

COVID-19 Rapid Review

Tuesday, 07 April 2020
Review 1

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The purpose of this regular review, is to present COVID-19 related questions in Emergency Medicine

We accept that available literature on the topics covered in these reviews may be scarce, but shared discussion of novel front line strategies may be a tool to augment our clinical practice and develop future policy

Topics:

Disease course and expectations

Suctioning

Awake Proning

Correspondence with authors

Rapid Review for the EC

Covid-19

World Statistics

Coronavirus Cases:

1,347,689

view by country

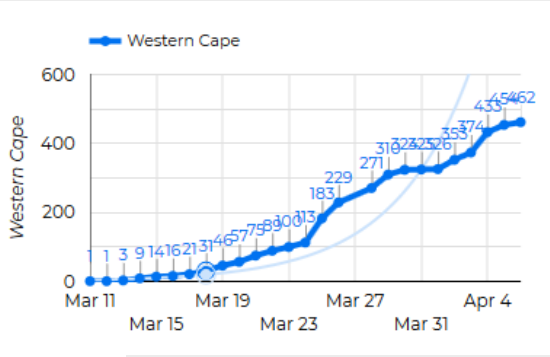
Deaths:

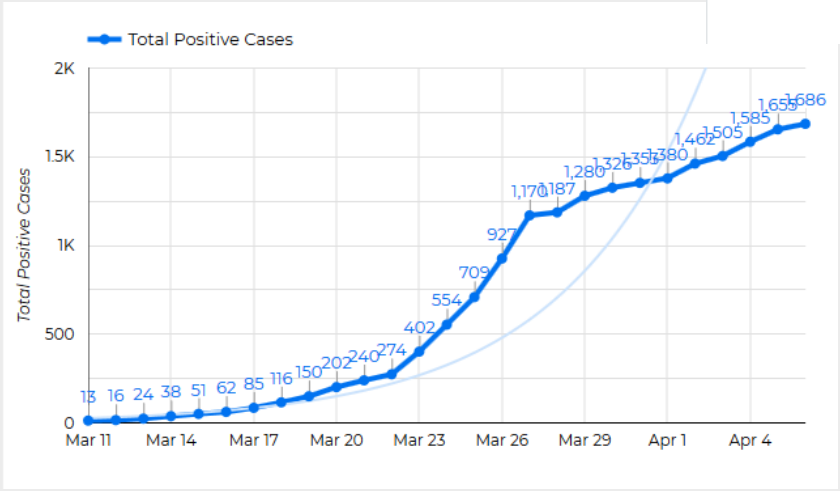
74,783

Recovered:

286,463

South Africa - Statistics





COVID 19 ZA South Africa Dashboard

For official information about Corona virus from DoH go to http://sacoronavirus.co.za

Positive Cases	Recovered	Deaths	ICU	Cumulative Tests
1,686	45	12	10	58,098

Average Age	Median Age	Min Age	Max Age
41.8	40.0	2.0	85.0

Link to this dashboard https://bitly.com/covid19za-dash

Maintained by the
Data Science for Social Impact Research Group
@ University of Pretoria
[repo https://github.com/dsfsi/covid19za]

Blog post about the dashboard.

Last Updated
05/04/2020 11:00 AM

We are currently waiting for updated individual data from NICD

Data Science for Social Impact

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Covid-19

Advice

Patients presenting before 7 days from onset of symptoms, who are not hospitalised, require close monitoring for symptomatic progression through the second week of illness. This is specifically important for those aged ≥ 60 years and/or with underlying medical comorbidities.

For those admitted to hospital it appears prolonged admission and close observation for deterioration is warranted.

Expectations for the general population

Although 81% of patients in a Chinese case series had mild/moderate symptoms, those who progressed to more severe disease were hospitalised between 7-11 days after the onset of illness.

Disease Progression in Hospitalised Patients

From a dataset of hospitalised Chinese patients, COVID-19 appears to follow a predictable course. This has implications for decision making re. disposition and advice particularly for those presenting before 7 days.

The Brescia Covid-19 group are using Italian data to advise on management after 7 days, when it appears that most patients who progress onto more severe illness begin this trajectory. Whilst this severity scale is not externally validated it provides a pragmatic approach to managing patients presenting after 7 days.

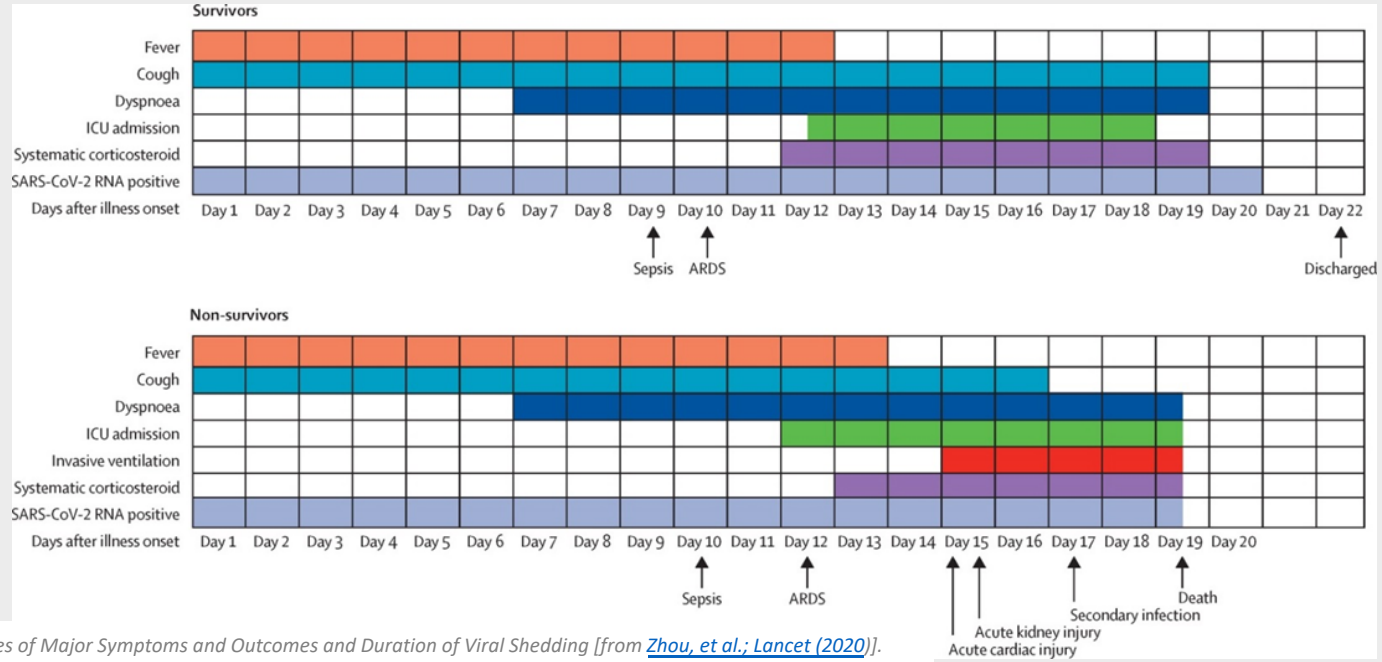


Figure 1. Clinical Courses of Major Symptoms and Outcomes and Duration of Viral Shedding [from Zhou, et al.; Lancet (2020)].

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Suctioning

Open suctioning is classed as an aerosol generating procedure (AGP)
Poses high risk to healthcare providers - **protecting healthcare providers is the first priority**
Closed suctioning is recommended

What if you don't have closed suction or have to suction the oropharynx?

Advice:

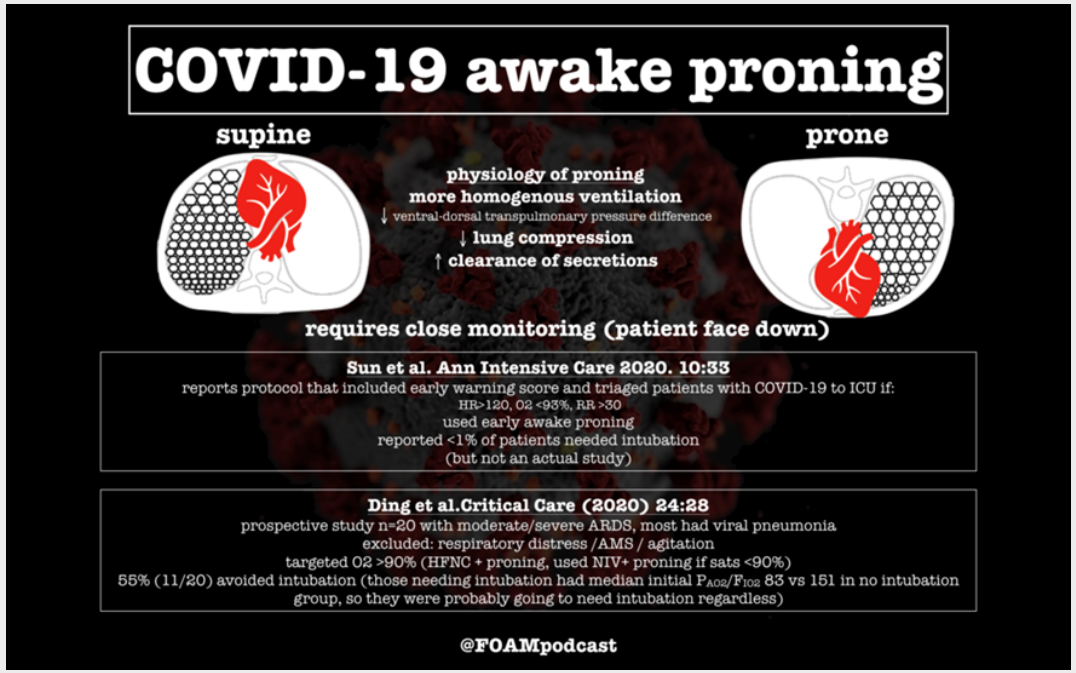
Enhanced PPE is required as for AGP
Use of shields or barriers may decrease spread of aerosol and droplets generated
NOTE: Aerosol and droplets on barrier can be dispersed when barrier removed and disposed of.

Awake Proning

There is good evidence that proning intubated patients with moderate to severe ARDS improves outcome.

In the spectrum of COVID-19 disease, where we are seeing significant basal atelectasis and hypoxia out of keeping with the clinical picture, many units are making use of proning to target saturations between 88-92%. Specifically, they are advising proning patients early, in combination with HFNC or NIV to decrease the number of patients requiring intubation.

There is anecdotal information that proning at any stage of the disease process may improve oxygenation. In the absence of HFNC or NIV, there is no clear evidence that proning patients on low flow nasal cannula or face mask oxygen would change the ultimate trajectory or improve outcomes, but it may well buy some time before the need to escalate care.



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