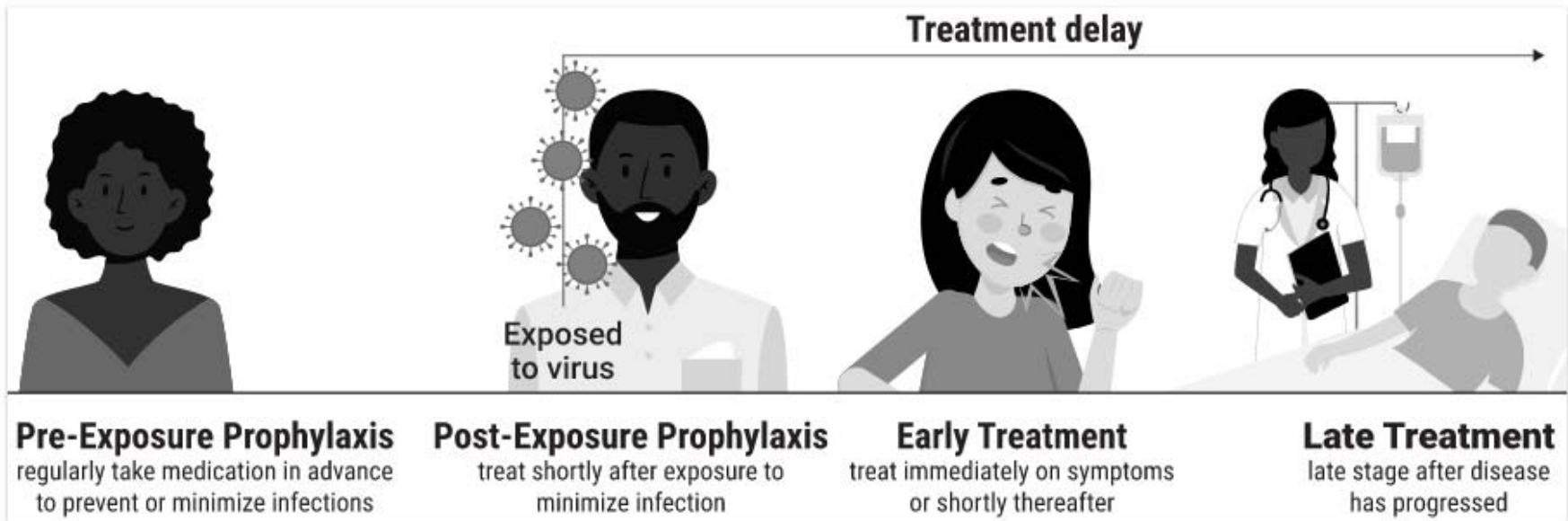


# COVID-19

Rx Meta-analysis

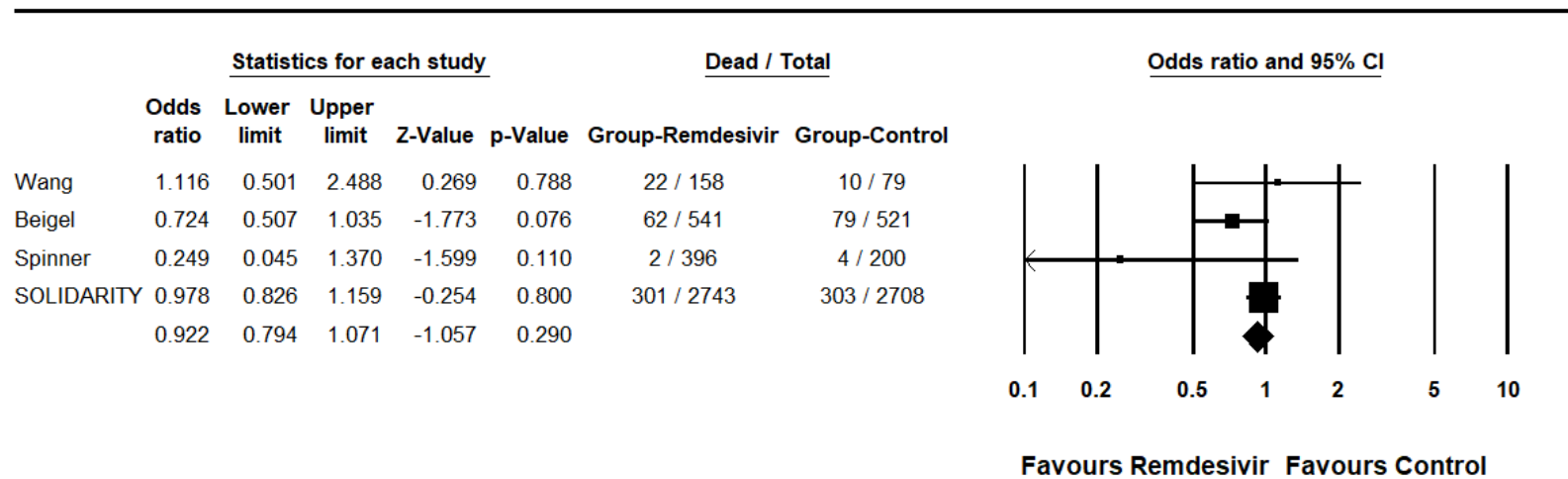
Let the Data Speak

Paul E Marik, MD,FCCM,FCCP



# Remdesivir: In-hospital RCTs

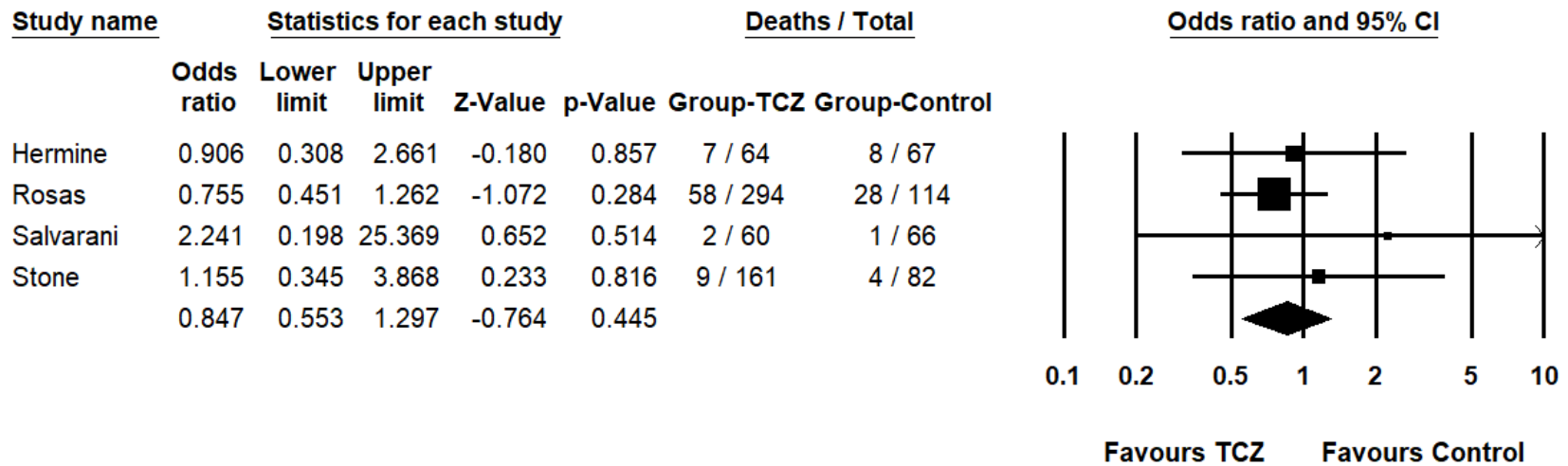
## Mortality



Meta Analysis

# Tocilizumab: In-hospital RCTs

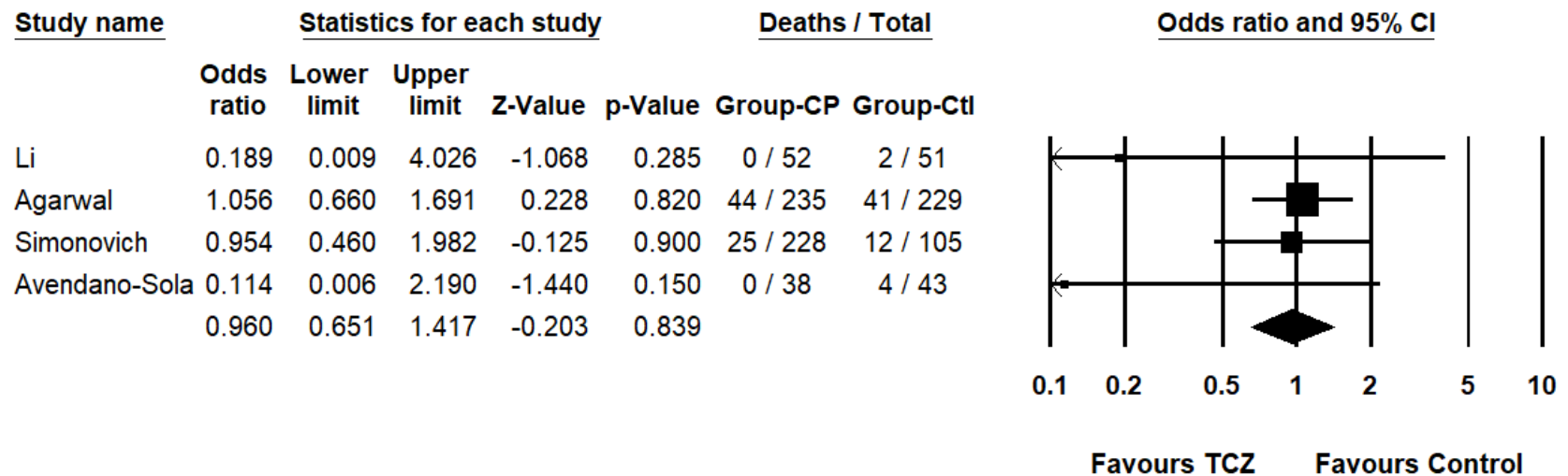
## Mortality



Meta Analysis

# Convalescent Plasma: In-hospital RCTs

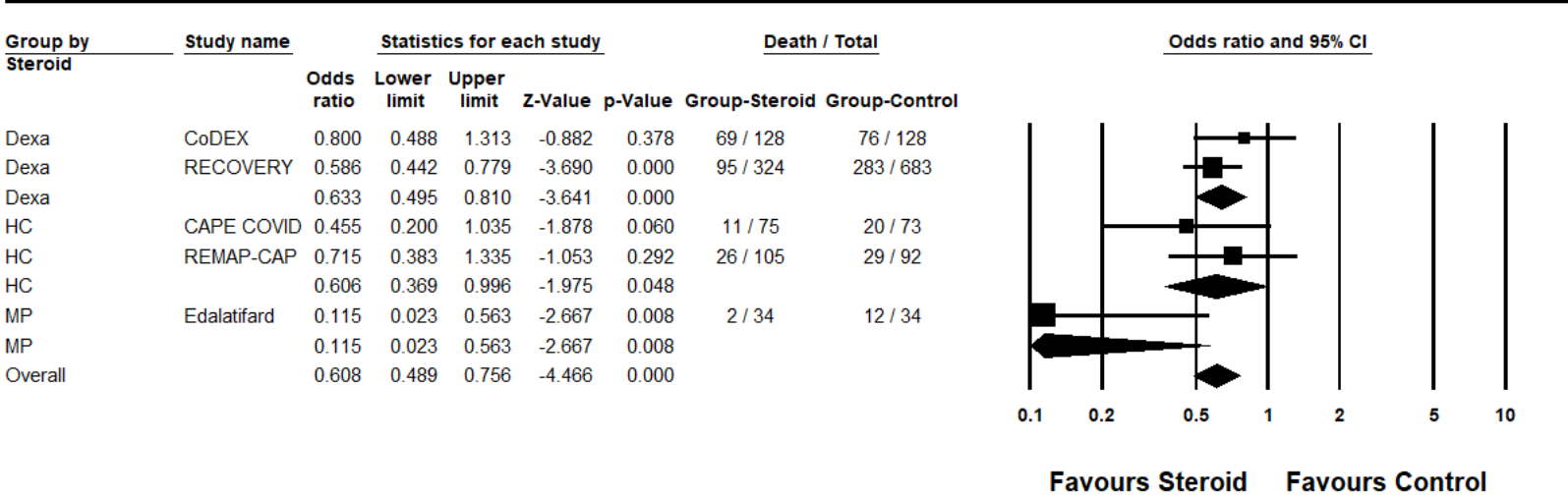
## Mortality



Meta Analysis

# Corticosteroids: In-hospital RCTs

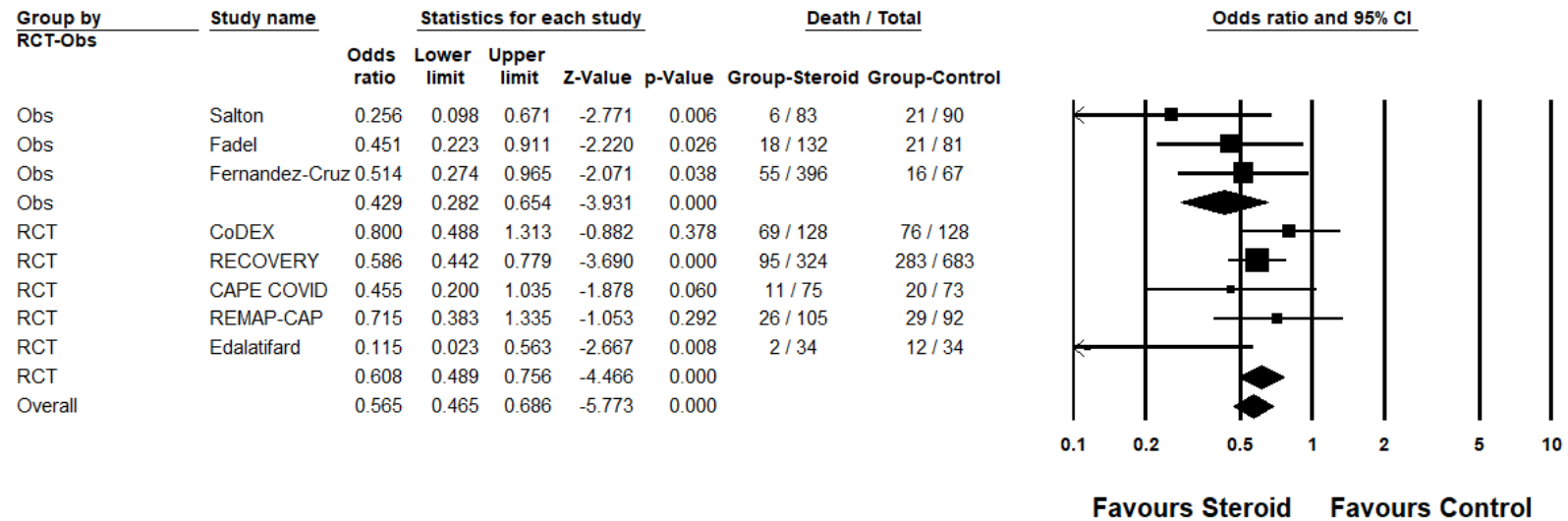
## Mortality



Meta Analysis

# Corticosteroids: In-hospital RCTs & Obs

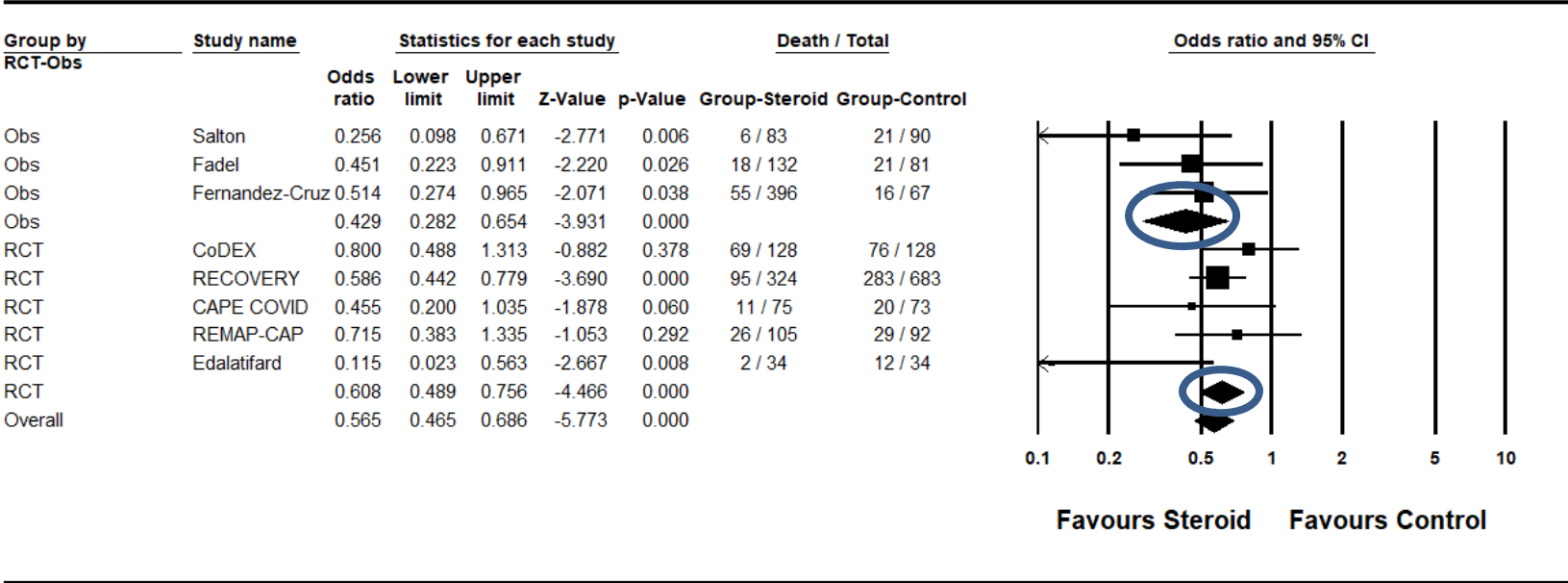
## Mortality



Meta Analysis

# Corticosteroids: In-hospital RCTs & Obs

## Mortality

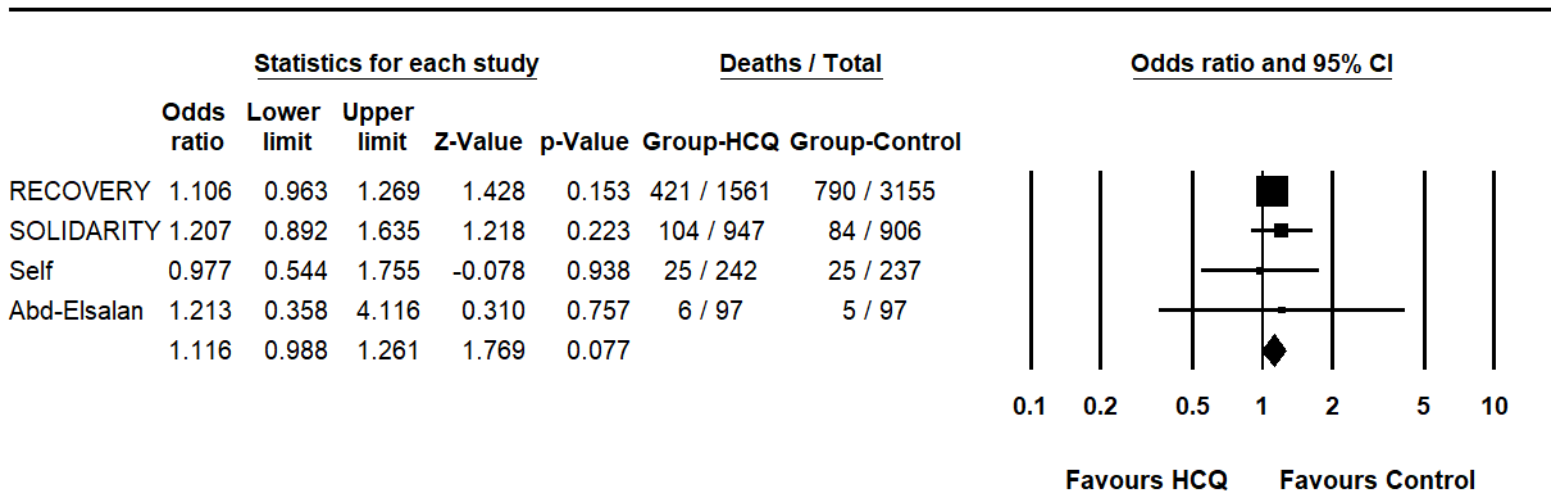


**Meta Analysis**



# Hydroxychloroquine: In-hospital RCTs

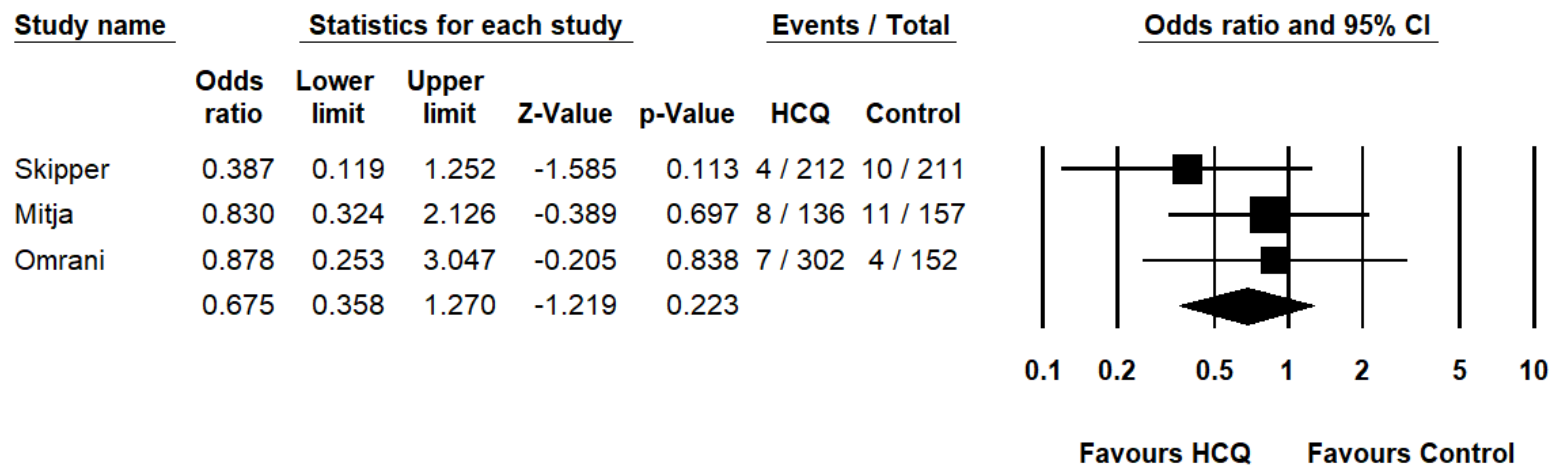
## Mortality



Meta Analysis

# Hydroxychloroquine: Outpatient RCT's

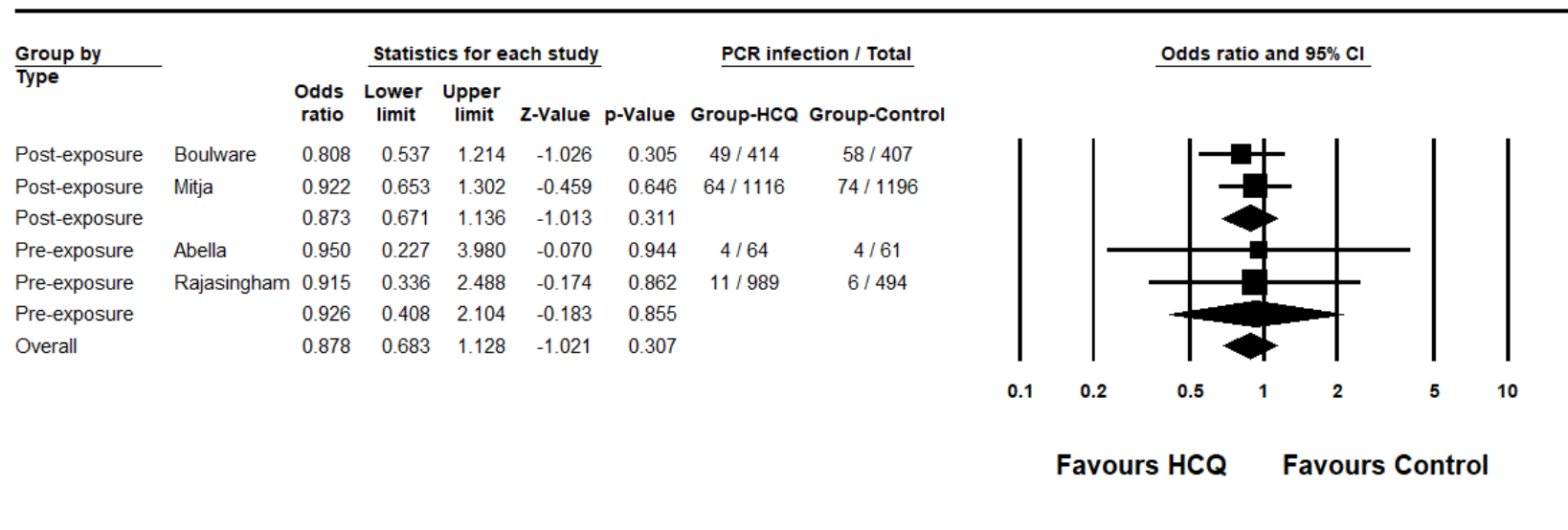
## Hospitalization



Meta Analysis

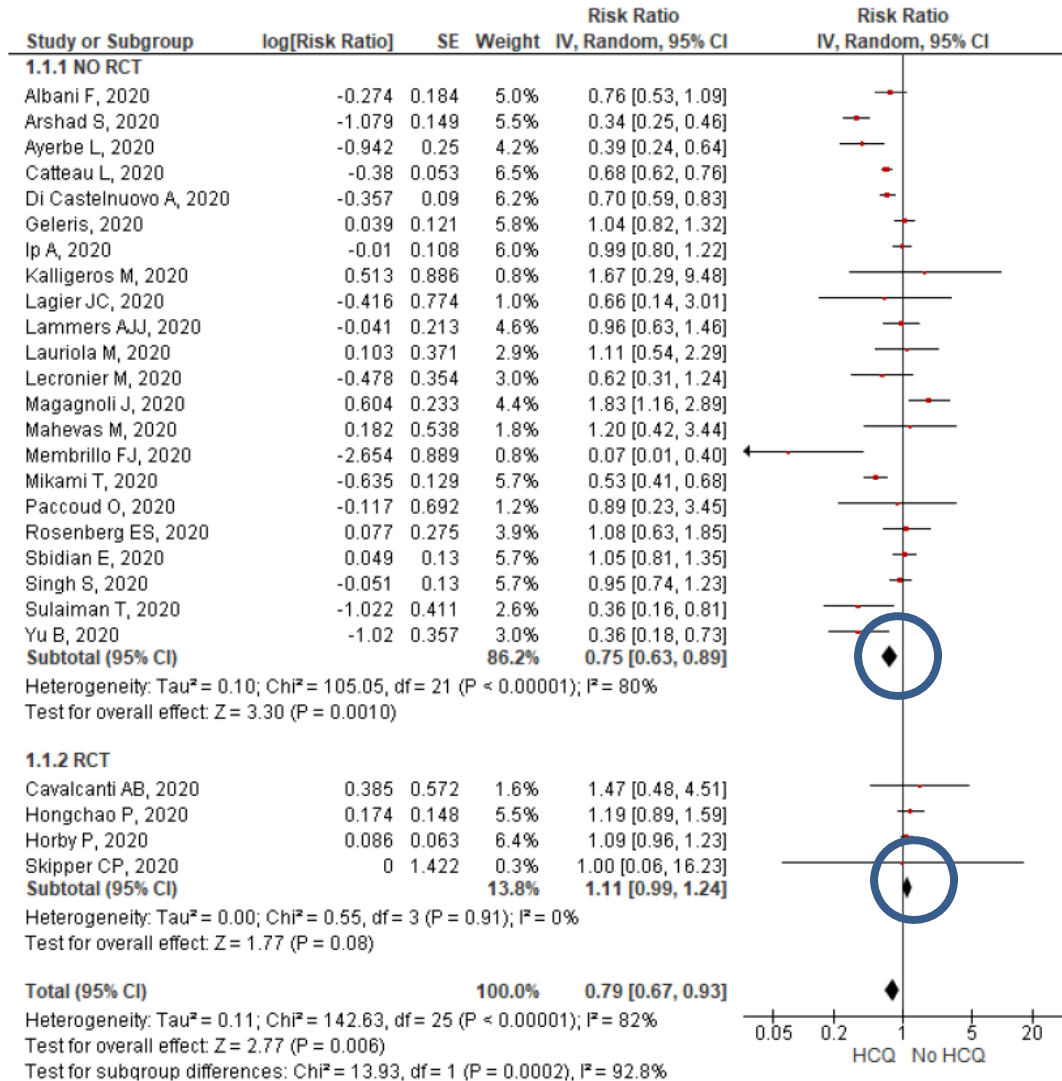
# Hydroxychloroquine: Prophylaxis

## PCR Confirmed Infections



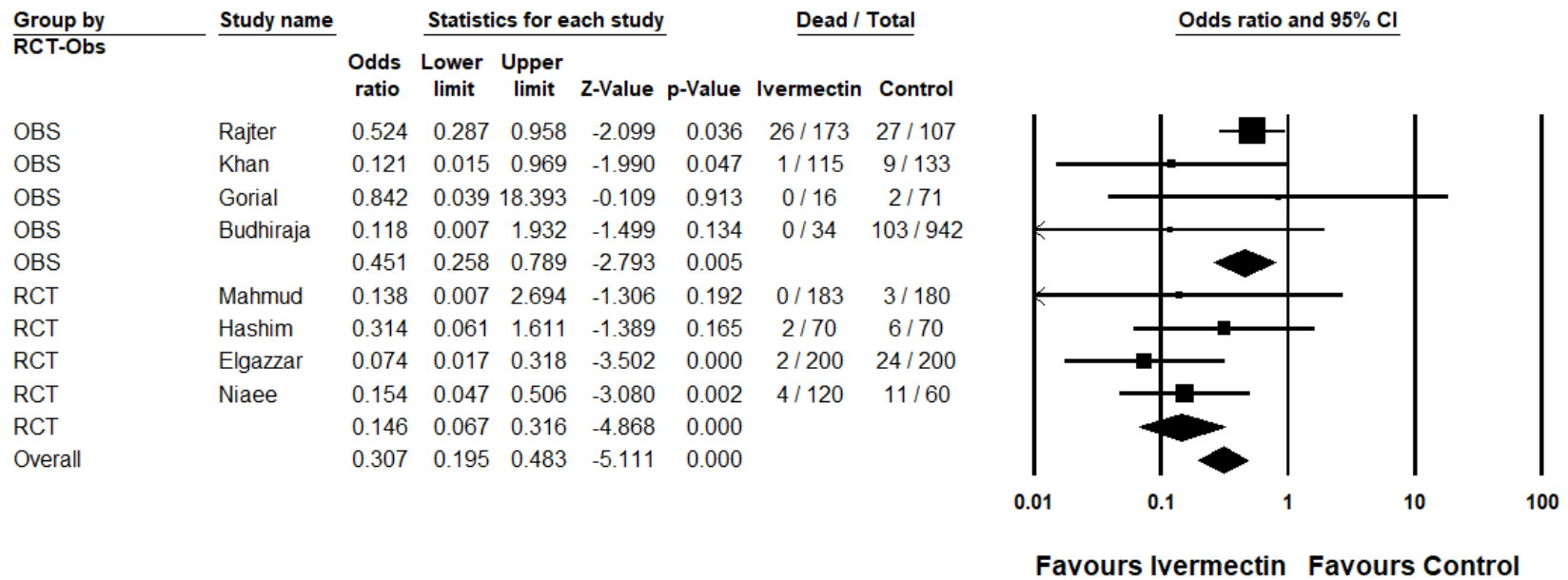
Meta Analysis

# Low dose hydroxychloroquine is associated with lower mortality in COVID-19: a meta-analysis of 26 studies and 44,521 patients



# Ivermectin: In-Hospital Studies

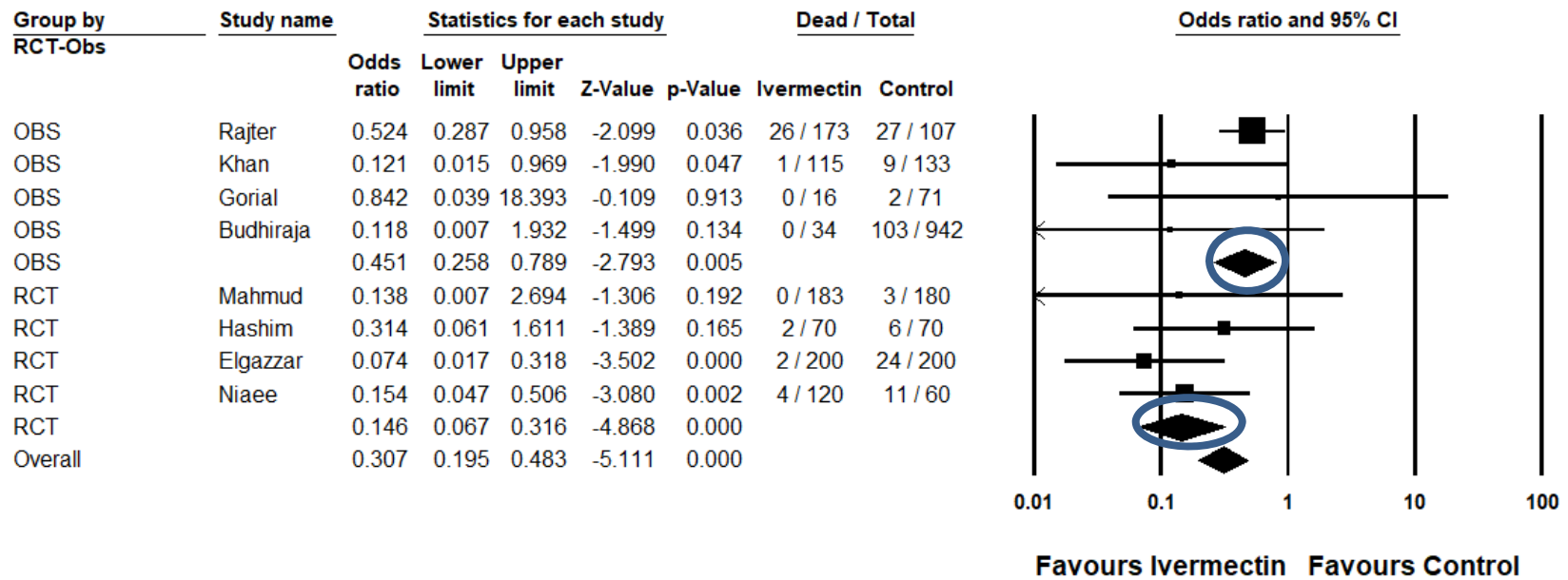
## Mortality



Meta Analysis

# Ivermectin: In-Hospital Studies

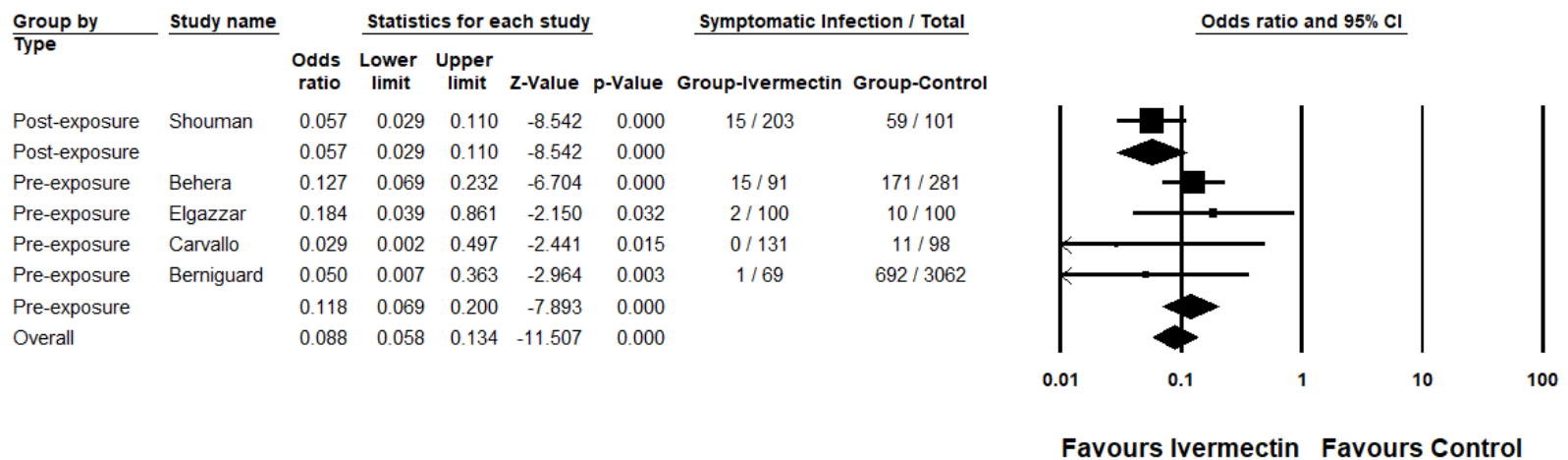
## Mortality



Meta Analysis

# Ivermectin: Prophylaxis


## Symptomatic infections



Meta Analysis

## Ivermectin is effective for COVID-19: meta analysis of 21 studies

Covid Analysis, November 26, 2020



@CovidAnalysis  Share  Tweet PDF

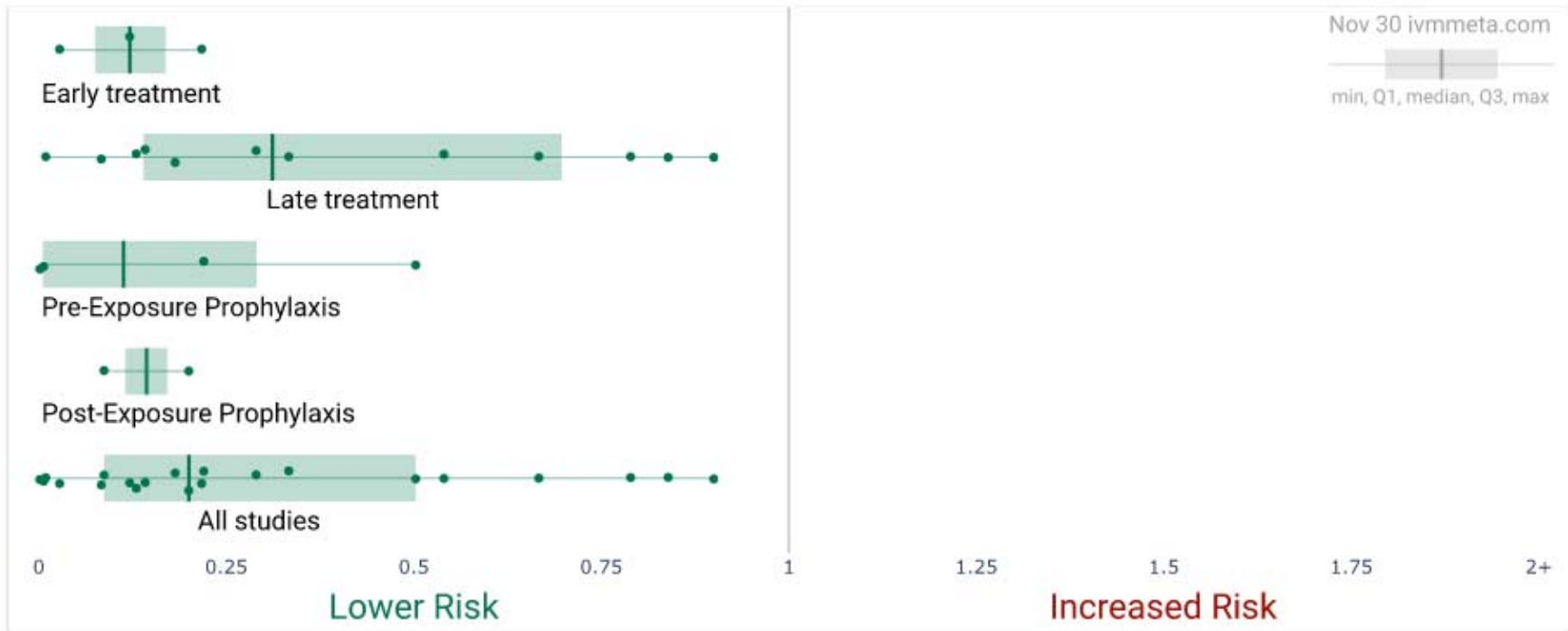
Treatment time	Number of studies reporting positive results	Total number of studies	Percentage of studies reporting positive results	Probability of an equal or greater percentage of positive results from an ineffective treatment	Random effects meta-analysis results
Early treatment	3	3	100%	0.13 1 in 8	91% improvement RR 0.09 [0.02-0.40]
Late treatment	12	12	100%	0.00024 1 in 4 thousand	60% improvement RR 0.40 [0.24-0.66]
Pre-Exposure Prophylaxis	4	4	100%	0.063 1 in 16	98% improvement RR 0.02 [0.00-1.27]
Post-Exposure Prophylaxis	2	2	100%	0.25 1 in 4	87% improvement RR 0.13 [0.05-0.39]
All studies	21	21	100%	0.00000048 1 in 2 million	75% improvement RR 0.25 [0.16-0.40]



# Ivermectin is effective for COVID-19: meta analysis of 21 studies

Covid Analysis, November 26, 2020

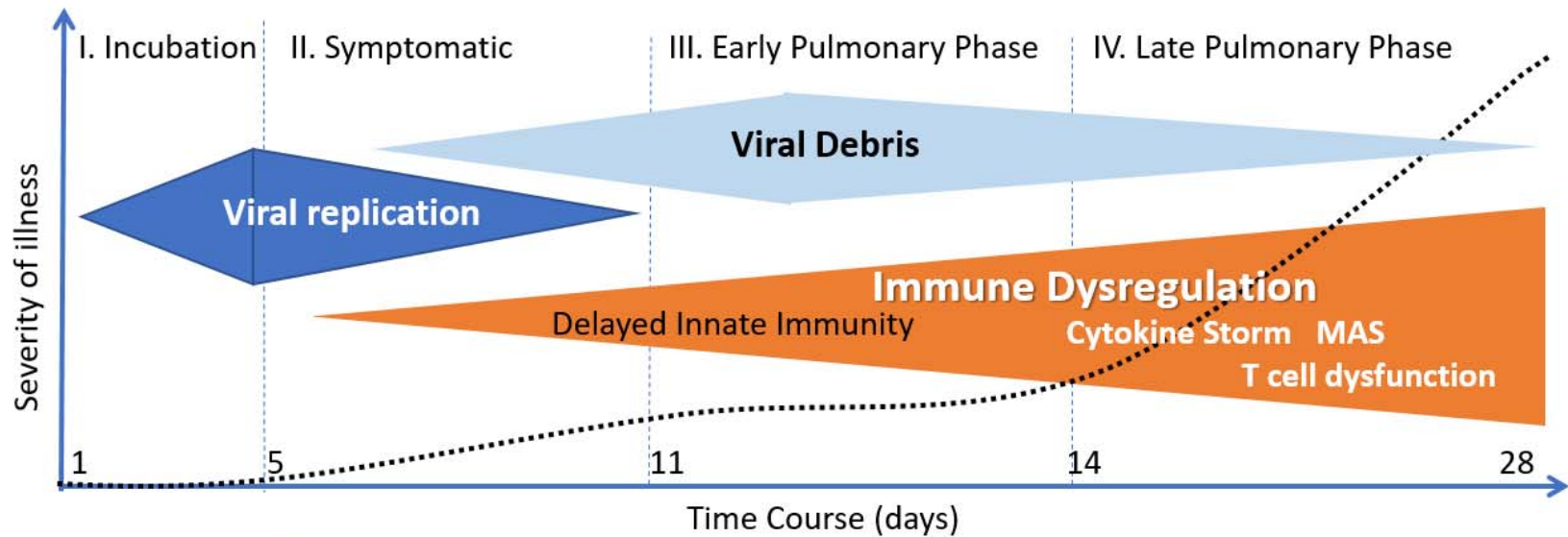
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# Failed and Successful Rx for COVID-19 by Phase of Illness

	Pre-exposure/ Post-Exposure/ Incubation	Symptomatic Phase	Pulmonary/ inflammatory phase
Hydroxychloroquine	Unclear benefit	No benefit	?Trend to harm
Remdesivir	n/a	?? Reduced time to recovery No mortality benefit	No benefit
Lopivinar-Ritonavir	n/a	No benefit	No benefit
Interferon $\alpha/\beta$	Inhaled ? Benefit	No benefit	?Trend harm
Tocilizumab	n/a	n/a	No Benefit
Convalescent Serum	n/a	Unlikely	No Benefit
Corticosteroids	n/a	Trend to harm	BENEFIT
Ivermectin	BENEFIT	BENEFIT	BENEFIT

# Time Course and approach to Rx



	Time Course (days)			
	1-5	5-11	11-14	14-28
Ground-glass infiltrates	+                      ++                      +++                      ++++			
Clinical Symptoms	Fever, malaise, cough, headache, diarrhea	SOB – Mild hypoxia ≤4 L/min N/C & aSat < 94%		Progressive hypoxia
Treatment approach	Antiviral Rx		Anti-inflammatory Rx	
Potential therapies	? Interferon-α	Methylprednisolone 40mg q 12 inc. to 80 mg q 12 if reqd.		
	ASA	Enoxaparin 60 mg/day	Enoxaparin 1mg/kg s/c q 12	
	IVERMECTIN 12mg	IVERMECTIN 12mg x 2		
	Quercetin + Zinc + Vit C + Vit D	Quercetin + Zinc + Vitamin D + IV Vitamin C		

