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Letter to the Editor

Impact of COVID-19 pandemic on non-COVID-19 publications



COVID-19 pandemic has dramatically impacted the world. Health systems were not the only ones being disturbed. Many collateral effects have been reported, such as familial, academical, social, political and economic troubles.¹ In contrast, scientific research has never been so dynamic, allowing to create effective vaccines in less than one year.² However, we hypothesized that there was a price to pay even in the field of scientific research. Thus, we aimed to evaluate the debt induced on medical publications getting out of the field of COVID-19 pandemic.

We chose to analyze the main journals publishing in medical specialties that were the most directly facing the COVID-19 pandemic, i.e., internal/general, emergency, critical care, respiratory and infectious disease medicine. Therefore, we selected the three journals from each specialty with the highest impact factor (2018), regardless of their potential specific scopes. We compared the total number of

papers indexed in the last 6 months (Pubmed – June 1st to November 24th, 2020) with those indexed in the same period in 2019. The goal was to study the changes in the number of papers, the space dedicated to COVID-19 pandemic in each specialty, and the remaining space allocated to non-COVID-19 papers.

In all medical editions, we recorded 718,367 papers published in 2019 and 865,567 (+20%) in 2020. The number of COVID-19 ones reached 60,600 (8%). Among selected journals, the total number of articles was highly variable in both, specialties and journals ($p < 0.0001$), same as the ratio of COVID-19 papers ($p < 0.0001$). The global increase was maximal in critical care medicine (+75%) and infectious diseases journals (+113%), peaking at 163%. The respiratory medicine journals group had the highest ratio of COVID-19 articles (53%), peaking at 75%. After data weighting, a drastic decrease in non-COVID-19 papers appeared in emergency,

Table 1 – Number of papers published in 2019 and 2020 (Pubmed – June 1st to November 24th) by specialties directly facing COVID-19 pandemic; ratio of COVID-19 papers and impact on non-COVID-19 ones.

Specialty	Journal	Impact factor (2018)	2019 (n)	2020 (n (% vs. 2019))	COVID (n (%))	Weighted for non-COVID papers
General medicine	New Engl J Med	70.7	742	889 (+20%)	272 (31%)	–17%
	Lancet	59.1	874	735 (–16%)	269 (37%)	–47%
	JAMA	51.3	869	882 (+1%)	313 (35%)	–35%
	Total		2485	2506 (+1%)	854 (34%)	–34%
Emergency medicine	Ann Emerg Med	5.3	305	278 (–9%)	38 (14%)	–21%
	Resuscitation	4.6	328	340 (+4%)	66 (19%)	–16%
	Emergencias	3.4	42	46 (+10%)	11 (24%)	–17%
	Total		675	632 (–6%)	108 (17%)	–22%
Critical care medicine	Intensive Care Med	19	280	313 (+12%)	113 (36%)	–29%
	Am J Respir Crit Care Med	16.5	355	695 (+96%)	152 (22%)	+53%
	Chest	9.7	338	694 (+105%)	92 (13%)	+78%
	Total		973	1702 (+75%)	357 (21%)	+38%
Respiratory medicine	Lancet Respir Med	16.5	186	153 (–18%)	113 (74%)	–78%
	J Thorac Oncol	12.5	240	204 (–15%)	152 (75%)	–78%
	Eur Respir J	11.8	282	500 (+77%)	150 (30%)	+24%
	Total		708	857 (+21%)	452 (53%)	–43%
Infectious diseases	Lancet Infect Dis	27.5	285	399 (+40%)	157 (39%)	–15%
	Lancet HIV	14.8	203	276 (+36%)	33 (12%)	+20%
	Clin Infect Dis	9	722	1906 (+164%)	492 (26%)	+96%
	Total		1210	2581 (+113%)	682 (26%)	+57%
All together			4841	8278 (+71%)	2453 (30%)	+20%

generalist, and respiratory medicine journals (–22%, –34% and –43%, respectively). Results are detailed in [Table 1](#).

In many journals among those selected, the global increase in the number of papers published did not compensate the place specifically dedicated to COVID-19 papers. Consequently, the publication of non-COVID-19 papers might have been slowed down, or even stopped, particularly in emergency, generalist or respiratory medicine editions. The result seems to be much more related to journal policy than to specialty strategy.³ Physicians, researchers and editors should be aware of the effect of the COVID-19 pandemic on medical research, and should not underestimate its impact.^{3,4}

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None declared.

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