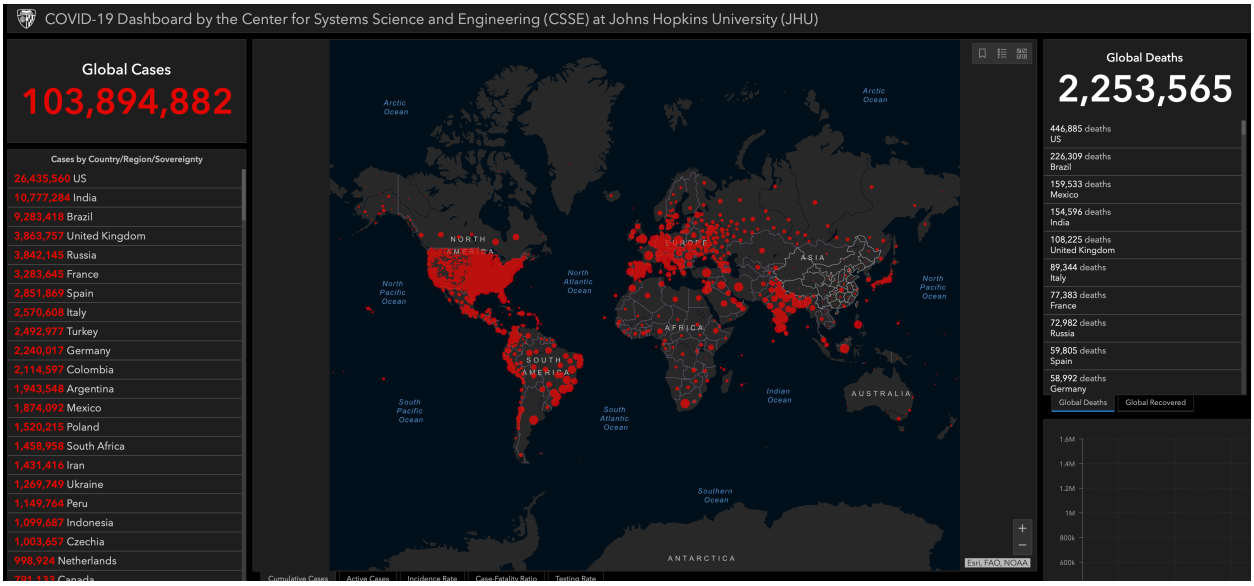
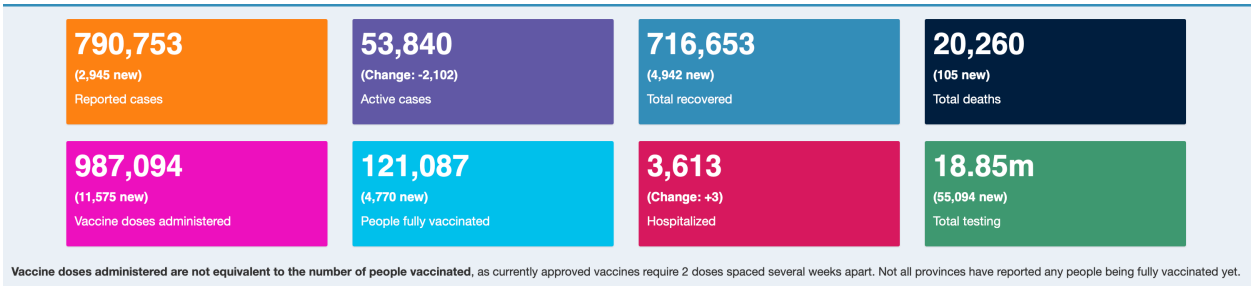
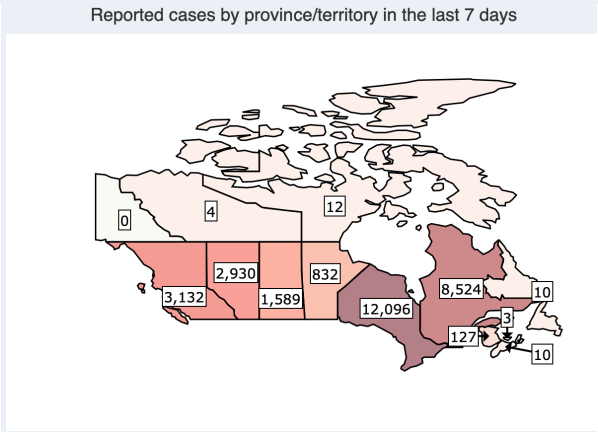
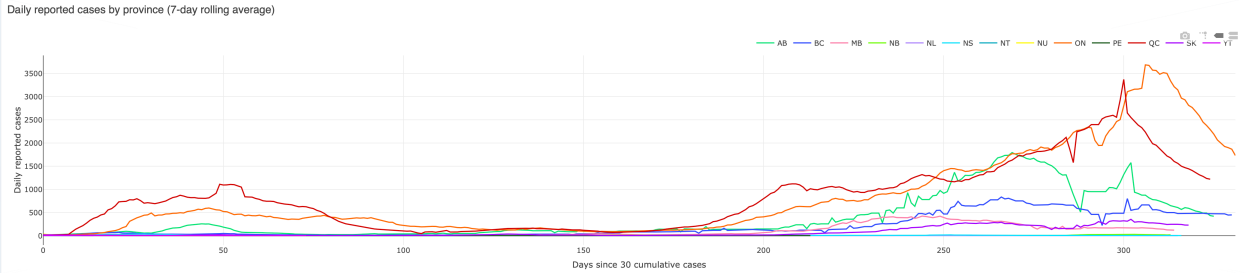
Adam Thomas Hussein Kanji Anish Mitra

BC Critical Care Network Update - December









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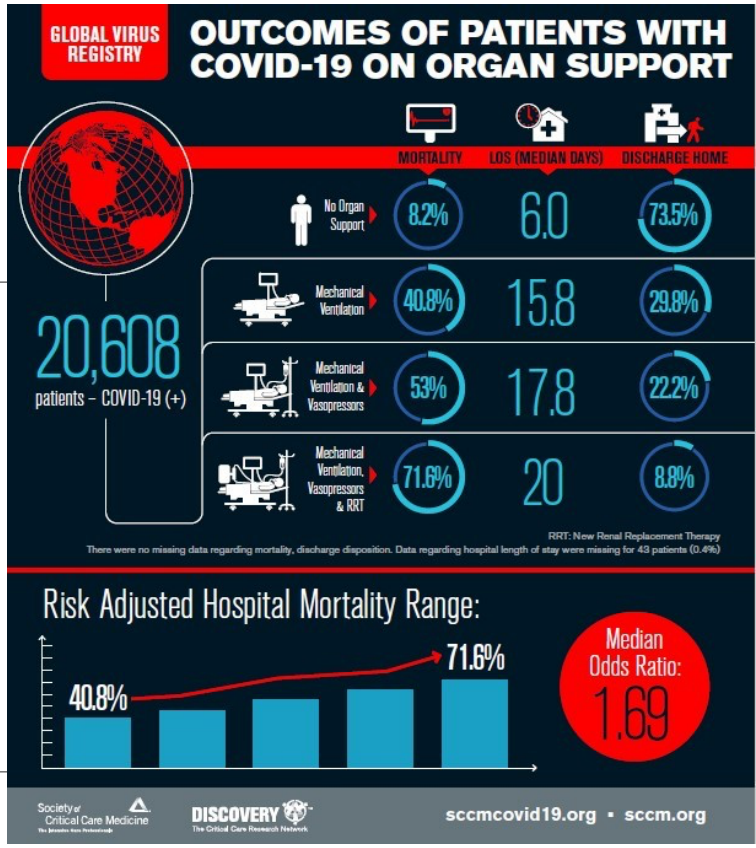
COVID Literature

SCCM COVID-19 Registry data is out

In this large effort to consolidate data, over 20k cases of COVID-19 were collated. Highly recommend checking the website for more details.



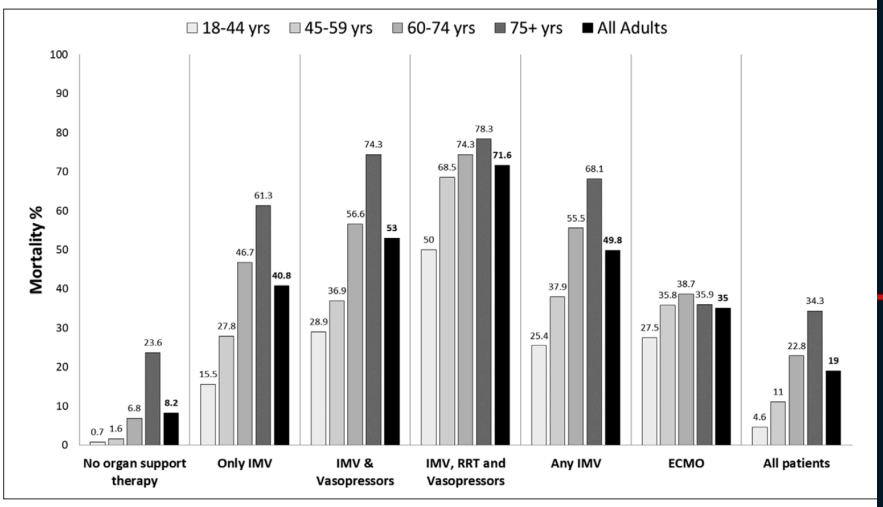


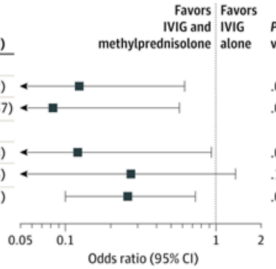
Figure 2. Mortality rate by age and type of organ support therapy. This figure shows the mortality rate by age group from the different invasive organ support therapies received in hospitalized adult patients with coronavirus disease 2019. ECMO = extracorporeal membrane oxygenation, RRT = renal replacement therapy.

Should IVIG be added to Methylprednisilone in children with MIS-C

This retrospective cohort points to some interesting hypothesis generation around improvement in treatment course and MIS-C (less fever, less duration of stay, less cardiac dysfunction).

Figure 2. Association Between First-line Therapy Group and Treatment Failure Depending on Age and Acute Left Ventricular Dysfunction

	Risk of treatment failure						
	Before PS weighting, No. of events/patients (%)		After PS weighting, %		Absolute risk difference between groups (95% CI)	Odds ratio (95% CI)	P value
	IVIG and methylprednisolone	IVIG alone	IVIG and methylprednisolone	IVIG alone			
Age, y							
<10	2/17 (12)	22/39 (56)	12	52	-0.41 (-0.75 to -0.07)	0.12 (0.02 to 0.62)	.02
≥10	1/17 (6)	15/33 (45)	6	40	-0.34 (-0.66 to -0.03)	0.08 (<0.01 to 0.57)	.03
Ventricular dysfunction							
Absent	1/12 (8)	26/44 (59)	8	45	-0.37 (-0.73 to -0.02)	0.12 (0.01 to 0.93)	.05
Present	2/22 (9)	11/28 (39)	9	28	-0.19 (-0.46 to 0.08)	0.27 (0.04 to 1.35)	.14
All patients	3/34 (9)	37/72 (51)	9	38	-0.27 (-0.49 to -0.05)	0.17 (0.04 to 0.61)	.01



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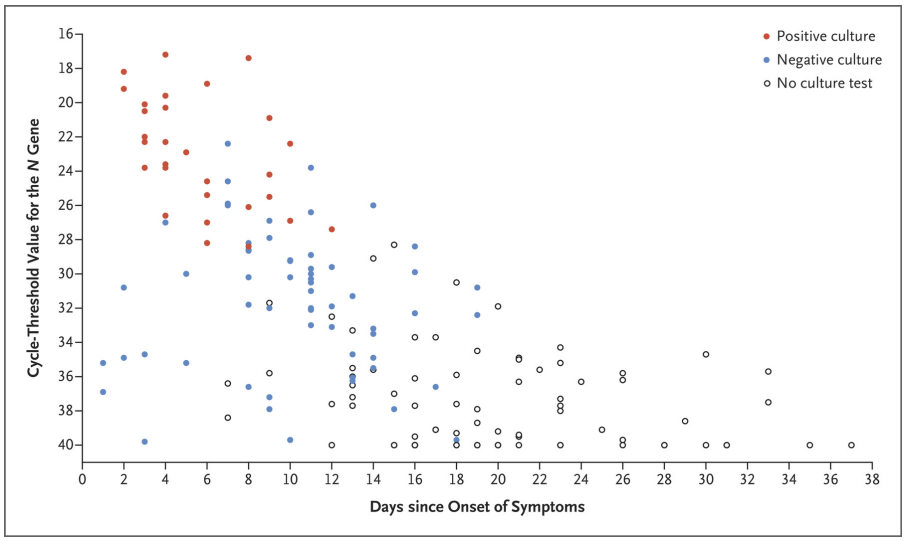
Duration of Live Viral shedding

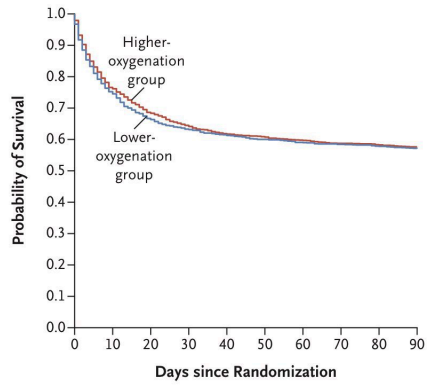
In this small cohort, authors confirmed that most live virus is not present within 7days of symptom onset, but may extend to 12 days.



Non-Covid Literature

HOT-ICU Trial

In this RCT of >2900 patients, there was no clinical benefit in targeting a PAO2 of 60 vs 90 in patients on at least 0.5 FIO2.



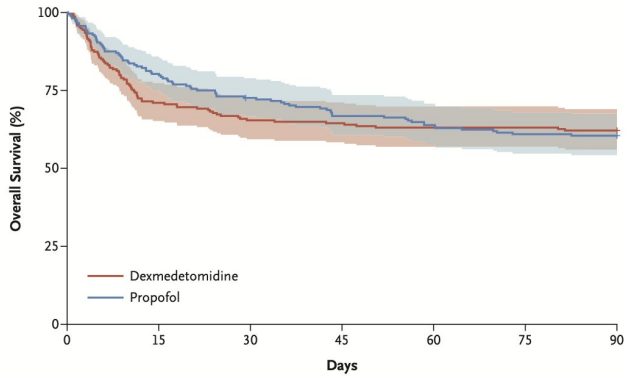
No. at Risk

Higher-oxygenation group	1447	933	865	834
Lower-oxygenation group	1441	912	851	824

Figure 3. Kaplan–Meier Estimates of Survival.
Shown are the results of Kaplan–Meier analysis of data regarding survival, which were administratively censored at 90 days (adjusted hazard ratio, 1.04; 95% confidence interval, 0.93 to 1.16). The Cox proportional-hazards model was adjusted for the trial site and for the presence or absence of chronic obstructive pulmonary disease or active hematologic cancer.

Sedation in Septic Patients?

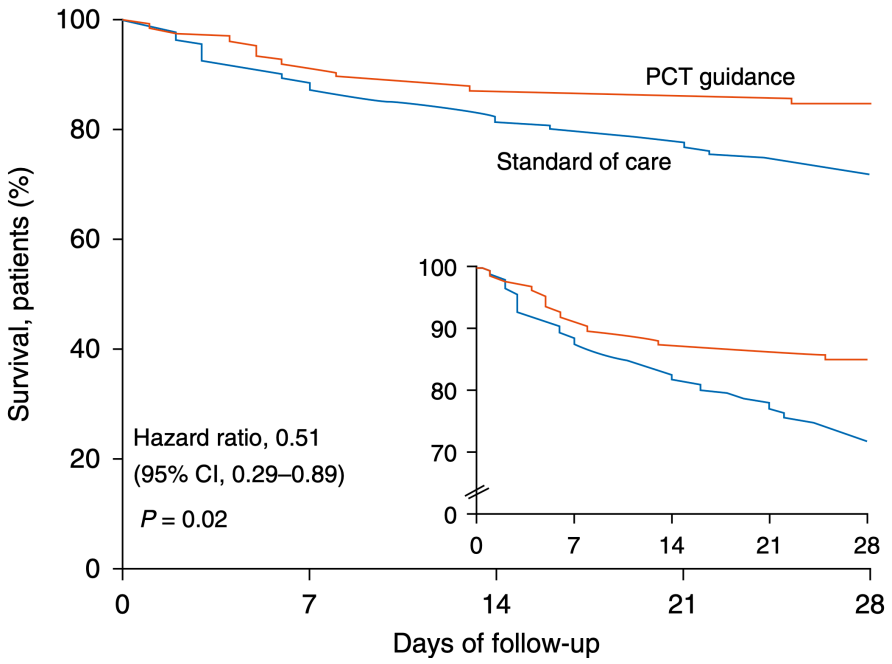
In this RCT, preceded vs propofol vas compared in the sedation of septic patients. Unfortunately, this study used heavy fentanyl sedation strategy and homeopathic doses of propofol (10mcg/kg/min) and precedes (0.27 mcg/kg/hour)



No. at Risk (Cumulative No. of Deaths)

Dexmedetomidine	214 (0)	152 (62)	140 (74)	138 (76)	135 (79)	135 (79)	133 (81)
Propofol	208 (0)	167 (41)	150 (57)	138 (69)	132 (75)	126 (81)	125 (82)

Figure 2. Effects of Dexmedetomidine and Propofol on 90-Day Survival.
The Kaplan–Meier method was used to estimate the probability of survival. In the adjusted analyses, there was no significant difference between the trial groups with respect to death at 90 days (hazard ratio with dexmedetomidine vs. propofol, 1.06; 95% confidence interval [CI], 0.74 to 1.52). Results have not been adjusted for multiple comparisons. The shading indicates 95% confidence intervals.

Procalcitonin guided antibiotic use in sepsis

In this study (primarily greek centres) a procalcitonin guided strategy of antibiotic use was associated with less MDR and C.Diff, and the secondary outcome of 28 day mortality appeared to be clinically relevant.