

Publication (including reports of ≥25 patients)	Type of Report	Functional Lupus Anticoagulant Studies	Antigenic Studies	Comments
Gutiérrez López de Ocariz X et al. Thrombosis and antiphospholipid antibodies in patients with SARS-COV-2 infection (COVID-19). <i>Int J Lab Hematol.</i> 2020 Dec;42(6):e280-e282. PMID: 32851784, PMC7461094.	Retrospective N=27	6 patients (22.2%) were positive for LA	One patient (3.7%) positive for IgA anti-beta-2 glycoprotein I antibodies	No double LA/antibody positivity was found
Gatto M et al. Frequency and clinical correlates of antiphospholipid antibodies arising in patients with SARS-CoV-2 infection: findings from a multicentre study on 122 cases. <i>Clin Exp Rheumatol.</i> 2020 Jul-Aug;38(4):754-759. Epub 2020 Jul 28. PMID: 32723434.	Retrospective N=122	22.2% positive for LA	IgG aCL 13.4% IgM aCL 2.7% IgA aCL 1.7% IgG anti-β2GPI 6.3% IgM anti-β2GPI 7.1% IgA anti-β2GPI 3.3%	Venous or arterial thromboses occurred in 18/46 (39.1%) COVID-19 patients and were not associated with positive aPL (p=0.09).
Devreese KMJ, Linskens EA, Benoit D, Peperstraete H. Antiphospholipid antibodies in patients with COVID-19: A relevant observation? <i>J Thromb Haemost.</i> 2020 Sep;18(9):2191-2201. PMID: 32619328; PMCID: PMC7361253.	Prospective cohort N=31	21/31 (67.7%) LA positive	IgG aCL 19.4% IgM aCL 3.2% IgA aCL 9.7%  IgG anti-β2GPI 9.7% IgM anti-β2GPI 3.2% IgA anti-β2GPI 9.7%  Anti-PS/PT IgG 6.5% Anti-PS/PT IgM 12.9%	LA single positivity is frequent during (acute phase) COVID-19 infection; however, not clearly related to thrombotic complications.  Triple aPL positivity and high aCL/aβ2GPI titers are rare.  Repeat testing suggests aPL to be mostly transient.
Borghi MO et al. Anti-Phospholipid Antibodies in COVID-19 Are Different From Those Detectable in the Anti-Phospholipid Syndrome. <i>Front Immunol.</i> 2020 Oct 15;11:584241. PMID: 33178218; PMCID: PMC7593765.	Retrospective N=122	Not evaluated	IgG aCL 5.7% IgM aCL 6.6%  IgG anti-β2GPI 15.6% IgM anti-β2GPI 9.0% IgA anti-β2GPI 6.6%  Anti-PS/PT IgG 2.5% Anti-PS/PT IgM 9.8%	aPL show a low prevalence in COVID-19 patients and are not associated with major thrombotic events.  aPL in COVID-19 patients are mainly directed against β2GPI but do not bind the β2GPI domain I associated with pathogenicity in APS
Gil-Etayo FJ et al. Anti-Phospholipid Antibodies and COVID-19 Thrombosis: A Co-Star, Not a Supporting Actor. <i>Biomedicines.</i> 2021 Jul 27;9(8):899. PMID: 34440103; PMCID: PMC8389622.	Prospective cohort	19.4% (n=67) LA positive	n=360 IgG aCL 2.2% IgM aCL 2.8%  IgG anti-β2GPI 1.1% IgM anti-β2GPI 2.8% IgA anti-β2GPI 11.1%  Anti-PS/PT IgG 1.9% Anti-PS/PT IgM 2.5%	Presence of aPL was significantly associated with thrombosis (OR: 2.33), with greater degree of association for persistent positivity
Reyes Gil M, Barouqa M, Szymanski J, Gonzalez-Lugo JD, Rahman S, Billett HH. Assessment of Lupus Anticoagulant Positivity in Patients With Coronavirus Disease 2019 (COVID-19). <i>JAMA Netw Open.</i> 2020 Aug 3;3(8):e2017539. PMID: 32785632.	Retrospective N=68	44% LA positive	IgG aCL 0% IgM aCL 1.6%  IgG anti-β2GPI 0% IgM anti-β2GPI 1.7%	LA was associated with incidence of thrombosis in patients with COVID-19.

Gasparini G, Canepa P, Verdiani S, Carmisciano L, Cozzani E, De Grazia D, Andrea O, Icardi G, Parodi A. A retrospective study on the prevalence of anti-phospholipid antibodies, thrombotic events and cutaneous signs of vasculopathy in 173 hospitalized COVID-19 patients. <i>Int J Immunopathol Pharmacol.</i> 2021 Jan-Dec;35:20587384211042115.. PMID: 34541915; PMCID: PMC8460963.	Retrospective N=173	Not evaluated	IgG aCL 1.7% IgM aCL 8.1% IgA aCL 2.3%  IgG anti-β2GPI 2.3% IgM anti-β2GPI 14.4% IgA anti-β2GPI 20.8%	No association between aPL positivity and disease outcomes including thrombosis, invasive ventilation and mortality
Le Joncour A et al. Antiphospholipid antibodies and thrombotic events in COVID-19 patients hospitalized in medicine ward. <i>Autoimmun Rev.</i> 2021 Feb;20(2):102729. PMID: 33321245; PMCID: PMC7834187.	Prospective cohort N=104	39.6% LA positive	IgG anti-β2GPI 8.7% IgM anti-β2GPI 2.9% IgA anti-β2GPI 5.8%  aCL not reported by isotype, but “mostly” IgA	aCL and aβ2-GPI antibodies (not LA) were significantly associated with the occurrence of thrombotic events
Najim M et al. Prevalence and clinical significance of antiphospholipid antibodies in patients with coronavirus disease 2019 admitted to intensive care units: a prospective observational study. <i>Rheumatol Int.</i> 2021 Jul;41(7):1243-1252. Epub 2021 May 5. PMID: 33954813; PMCID: PMC8098785.	Prospective cohort N=60	35% LA positive	IgG anti-β2GPI 1.7% IgM anti-β2GPI 1.7%	Presence of aPLs does not seem to affect the outcomes of critically ill patients with COVID-19 in terms of all-cause mortality and thrombosis.
Xiao M. Antiphospholipid Antibodies in Critically Ill Patients With COVID-19. <i>Arthritis Rheumatol.</i> 2020 Dec;72(12):1998-2004. PMID: 32602200; PMCID: PMC7361932.	Retrospective N=79	2.5% LA positive	IgG aCL 5.1% IgM aCL 2.5% IgA aCL 21.5%  IgG anti-β2GPI 15.2% IgM anti-β2GPI 1.3% IgA anti-β2GPI 24.1%  Anti-PS/PT IgG 0% Anti-PS/PT IgM 8.9%	aPL Ab only seen in critically ill cohort
Zuo Y et al. Prothrombotic autoantibodies in serum from patients hospitalized with COVID-19. <i>Sci Transl Med.</i> 2020 Nov 18;12(570):eabd3876. PMID: 33139519; PMCID: PMC7724273.	Retrospective N=172	Not evaluated	IgG aCL 4.7% IgM aCL 23.0% IgA aCL 3.5%  IgG anti-β2GPI 2.9% IgM anti-β2GPI 5.2% IgA anti-β2GPI 4.1%  Anti-PS/PT IgG 24.0% Anti-PS/PT IgM 18.0%	Similar to IgG from patients with antiphospholipid syndrome, IgG fractions isolated from patients with COVID-19 promoted NET release from neutrophils isolated from healthy individuals.
Harzallah I, Debliquis A, Drénou B. Lupus anticoagulant is frequent in patients with Covid-19. <i>J Thromb Haemost.</i> 2020 Aug;18(8):2064-2065. PMID: 32324958; PMCID: PMC7264773.	Retrospective N=56	45% LA positive	aPL Ab isotypes not quantitatively reported	

<p>Siguret V, Voicu S, Neuwirth M, Delrue M, Gayat E, Stépanian A, Mégarbane B. Are antiphospholipid antibodies associated with thrombotic complications in critically ill COVID-19 patients? <i>Thromb Res.</i> 2020 Nov;195:74-76. Epub 2020 Jul 8. PMID: 32663703; PMCID: PMC7342042.</p>	<p>Prospective cohort N=74</p>	<p>85% LA positive</p>	<p>aPL Ab isotypes not quantitatively reported</p>	<p>Despite its high prevalence, LA are not associated with thrombosis occurrence</p>
<p>Pineton de Chambrun M et al. High frequency of antiphospholipid antibodies in critically ill COVID-19 patients: a link with hypercoagulability? <i>J Intern Med.</i> 2021 Mar;289(3):422-424. Epub 2020 Jul 13. PMID: 32529774; PMCID: PMC7307032.</p>	<p>Retrospective N=25</p>	<p>92% LA positive</p>	<p>aPL Ab isotypes not quantitatively reported</p>	