Overview MIA data PiCo and FFX

Preliminary

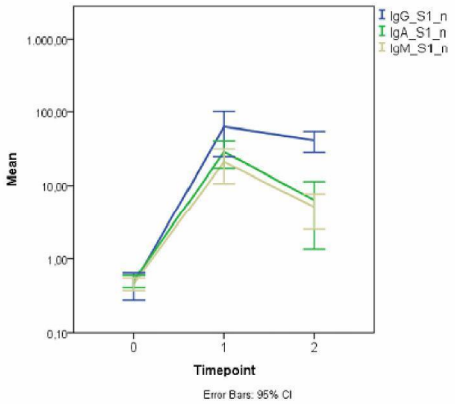
30-9-2020

Spike S1 Ig isotypes (PiCo)

rapid decay of IgA and IgM

N=57

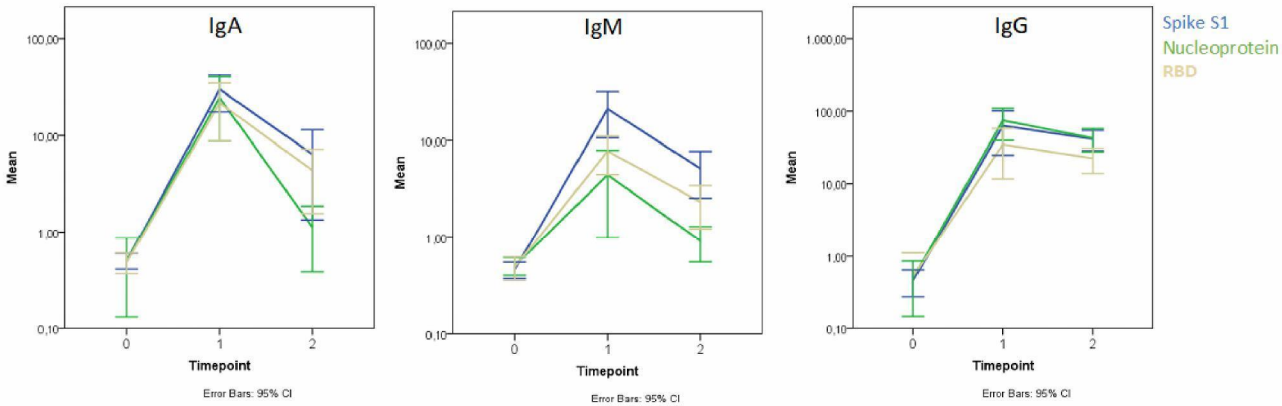
A



C

		PiCo1 V PiCo2	P3 V PiCo2
		Sig. (2-tailed)	Sig. (2-tailed)
IgG	S1	0,288	0
	N	***0,094***	0
	RBD	0,318	0
IgA	S1	0,001	0,023
	N	0,004	***0,134***
	RBD	0,01	0,008
IgM	S1	0,004	0,001
	N	0,047	**0,034**
	RBD	0,003	0,002

B

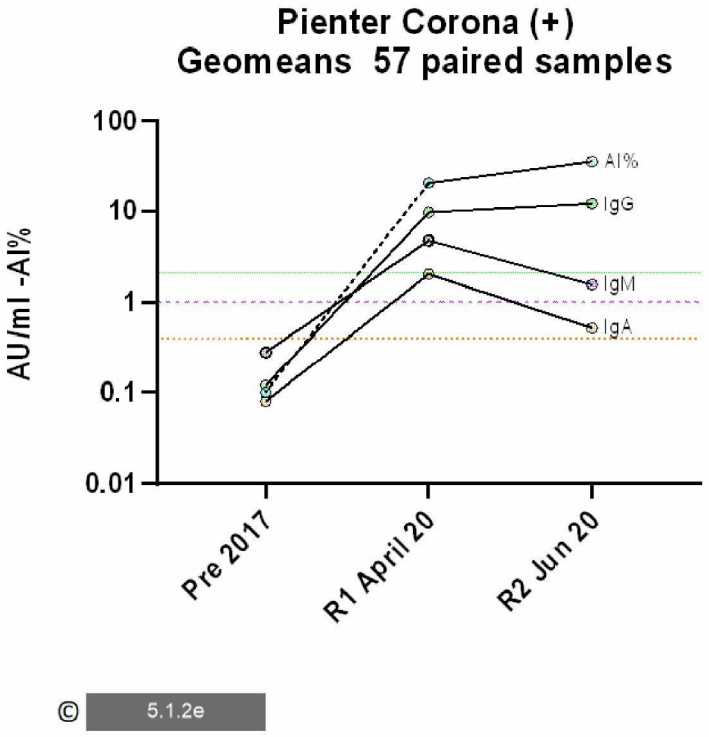


- Concentration data normalized @ T0
- X-axes data to be replaced with days since symptoms?
- C: paired samples test

Time points
0 = pienter 3
1 = April
2- June

Normalized concentration data for comparison

Pienter corona IgAGM, avidity for S1

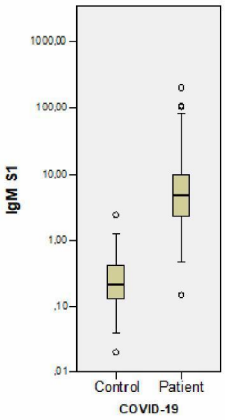


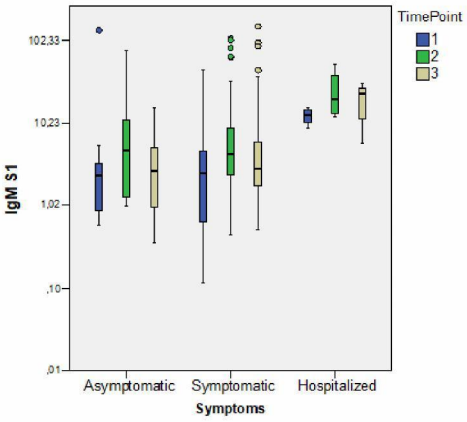
Sampling relative to time since onset of disease symptoms (FFX)

		Age group 1-16		17 >		
		Mean	**Count**	**Mean**	**Count**	**Significance**
Age		12		42		
Sex	male		14 (47%)		33 (37%)	
Days post symptoms		10		12		0.210
Index case			0		55	
Symtoms						<0.001
	Asymptomatic		9 (30%)		2 (2.5%)	
	Non-hospitalized		21 (70%)		71 (88.8%)	
	Hospitalized		0 (0%)		7 (8.8%)	

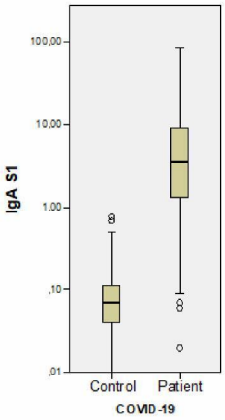
Reference panels

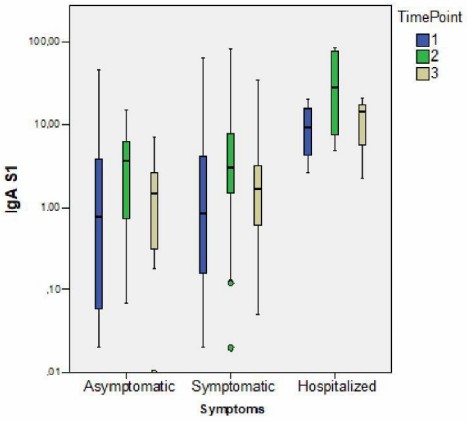
Spike S1 antibody kinetics (FFX)



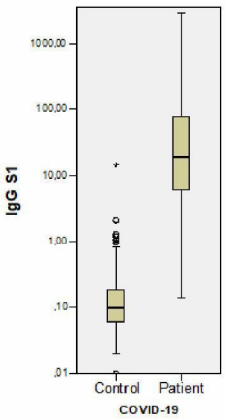


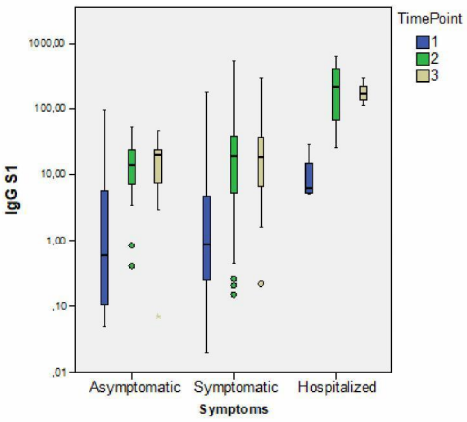
snelle IgM inductie (vergelijk met 'Control' in linker plaatje





IgA lijkt af te nemen tussen T2 en T3

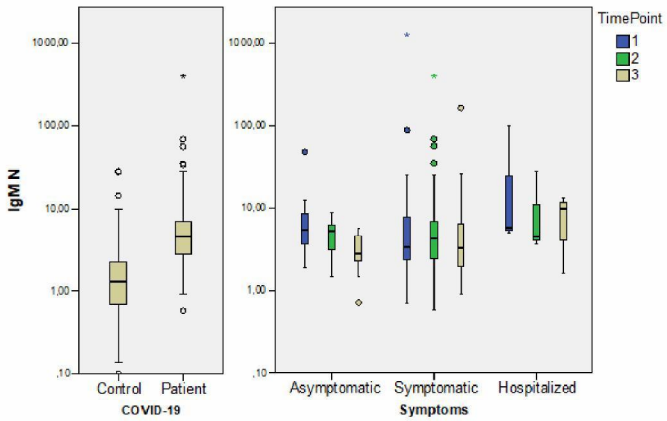


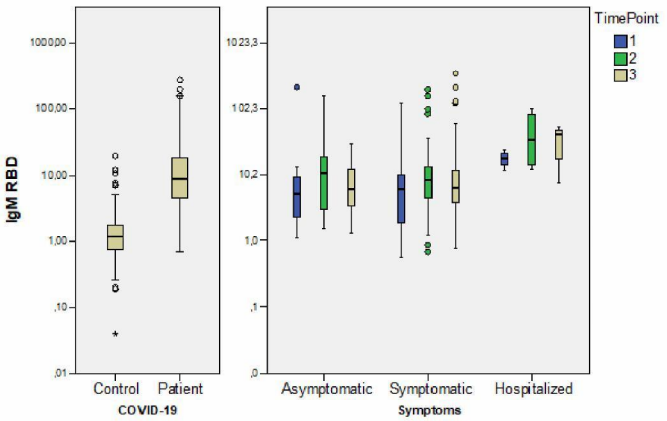


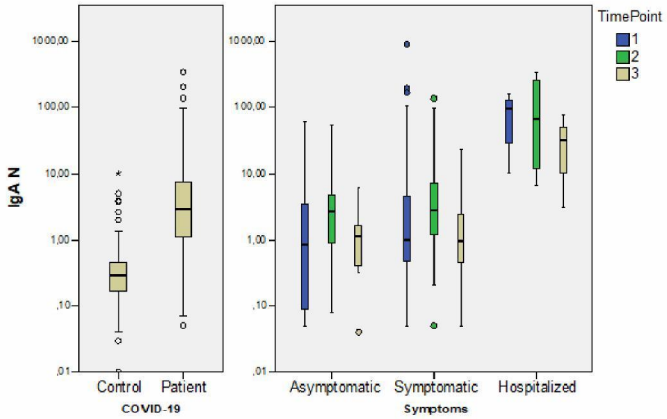
IgG blijft op niveau

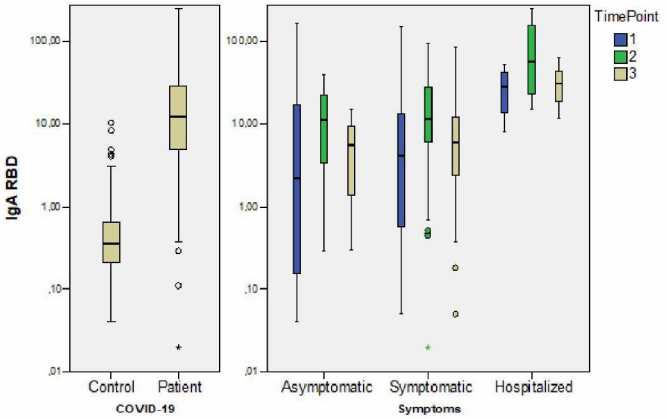
Tijd tussen T1, 2 en 3 is een paar weken (varieert tussen personen)

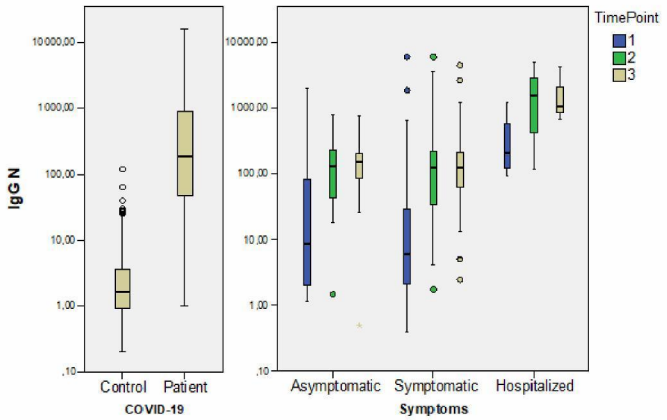
N and RBD antibody kinetics (FFX)

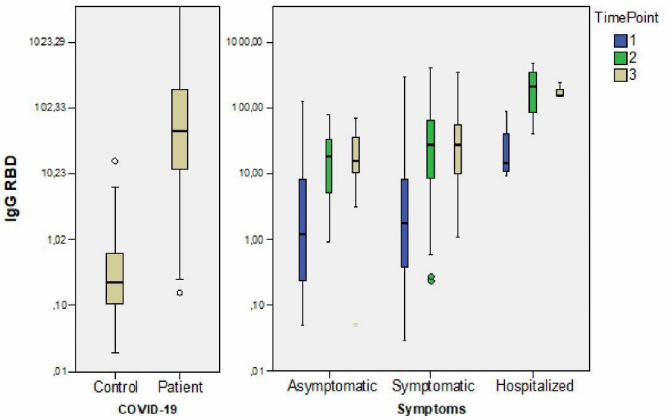




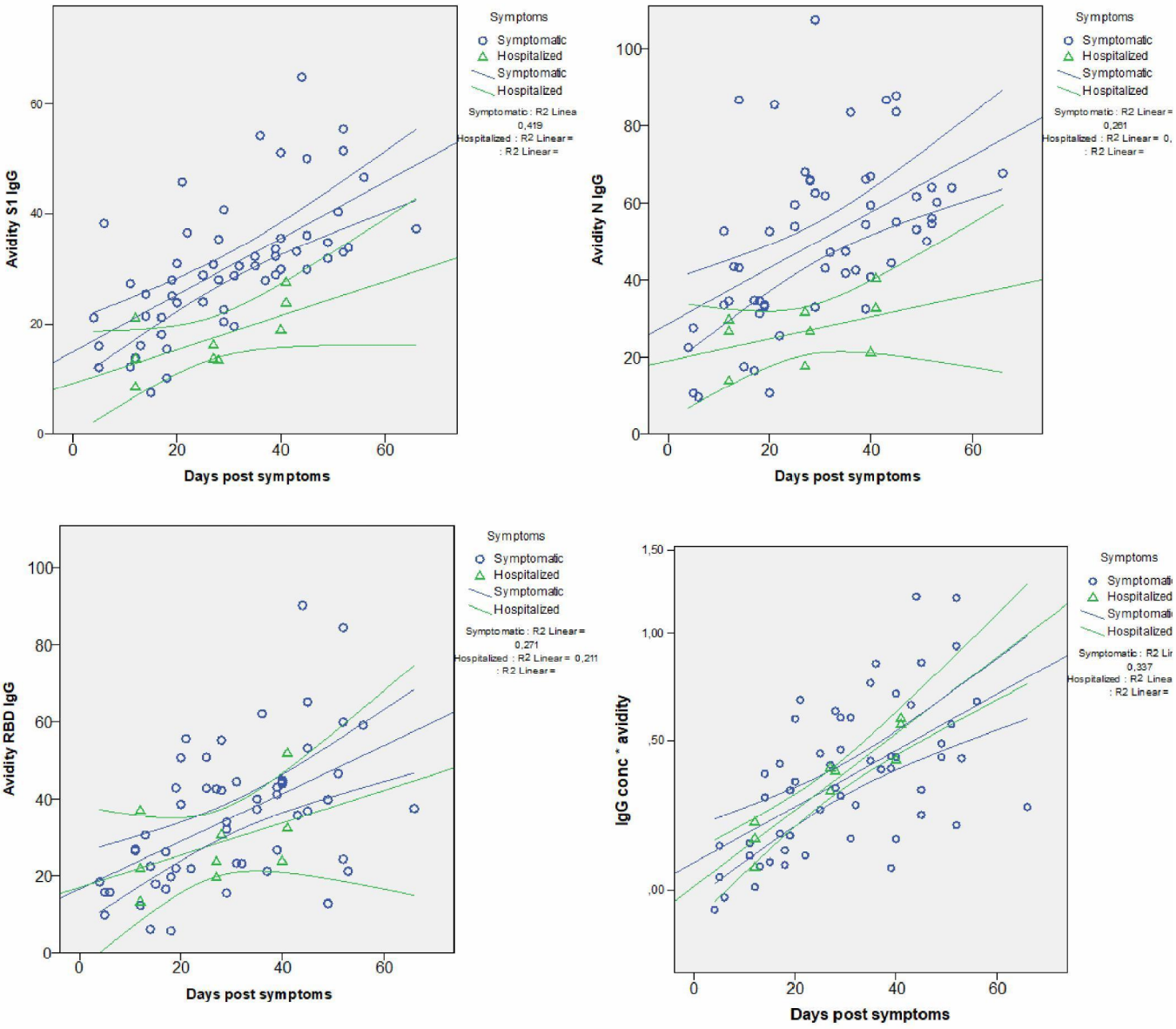








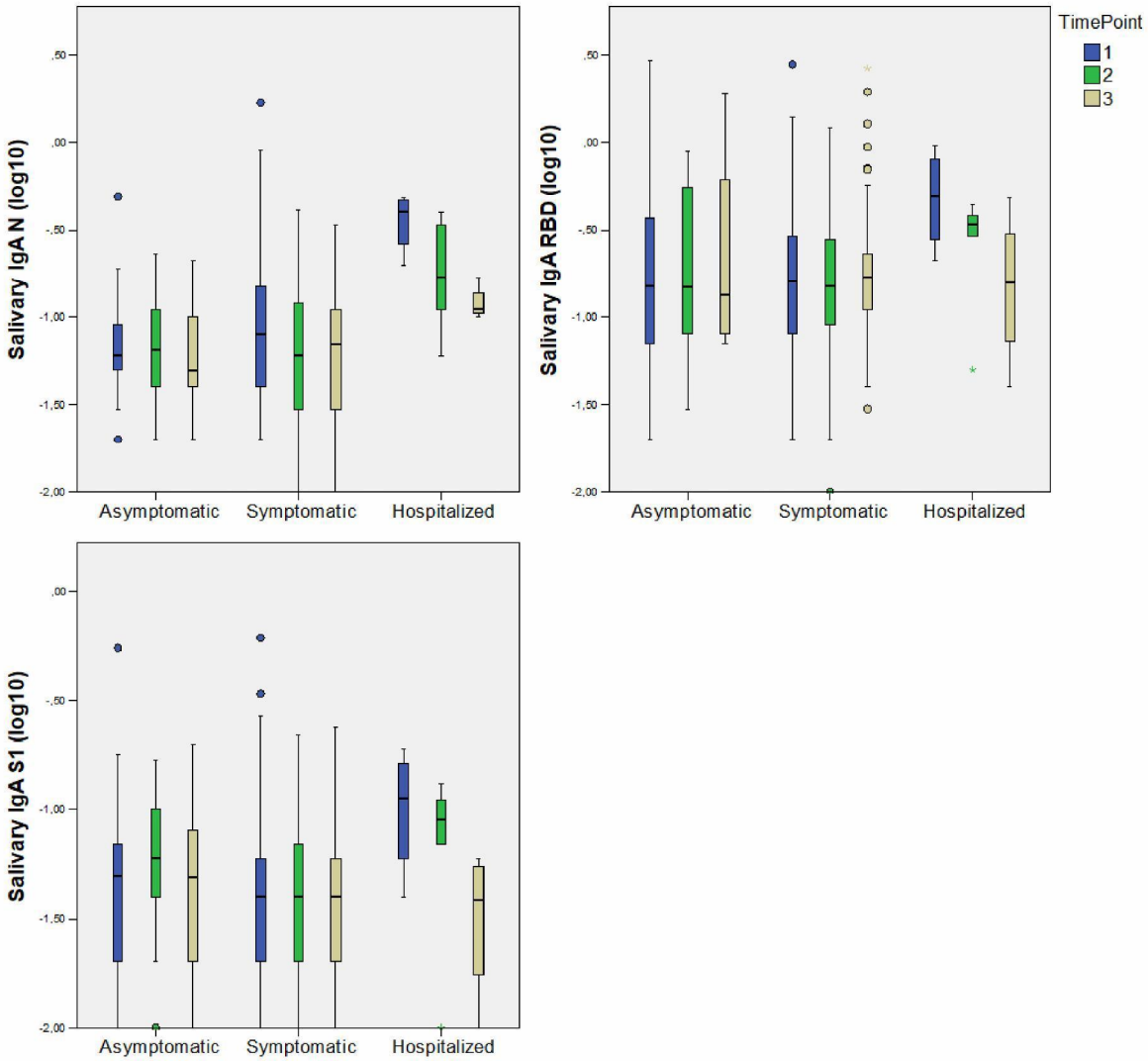
Avidity (FFX)



Previous paper: hospitalized patients have higher concentrations of antibodies
These data suggest a lower overall avidity in hospitalized patients (green).

Graph in red box: Corrected for concentration, no difference

Salivary IgA

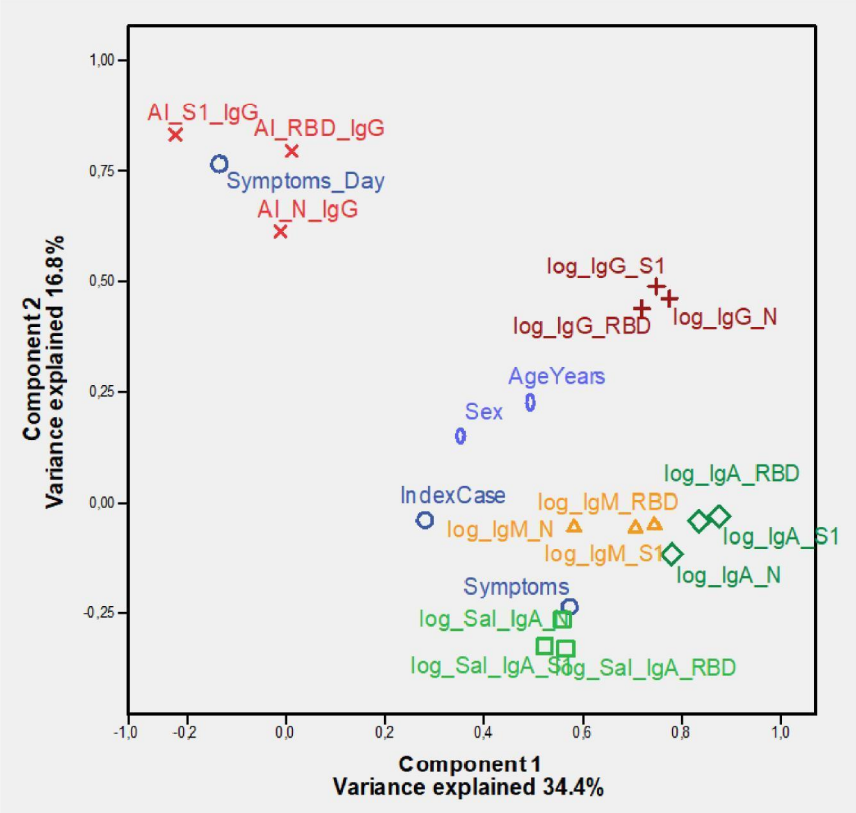


Control Panel data lacking (unknown cutoff for positivity)
Salivary IgA is not very sensitive (tested 1:10, serum ref was used IgA)

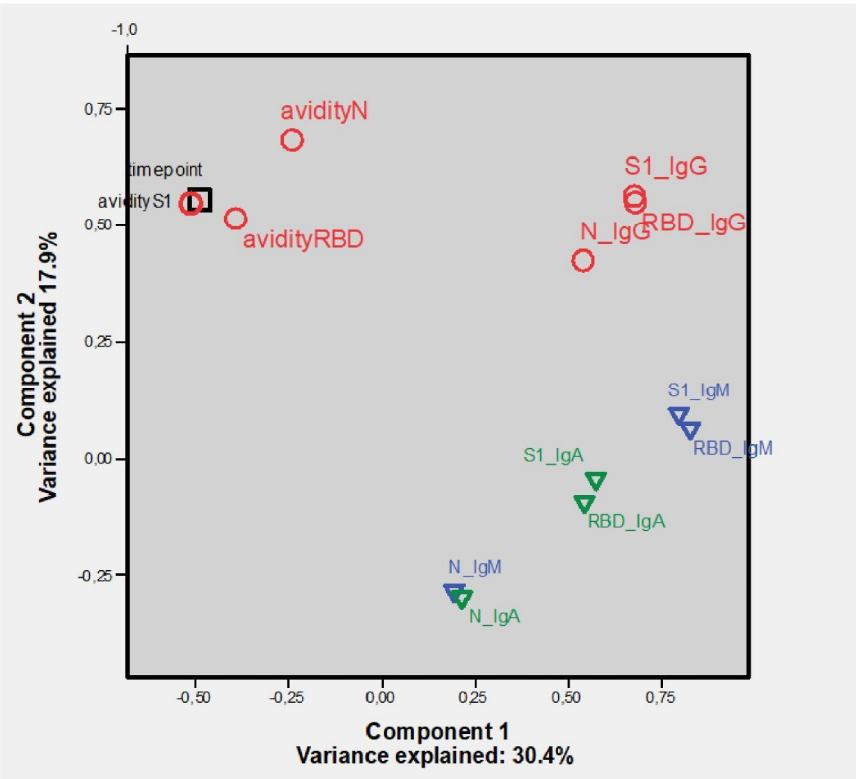
To Do: IgG

Similar clustering of sero data between FFX and PiCo

FFX



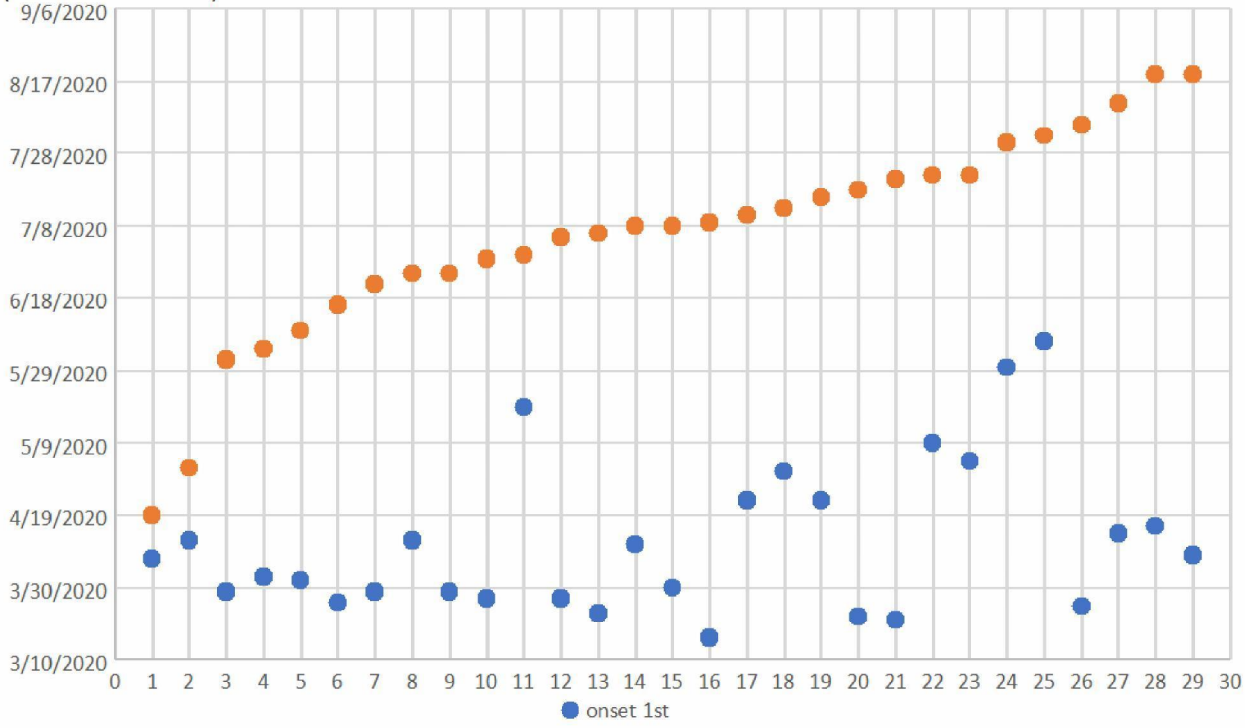
PiCo



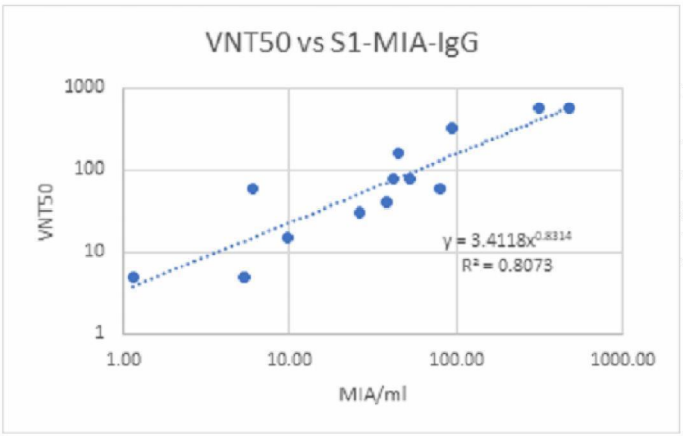
Reinfection

5.1.2e (IDS), 5.1.2e

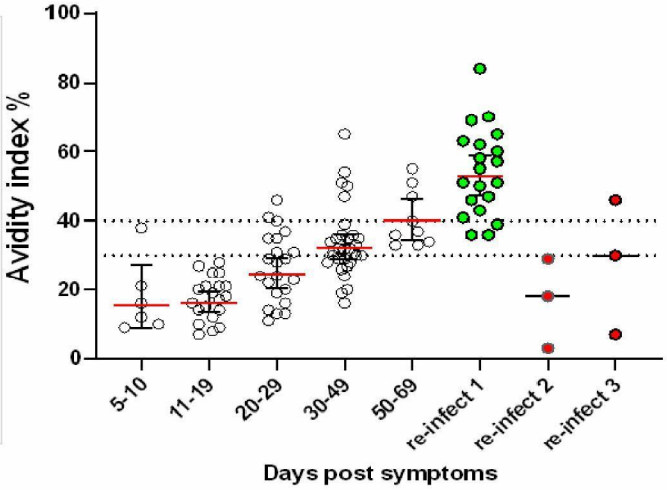
Sequence analysis results of primary and secondary infections confirms reinfection (different virus)



Correlation MIA and virus neutralization



S1 AI% ffx grouped in time



Summary

- Rapid decay of IgA (and IgM)
- Faster decay of anti-N antibodies
- Spike S1 IgG most persistent
- All concentrations decrease, avidity increases

- PiCo and FFX: Two independent studies, One message