Steroide inalatorio : da proscrivere o da prescrivere?
PRO

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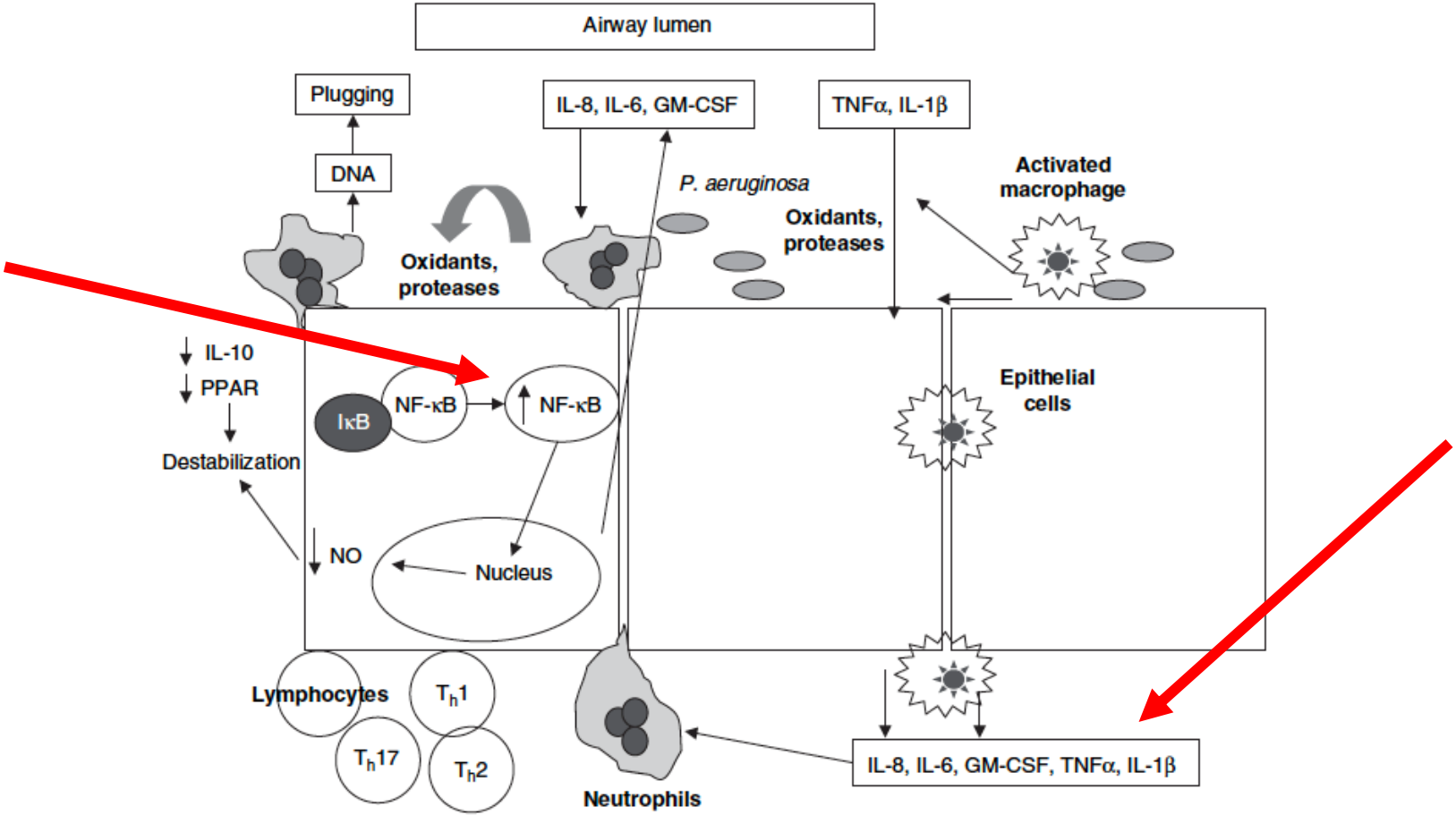
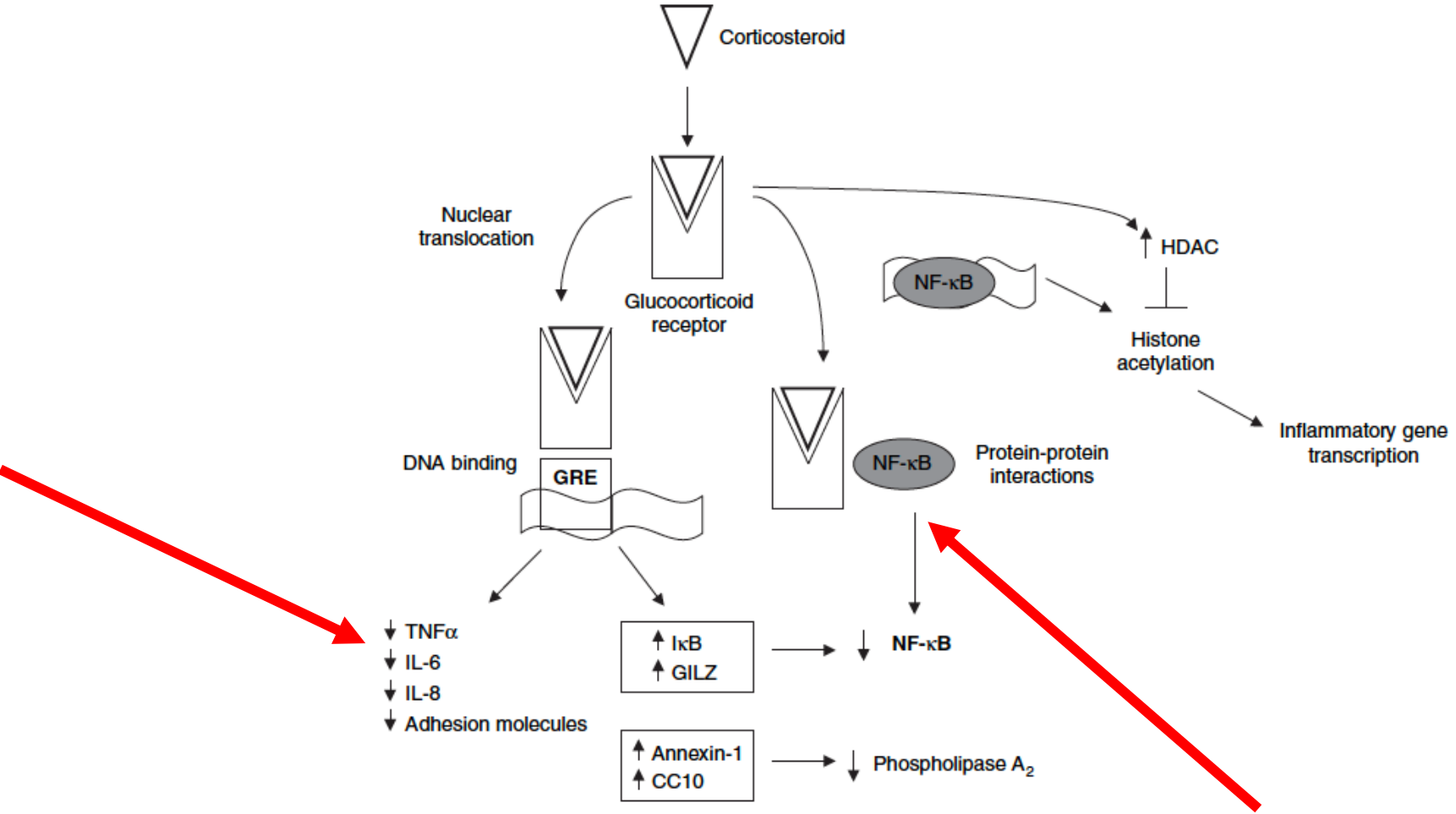
PER COMINCIARE……

- We conclude that the prescribing practice for an individual with CF should become more like that for an asthmatic and could be restricted to those with symptomatic recurrent wheezing that is not responsive to bronchodilators alone and in whom benefit has been proven.
- Justification is needed to start ICS, reassessment is necessary to see whether they are having an eHect (particularly on any tight cough or wheeze), and consideration is always given to reducing the dose or stopping the drugs altogether.
- It is likely though that the majority of people with CF taking ICS no longer need to do so
- This view has been reflected in the North American consensus document that states "...for patients with CF, 6 years and older, and without asthma or ABPA, the Cystic Fibrosis Foundation recommends against the routine use of inhaled corticosteroids to improve lung function and to reduce exacerbations

Balfour-Lynn IM, Welch K, Smith S.
Inhaled corticosteroids for cystic fibrosis.
Cochrane Database of Systematic Reviews 2019, Issue 7. Art. No.: CD001915.
DOI: 10.1002/14651858.CD001915.pub6.



Pediatr Drugs 2009; 11 (2)



Pediatr Drugs 2009; 11 (2)

Eur Respir J 2011; 37: 1091–1095
DOI: 10.1183/09031936.00077210

Inhaled corticosteroids and lower lung function decline in young children with cystic fibrosis

K. De Boeck*, F. Vermeulen*, S. Wanyama# and M. Thomas#, on behalf of the members of the Belgian CF Registry

TABLE 1 Yearly change in forced expiratory volume in 1 s (FEV_1) and baseline FEV_1 in years with and without inhaled corticosteroid (ICS) use

Age range	ICS use	Subjects n	Years with ICS use %	Yearly FEV_1 change % pred			Baseline FEV_1 % pred		
				Change	Difference	p-value	Baseline	Difference	p-value
6–12 yrs	No ICS	549	37.6	-1.37±10.2	2.56	0.0003	93.1±15.9	0.01	0.9921
	ICS	331		1.19±10.0			93.1±15.4		
13–17 yrs	No ICS	331	45.5	-1.71±9.34	0.69	0.3624	84.1±19.5	4.43	0.0152
	ICS	276		-1.02±9.39			79.6±21.5		
⩾18 yrs	No ICS	758	49.1	-0.90±8.21	0.46	0.2487	66.7±21.2	5.05	<0.0001
	ICS	731		-0.43±7.26			61.6±21.1		
Overall	No ICS	1638	44.9	-1.22±9.17	1.07	0.001	79.1±22.6	5.89	<0.0001
	ICS	1338		-0.15±8.50			73.2±24.0		

Data are presented as mean±SD, unless othewise stated. Global analysis and analysis in age categories 6–12, 13–17 and ⩾18 yrs. % pred: % predicted.

Eur Respir J 2011; 37: 1091–1095
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Inhaled corticosteroids and lower lung function decline in young children with cystic fibrosis

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In conclusion, analysis of Belgian CF registry data confirms the findings in the American Registry that ICS use is associated with a decrease in lung function decline in children 6–12 yrs of age.

A positive effect from ICS treatment in these children is possible, especially in the face of the knowledge that inflammation in the lung starts early

Pediatric Pulmonology 28:231–241 (1999)

Original Articles

Epidemiologic Study of Cystic Fibrosis: Design and Implementation of a Prospective, Multicenter, Observational Study of Patients With Cystic Fibrosis in the U.S. and Canada

TABLE 2—Common Medical Conditions in All Subjects, in Subjects Less Than 18 Years of Age, and in Subjects 18 Years of Age or Older[1]

	All ages		<18 years		18+ years	
Condition	N	%	N	%	N	%
Asthma	3,416	19	2,403	19	1,013	18
Sinusitis	3,084	17	1,922	15	1,162	21
Nasal polyposis	1,742	10	1,178	9	564	10
Pharyngitis	677	4	429	3	248	5
Elevated liver enzymes	558	3	397	3	161	3
Cirrhosis	209	1	129	1	80	1
ABPA[2]	285	2	169	1	116	2

Pediatric Pulmonology 49:745–750 (2014)

Early Childhood Wheezing Is Associated With Lower Lung Function in Cystic Fibrosis

Clement L. Ren, MD,[1]* Michael W. Konstan, MD,[2] Margaret Rosenfeld, MD, MPH,[3] David J. Pasta, MS,[4] Stefanie J. Millar, MS,[4] Wayne J. Morgan, MD, CM,[5] for the Investigators and Coordinators of the Epidemiologic Study of Cystic Fibrosis

NW, no wheeze; TW, transient wheeze; LW, late wheeze; PW, persistent wheeze.

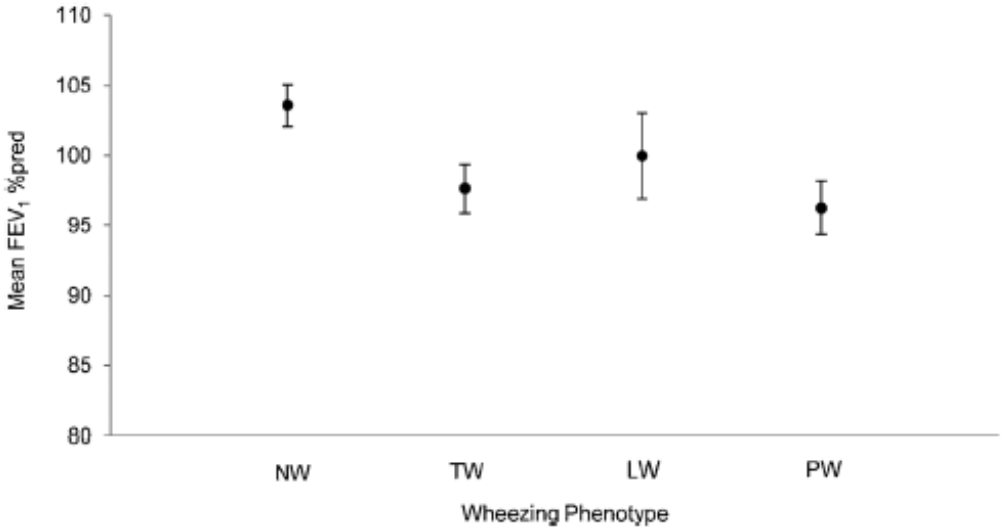


Fig. 1. Adjusted mean FEV1 % predicted at age 6 to <8 years of age by wheezing phenotype (N = 1,302). Error bars indicate 95% confidence intervals.

The COVID Questions

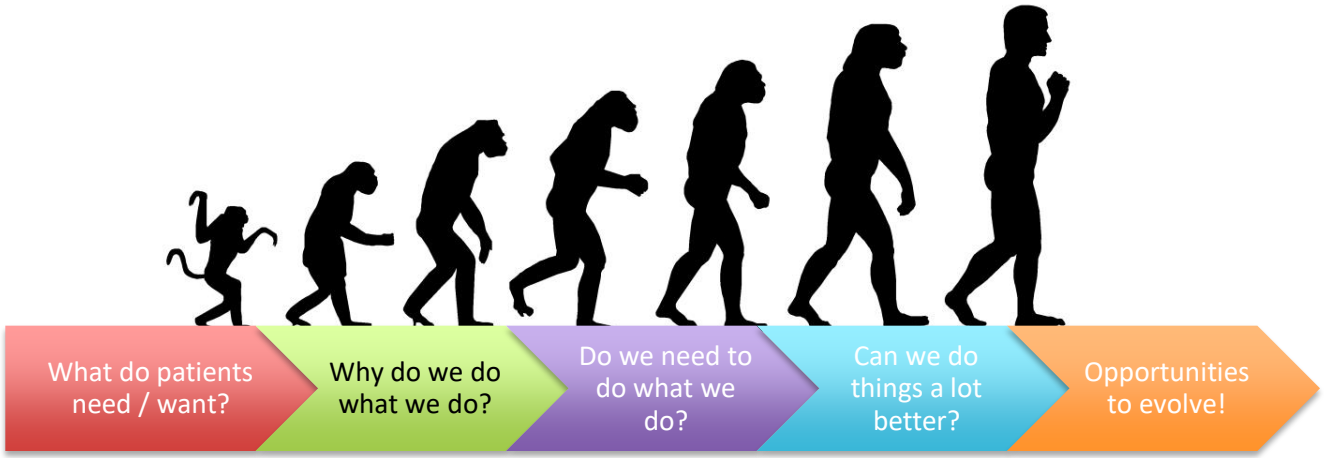


Image source: https://towardsdatascience.com/gradient-descent-vs-neuroevolution-f907dace010f

Journal of Cystic Fibrosis 20 (2021) 566–577

Contents lists available at ScienceDirect

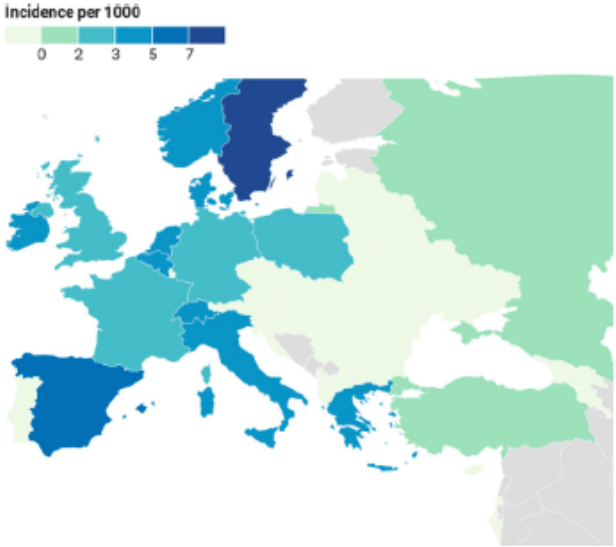
Journal of Cystic Fibrosis

journal homepage: www.elsevier.com/locate/jcf

Incidence of SARS-CoV-2 in people with cystic fibrosis in Europe between February and June 2020

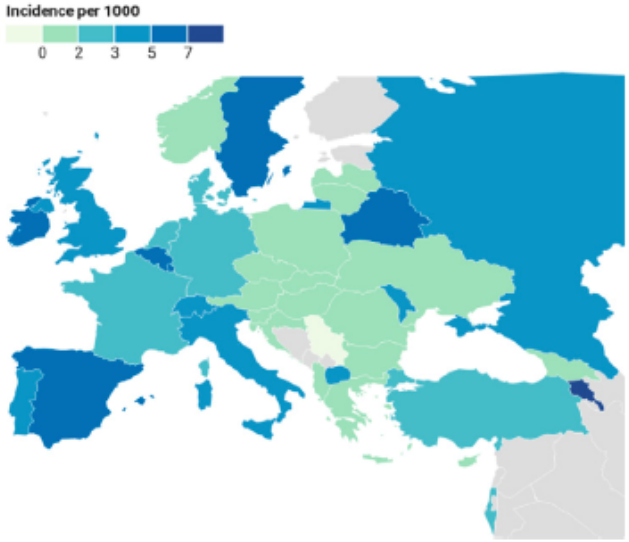
SARS-CoV-2 incidence (per 10000) in the 38 ECFSPR countries

Cystic fibrosis population



Cases	Population	Incidence (95% CI)
130	48211	2.70 (2.25 - 3.20)

General population



Cases	Population	Incidence (95% CI)
2582924	832750755	3.10 (3.10 – 3.11)

Journal of Cystic Fibrosis 20 (2021) 566–577

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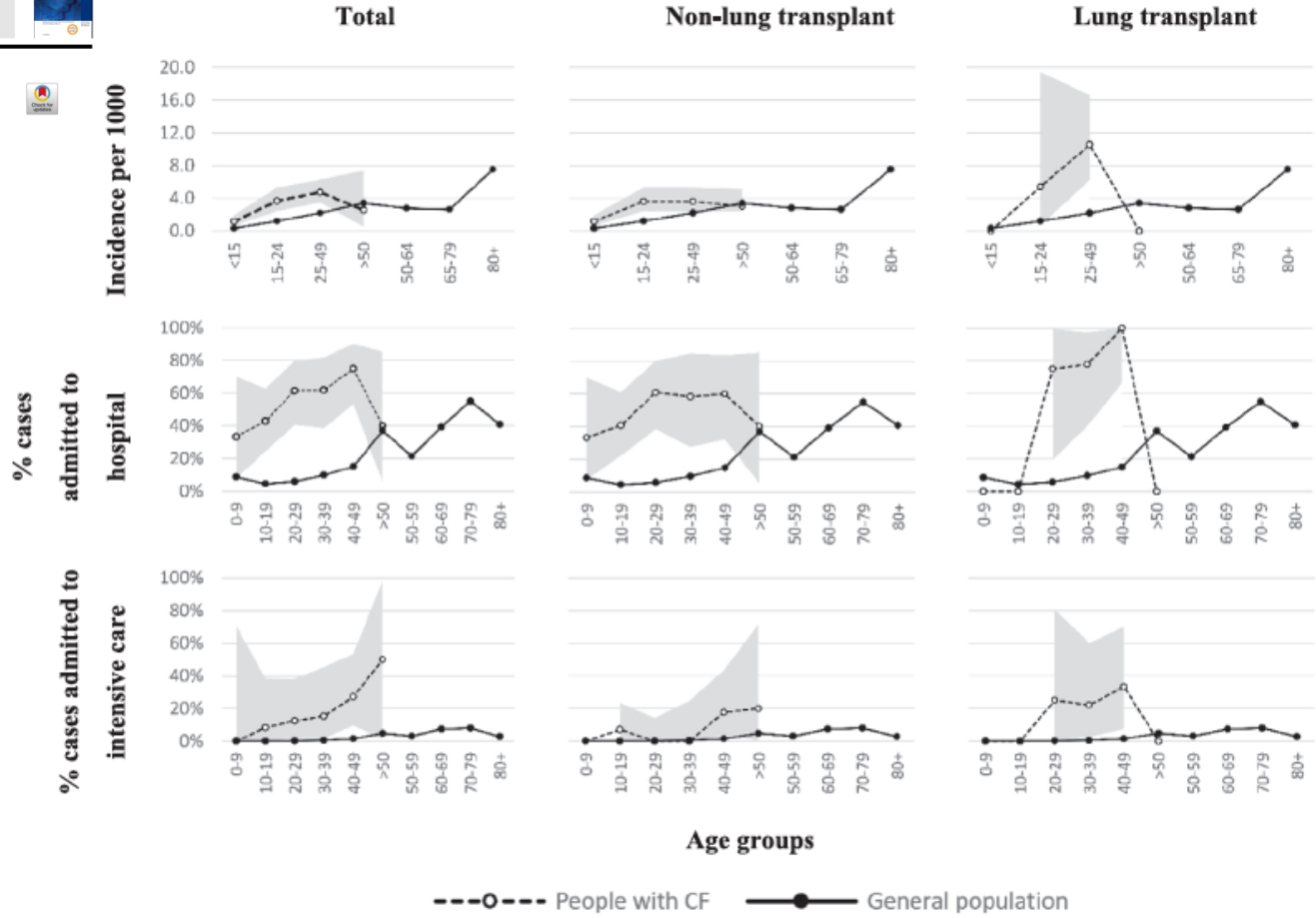


Respiratory Medicine 188 (2021) 106606

Contents lists available at ScienceDirect

Respiratory Medicine

journal homepage: www.elsevier.com/locate/rmed

Outcomes of SARS-CoV-2 infection in patients with cystic fibrosis: A multicenter retrospective research network study

Yousaf B. Hadi [a,1], Dhairya A. Lakhani [b,1], Syeda F. Naqvi [a], Nida Ul Fatima [a], Arif R. Sarwari [a,c,*]

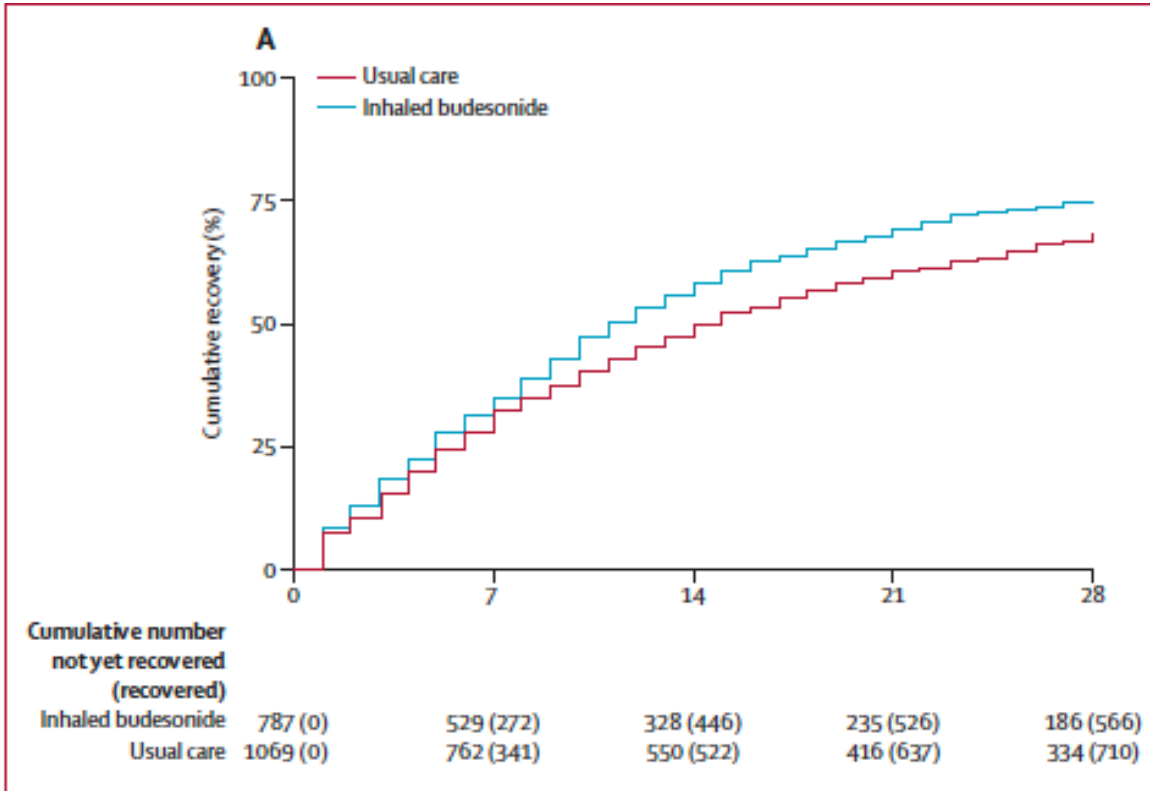
Outcomes in the two cohorts of COVID-19 patients with and without cystic fibrosis before and after propensity score matching.

Outcome	Cystic Fibrosis cohort (n = 422)	Percentage	Non-CF cohort (n = 507,388)	Percentage	Risk Ratio
Before propensity score matching					
30-day Mortality	22	5.21	8,705	1.72	3.74
Inpatient services	117	27.73	39,471	7.78	3.56
Critical Care	49	11.61	12,953	2.55	4.55
Mechanical ventilation	26	6.16	7,842	1.55	3.99
30-day composite outcome	37	8.77	13,288	2.62	3.35
Acute renal injury	60	14.22	19,646	3.87	3.67
Outcome	**Cystic Fibrosis cohort (n=413)**	**Percentage**	**Non-CF cohort (n=413)**	**Percentage**	**Risk Ratio**
After propensity score matching					
30-day Mortality	22	5.33	12	2.91	1.83
Inpatient services	111	26.88	71	17.19	1.56
Critical Care	48	11.62	27	6.54	1.78
Mechanical ventilation	26	6.30	17	4.12	1.53
30-day composite outcome	37	8.96	23	5.57	1.61
Acute renal injury	56	13.56	35	8.48	1.60

Inhaled budesonide for COVID-19 in people at high risk of complications in the community in the UK (PRINCIPLE): a randomised, controlled, open-label, adaptive platform trial

Ly-Mee Yu*, Mona Bafadhel*, Jienchi Dorward*, Gail Hayward, Benjamin R Saville, Oghenekome Gbinigie, Oliver Van Hecke, Emma Ogburn, Philip H Evans, Nicholas P B Thomas, Mahendra G Patel, Duncan Richards, Nicholas Berry, Michelle A Detry, Christina Saunders, Mark Fitzgerald, Victoria Harris, Milensu Shanyinde, Simon de Lusignan, Monique I Andersson, Peter J Barnes, Richard E K Russell, Dan V Nicolau Jr, Sanjay Ramakrishnan, F D Richard Hobbs†, Christopher C Butler†, on behalf of the PRINCIPLE Trial Collaborative Group‡

Lancet 2021; 398: 843–55

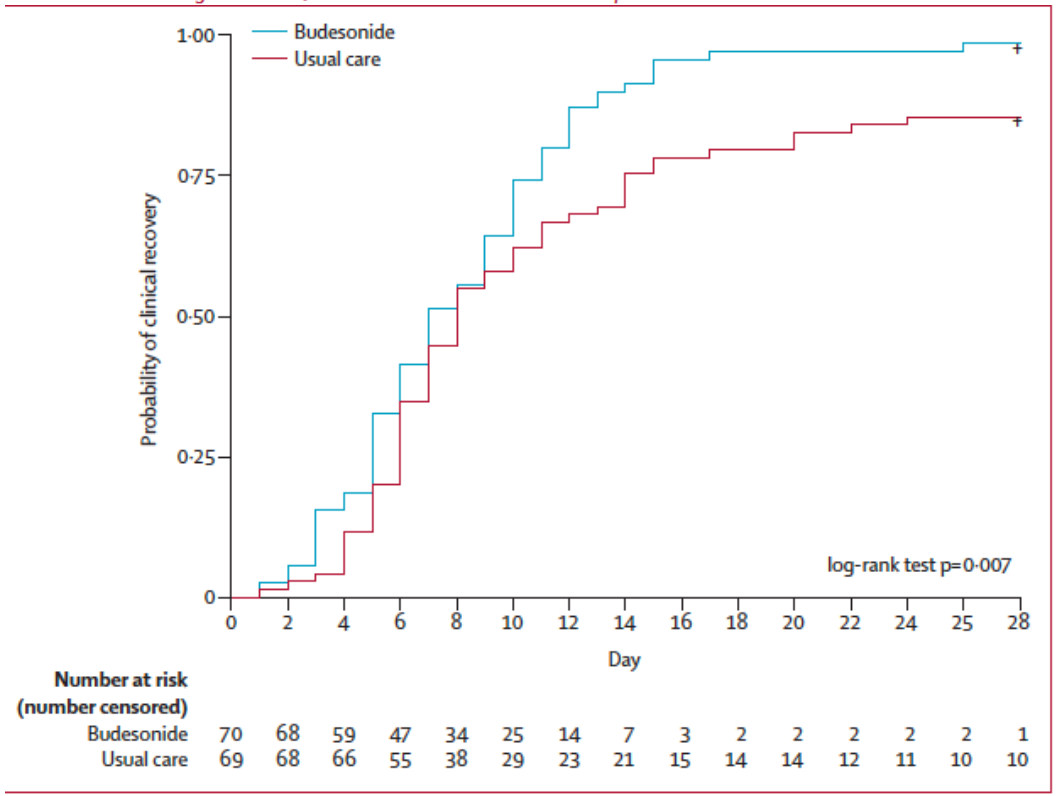


Interpretation Inhaled budesonide improves time to recovery, with a chance of also reducing hospital admissions or deaths (although our results did not meet the superiority threshold), in people with COVID-19 in the community who are at higher risk of complications.

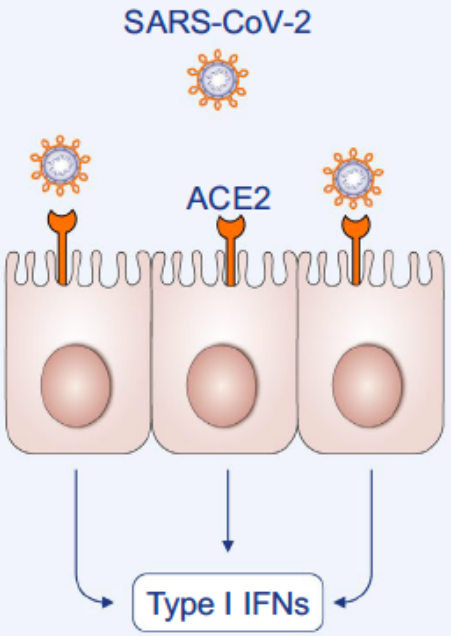
Inhaled budesonide in the treatment of early COVID-19 (STOIC): a phase 2, open-label, randomised controlled trial

Sanjay Ramakrishnan, Dan V Nicolau Jr*, Beverly Langford, Mahdi Mahdi, Helen Jeffers, Christine Mwasuku, Karolina Krassowska, Robin Fox, Ian Binnian, Victoria Glover, Stephen Bright, Christopher Butler, Jennifer L Cane, Andreas Halner, Philippa C Matthews, Louise E Donnelly, Jodie L Simpson, Jonathan R Baker, Nabil T Fadai, Stefan Peterson, Thomas Bengtsson, Peter J Barnes, Richard E K Russell, Mona Bafadhel*

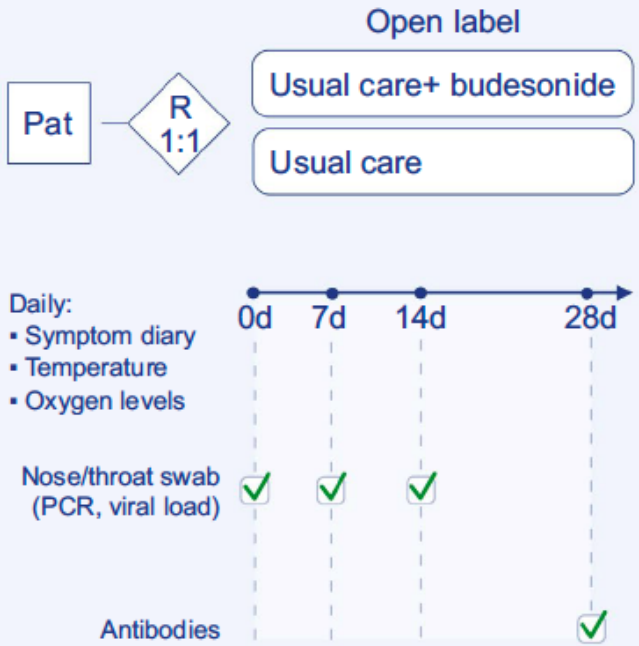
***Lancet Respir Med* 2021**



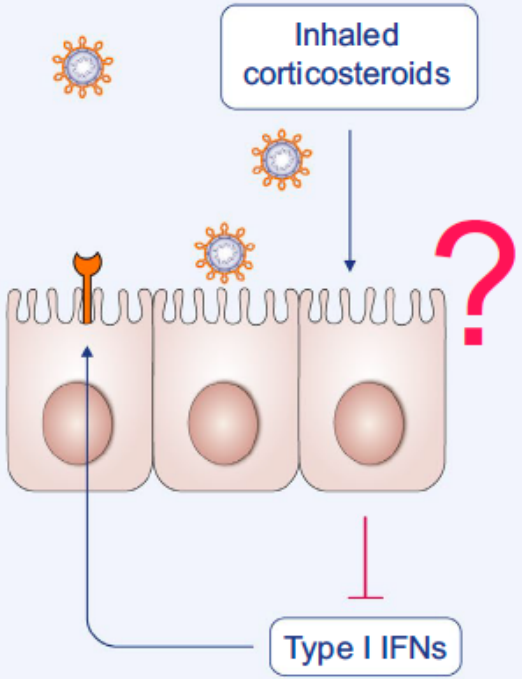
Viral infection in healthy airways



STOIC Study design



Reduced ACE2 expression Less severe courses?



Asthma-associated risk for COVID-19 development

Chrysanthi Skevaki, MD,[a,b] Antonina Karsonova, MD, PhD,[c] Alexander Karaulov, MD,[c] Min Xie, MD,[d] and Harald Renz, MD[a,b,e]
Marburg, Germany; Moscow, Russia; and Wuhan, China

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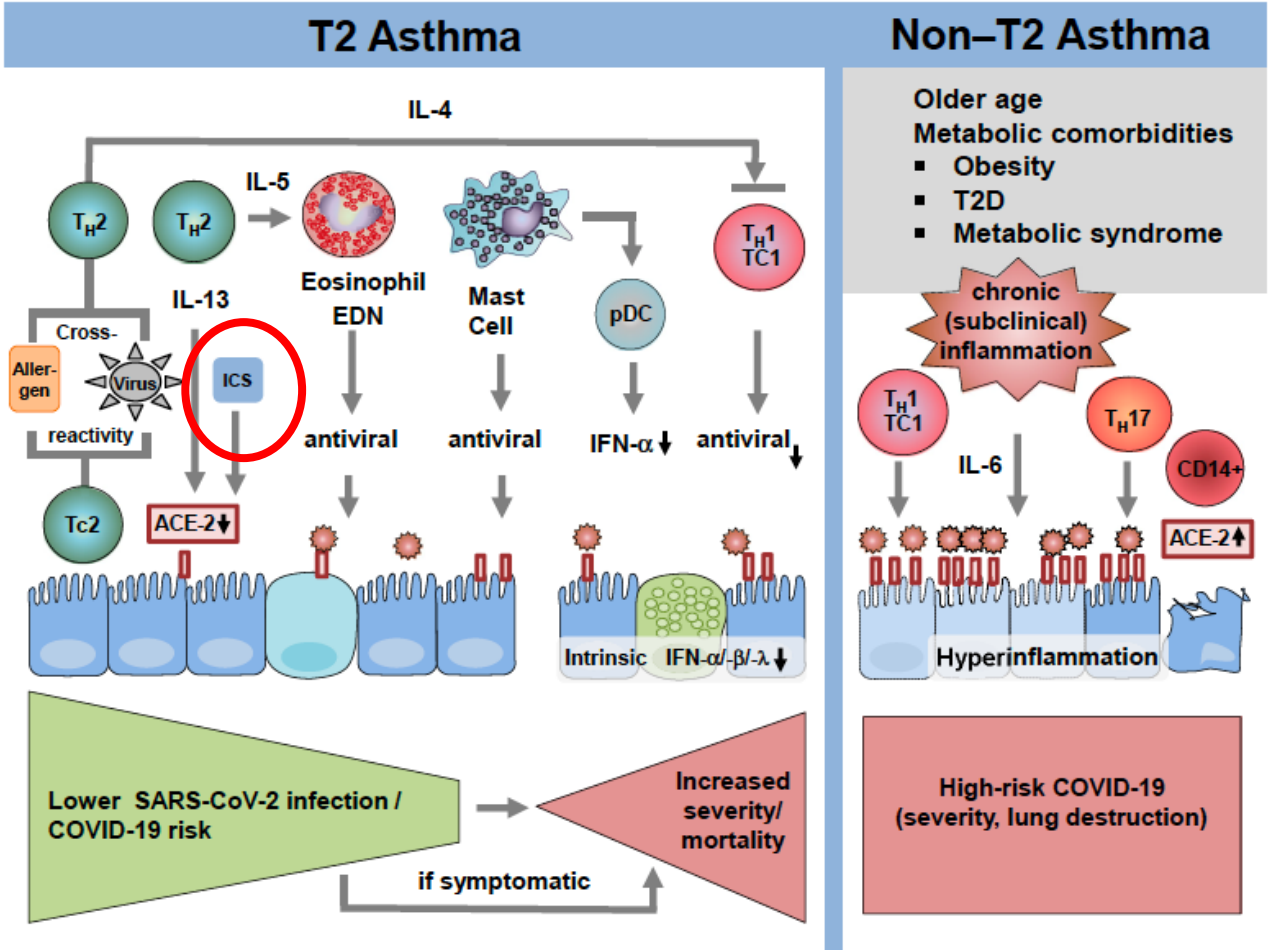
DECEMBER 2020




KEEP
CALM
We
Still Have
A Long Way Ahead....