



**49th MYANMAR HEALTH RESEARCH CONGRESS**

January 18, 2021 - January 21, 2021

# **Clinical Perspective of COVID-19**

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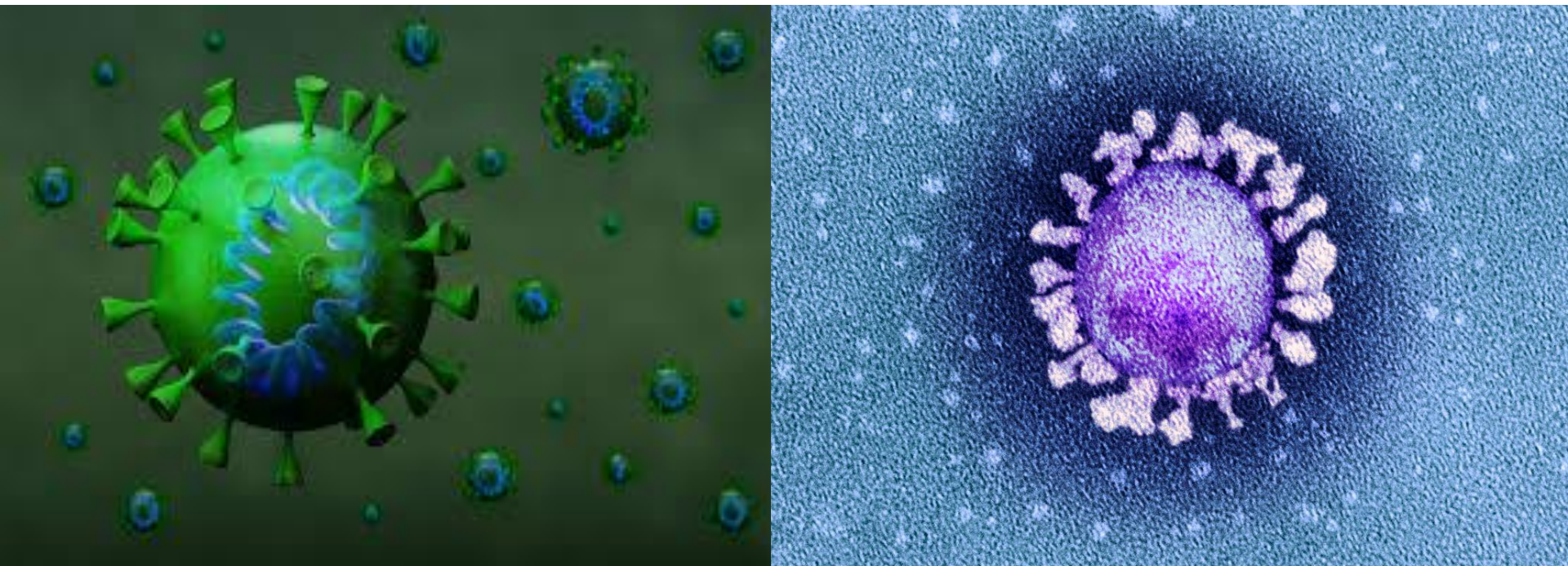
University of Medicine - 1, Yangon

# Overview

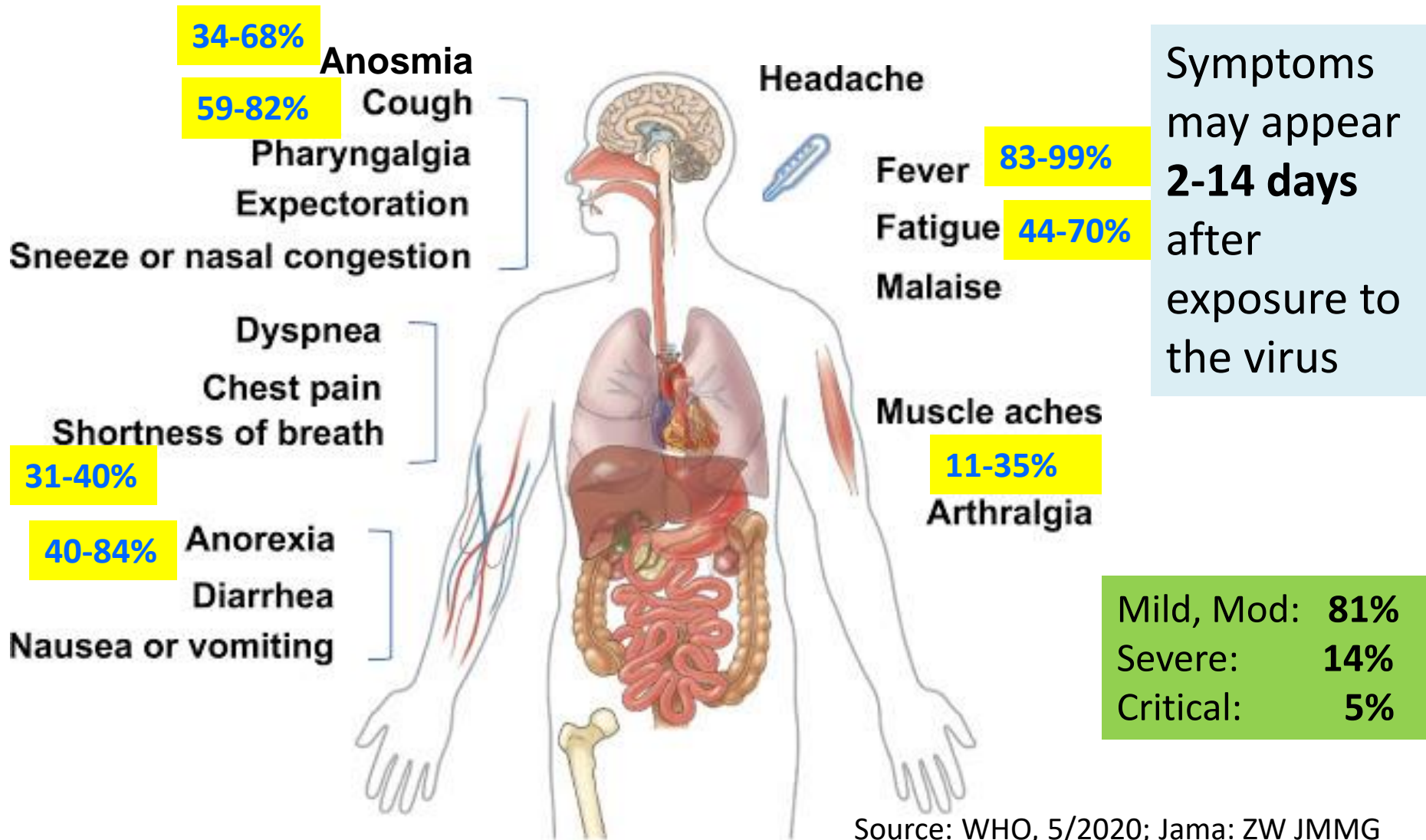
- Basics on COVID-19
- Data from South Okkalarpa Specialist Hospital
- Treatment Guidelines & Therapies
- Some Cases
- Key Reflections

# Coronavirus Disease 2019 (COVID-19)

- COVID 19 is the disease caused by the novel coronavirus SARS-CoV-2



# Clinical Manifestations of COVID-19 Disease



# Manifestations of Severe COVID-19 Disease

Neurological  
Disorder

Hyperinflammation

Acute Respiratory  
Distress Syndrome

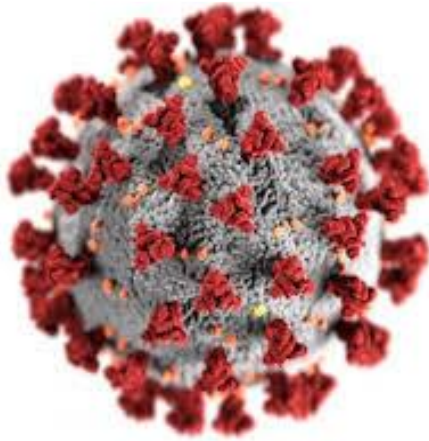
Cardiac Dysfunction

Hypercoagulopathy

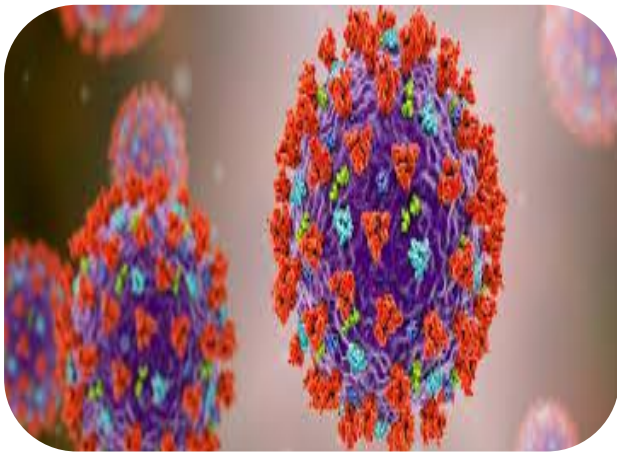
Acute Kidney Injury

Multisystem  
Inflammatory  
Syndrome in  
Children (MIS-C)

# People at Increased Risk for Severe COVID-19 Illness



- Old Age



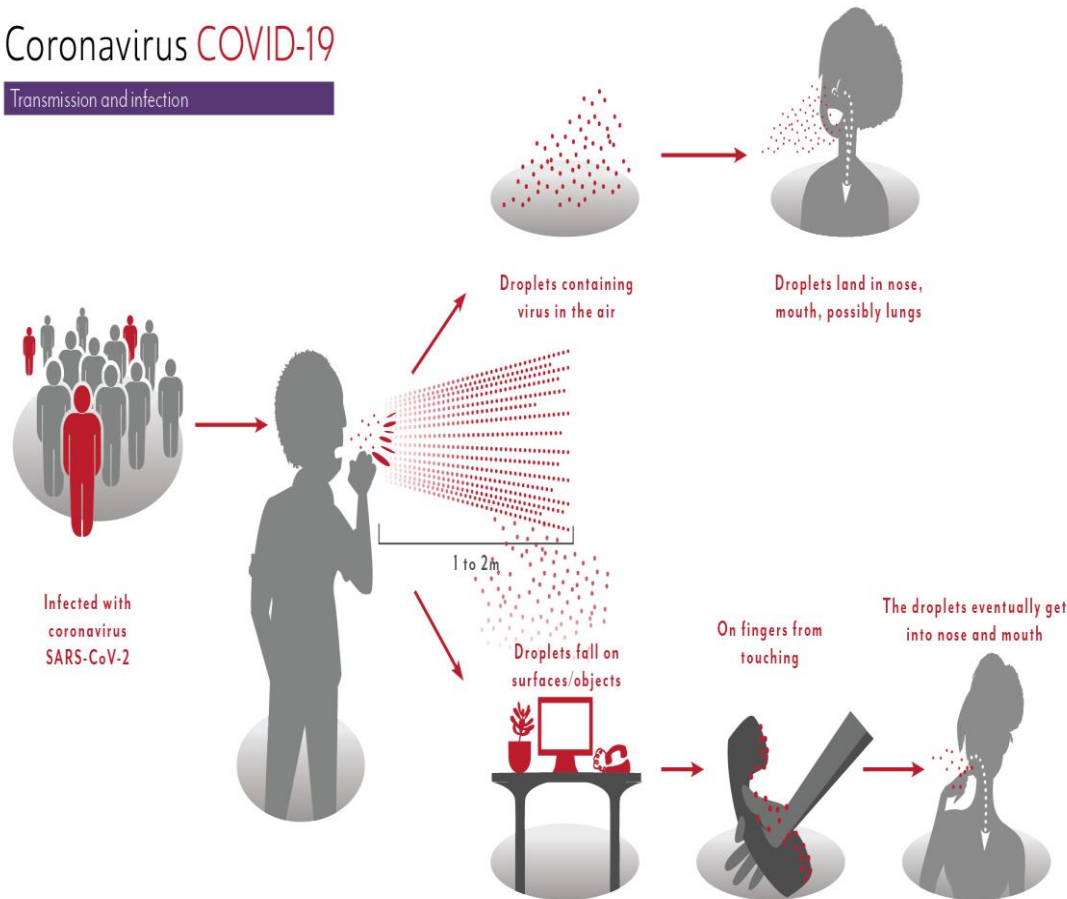
- Any age with Certain Underlying Medical Conditions



# SARS-CoV-2 Transmission

## Coronavirus COVID-19

Transmission and infection



- Mainly thru' exposure to respir'ry **Droplets** ( $\leq 6$  ft) from an infected person
- Sometimes through droplets or particles that remain in air (**Aerosol**) over time & various distance ( $>/< 6$  ft)
- Less common through **Contact** with contaminated surfaces
- Virus found in stool, blood, semen & ocular secretions: role in transmission unknown

# Fundamentals to Prevent Transmission of SARS-CoV-2



Wear medical masks to protect against Coronavirus



Wash hands frequently, wash thoroughly



## COVID - 19

### Coronavirus Disease 2019



Standing or sitting spaced 1.5-2 meters



Avoid being in a crowded place, and places with pollution

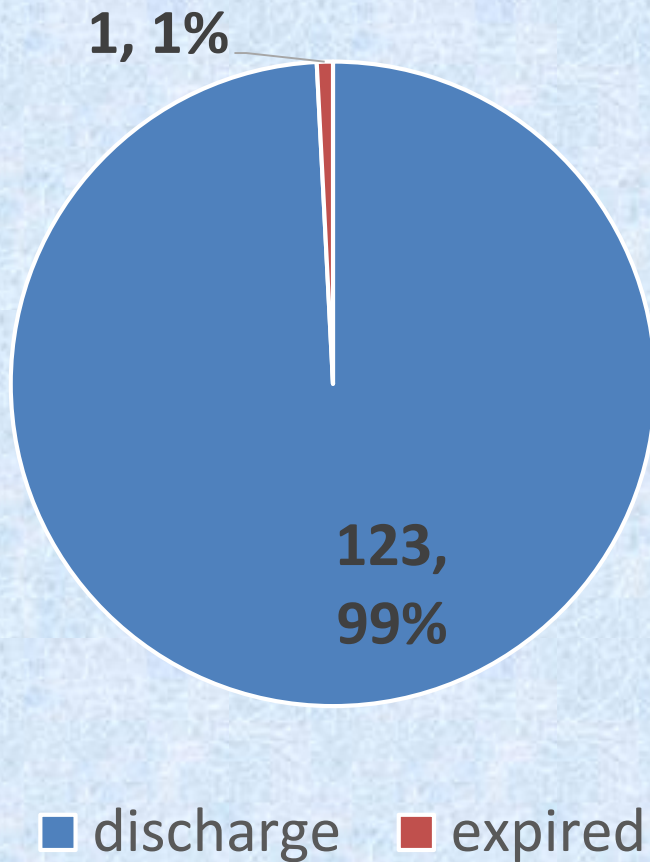


The Second Designated Hospital for COVID-19 Care in Yangon, the **South Okkalarpa Specialist Hospital**, was opened on the 18<sup>th</sup> April 2020.

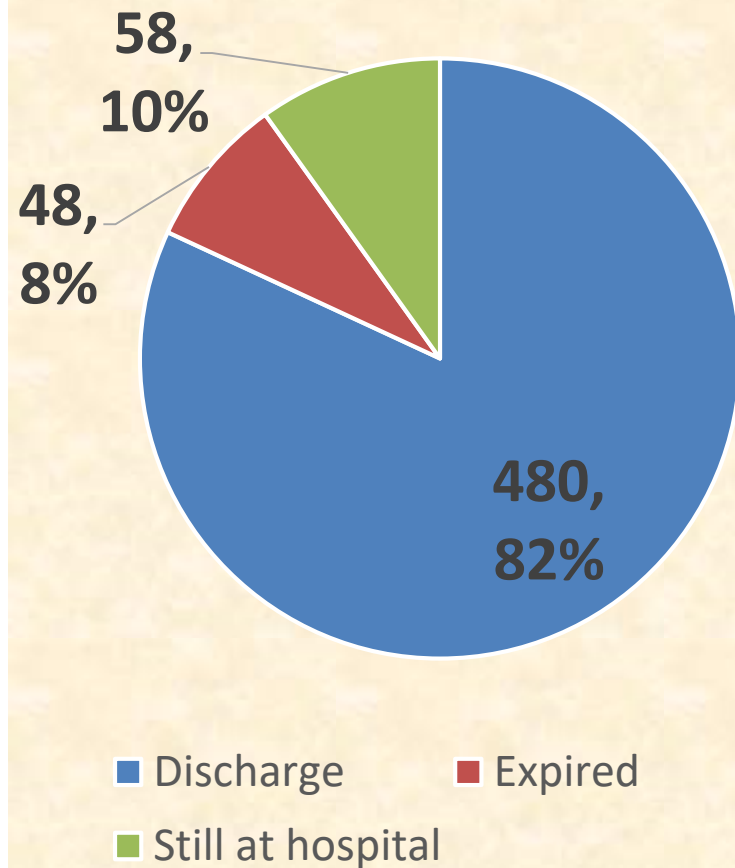


# Outcome of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> Apr - 26<sup>th</sup> Aug 2020)**

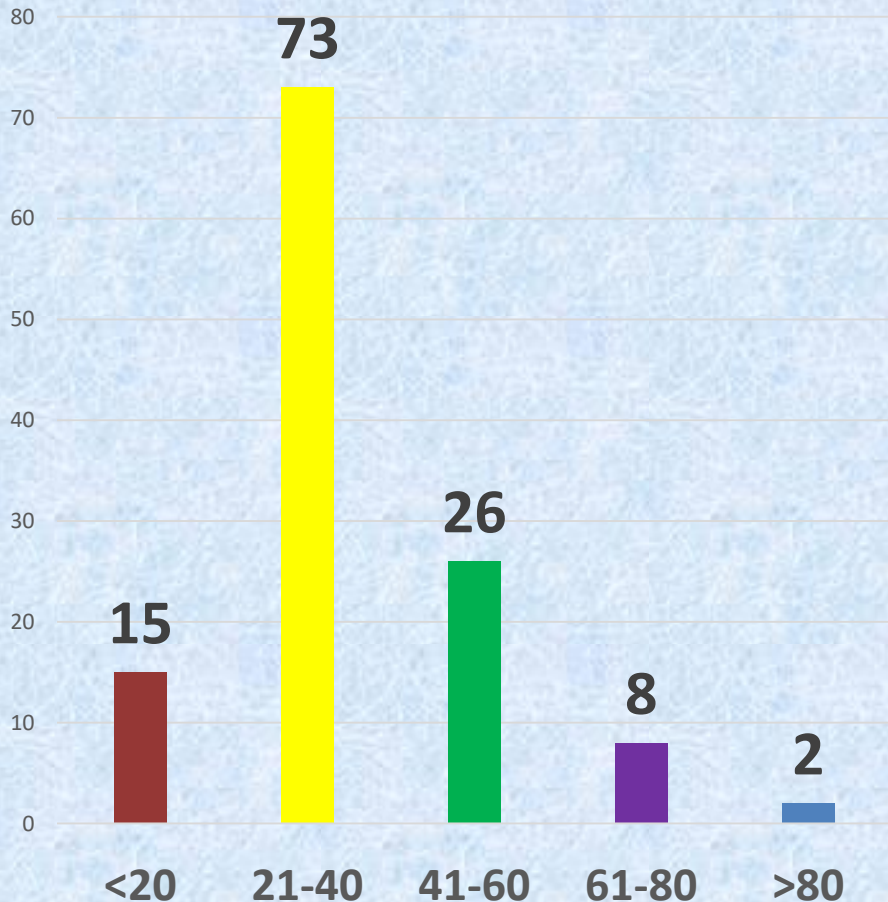


**Second wave (n=586)**  
**(27<sup>th</sup> Aug - 31<sup>st</sup> Dec 2020)**

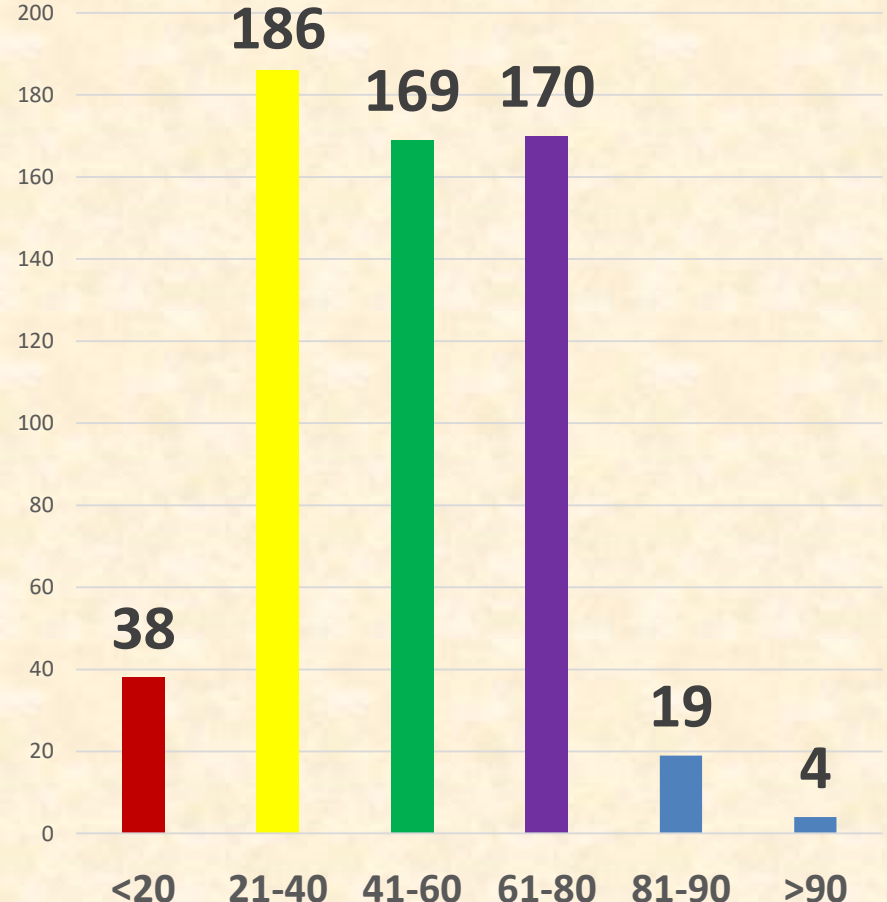


# Age Distribution of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> Apr - 26<sup>th</sup> Aug 2020)**

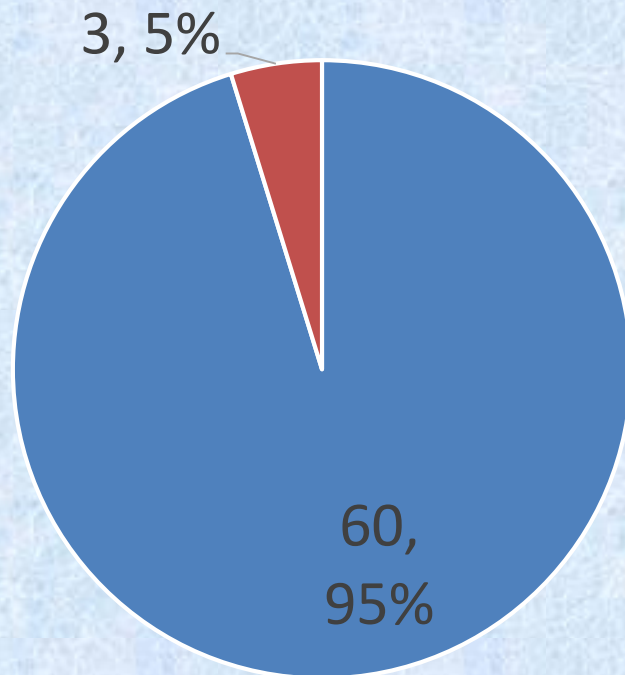


**Second wave (n=586)**  
**(27<sup>th</sup> Aug - 31<sup>st</sup> Dec 2020)**



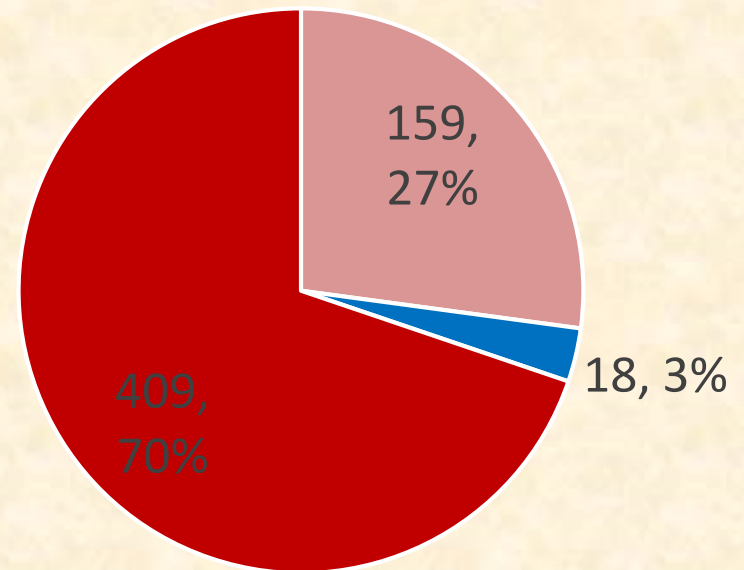
# Travel/Contact History of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> April-26<sup>th</sup> Aug, 2020)**



■ Travel history  
■ No contact or travel

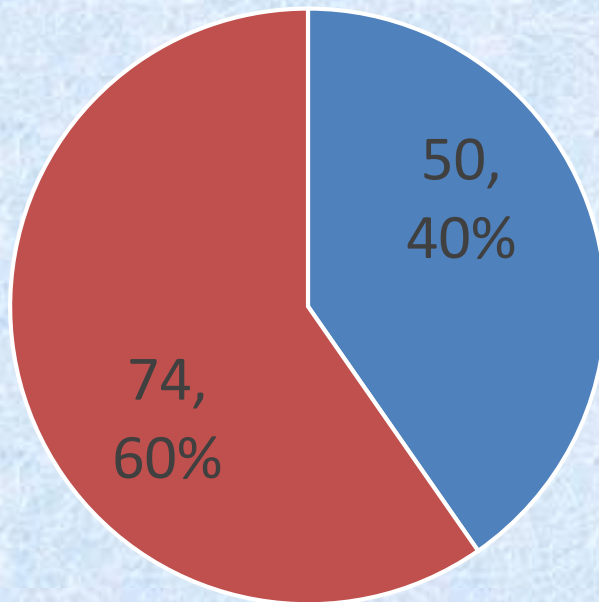
**Second wave (n=586)**  
**(27<sup>th</sup> Aug-31<sup>st</sup> Dec, 2020)**



■ Contact history  
■ Travel history  
■ No contact or travel

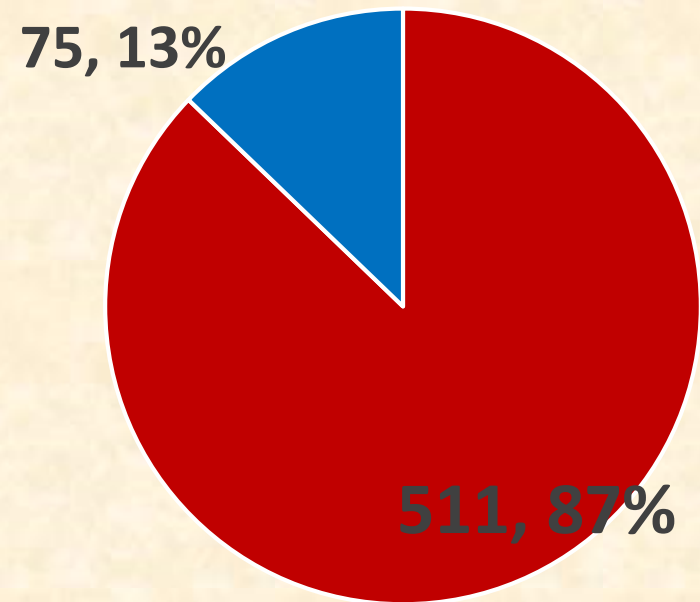
# Symptoms of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> April-26<sup>th</sup> Aug 2020)**



■ asymptomatic  
■ symptomatic

**Second wave (n=586)**  
**(27<sup>th</sup> Aug-31<sup>st</sup> Dec 2020)**

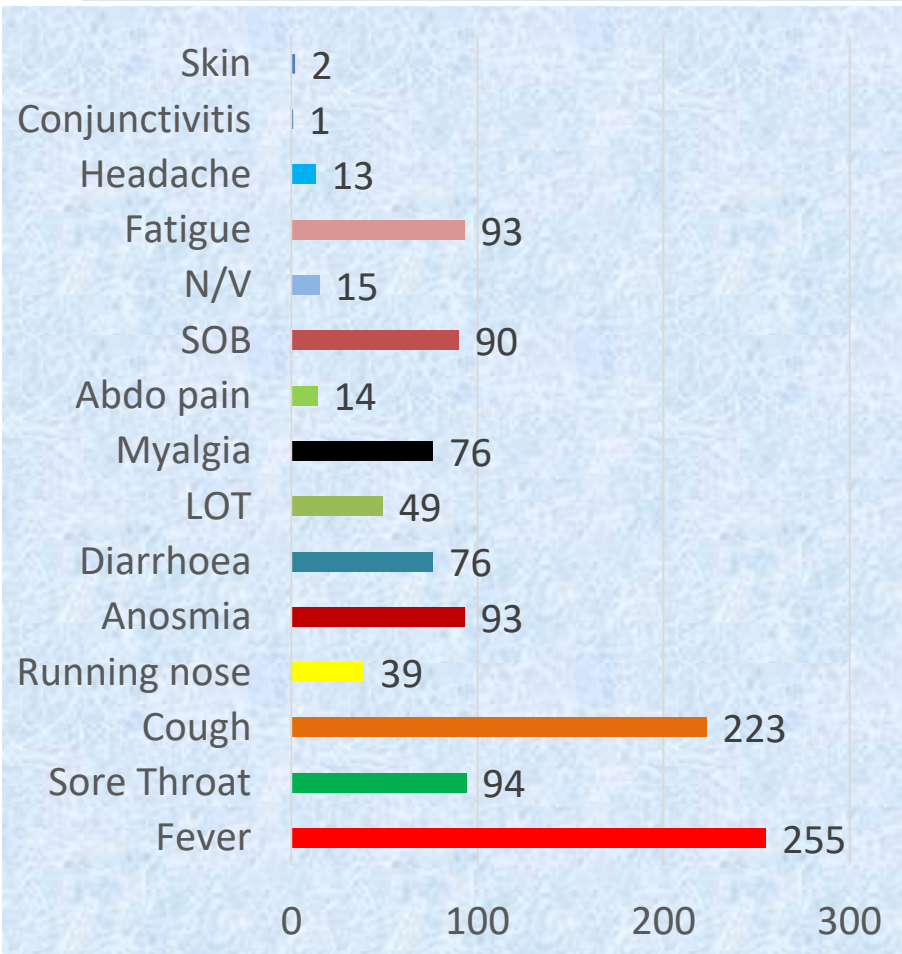


■ Symptomatic  
■ Asymptomatic

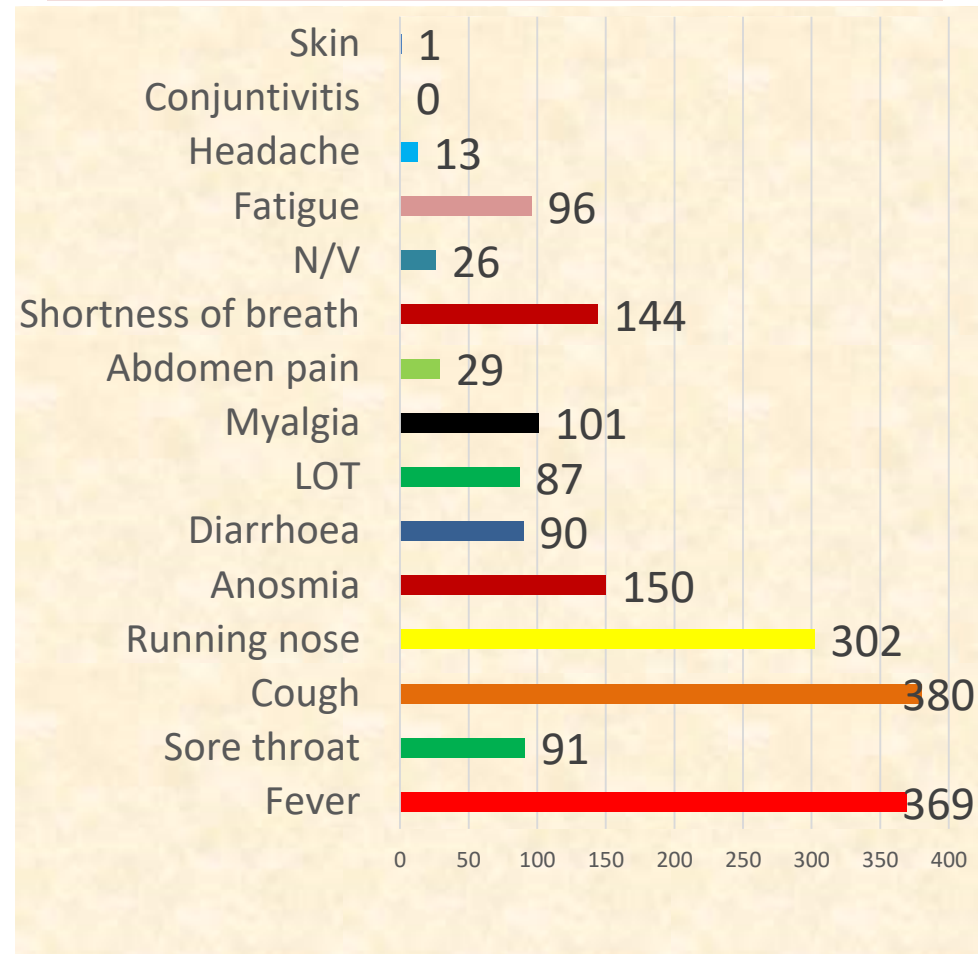


# Presenting Symptoms of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> Apr - 26<sup>th</sup> Aug 2020)**

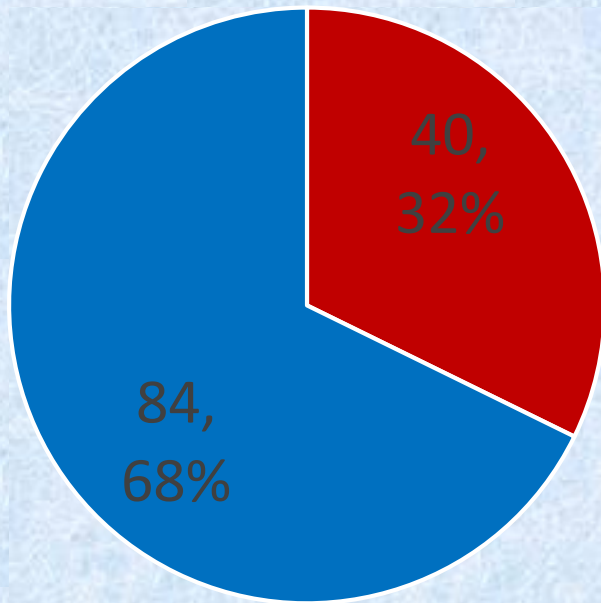


**Second wave (n=586)**  
**(27<sup>th</sup> Aug - 31<sup>st</sup> Dec 2020)**



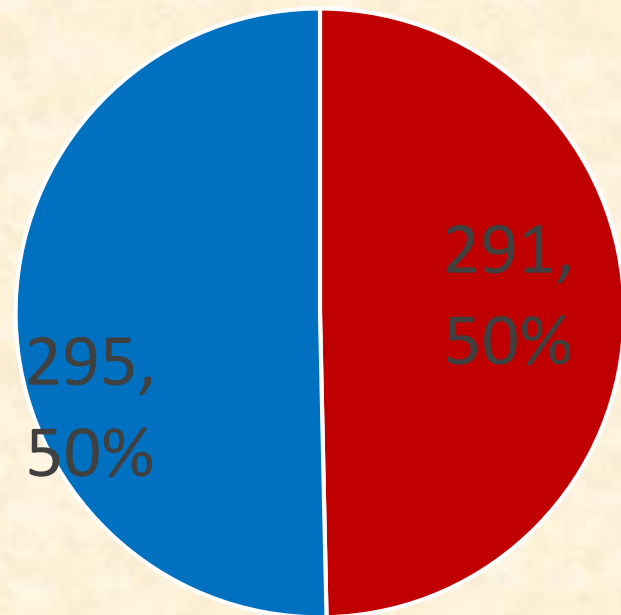
# Comorbid Diseases of COVID 19 Patients

**First wave (n=124)  
(17<sup>th</sup> Apr - 26<sup>th</sup> Aug 2020)**



■ Comorbid conditon present  
■ absence

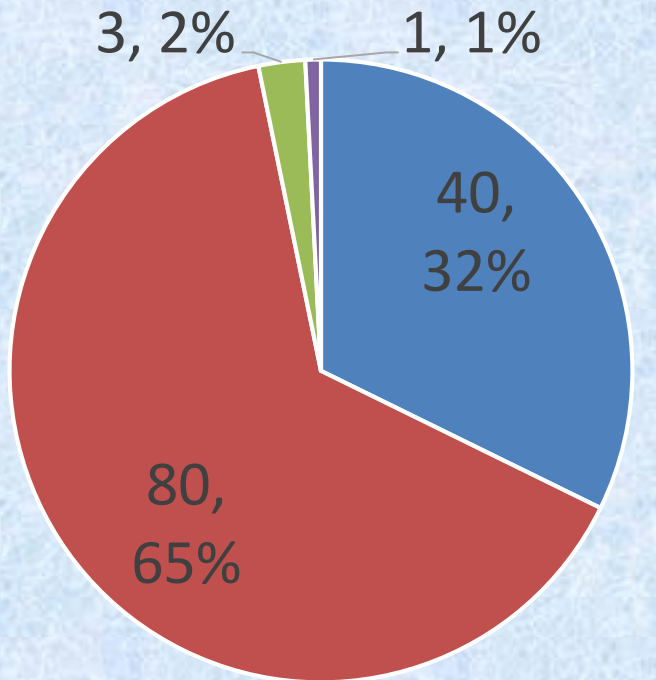
**Second wave (n=586)  
(27<sup>th</sup> Aug-31<sup>st</sup> Dec 2020)**



■ Comorbid conditon present  
■ absence

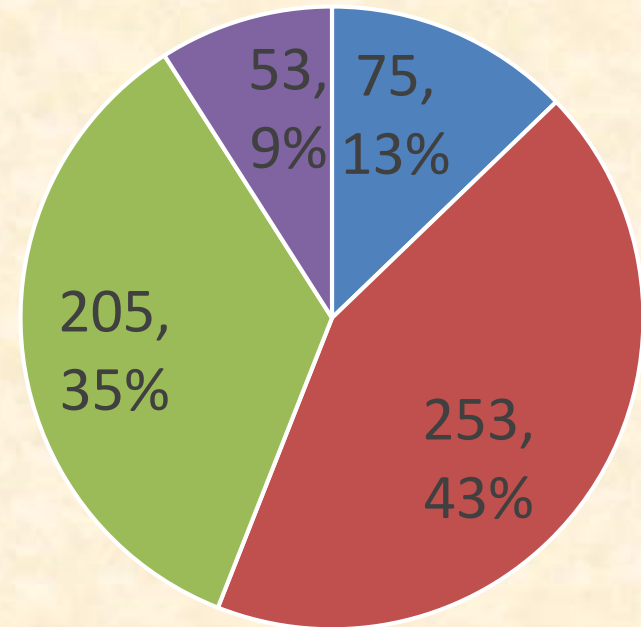
# Severity of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> Apr - 26<sup>th</sup> Aug 2020)**



■ Mild      ■ Moderate  
■ Severe    ■ Critical

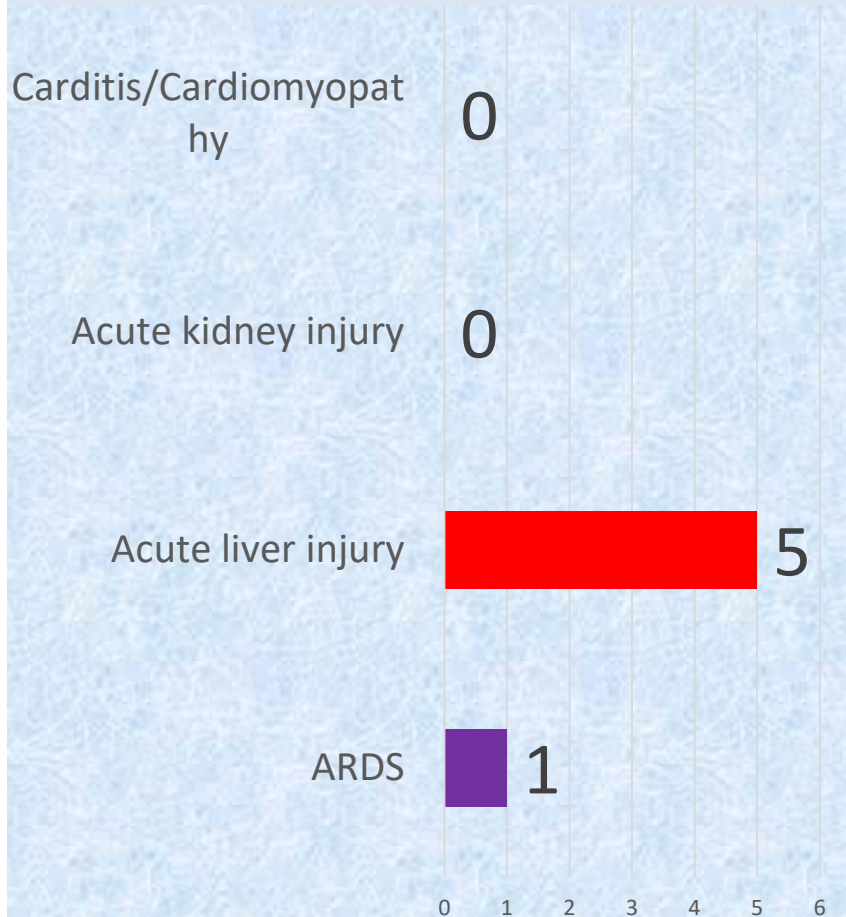
**Second wave (n=586)**  
**(27<sup>th</sup> Aug - 31<sup>st</sup> Dec 2020)**



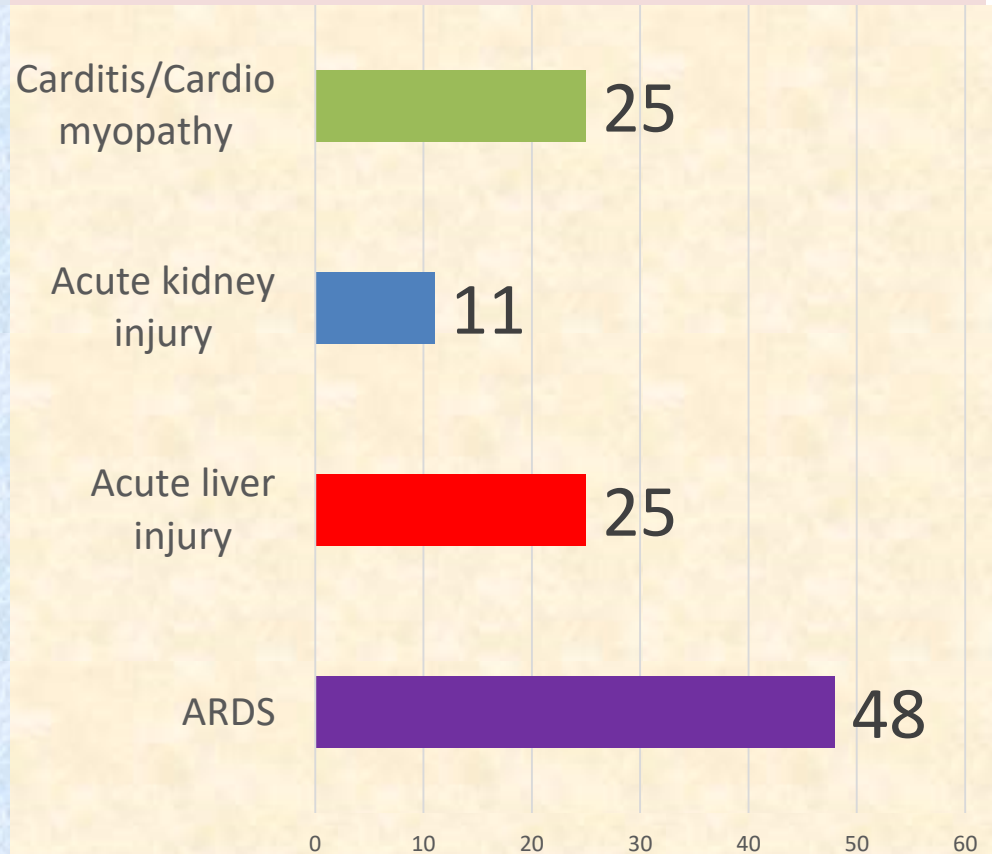
■ Mild      ■ moderate  
■ Severe    ■ Critical

# Complications of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> Apr - 26<sup>th</sup> Aug 2020)**

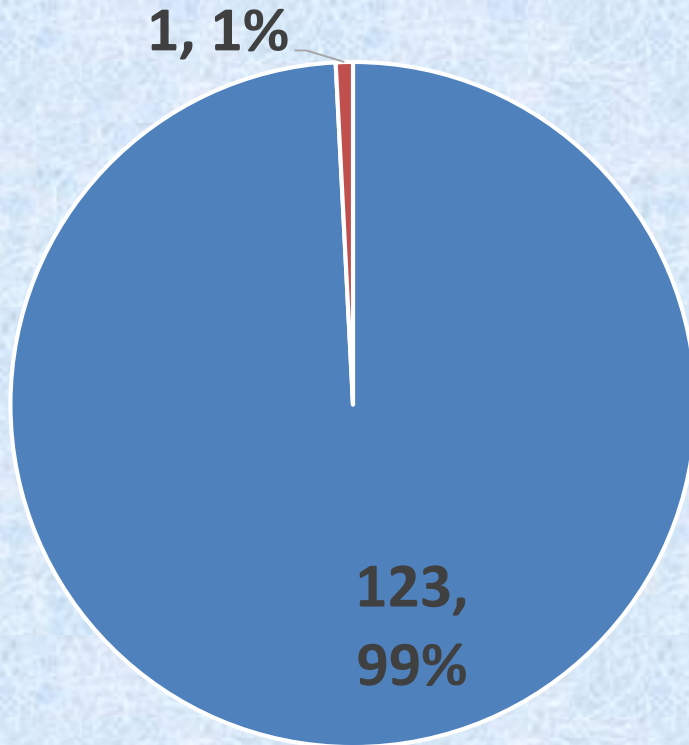


**Second wave (n=586)**  
**(27<sup>th</sup> Aug - 31<sup>st</sup> Dec 2020)**



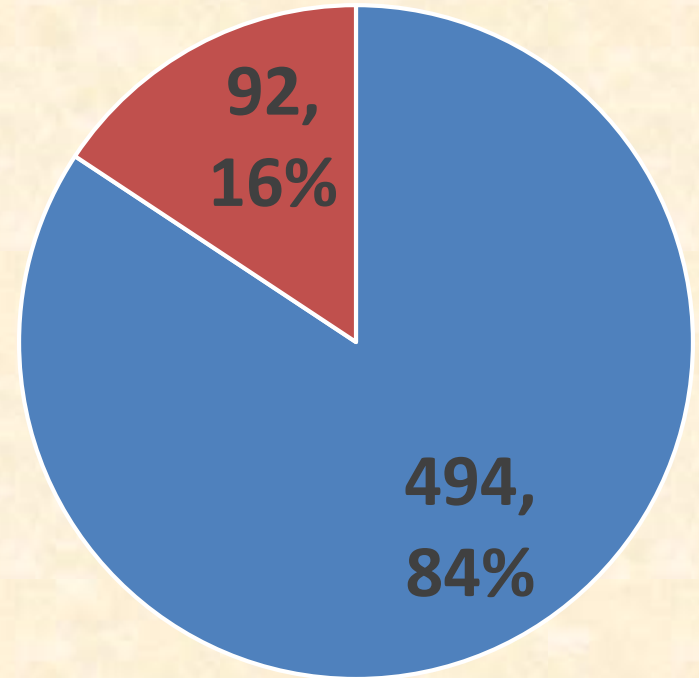
# Site of Care of COVID 19 Patients

**First wave (n=124)**  
**(17<sup>th</sup> Apr - 26<sup>th</sup> Aug 2020)**



■ Ward ■ ICU

**Second wave (n=586)**  
**(27<sup>th</sup> Aug - 31<sup>st</sup> Dec 2020)**



■ Ward ■ ICU



THE GOVERNMENT OF THE REPUBLIC OF THE UNION OF MYANMAR

MINISTRY OF HEALTH  
DEPARTMENT OF MEDICAL SERVICES



Clinical Management  
2019 Novel Coronavirus (2020)

Version - DoMS/nCoV/clinical/Version 01-2020  
Date - 3<sup>rd</sup> February 2020

GOVERNMENT OF THE REPUBLIC OF THE UNION OF MYANMAR  
MINISTRY OF HEALTH AND SPORTS  
DEPARTMENT OF MEDICAL SERVICES

Clinical  
COVID-19

Clinical Management  
COVID-19

Version - DoMS/COVID-19/clinical/Version 01-2020  
Date - 6<sup>th</sup> March 2020

Version - DoMS/COVID-19/clinical/Version 02-2020  
Date - 3<sup>rd</sup> April 2020

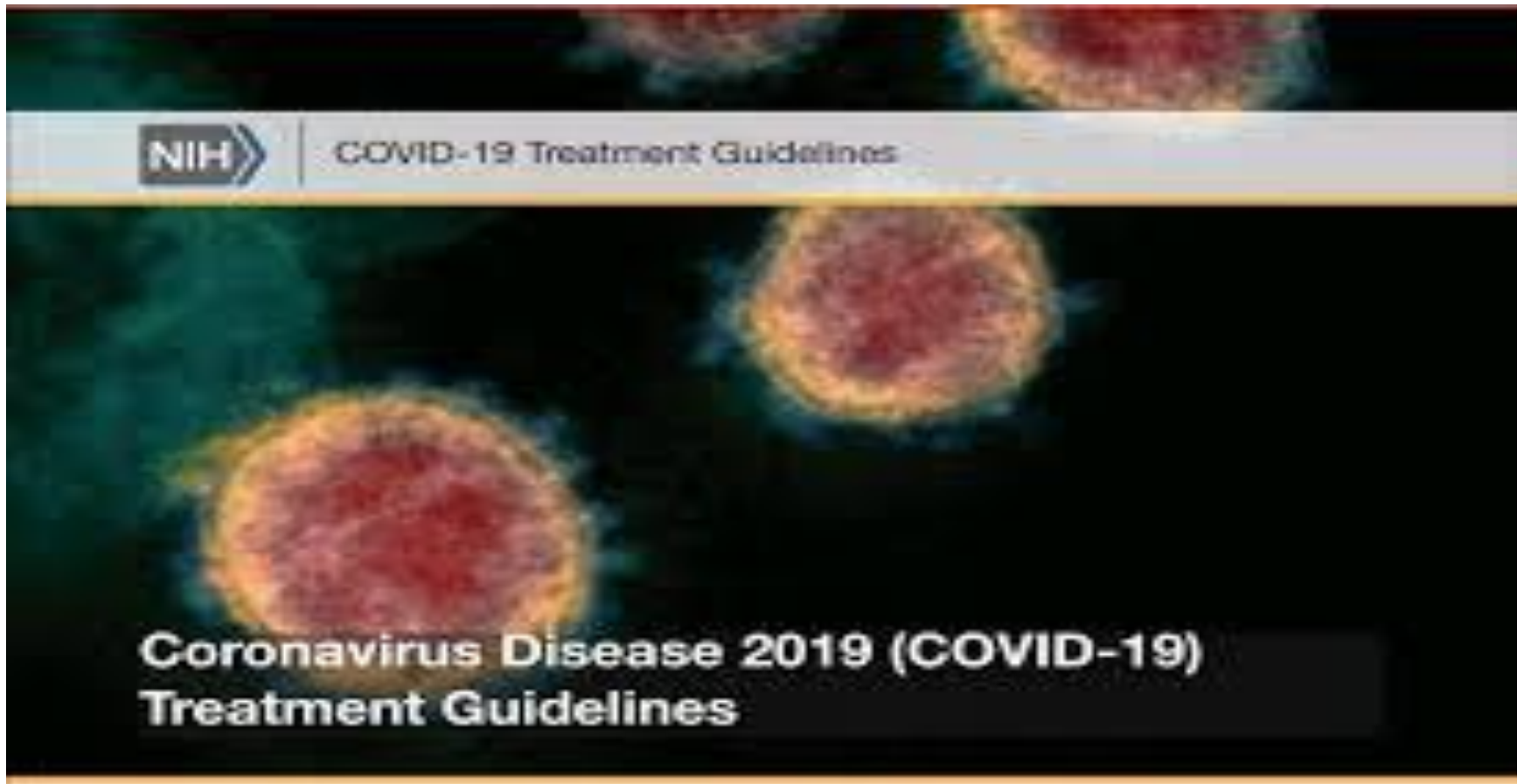
GOVERNMENT OF THE REPUBLIC OF THE UNION OF MYANMAR  
MINISTRY OF HEALTH AND SPORTS  
DEPARTMENT OF MEDICAL SERVICES



Clinical Management Guidelines for  
COVID-19 Acute Respiratory Disease

Version - DoMS/COVID-19/clinical/Version 08-2020

Date - 25<sup>th</sup> August 2020



# Therapeutic Management of Patients with COVID-19

*Last Updated: December 3, 2020*

## DISEASE SEVERITY

Not Hospitalized,  
Mild to Moderate COVID-19

## PANEL'S RECOMMENDATIONS

There are insufficient data to recommend either for or against any specific antiviral or antibody therapy. SARS-CoV-2 neutralizing antibodies (**bamlanivimab** or **casirivimab plus imdevimab**) are available through EUAs for outpatients who are at high risk of disease progression.<sup>a</sup> These EUAs do not authorize use in hospitalized patients.

**Dexamethasone** should not be used **(AIII)**.

Hospitalized<sup>a</sup> But Does Not Require  
Supplemental Oxygen

**Dexamethasone** should not be used **(AIIa)**.

There are insufficient data to recommend either for or against the routine use of **remdesivir**. For patients at high risk of disease progression, the use of remdesivir may be appropriate.

Hospitalized<sup>a</sup> and Requires  
Supplemental Oxygen

(But Does Not Require Oxygen Delivery  
Through a High-Flow Device,  
Noninvasive Ventilation, Invasive  
Mechanical Ventilation, or ECMO)

Use one of the following options:

- **Remdesivir**<sup>b,c</sup> (e.g., for patients who require minimal supplemental oxygen) **(BIIa)**
- **Dexamethasone**<sup>d</sup> **plus remdesivir**<sup>b,c</sup> (e.g., for patients who require increasing amounts of supplemental oxygen) **(BIII)**<sup>e,f</sup>
- **Dexamethasone**<sup>d</sup> (e.g., when combination therapy with remdesivir cannot be used or is not available) **(BI)**

Hospitalized<sup>a</sup> and Requires Oxygen  
Delivery Through a High-Flow Device  
or Noninvasive Ventilation

Use one of the following options:

- **Dexamethasone**<sup>d,f</sup> **(AI)**
- **Dexamethasone**<sup>d</sup> **plus remdesivir**<sup>b,c</sup> **(BIII)**<sup>e,f</sup>

Hospitalized<sup>a</sup> and Requires Invasive  
Mechanical Ventilation or ECMO

**Dexamethasone**<sup>d</sup> **(AI)**<sup>g</sup>

# COVID-19 Disease Severity (Myanmar Guideline)

## *Mild disease*

- Symptomatic patients meeting the case definition for COVID-19 without evidence of viral pneumonia or hypoxia

## *Moderate disease/Pneumonia*

- Adolescent or adult with clinical signs of pneumonia (fever, cough, dyspnoea, fast breathing)

## *Severe disease/Severe pneumonia*

- Adolescent or adult with clinical signs of pneumonia (fever, cough, dyspnea, fast breathing) plus one of the following: respiratory rate > 30 breaths/min; severe respiratory distress; or SpO<sub>2</sub> <93% on room air.

## **Critical disease**

### **1. *Acute Respiratory Distress Syndrome (ARDS)***

### **2. *Sepsis***

### **3. *Septic shock***

### **4. *Other complication***

- Acute pulmonary embolism,
- Acute coronary syndrome,
- Acute Stroke and delirium

# Oxygen Supplementation & Proning

- Oxygen is vital for management of Hypoxaemic patients
- Low flow to high flow: titrate with patient requirement
- Awake proning

## Aims

Awake proning **may reduce** ICU admissions. Intubation in COVID19 has a high mortality. Patient **must** be **awake** and willing to **comply**.

## Duration

Aim to remain prone for **4 hours periods**. Allow **1 hour comfort breaks** between periods of proning for eating, drinking, toilet and general comfort.





# Dexamethasone

## Recommendation 4:

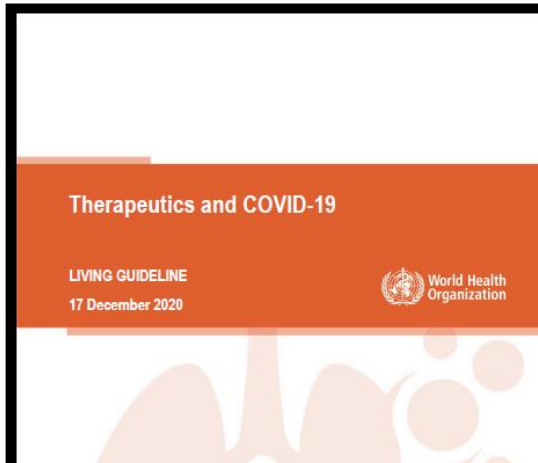
- Among hospitalized **critically ill patients\*** with COVID-19, the IDSA guideline panel **recommends dexamethasone rather than no dexamethasone**. (Strong recommendation, Moderate certainty of evidence)

## Recommendation 5:

- Among hospitalized patients with **severe\*\*, but non-critical, COVID-19**,
- the IDSA guideline panel **suggests dexamethasone rather than no dexamethasone**. (Conditional recommendation, Moderate certainty of evidence)

## Recommendation 6:

- Among hospitalized patients with **non-severe\*\*\* COVID-19 without hypoxemia** requiring supplemental oxygen, the IDSA guideline panel suggests **against the use of glucocorticoids**. (Conditional recommendation, Low certainty of evidence)



For patients with severe or critical COVID-19-infection (see disease severity criteria above).

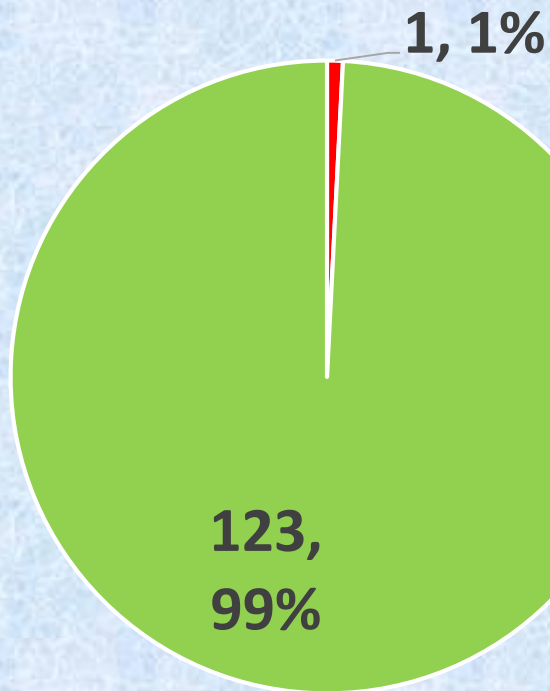
## Recommended

We recommend systemic corticosteroids rather than no corticosteroids.

**Timing:** The timing of therapy from onset of symptoms was discussed by the panel. The RECOVERY investigators reported a subgroup analysis suggesting that the initiation of therapy 7 days or more after symptom onset may be more beneficial than treatment initiated within 7 days of symptom onset. A post-hoc subgroup analysis within the PMA did not support this hypothesis. While some panel members believed that postponing systemic corticosteroids until after viral replication is contained by the immune system may be reasonable, many noted that, in practice, it is often impossible to ascertain symptom onset and that signs of severity often appear late (that is, denote a co-linearity between severity and timing). The panel concluded that, given the evidence, it was preferable to err on the side of administering corticosteroids when treating patients with severe or critical COVID-19 (even if within 7 days of symptoms onset) and to err on the side of not giving corticosteroids when treating patients with non-severe disease (even if after 7 days of symptoms onset).

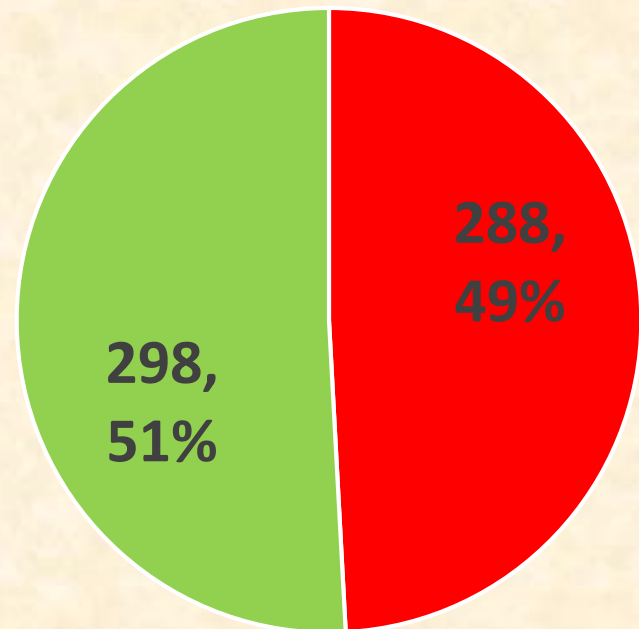
# Dexamethasone Usage among COVID 19 Patients in SOSH

**First wave (n=124)**  
**(17<sup>th</sup> April-26<sup>th</sup> Aug, 2020)**



■ Steroid injection needed  
■ steroid injection not needed

**Second wave (n=586)**  
**(27<sup>th</sup> Aug - 31<sup>st</sup> Dec 2020)**



■ Steroid injection needed  
■ steroid injection not needed



# Remdesivir



## Recommendation 9:

- In hospitalized patients with **severe\* COVID-19**, the IDSA panel suggests **remdesivir over no antiviral treatment**. (Conditional recommendation, Moderate certainty of evidence)

## Recommendation 10:

- In patients **on supplemental oxygen but not on mechanical ventilation or ECMO**, the IDSA panel **suggests treatment with five days of remdesivir rather than 10 days of remdesivir**. (Conditional recommendation, Low certainty of evidence)

## Recommendation 11:

- In patients with COVID-19 admitted to the hospital **without the need for supplemental oxygen and oxygen saturation >94% on room air**, the IDSA panel suggests **against the routine use of remdesivir**. (Conditional recommendation, Very low certainty of evidence)

# Myanmar Guidelines

## Annex 1

### SOP for use of Remdesivir as investigational agent in Patients with Confirmed COVID-19

#### - Eligible persons

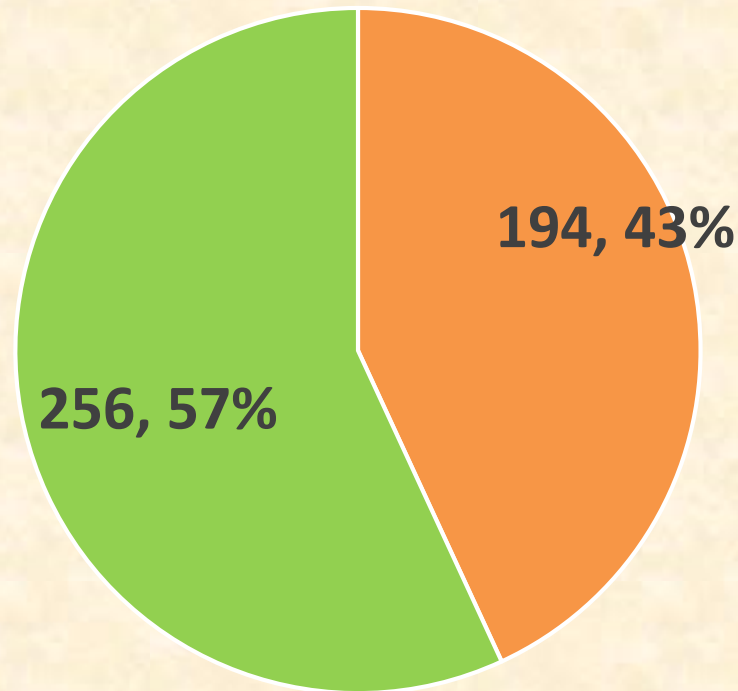
Hospitalized patients with confirmed COVID-19 disease who should meet the following criteria:

- Adult patients with age  $\geq 18$  year who has signed the informed consent form *and*
- Those with symptom **onset of within 10 days** *and*
- Presence of **pulmonary infiltrates or pneumonia** as determined by radiographic imaging *or*
- Those who required supplemental oxygen therapy with **oxygen saturation of  $\leq 94\%$  on room air**

**(NOTE: Prioritize for those requiring low flow supplemental oxygen therapy in limited supplies of Remdesivir)**

# Remdesivir Therapy in COVID 19 Patients (n=194)

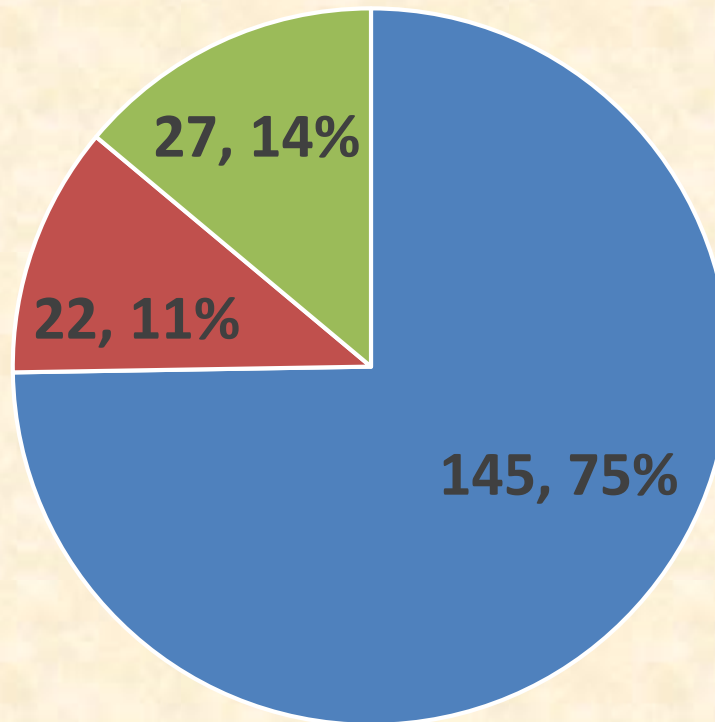
(total admitted between 25<sup>th</sup> Sept-31<sup>st</sup> Dec=450)



■ Remdesivir injection given

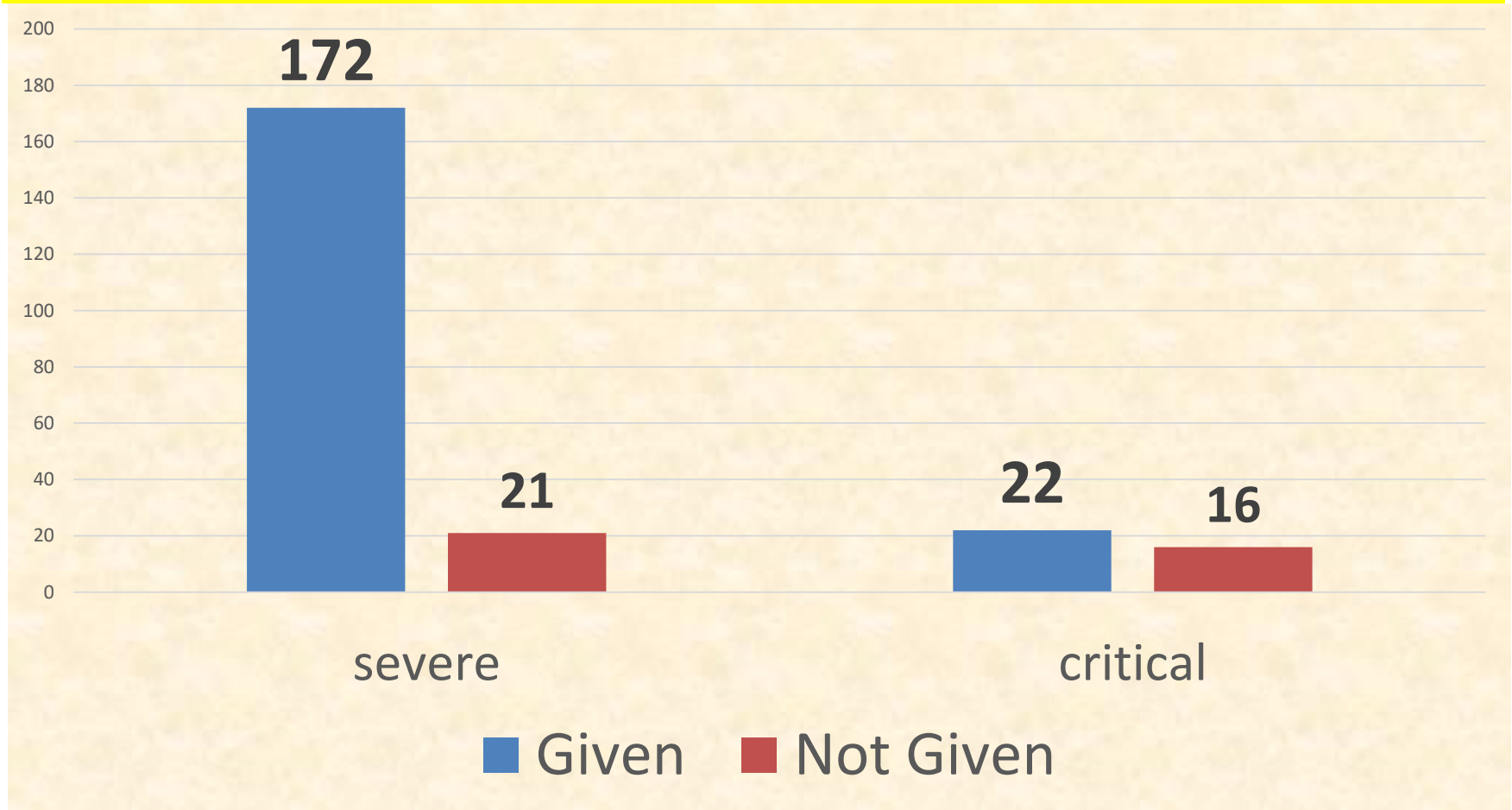
■ Remdesivir injection not given

# Outcome of Remdesivir Recipients (n=194)



■ Recovered and discharge ■ Expired ■ Stil at hospital

# Remdesivir Therapy in COVID-19 Patients of Different Severity (n=194)



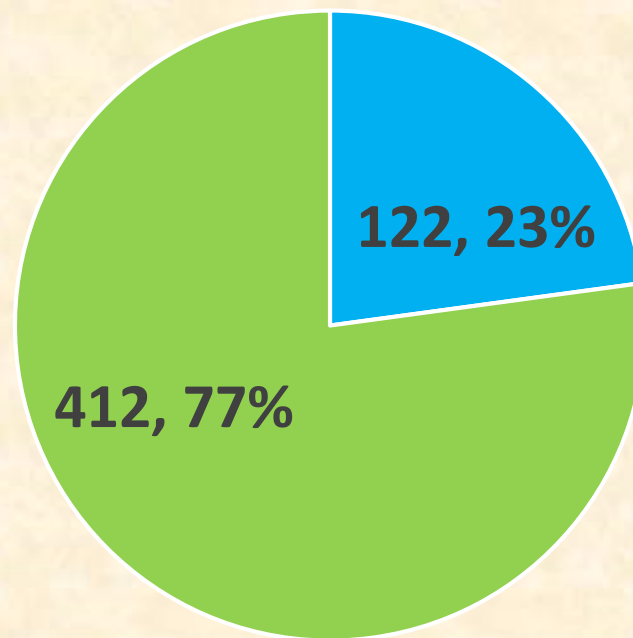


# Effect of Remdesivir on Prognostic parameters of COVID 19 patients (n=194)

Mean ALC before treatment ( $\times 10^3 / \mu\text{L}$ )	1.4
Mean ALC after 5 day of treatment ( $\times 10^3 / \mu\text{L}$ )	4
Mean CRP before treatment (mg/L)	93
Mean CRP after 5 day of treatment (mg/L)	59
Mean LDH before treatment (U/L)	394
Mean LDH after 5 day of treatment (U/L)	376
Mean D Dimer before treatment (ng/ml)	1287
Mean D Dimer after 5 day of treatment (ng/ml)	1001

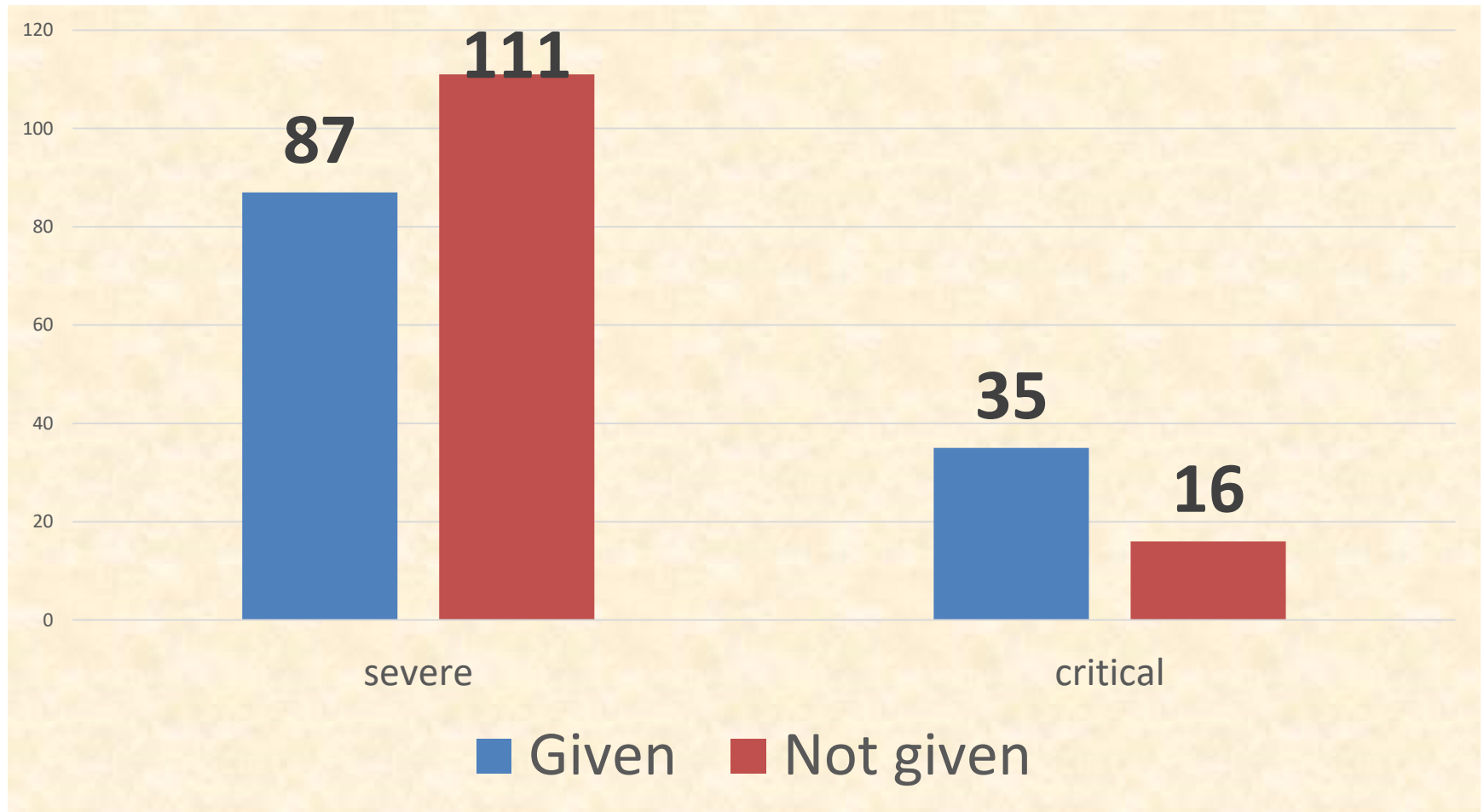
# Convalescent Plasma Therapy in COVID-19 Patients (n=122)

(Total admitted patients 4<sup>th</sup> Sep - 31<sup>st</sup> Dec 2020 = 534)

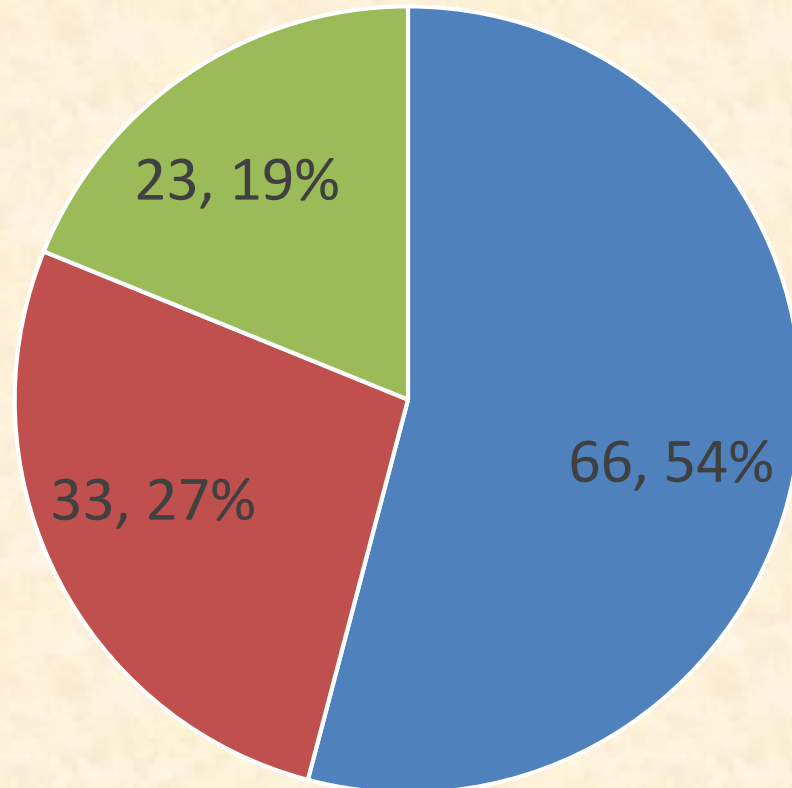


- Convalescent plasma therapy given
- Convalescent plasma therapy not given

# Convalescent Plasma Therapy in COVID-19 Patients of Different Severity (n=122)



# Outcome of Convalescent Plasma Therapy Recipients (n=122)



■ Recovered and discharge ■ Expired ■ Stil at hospital

# Effect of Convalescent Plasma on Prognostic Parameters of COVID 19 Patients (n=122)

Mean ALC before treatment ( $\times 10^3$ / $\mu$ L)	1.16
Mean ALC 7 days after treatment ( $\times 10^3$ / $\mu$ L)	2
Mean CRP before treatment (mg/L)	122
Mean CRP 7 days after treatment (mg/L)	74
Mean LDH before treatment (U/L)	506
Mean LDH 7 days after treatment (U/L)	435
Mean D Dimer before treatment (ng/L)	2006
Mean D Dimer 7 days after treatment (ng/L)	1889



## 11. Prevention of complications in hospitalized and critically ill patients with COVID-19

### Thromboembolism

Coagulopathy is common in patients with severe COVID-19, and both venous and arterial thromboembolism have been reported (23, 24, 112-114).

- ✓ In patients (adults and adolescents) hospitalized with COVID-19, use pharmacological prophylaxis, such as low molecular weight heparin (such as enoxaparin), according to local and international standards, to prevent venous thromboembolism, when not contraindicated (115). For those with contraindications, use mechanical prophylaxis (intermittent pneumatic compression devices).
- ✓ Monitor patients with COVID-19, for signs or symptoms suggestive of thromboembolism, such as stroke, deep venous thrombosis, pulmonary embolism or acute coronary syndrome. If these are clinically suspected, proceed immediately with appropriate diagnostic and management pathways.

### Prevention of complications in hospitalized and critically ill patients with COVID-19

- For prophylaxis of venous-thromboembolism, **consider LMWH (low molecular-weight heparin) 0.4 mg OD or unfractionated heparin 5000 units subcutaneously twice daily) in adolescents and adults without contraindications. Attending physician should adjust the dose and duration of anticoagulation.** For those with contraindications, use mechanical prophylaxis (intermittent pneumatic compression devices).

*Source: MoHS Clinical Mx Guideline Version 8*

# Case 1

86 yr old man from Yankin  
admitted to SOSH on  
21.9.20

C/O

Fever & cough x 7 days

DOE x 5 days

PMH → HT, IHD, Type 2  
DM (+)

On arrival

- Respiratory distress(+)
- BP – 137/78 mmHg,
- HR – 72/min
- SpO<sub>2</sub> – 86% on air, 90%  
on O<sub>2</sub> 10L/min FM R  
bag → needed ICU  
care

IV Dexa 6mg OD x 10 days  
 1<sup>st</sup> unit of convalescent plasma 23.9.20 (9<sup>th</sup> day of illness)  
 2<sup>nd</sup> unit of convalescent plasma 25.9.20 (11<sup>th</sup> day of illness)



88% on air, 97% O2  
 15L/min FM R bag



SPO2 96% O2 7L/min  
 Facemask



SPO2 97% 5L/min Nasal  
 prong

Date	22.9.20	30.9.20	9.10.20
Hb	12	12	12
WBC	13	10	9
ANC	12	8	8
ALC	0.6	1.5	1.9
Platelet	314	314	316
D-dimer	9500	850	710
CRP	106	45	31
LDH	592	301	296
Procalcitonin	<0.1	<0.1	<0.1
Cr-	71	78	75
AST	95	56	23
ALT	75	38	20

Patient discharge on 12.10.20 (21<sup>st</sup> day of hospitalization ).

## Case 2

88 yr old man from  
Pazuntaung admitted to  
SOSH on 3.10.20

C/O

Fever & cough x 6 days

DOE x 3 days

PMH → HT, IHD/AF (+)

On arrival

- Respiratory distress(+)
- BP – 110/80 mmHg,
- HR – 108/min (AF+)
- SpO2 – 71% on air, 94% on O2 10L/min FM R bag → needed ICU care

IV Dexa 6mg OD x 10 days  
IV Remdesivir 4.10.20 (6<sup>th</sup> day of illness)

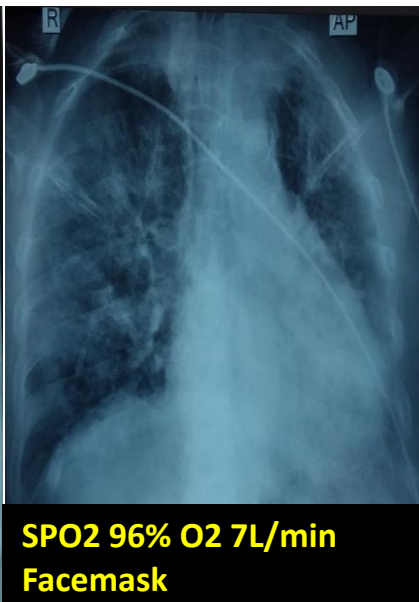
1<sup>st</sup> unit of convalescent plasma 4.10.20 (6<sup>th</sup> day of illness)

2<sup>nd</sup> unit of convalescent plasma 5.10.20 (7<sup>th</sup> day of illness)

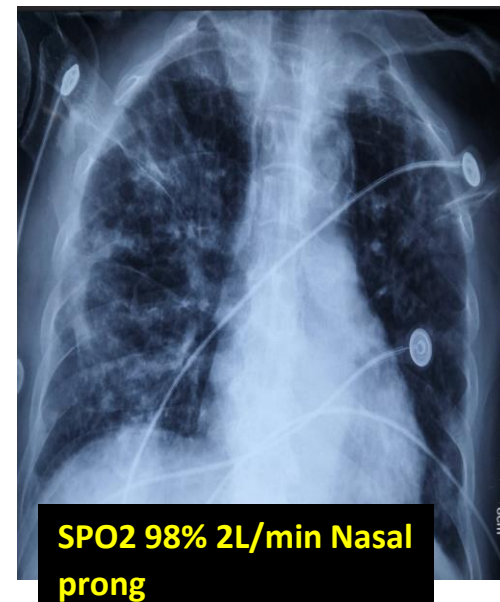
3<sup>rd</sup> unit convalescent plasma 6.12.20 (8<sup>th</sup> day of illness)



**71% on air, 94% O2  
10L/min FM R bag**



**SPO2 96% O2 7L/min  
Facemask**



**SPO2 98% 2L/min Nasal  
prong**

Date	3.10.20	13.10.20	27.10.20
Hb	10	11	9
WBC	6.7	14	6
ANC	6.05	13	3.9
ALC	0.4	0.3	1.1
Platelet	131	193	305
D-dimer	1039	6488	1143
CRP	164	41	2
LDH	547	537	318
Procalcitonin	0.1	0.1	0.1
Cr-	105	79	78
Ferritin	1078	991	720
ALT	75	105	75

Patient discharge on 6.11.20 (36th day of hospitalization).



# On 8.10.20 (11<sup>th</sup> day of illness at ICU)



Atrial Flutter  
with 2:1 AVB

DC cardioversion,  
synchronized 150j for  
biphasic f/b Digoxin 1/4 BD  
Metoprolol XL 12.5 mg BD



18 Jan 2021

Moe Moe San

DMR

## Case 3

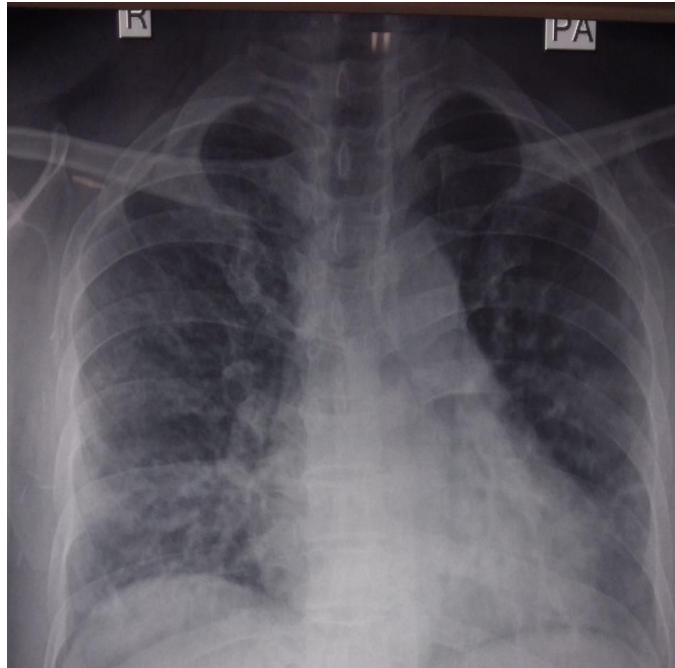
- 46 yr old woman was admitted to SOSH on 4.10.20

C/O

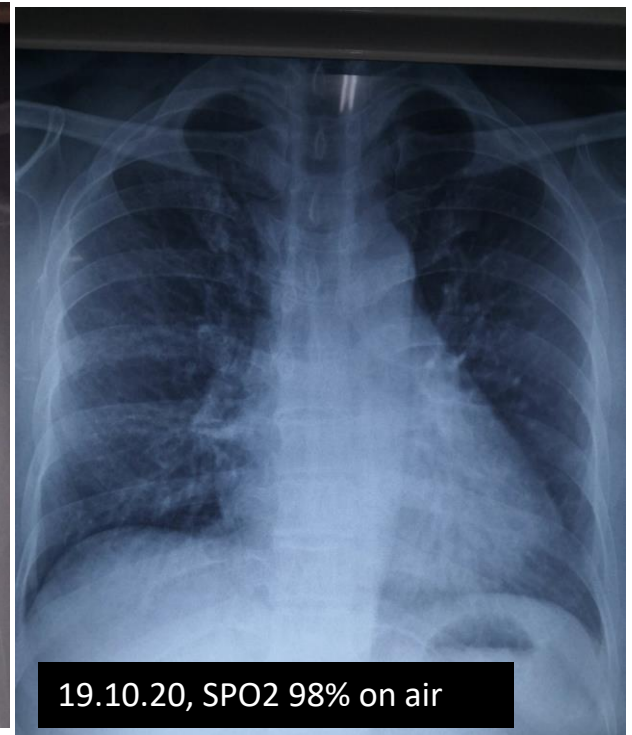
- Fever & cough x 7 days
- DOE x 2 days
- PMH – HT(+)

- On arrival
- Slight respiratory distress(+)
- BP= 140/85
- HR=89/min
- RR=26/min
- SPO2= 91% on air, 97% on O2 5L/min

IV Dexa 6mg OD  
x 10 days  
IV Remdesirvir  
5.10.20 (8<sup>th</sup> day  
of illness) 200mg  
stat f/b 100mg  
OD x 4 days



91% on air, 97% on O2 5L/min 5.10.20



19.10.20, SPO2 98% on air

LDH b/f remdesirvir	LDH a/f 5 days of remdesirvir	D dimer b/f remdesirvir	D dimer a/f 5 days of remdesirvir	CRP b/f remdesirvir	CRP a/f 5 days of remdesirvir	ALC b/f remdesirvir	ALC a/f 5 days of remdesirvir
604	160	1328	50	160	5	0.7	3.9

Patient discharge on 21.10.20 (18th day of hospitalization ) without any complications.

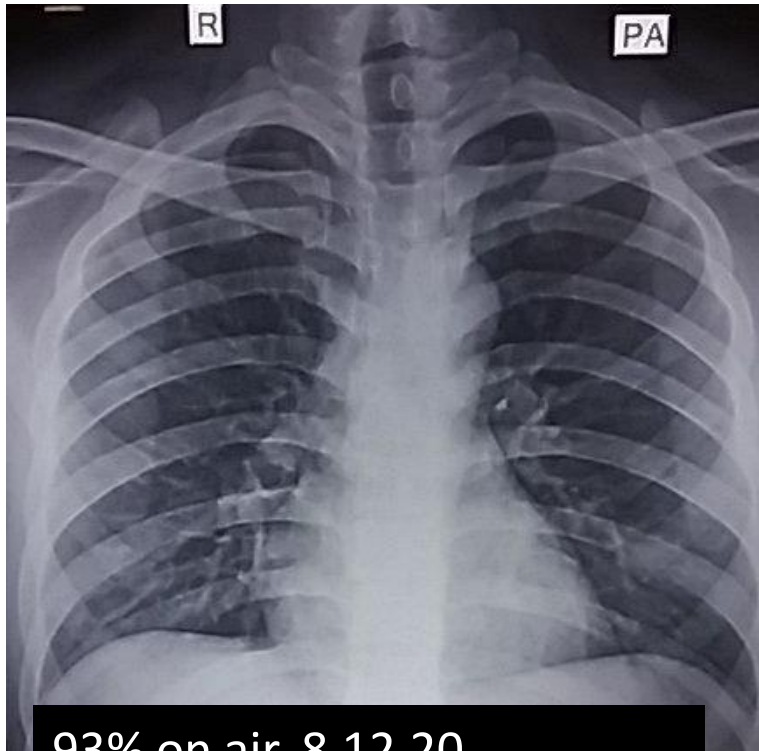
## Case 4

- 20 yr old man was admitted to SOSH on 8.12.20

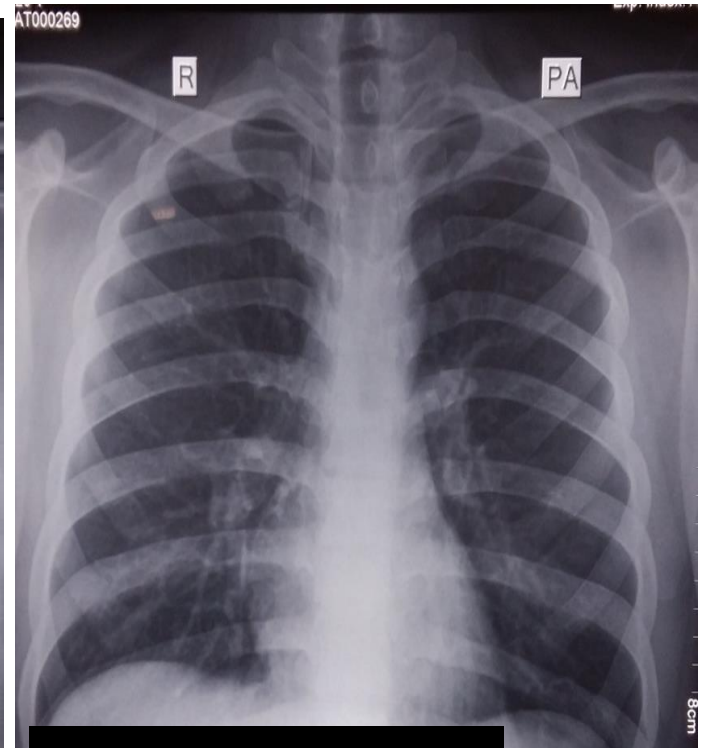
c/o

- Cough x 2 days
- PMH – nil

- On arrival
- Respiratory distress(-)
- BP= 110/85
- HR=89/min
- RR=16/min
- **SPO2= 98% on air**



93% on air, 8.12.20



99% on air, 17.12.20

Hb	WBC	ANC	ALC	PLT	Ddimer	LDH	CRP
12	4	3.2	1.8	310	210	120	5

Patient discharge on 19.12.20 (11th day of hospitalization ) without any complications.

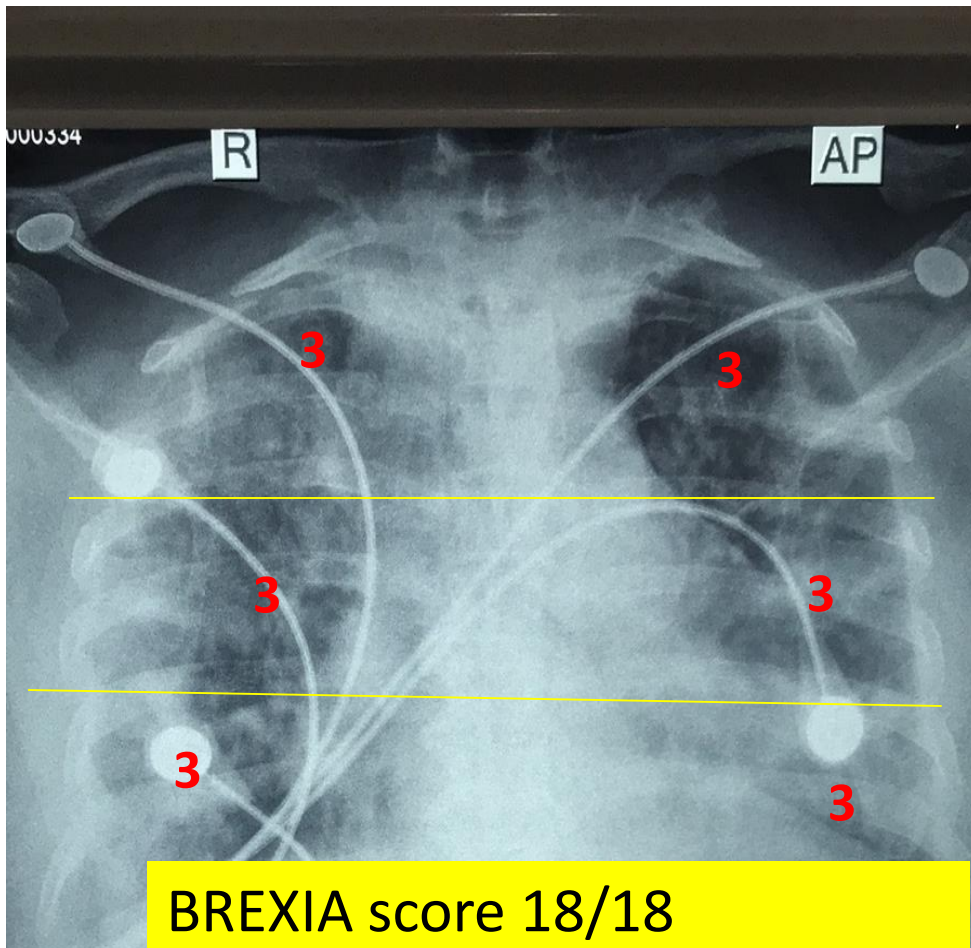
## Case 5

- 42 yr old man from Lanmadaw admitted to SOSH (referred from YGH) on 16<sup>th</sup> Sep 2020 (2:30pm)
- C/O
- Fever x 4 days
- Cough x 4 days
- Dyspnoea x 1 day
- **PMH- No HT, DM, IHD, no other medical problems previously.**

### On arrival

- GC- restless
- Respiratory distress (+)
- BP= 120/70
- HR= 108/min
- RR=43/min
- **SPO2= 64% air, 74% on O2 15L/min facemask with R bag**
- **Needed ICU care**





Hb	12
WBC	18
ANC	16
<b>ALC</b>	<b>0.2</b>
Platelet	326
<b>D dimer</b>	<b>&gt;5,000</b>
LDH	670
<b>CRP</b>	<b>195</b>
ALT	129
AST	106
Cr	82

- IV Empirical Broad Spectrum Antibiotic, IV Dexa 6mg OD

**At 2:30 Am , 17<sup>th</sup> Sept**

- ETT was inserted due to severe respiratory distress(+)BP reduce, bradycardia, Pt expired at **4:30 Am 17.12.20**
- COD: ARDS due to severe COVID 19 pneumonia

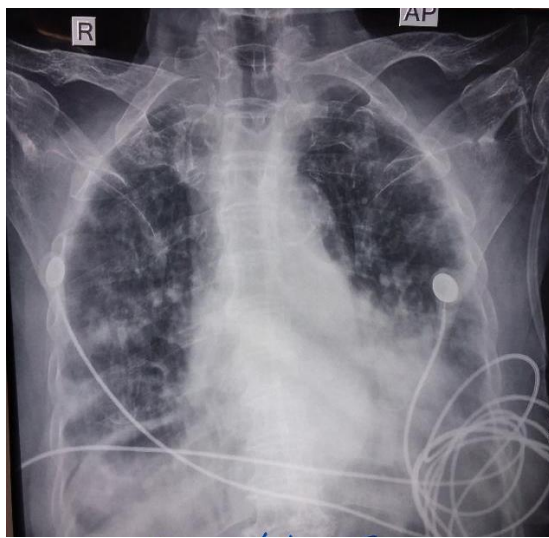
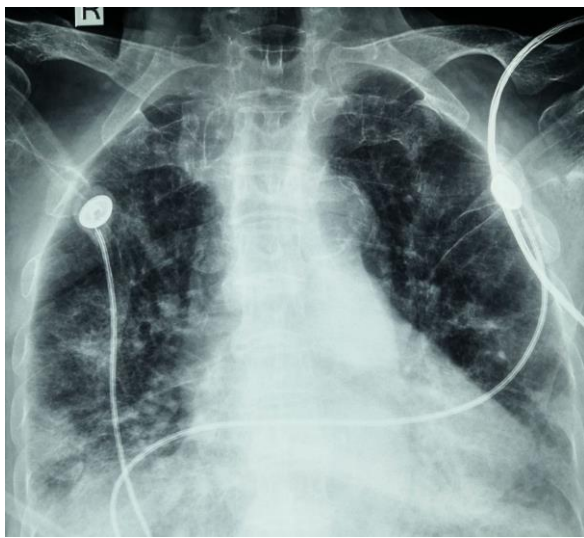
## Case 6

- 85 yr old woman from Sanchaung was admitted to SOSH on 31<sup>st</sup> Oct 2020
- C/O
- Fever x 7 days
- Cough x 7 days
- Dyspnea x 3 days
- **No significant past medical history**

### On arrival

- GC – restless
- Respiratory distress(+)
- BP= 106/50
- HR=72/min
- RR=30 /min
- SPO2= 84% on air, 90% on O2 15L/min+3L/min nasal prong
- Needed ICU care

Date	1.11.20	10.11.20	20.11.20	30.11.20
Hb	7.8	10.7	8.1	7.6
WBC	6.7	11.9	7.9	11.7
ANC	5.9	10.1	6.8	9.8
ALC	0.5	0.8	0.7	0.5
Platelet	361	407	228	290
CRP	183	108	>200	153
D dimer	5973	3833	1841	5437
LDH	398	380	284	603
ALT	24	21	12	18
Cr-	70	44	44	79
procalcitonin		<0.15	<0.15	<0.15



31.10.20

- SPO2 84% O2 double source
- Started
- IV Dexamethasone 6mg OD
- IV Remdesivir
- Convalescent plasma 2 units given
- IV Antibiotic (empirical)

2.11.20

- SPO2 73%
- HFNC flow 60L/min, FiO2 100

14.11.20

- ETT insertion
- Patient expired at 1.12.20 (31 day of hospitalization)
- **COD: ARDS due to severe COVID 19 pneumonia**

# Key Reflections - 1

- We are still learning about this 'new' infection
- Definitive treatment NOT yet available; managing with tools & knowledge currently at hand
- Some can not be saved despite all out efforts
- **Elderly** & those with **Comorbidities** suffer & succumb more
- Not everyone needs all therapies
- **Timing** is key in treatment: (E.g. *Dexa* when in need of  $O_2$ ; *Remdesivir* within 10 days of onset)
- Dynamic disease: **Monitoring** of changes & timely responses are vital; involvement of patient in monitoring

# Key Reflections - 2

- Not just lungs but affects the whole body: **Multi-disciplinary** involvement and care a key strategy
- **Coordination** between Administrators, Clinicians, Lab & Imaging teams, & Public health professionals a pillar
- Safety is essential for providers & patients: layout of hospitals & arrangements to be different from usual
- Isolation ward, equipment, and systems should be installed/arranged with robust IPC principles in hospital settings to manage current & future epidemics
- “**Prevention** IS better than cure” with this one!



# Thank you.