Farmakoterapie COVID-19 update 2022

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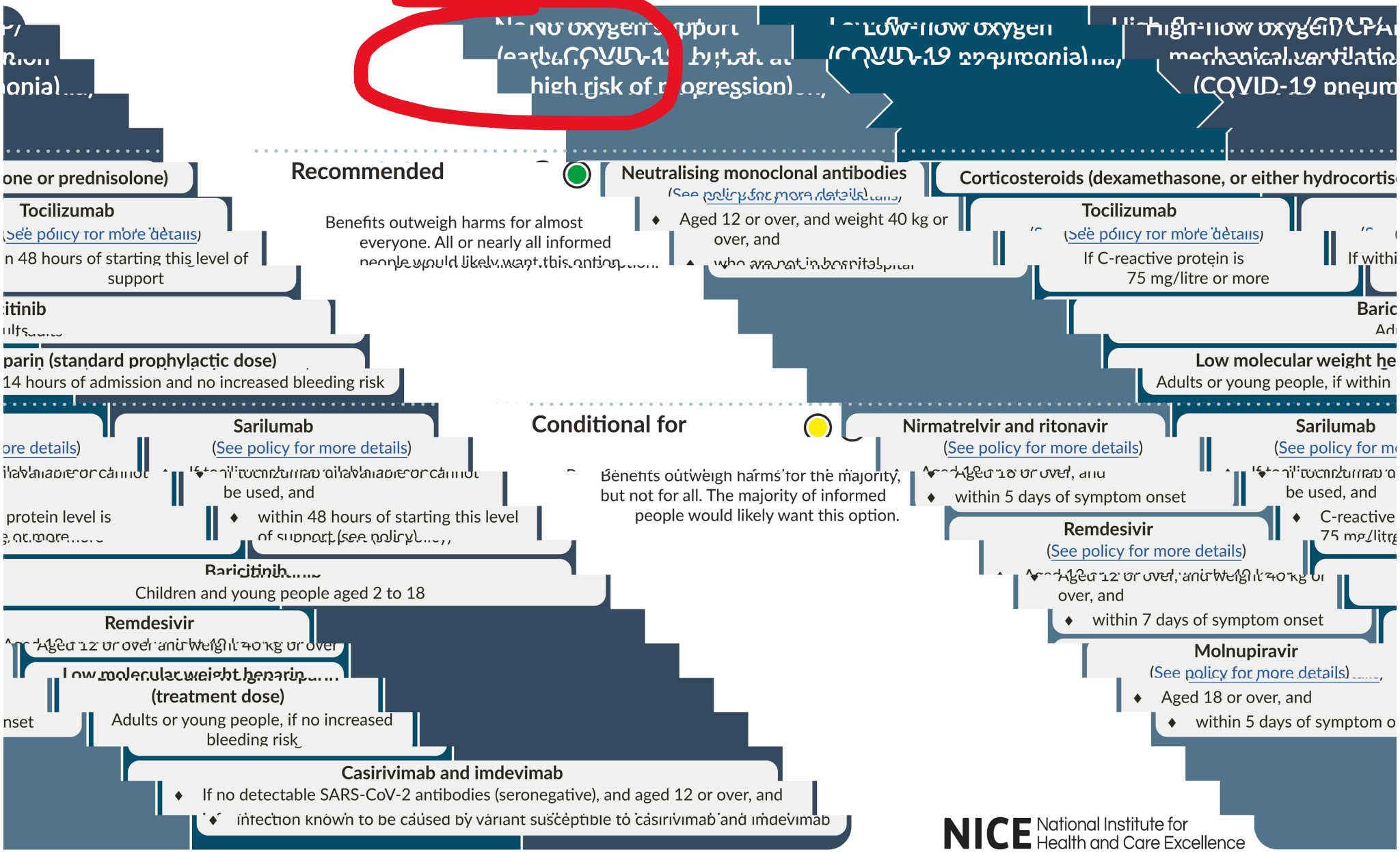

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MAB

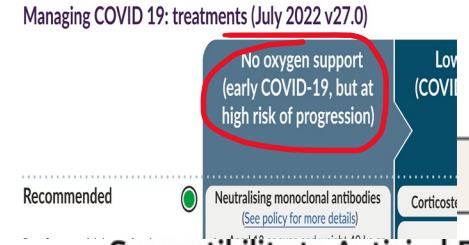


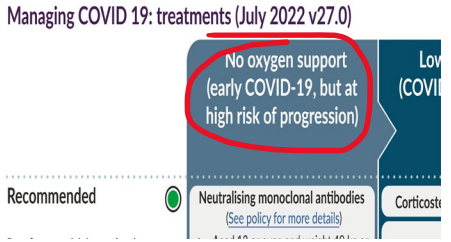
Table 1. Efficacy of Monoclonal Antibodies and Antiviral Drugs against Omicron Subvariants in Vitro.*

Subvariant	Mean Neutralization Activity of Monoclonal Antibody†								Susceptibility to Antiviral Drug‡		
	Imdevimab	Casirivimab	Tixagevimab	Cilgavimab	Sotrovimab Precursor	Bebtelovimab	Imdevimab+ Casirivimab	Tixagevimab+ Cilgavimab	Remdesivir	Molnupiravir	Nirmatrelvir
	ng per milliliter									*μmol*	
Reference§	7.4	6.1	6.1	7.0	95.1	2.5	3.4	6.3	1.7	2.8	2.7
BA.1	>50,000	>50,000	1552.7	2916.9	40727.1	5.8	>10,000	351.1	1.9	7.5	4.8
BA.1.1	>50,000	>50,000	603.5	>50,000	3769.2	3.9	>10,000	1296.8	2.0	6.0	3.9
BA.2	329.0	>50,000	2756.6	16.9	>50,000	3.3	835.1	34.6	5.9	8.7	6.9
BA.2.12.1	238.1	>50,000	335.2	21.0	>50,000	4.0	452.7	38.1	0.5	3.2	1.8
BA.4	132.6	>50,000	>50,000	53.6	>50,000	2.9	459.1	37.8	1.2	3.3	2.9
BA.5	583.4	>50,000	>50,000	56.8	>50,000	3.3	1093.1	192.5	2.0	4.1	4.4

* The antibodies that were used in this analysis are listed by their commercial names for readability although they were produced in the authors' laboratories in their generic formulations. Omicron subvariants of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) are listed according to the World Health Organization labels for the Pango lineage.
† Individual monoclonal antibodies were tested at a starting concentration of 50,000 ng per milliliter on 50% focus reduction neutralization testing. The monoclonal antibody combinations were tested at a starting concentration of 10,000 ng per milliliter for each antibody.
‡ The susceptibility to antiviral drugs was measured as the 50% inhibitory concentration of the mean micromole value of triplicate reactions. GS-441524 is the main metabolite of remdesivir and EIDD-1931 is the active form of molnupiravir, both of which are RNA-dependent RNA polymerase inhibitors. Nirmatrelvir (PF-07321332) is a protease inhibitor.
§ The reference strain was SARS-CoV-2/UT-NC002–1T/Human/2020/Tokyo.

Takashita, E., Yamayoshi, S., Simon, V., van Bakel, H., Sordillo, E. M., Pekosz, A., … Kawaoka, Y. (2022). Efficacy of Antibodies and Antiviral Drugs against Omicron BA.2.12.1, BA.4, and BA.5 Subvariants. *New England Journal of Medicine*, *387*(5), 468–470. doi: 10.1056/NEJMc2207519

Monoklonální protilátky

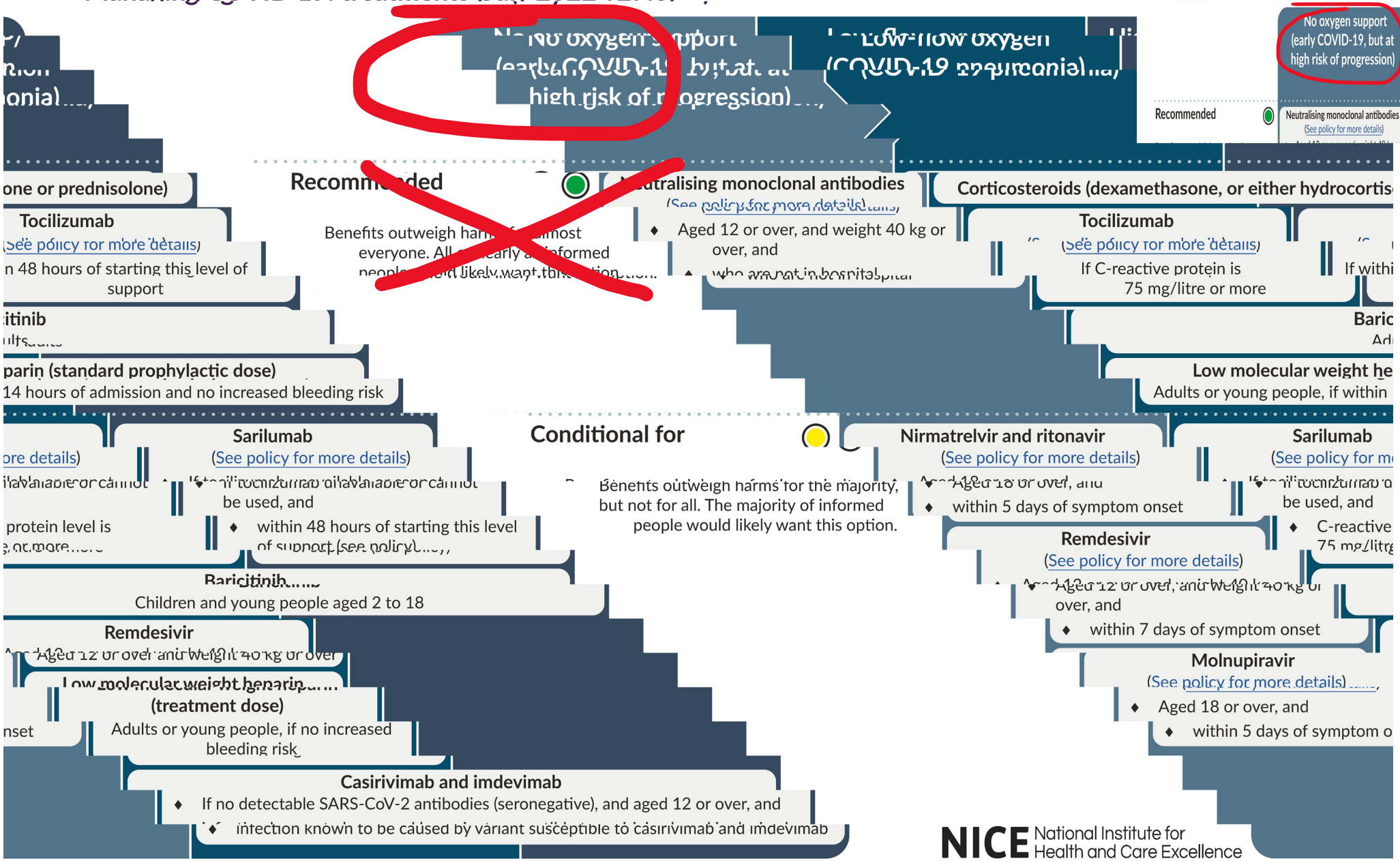


postexpozičně a v léčbě - proti variantě Omicron BA.4 a BA.5 jsou **původní látky neúčinné**, účinný je jen bebtelovimab – jen v USA*

* v ČR se uvažuje o megadávce imdevimab+casirivimab (REGN-COV2, Ronapreve)

preexpoziční profylaxe – tixagevimab + cilgavimabu (**Evusheld**), 150 +150 mg, opakovat á 6 měsíců, i.m. (transplantovaní, RS, hematoonkologie)

Managing COVID 19: treatments (July 2022 v27.0)



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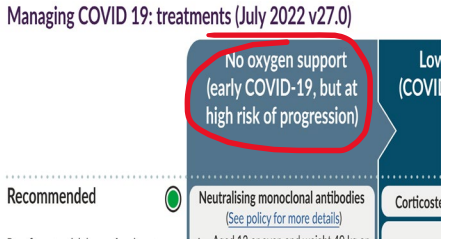
Antivirotika



nirmatrelvir a ritonavir (Paxlovid) 300 mg + 100 mg, 2 x d, 5 dní

ritonavir je silný inhibitor P450, mnoho interakcí (amiodaron, klopidogrel, propafenon, klozapin, fenytoin) [Paxlovid Drug-Drug Interactions | COVID-19 Treatment Guidelines (nih.gov)]

molnupiravir (Lagevrio) 800 mg, 2 x d, 5 dní

remdesivir (Veclury) i.v. podání, 200 mg, dále 2 x 100 mg, 3 dny

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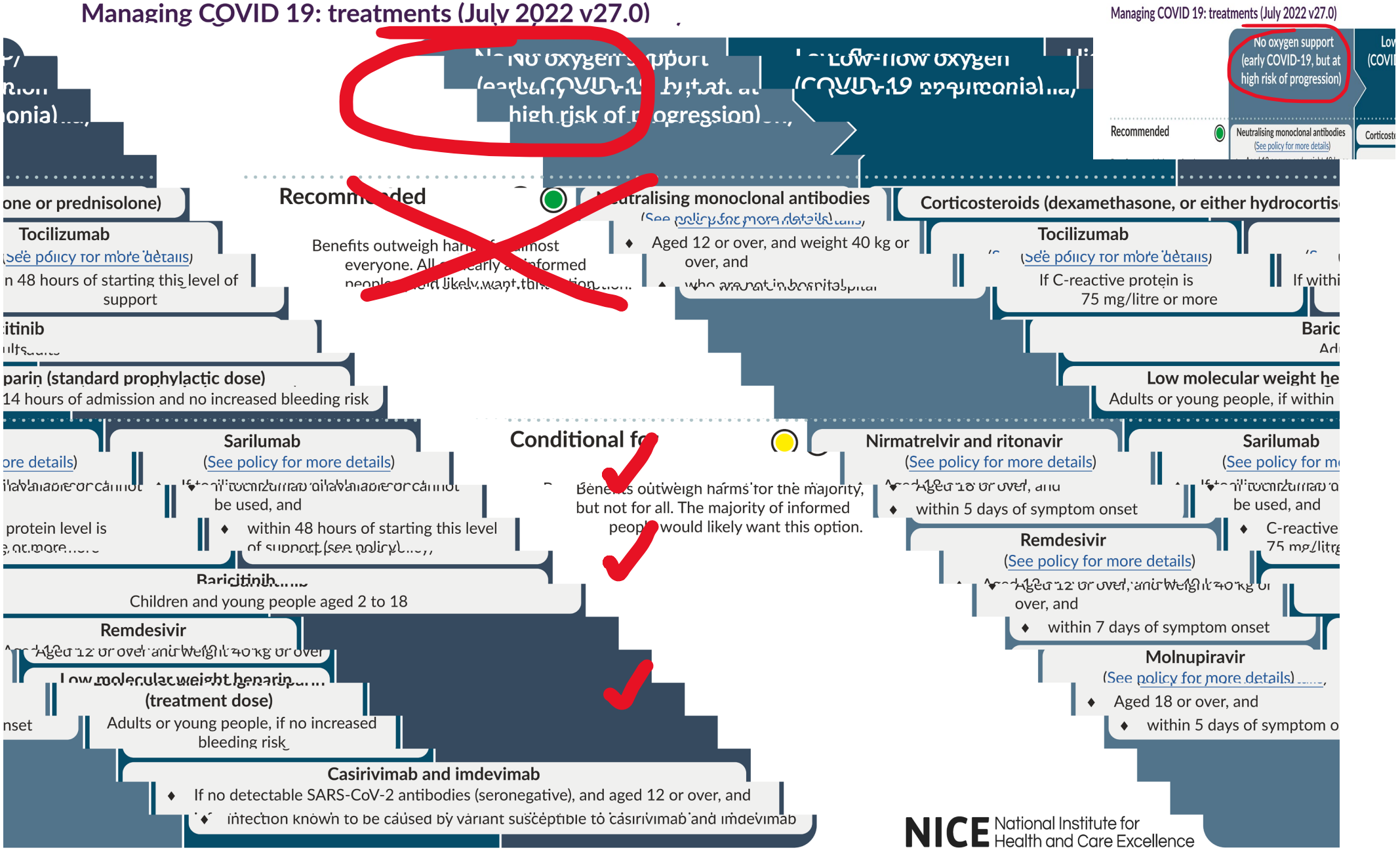

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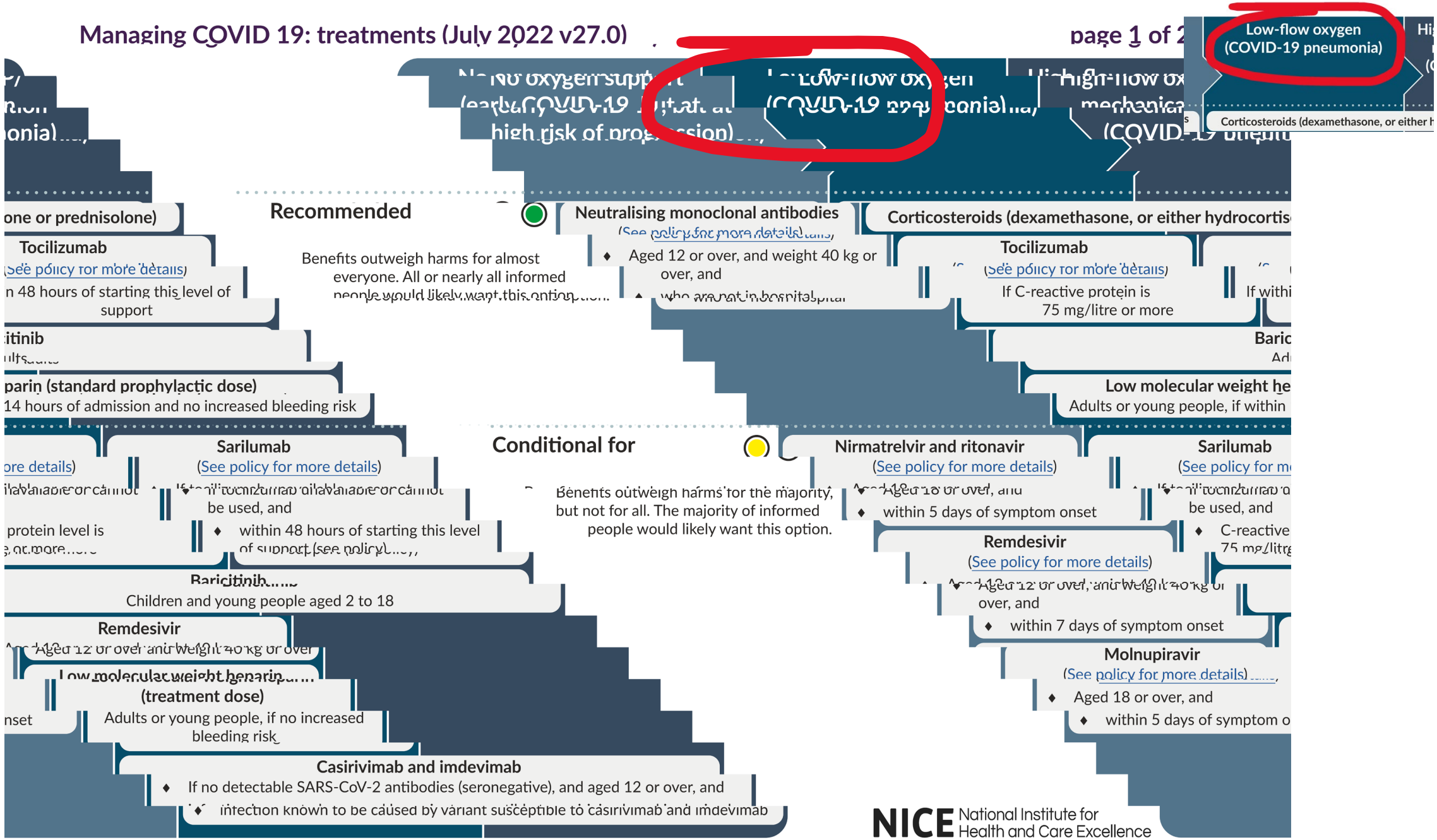

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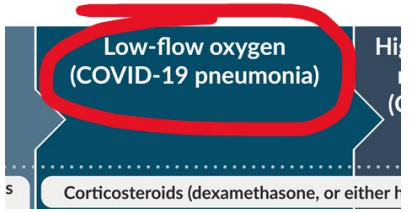
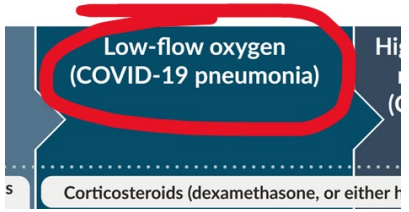


remdesivir (Veclury), 200 mg, dále 2 x 100 mg iv 5 dní

Imunosupresiva



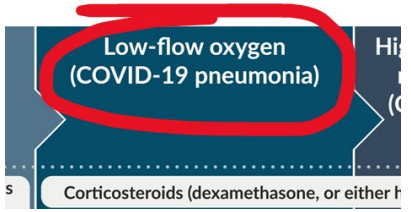
kortikoidy – dexametazon nebo alternativa

tocilizumab (RoActemra), IL-6-R inhibitor, u pacientů s progredujícím onemocněním a vysokými markery zánětu, COVACTA negativní výsledek, (subpopulace s vysokým feritinem?)

baricitinib (Olumiant), JAK inhibitor, relativně malý efekt (RR 0,87, 14 vs 12 % mortalita)

anakinra (IL-1-R inhibitor), fluvoxamin, kolchicin, GM-CSF inhibitory nelze doporučit

Antikoagulancia



profylaktická dávka LMWH

zvážit terapeutickou dávku (zejména pacienti s vysokými D-dimery)

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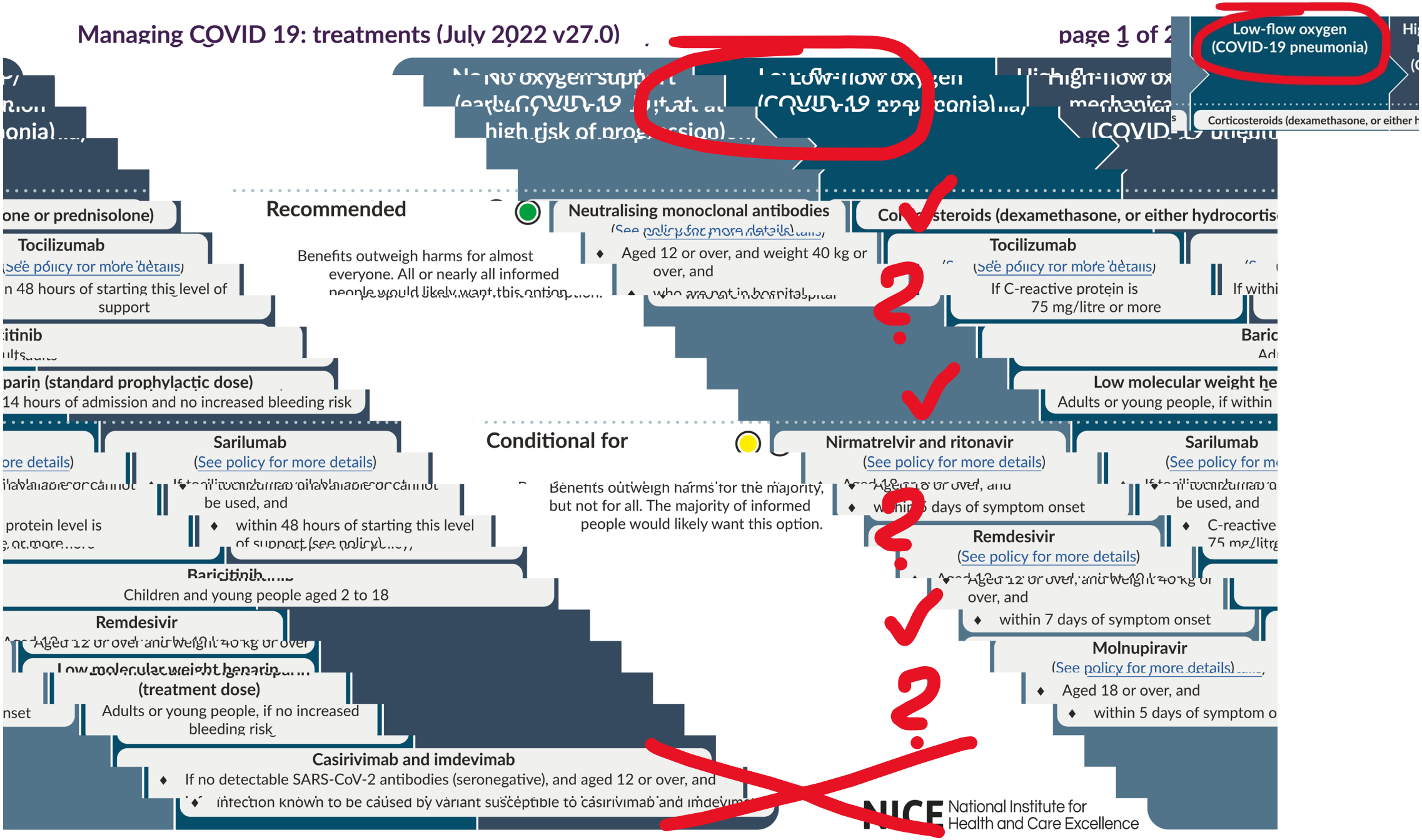

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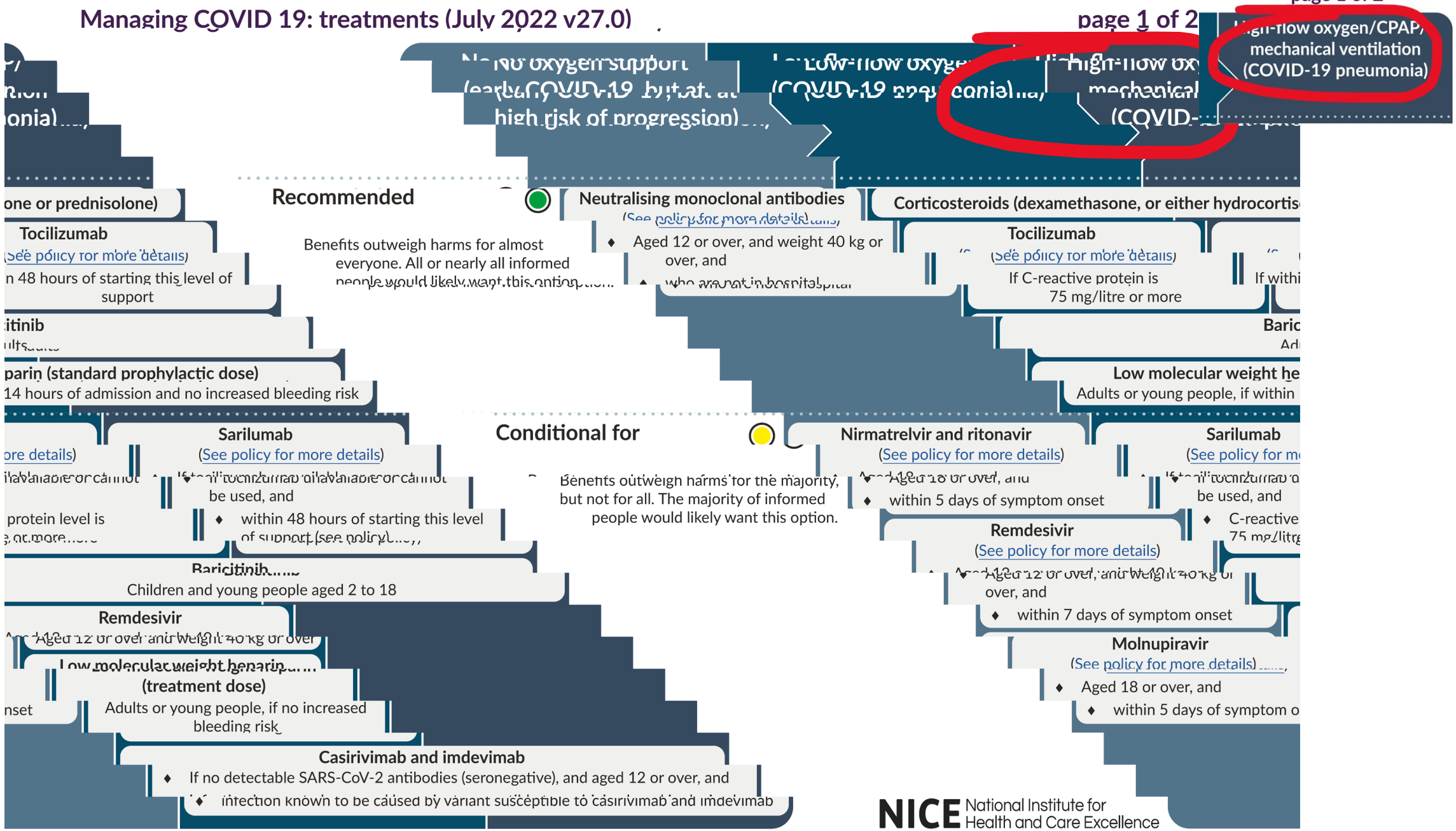

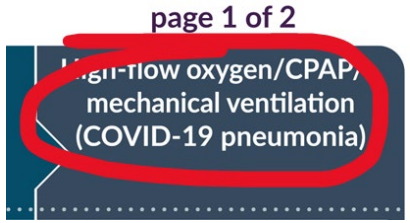

Imunosupresiva

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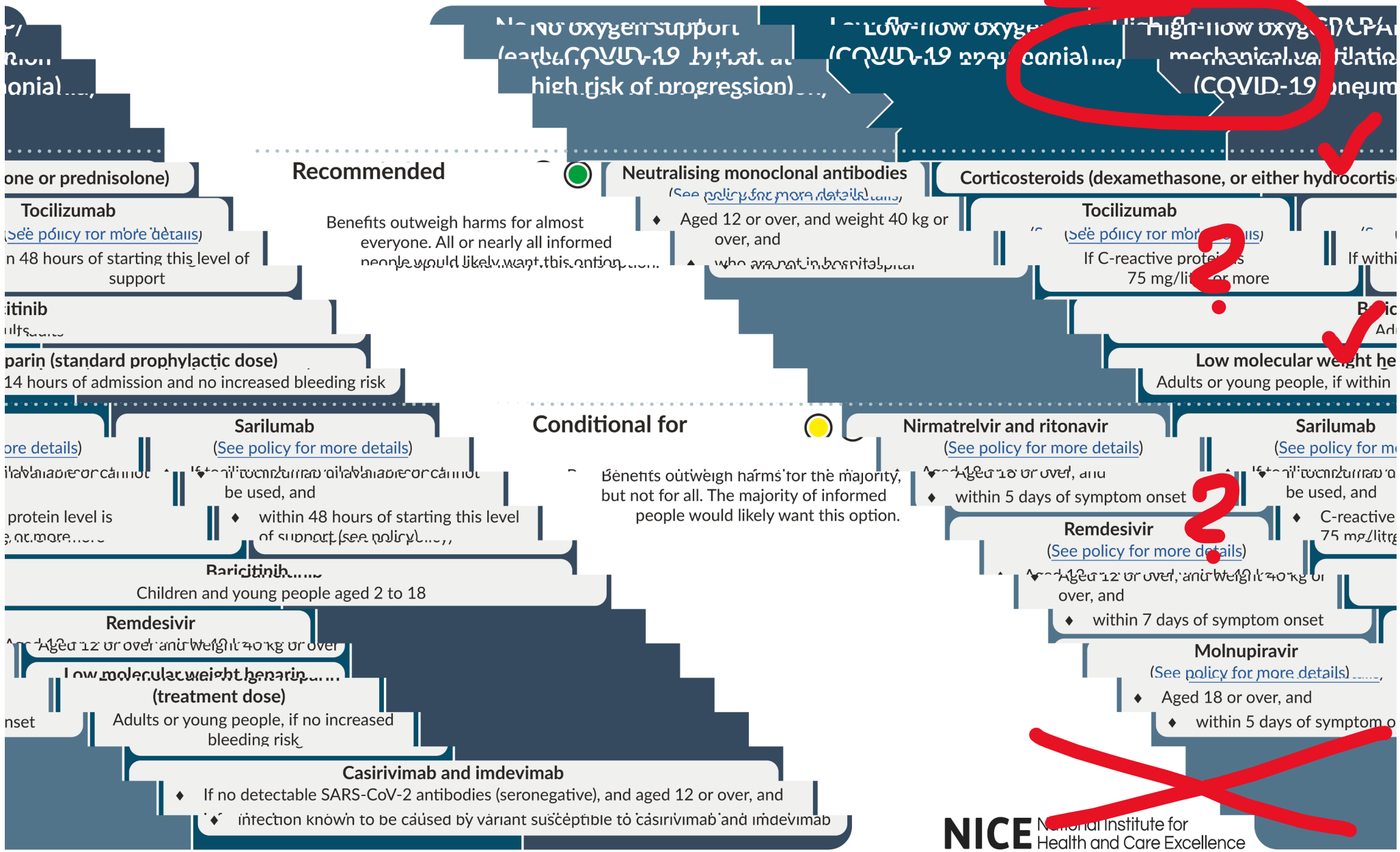

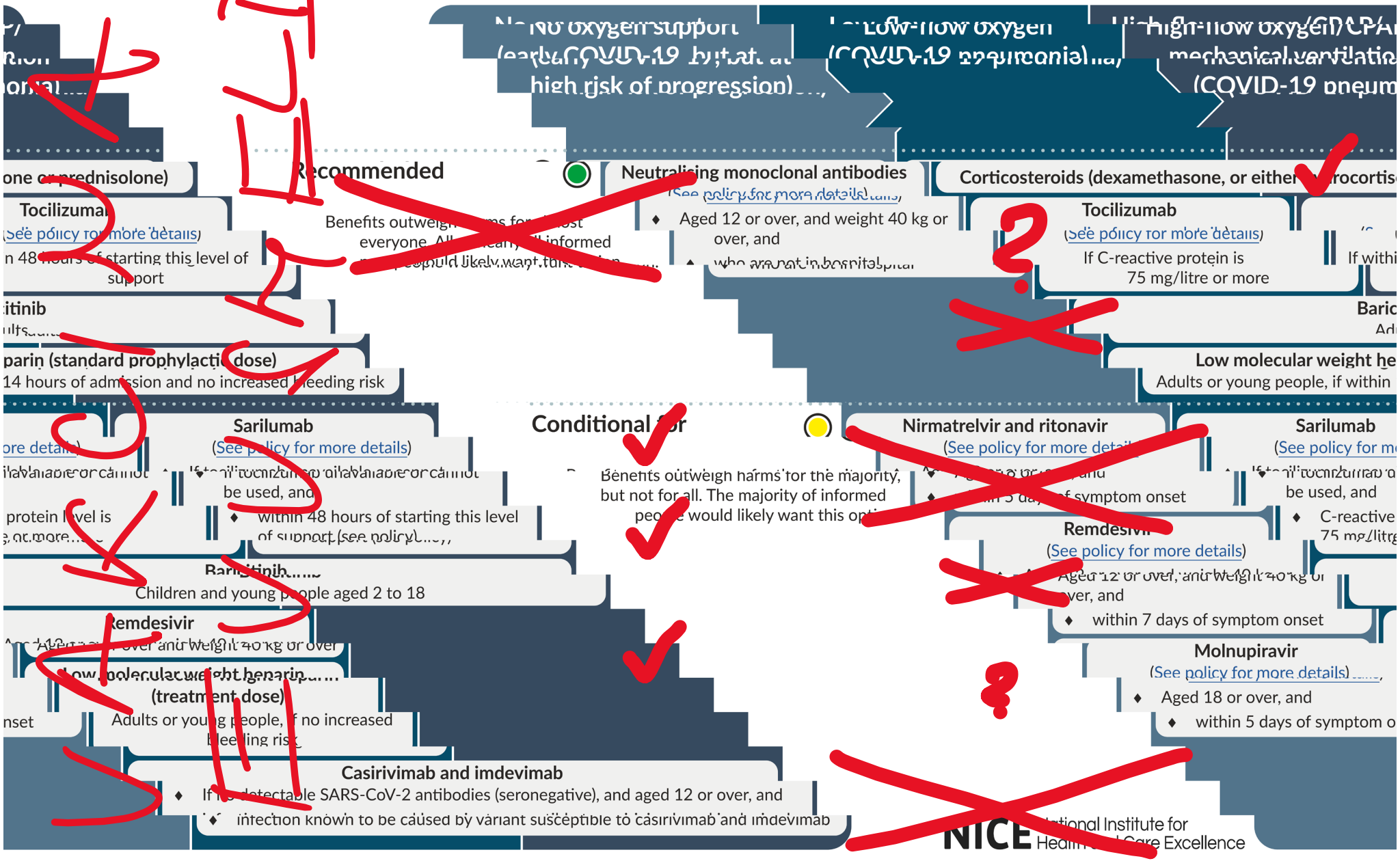
No oxygen support (early COVID-19 but at high risk of progression)
Low-flow oxygen (COVID-19 pneumonia)
High-flow oxygen/CPAP/mechanical ventilation (COVID-19 pneum
Recommended
Neutralising monoclonal antibodies
Aged 12 or over, and weight 40 kg or over, and
Corticosteroids (dexamethasone, or either
Tocilizumab
If C-reactive protein is 75 mg/litre or more
Low molecular weight he
Adults or young people, if within
Conditional for
Benefits outweigh harms for the majority, but not for all. The majority of informed people would likely want this op
Nirmatrelvir and ritonavir
Sarilumab
(See policy for more details)
be used, and
within 48 hours of starting this level of support
Remdesivir
Aged 12 or over, and weight 40 kg or over, and
within 7 days of symptom onset
Molnupiravir
Aged 18 or over, and
Children and young people aged 2 to 18
Casirivimab and imdevimab
NICE

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