



Vaccinazione anti COVID-19 nelle persone con diabete

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COVID-19 pandemic: impact in patients with diabetes

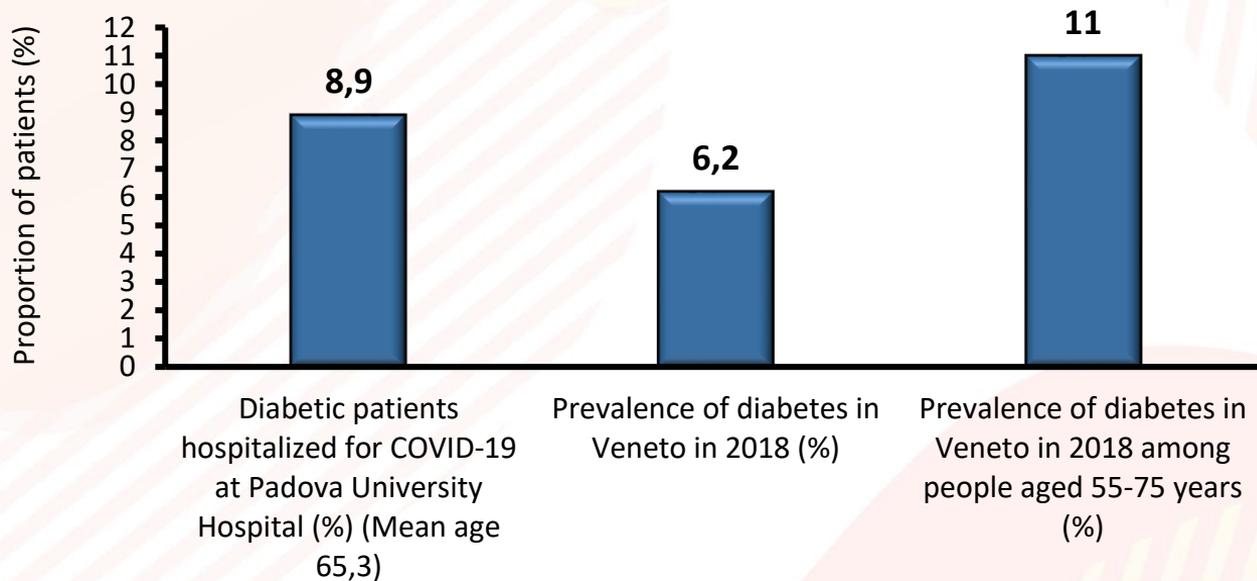
There are many questions about risk factors and outcomes in COVID-19 and diabetes, but evidence is scarce

Are people with diabetes at increased risk of infection with SARS-CoV-2?

Does infection with SARS-CoV-2 yield worse outcomes in people with diabetes?



Prevalence of diabetes among people infected with SARS-CoV-2



Fadini GP et al. J Endocrinol Investig 43:867-869, 2020



COVID-19 and diabetes: current evidence

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Evidence to date is weak and associations are unproven

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Patologie preesistenti osservate più frequentemente nei pazienti deceduti positivi all'infezione da SARS-CoV-2 in Italia

Patologie	Donne		Uomini		Totale	
	N.	%	N.	%	N.	%
Cardiopatía ischemica	687	23,6	1332	31,1	2019	28,0
Fibrillazione atriale	751	25,8	1008	23,5	1759	24,4
Scopenso cardiaco	522	17,5	614	14,1	1136	15,8
Ictus	362	12,4	467	10,9	829	11,5
Ipertensione arteriosa	1982	68,0	2747	64,1	4729	65,7
Diabete mellito-Tipo 2	800	27,5	1318	30,8	2118	29,4
Demenza	928	31,8	749	17,5	1677	23,3
BPCO	405	13,9	827	19,3	1232	17,1
Cancro attivo ultimi 5 anni	436	15,0	758	17,7	1194	16,6
Epatopatia cronica	125	4,3	235	5,5	360	5,0
Insufficienza renale cronica	580	19,9	953	22,2	1533	21,3
Dialisi	54	1,9	107	2,5	161	2,2
Insufficienza respiratoria	209	7,2	273	6,4	482	6,7
HIV	2	0,1	16	0,4	18	0,3
Malattie autoimmuni	174	6,0	143	3,3	317	4,4
Obesità	331	11,4	491	11,5	822	11,4

Istituto Superiore di Sanità- Caratteristiche dei pazienti deceduti positivi all'infezione da SARS-CoV-2 in Italia - Dati al 28 aprile 2021



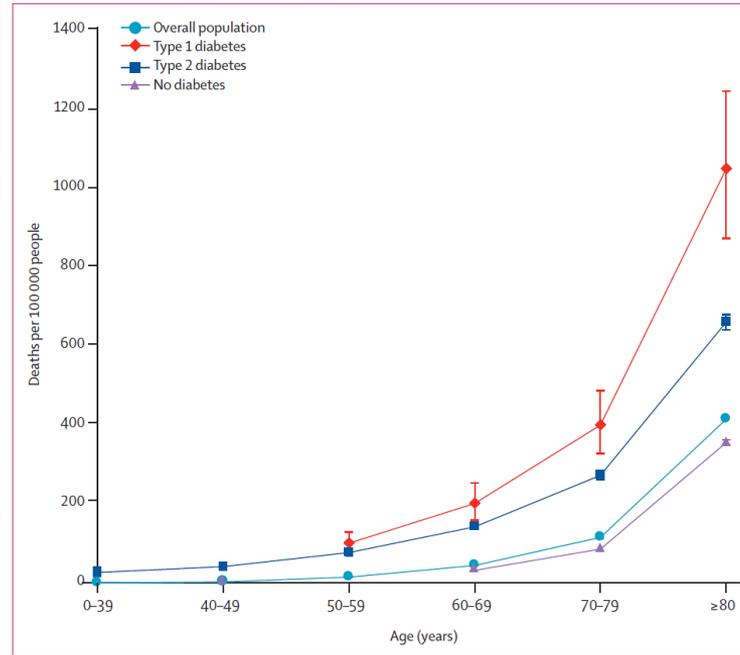
Associations of type 1 and type 2 diabetes with COVID-19 related mortality in England: a whole-population study

- Of the 61,414,470 individuals who were alive and registered with a general practice on Feb 16, 2020, 263,830 (0.4%) had a recorded diagnosis of type 1 diabetes, 2,864,670 (4.7%) had a diagnosis of type 2 diabetes, 41,750 (0.1%) had other types of diabetes, and 58,244,220 (94.8%) had no diabetes.
- **23,698 in-hospital COVID-19-related deaths occurred during the study period.**
- A third occurred in people with diabetes: 7434 (31.4%) in people with type 2 diabetes, 364 (1.5%) in those with type 1 diabetes, and 69 (0.3%) in people with other types of diabetes.

Barron E. et al. Lancet Diabetes Endocrinol 8: 813-22, 2020



Unadjusted in-hospital COVID-19 mortality rates, March 1 to May 11, 2020, by diabetes status in England: a whole-population study



Barron E. et al. Lancet Diabetes Endocrinol 8: 813-22, 2020



COVID-19 and diabetes: current evidence

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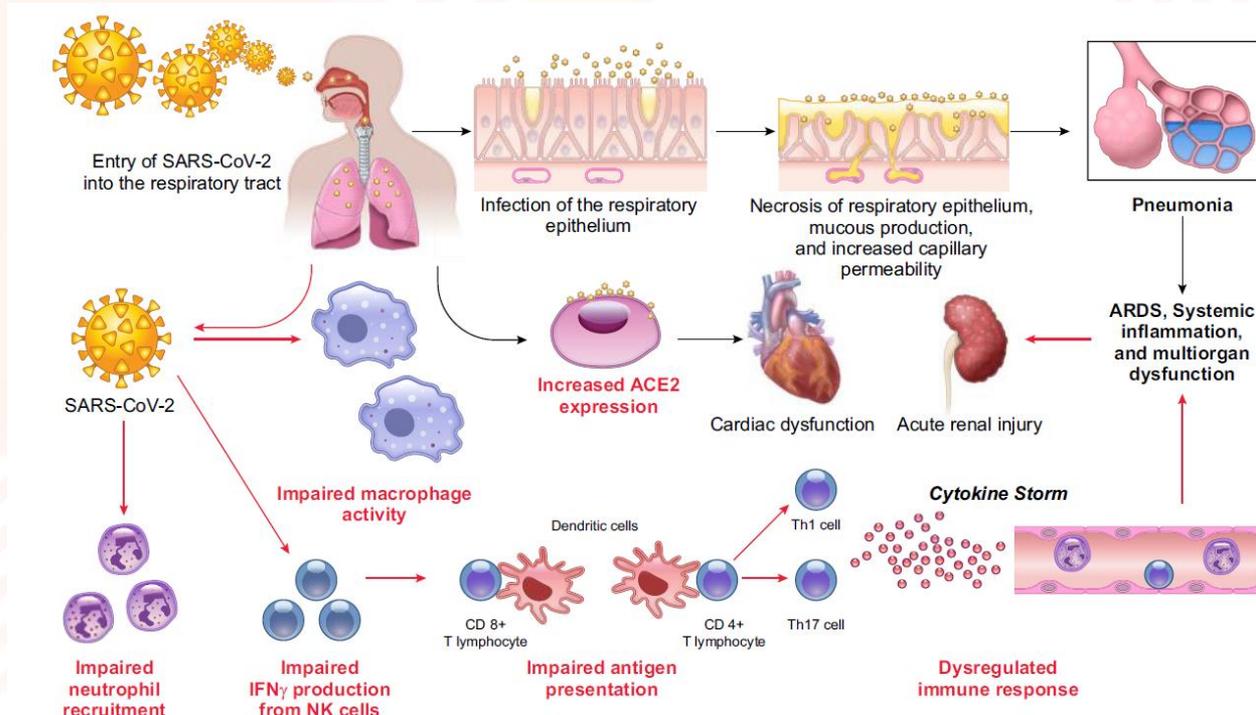
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Does infection with SARS-CoV-2 yield worse outcomes in people with diabetes?

Evidence suggests worse outcomes in people with both T1DM and T2DM



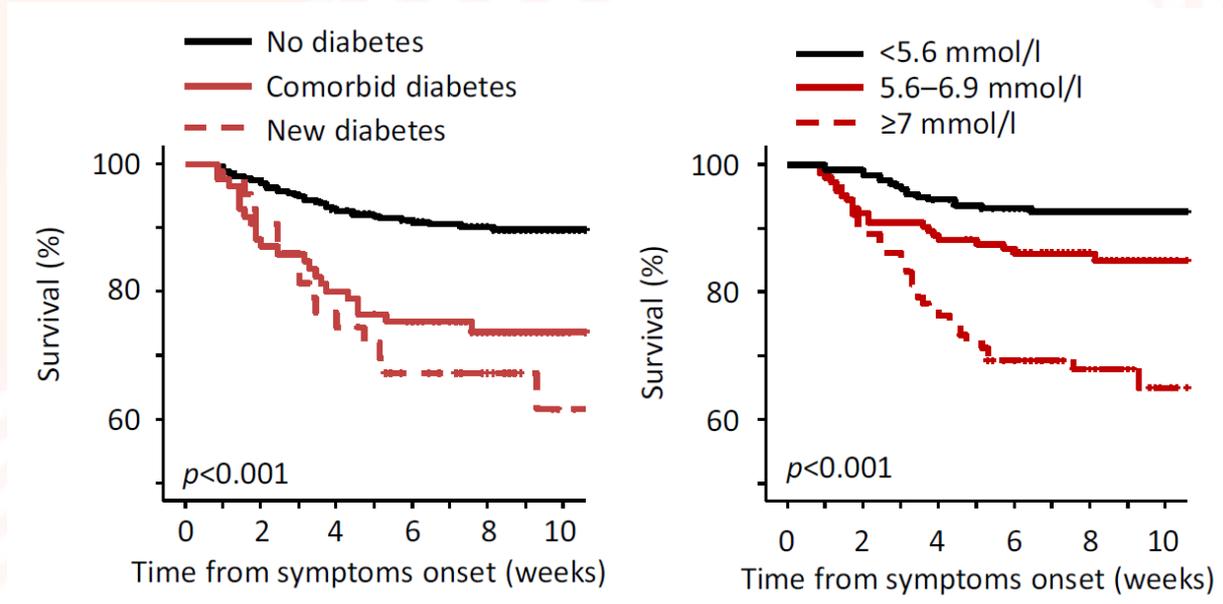
Diabetes mellitus is associated with increased mortality and severity of disease in COVID-19 pneumonia



Muniyappa R et al. Am J Physiol Endocrinol Metab 318(5):E736-E741, 2020



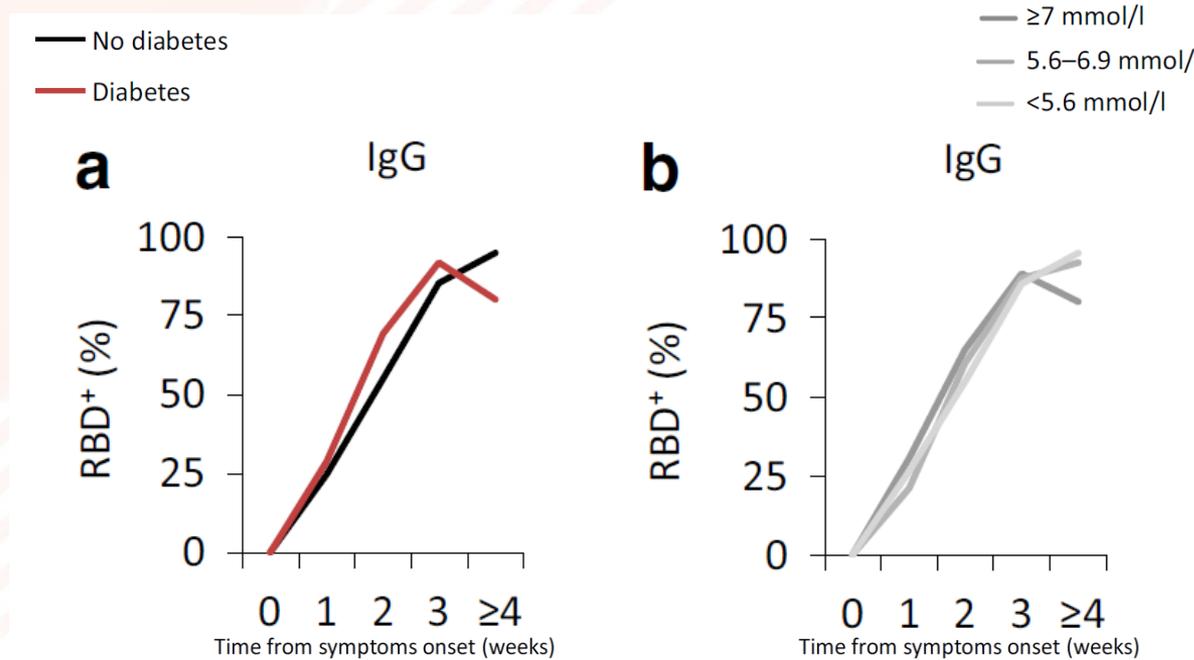
Kaplan-Meier estimated survival rate of 480 patients with COVID-19 pneumonia hospitalized at San Raffaele Hospital



Lampasona V. et al. Diabetologia 63:2548-2558, 2020



Antibody prevalence of IgG against the SARS-CoV-2 spike receptor-binding domain (RBD) based on diabetes and median FPG



Lampasona V. et al. Diabetologia 63:2548-2558, 2020

