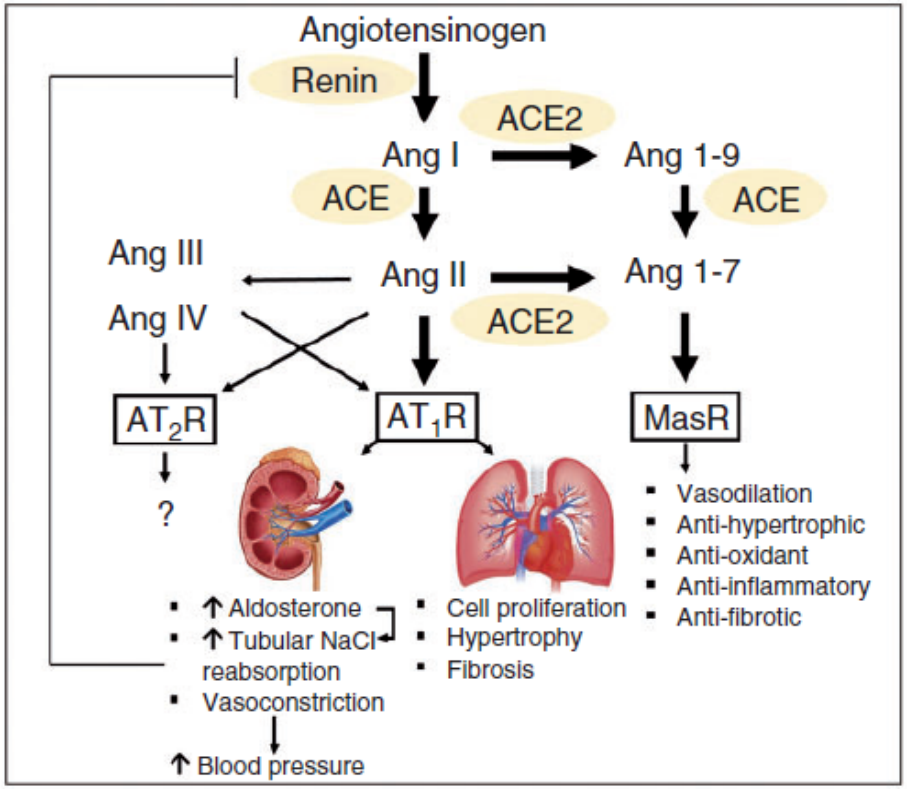
(a)



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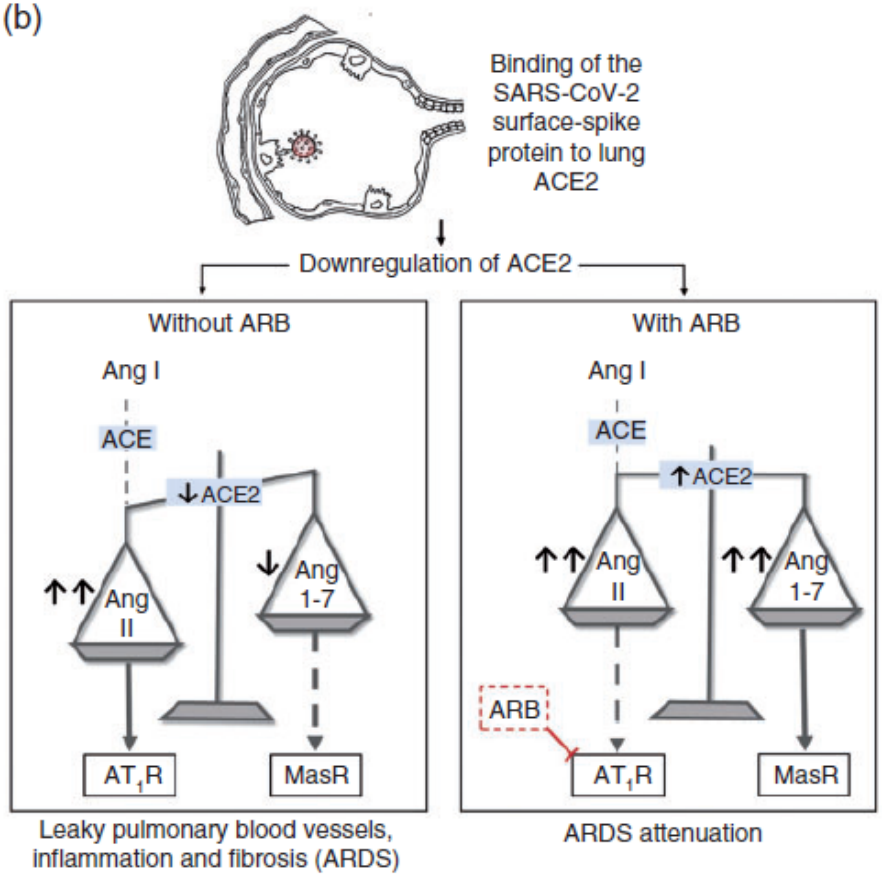
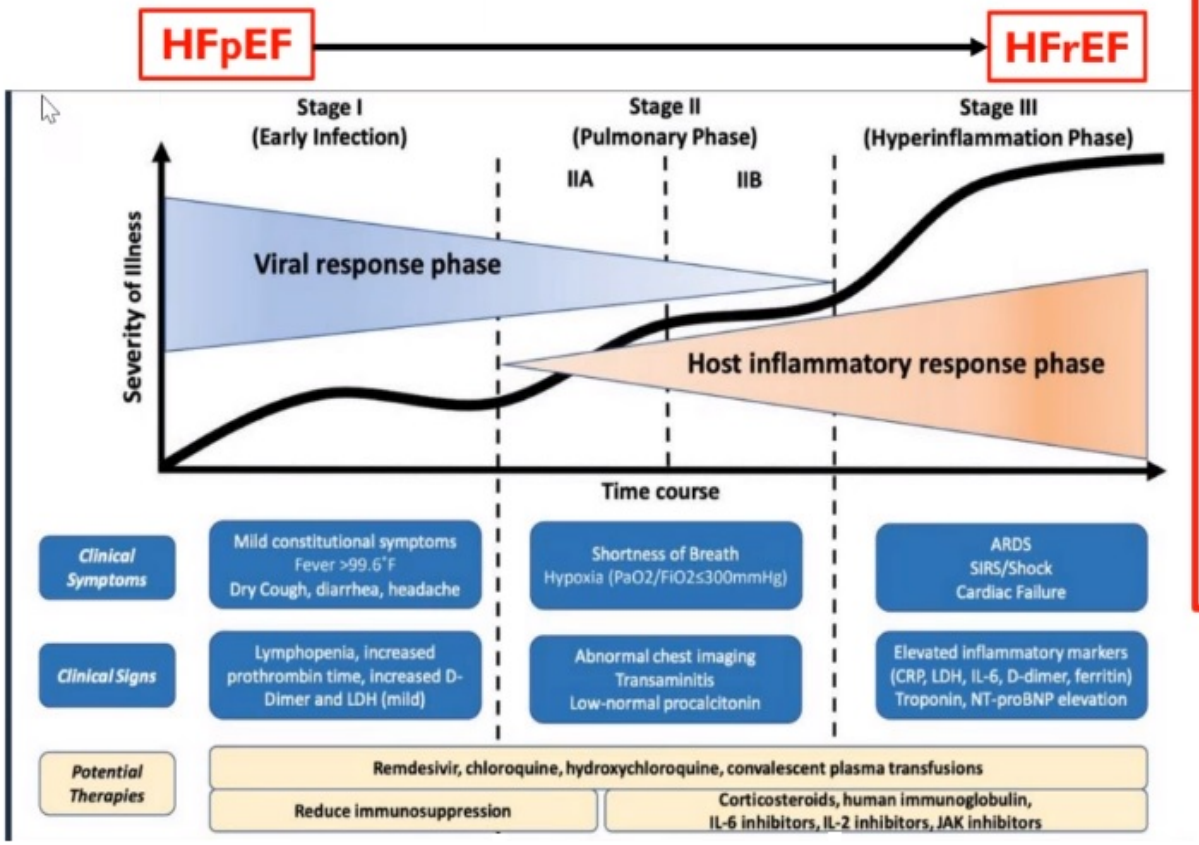


What to expect & more to learn

Phenotypes of HF



Stress cardiomyopathy

Cytokine mediated dysfunction

Hypoxia mediated dysfunction

Fulminant myocarditis

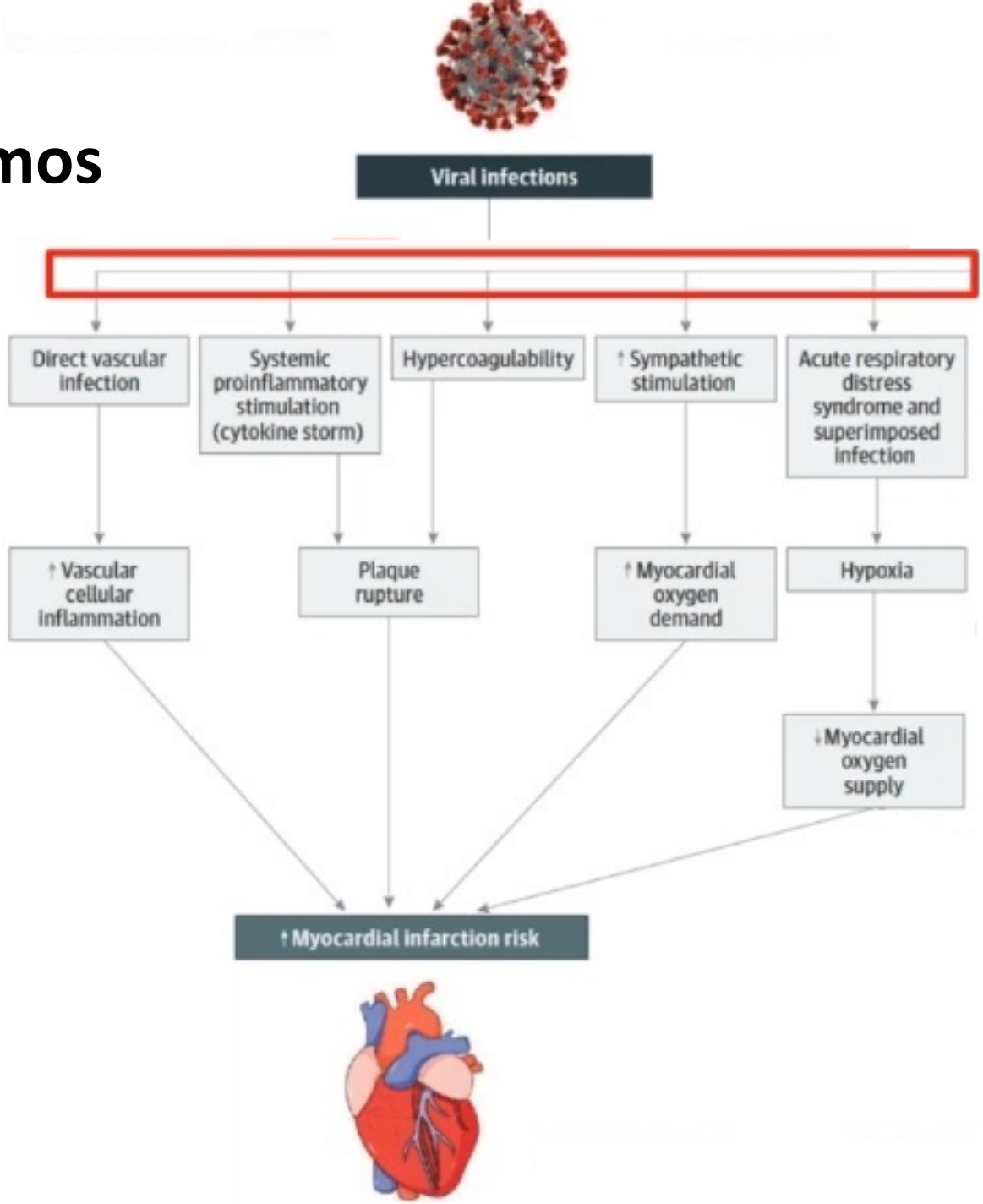
Arrhythmias

JACC: Heart Failure
March 2020 DOI: 10.1016/j.jchf.2020.03.004
Just Accepted
COVID-19 Illness and Heart Failure: A Missing Link?
Mandeep R. Mehra and Frank Ruschitzka

Adapted from: Siddiqu HK, Mehra MR. COVID-19 Illness in Native and Immunosuppressed States: A Clinical-Therapeutic Staging Proposal. *Journal of Heart and Lung Transplantation*. doi: 10.1016/j.healun.2020.03.012

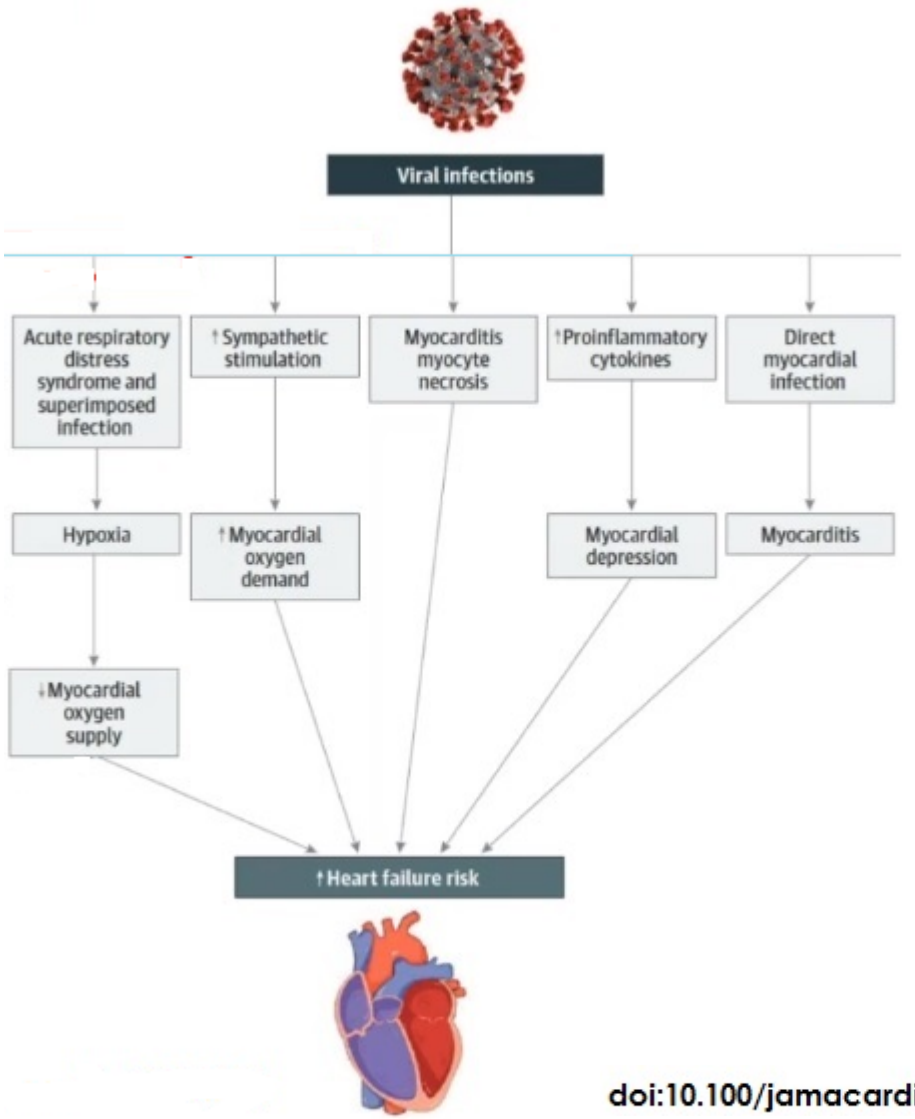
Potenciais Mecanismos de Infecção Viral sobre o Sistema Cardiovascular

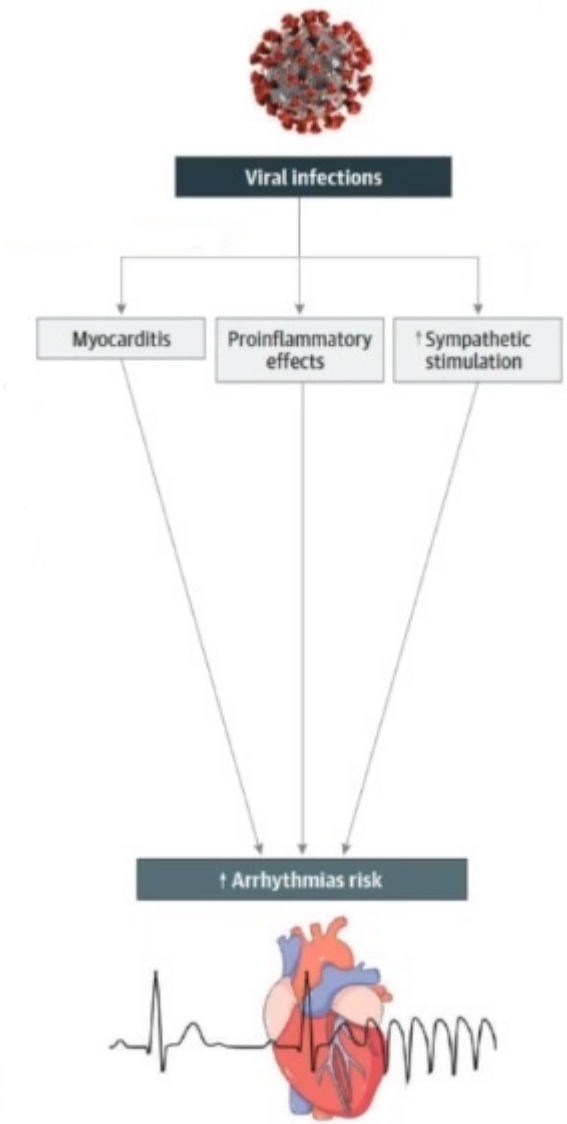
- Síndrome Coronariana



doi:10.100/jamacardio.2020.1286

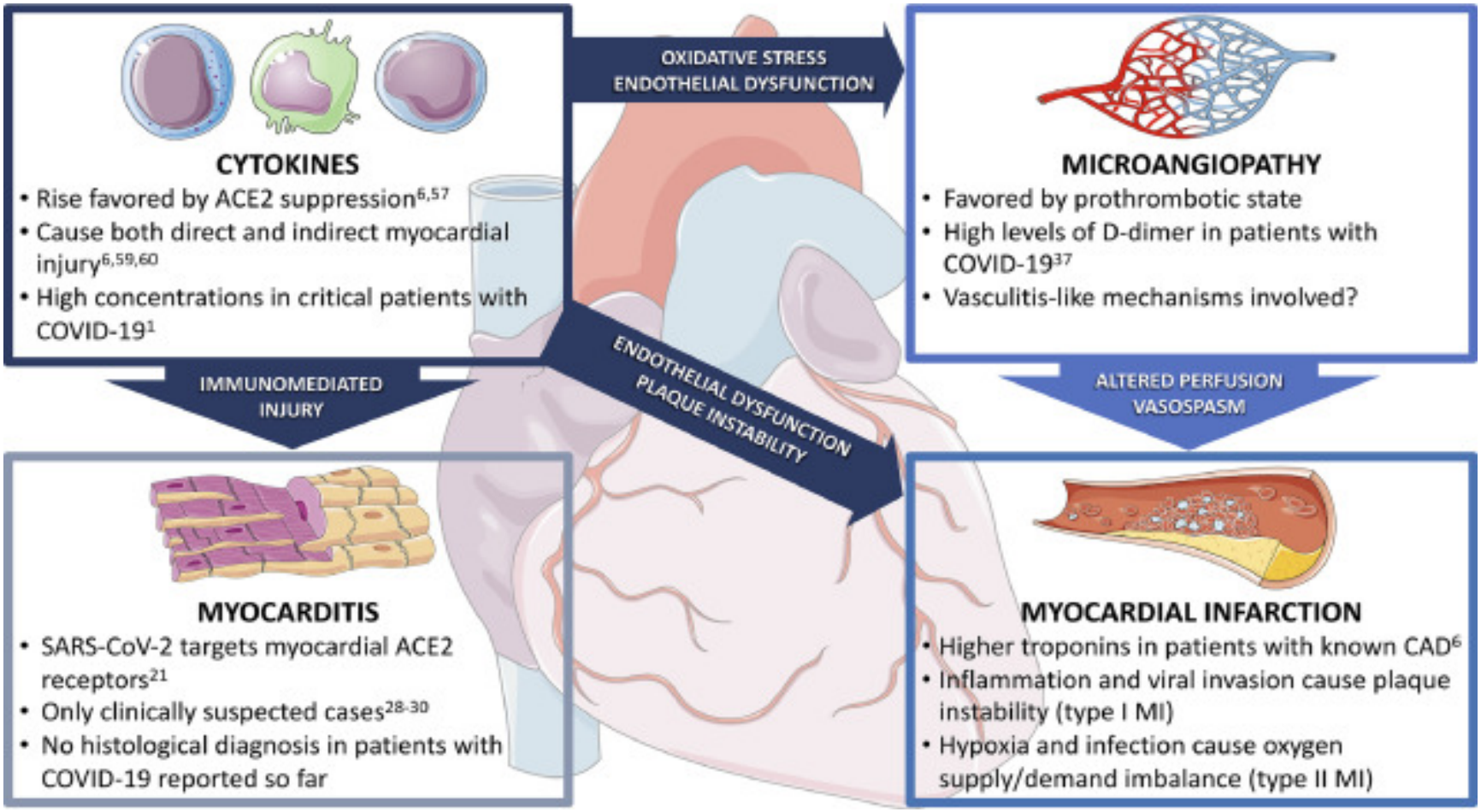
Potenciais Mecanismos de Infecção Viral sobre o Sistema Cardiovascular





doi:10.100/jamacardio.2020.1286

Mecanismos possíveis de elevação de Troponina no COVID-19



Journal of Cardiac Failure
DOI: (10.1016/j.cardfail.2020.04.009

MIOCARDITE

Experiência clínica é limitada:

↓

Há indicações

↓

Miocardite fulminante

SUSPEITA

Dor torácica aguda - alterações de ST-T

Arritmias - instabilidade hemodinâmica

Dilatação ventricular; hipocontr. global e segmentar ao ECO;

↑↑↑ Troponina; BNP/NT e próBNP sem DAC;

IC aguda sem alteração prévia

TC alta resolução já afasta DAC

ESC Guidance for the Diagnosis and Management of CV Disease during the COVID-19 Pandemic - Last updated on 21 April 2020

Covid-19 e Troponina

- Alteração de ECG/Elevação de Troponina
  - Mimetização de Infarto
  - Miocardite Aguda
  - Trombose Microvascular
  - Lesão citocina-mediada
  - Cardiomiopatia stress-induzida

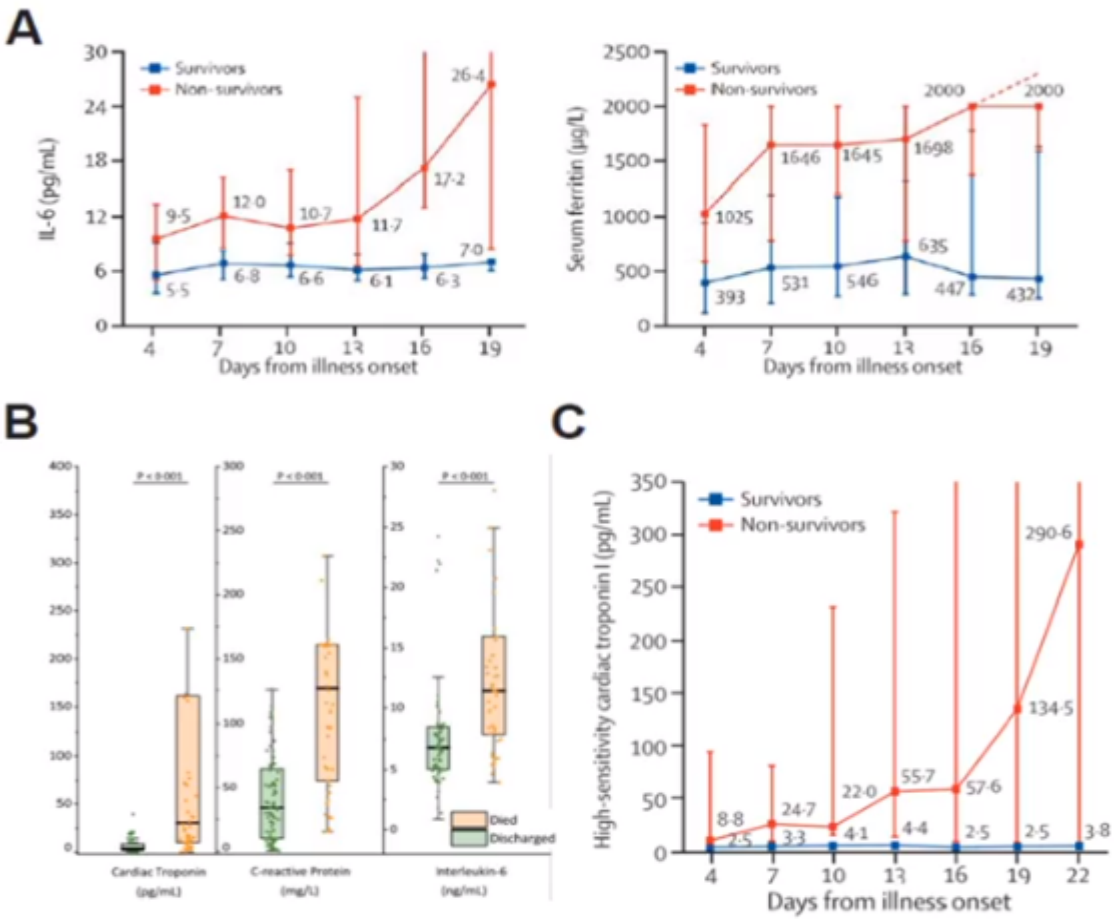
Misdiagnosis in the COVID era: When Zebras are Everywhere, Don't Forget the Horses

Rayan Yousefzai, MD, Arvind Bhimaraj, MD
https://doi.org/10.1016/j.jaccas.2020.04.018
JACC: Case Reports April 27, 2020

COVID-19 STEMI 2020: It's Not What You Know, It's How You Think

https://doi.org/10.1016/j.jaccas.2020.04.016

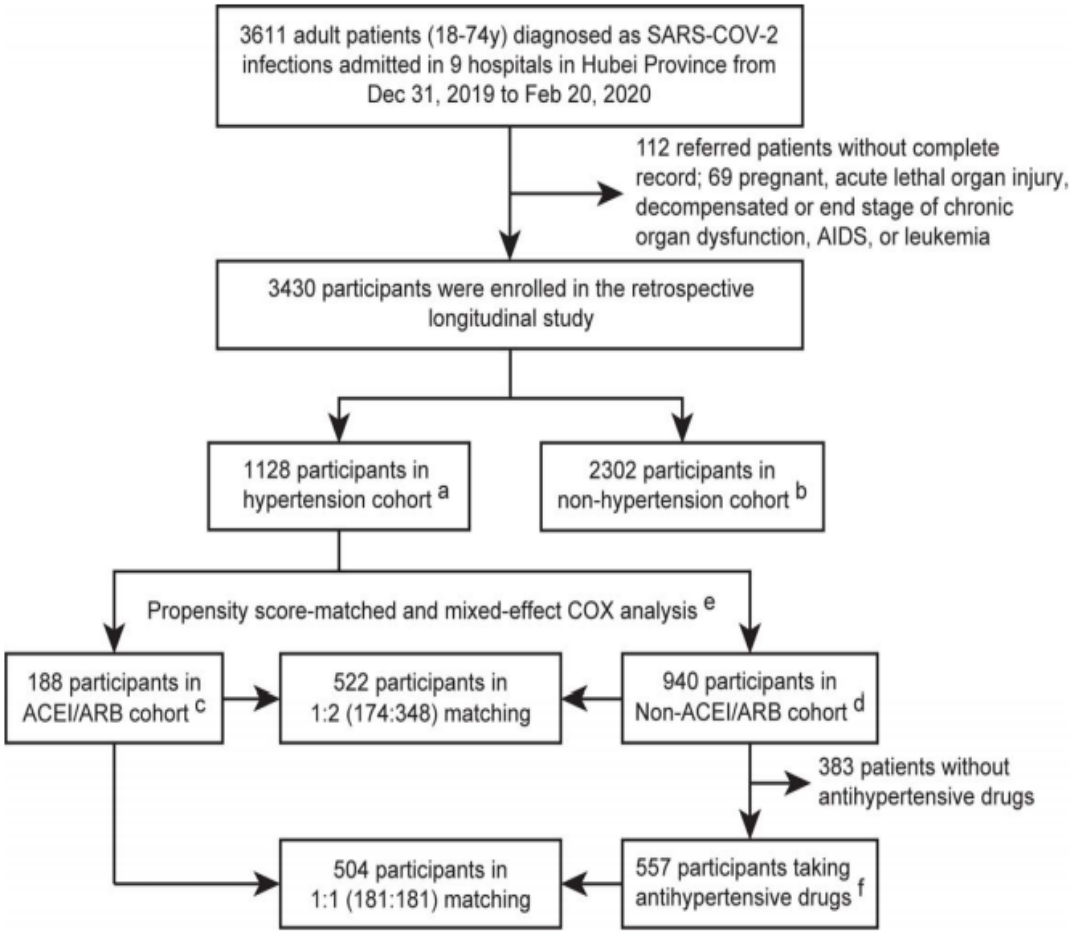
Marcadores Inflamatórios
Sobreviventes vs Óbitos



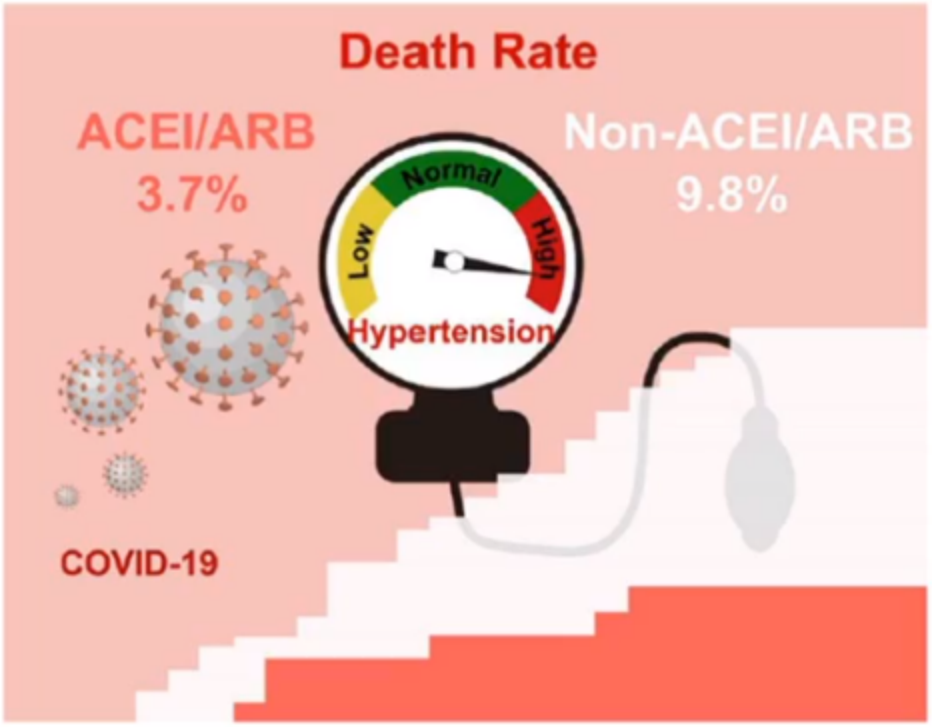
DOI: 10.1161/CIRCRESAHA.120.317055 18

Association of Inpatient Use of Angiotensin Converting Enzyme Inhibitors and Angiotensin II Receptor Blockers with Mortality Among Patients With Hypertension Hospitalized With COVID-19

- Zhang, P., Zhu, L., Cai, J., Lei, F., Qin, J.-J., Xie, J., … Li, H. (2020). DOI:10.1161/circresaha.120.317134 APRIL, 17 2020



IECA/BRA
Usuários vs Ñ Usuários



American Heart Association.
Circulation Research

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