

Supplement Table 3. Node-splitting analysis of inconsistency within network meta-analysis. $P > 0.05$: No significant inconsistency between indirect evidences.
3a. Node-splitting analysis of inconsistency for RVs

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
Saliva versus NPS	0.72 (0.37, 1.2)	0.67 (0.21, 2.3)	0.70 (0.42, 1.1)	0.93
MTS versus NPS	0.94 (0.55, 2.)	0.98 (0.44, 2.2)	0.98 (0.65, 1.5)	0.99
NS versus NPS	1.0 (0.64, 1.6)	0.92 (0.63, 1.4)	0.95 (0.70, 1.3)	0.7
Sputum versus NPS	0.86 (0.57, 1.4)	1.4 (0.45, 4.4)	0.90 (0.58, 1.3)	0.41
NPA versus NPS	0.88 (0.57, 1.5)	0.77 (0.49, 1.3)	0.84 (0.62, 1.1)	0.65
NW versus NPS	0.66 (0.33, 1.3)	1.1 (0.56, 2.4)	0.84 (0.55, 1.5)	0.41
TS versus NPS	0.68 (0.33, 1.6)	0.79 (0.47, 1.3)	0.73 (0.50, 1.1)	0.74
NPW versus NPS	1.2 (0.77, 2.1)	1.0 (0.24, 3.6)	1.1 (0.75, 1.7)	0.67
VTM-S versus NPS	0.88 (0.37, 2.7)	0.83 (0.33, 2.0)	0.85 (0.51, 1.6)	0.88
NA versus NPS	0.55 (0.20, 1.4)	1.0 (0.57, 2.)	0.91 (0.51, 1.3)	0.34
TS versus Saliva	1.2 (0.45, 2.6)	1.0 (0.50, 2.3)	1.1 (0.58, 1.9)	0.83

NS versus MTS	0.84 (0.21, 2.3)	0.93 (0.52, 1.7)	0.97 (0.59, 1.6)	0.91
NPA versus MTS	1.1 (0.36, 3.5)	0.80 (0.44, 1.4)	0.85 (0.52, 1.5)	0.5
NPW versus MTS	1.0 (0.36, 2.9)	1.3 (0.65, 2.8)	1.1 (0.68, 2.)	0.63
NPA versus NS	0.84 (0.57, 1.2)	0.99 (0.61, 1.6)	0.89 (0.66, 1.1)	0.52
OPS versus NS	1.1 (0.42, 3.3)	0.83 (0.48, 1.3)	0.83 (0.52, 1.3)	0.54
NW versus NS	1.1 (0.47, 2.2)	0.70 (0.33, 1.6)	0.88 (0.57, 1.5)	0.51
TS versus NS	1.0 (0.64, 2.2)	0.58 (0.34, 0.97)	0.78 (0.49, 1.2)	0.23
NPW versus NS	0.85 (0.35, 2.3)	1.3 (0.81, 2.1)	1.2 (0.73, 2.)	0.47
VTM-A versus NS	0.97 (0.38, 2.6)	1.1 (0.26, 3.8)	1.0 (0.51, 2.1)	0.89
NA versus NS	0.86 (0.45, 1.9)	1.1 (0.52, 2.1)	0.95 (0.55, 1.5)	0.65
TS versus Sputum	0.78 (0.45, 1.3)	0.82 (0.41, 1.5)	0.83 (0.54, 1.2)	0.89
NA versus Sputum	1.1 (0.50, 2.8)	1.0 (0.49, 1.9)	1.0 (0.57, 1.9)	0.84
NW versus NPA	1.4 (0.59, 4.5)	0.97 (0.49, 1.6)	1.0 (0.64, 1.7)	0.43

TS versus NPA	2.1e+02 (1.3, 8.7e+10)	0.79 (0.42, 1.3)	0.85 (0.56, 1.3)	0.01
N-TS versus NPA	0.89 (0.27, 2.7)	1.1 (0.36, 3.3)	1.1 (0.51, 2.1)	0.83
VTM-S versus NPA	1.0 (0.35, 2.9)	1.2 (0.42, 2.8)	1.0 (0.56, 2.)	0.89
NW versus OPS	0.65 (0.27, 1.8)	1.3 (0.66, 2.5)	1.1 (0.63, 2.)	0.35
NPW versus OPS	1.5 (0.39, 4.)	1.4 (0.81, 2.6)	1.5 (0.83, 2.4)	0.98
NA versus NW	0.84 (0.26, 2.9)	1.1 (0.50, 2.5)	1.1 (0.52, 1.8)	0.75
NA versus TS	1.5 (0.68, 3.0)	0.94 (0.51, 1.9)	1.2 (0.74, 2.0)	0.37
NA versus N-TS	0.94 (0.32, 2.6)	1.3 (0.35, 3.8)	0.99 (0.49, 2.3)	0.75
VTM-A versus VTM-S	1.1 (0.32, 2.7)	1.1 (0.29, 3.6)	1.1 (0.51, 2.2)	0.94
NA versus VTM-A	0.81 (0.26, 1.9)	0.89 (0.29, 5.4)	0.90 (0.45, 1.8)	0.82

3b.Node-splitting analysis of inconsistency for INF

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
Saliva versus NPS	0.75 (0.47, 1.2)	12. (2., 1.2e+03)	0.92 (0.57, 1.5)	0.01
MTS versus NPS	0.91 (0.46, 1.8)	1.1 (0.45, 2.8)	0.94 (0.56, 1.7)	0.74
NS versus NPS	0.91 (0.47, 1.6)	0.88 (0.50, 1.3)	0.86 (0.59, 1.2)	0.9
NPA versus NPS	0.78 (0.49, 1.2)	0.86 (0.42, 1.5)	0.80 (0.56, 1.2)	0.95
NW versus NPS	0.77 (0.51, 1.3)	1.1 (0.42, 2.8)	0.92 (0.64, 1.4)	0.65
TS versus NPS	1.4 (0.70, 3.)	0.56 (0.33, 0.89)	0.85 (0.57, 1.4)	0.02
NPW versus NPS	1.0 (0.57, 1.9)	0.88 (0.32, 2.3)	1.0 (0.67, 1.5)	0.76
TS versus Saliva	0.081 (0.0025, 0.58)	1.5 (0.90, 3.)	0.96 (0.52, 1.6)	0
NPW versus MTS	1.0 (0.43, 2.)	1.2 (0.48, 2.8)	1.0 (0.64, 1.9)	0.79
NPA versus NS	0.96 (0.58, 1.5)	0.86 (0.50, 1.5)	0.92 (0.67, 1.3)	0.8
OPS versus NS	1.2 (0.45, 2.7)	0.83 (0.47, 1.4)	0.97 (0.61, 1.5)	0.49

NW versus NS	1.1 (0.45, 2.8)	1.1 (0.65, 2.0)	1.1 (0.72, 1.7)	0.99
TS versus NS	0.90 (0.50, 1.6)	1.3 (0.58, 2.5)	1.0 (0.65, 1.7)	0.51
NA versus NS	1.0 (0.26, 4.1)	0.81 (0.25, 2.4)	0.84 (0.37, 2.4)	0.81
TS versus Sputum	2.3 (1.0, 6.0)	0.52 (0.26, 1.0)	0.94 (0.61, 1.7)	0.02
NW versus NPA	1.4 (0.75, 3.2)	1.1 (0.58, 1.9)	1.2 (0.78, 1.7)	0.51
N-TS versus NPA	0.98 (0.45, 2.1)	0.89 (0.23, 3.1)	0.95 (0.55, 2.1)	0.89
NW versus OPS	0.96 (0.26, 3.0)	1.2 (0.69, 2.)	1.1 (0.72, 1.8)	0.75
NPW versus OPS	1.7 (0.79, 4.0)	1.0 (0.53, 2.1)	1.2 (0.82, 2.)	0.26
NPW versus NW	0.89 (0.36, 2.)	1.3 (0.57, 2.4)	1.1 (0.62, 1.8)	0.5
NA versus NW	0.57 (0.13, 2.)	0.77 (0.25, 2.3)	0.78 (0.30, 1.8)	0.74
NA versus N-TS	0.94 (0.46, 1.9)	0.94 (0.17, 3.6)	0.98 (0.57, 1.7)	0.95

3c.Node-splitting analysis of inconsistency for INFa

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
MTS versus NPS	0.86 (0.42, 1.8)	1.3 (0.43, 4.4)	1.0 (0.54, 1.7)	0.58
NS versus NPS	0.89 (0.51, 1.6)	0.87 (0.50, 1.4)	0.88 (0.64, 1.2)	0.99
NPA versus NPS	0.97 (0.67, 1.4)	1.2 (0.47, 3.4)	1.0 (0.64, 1.4)	0.67
NW versus NPS	0.73 (0.41, 1.3)	0.86 (0.44, 1.8)	0.75 (0.50, 1.2)	0.73
TS versus NPS	0.82 (0.49, 1.4)	1.1 (0.41, 2.7)	0.87 (0.53, 1.4)	0.62
TS versus NPS	1.4 (0.79, 2.4)	0.73 (0.44, 1.1)	0.96 (0.63, 1.5)	0.06
NPW versus NPS	0.81 (0.38, 2.1)	0.58 (0.14, 2.3)	0.74 (0.40, 1.3)	0.63
NPW versus MTS	0.66 (0.31, 1.3)	0.79 (0.33, 2.7)	0.75 (0.41, 1.3)	0.72
NPA versus NS	0.91 (0.52, 1.5)	0.82 (0.44, 1.6)	0.88 (0.56, 1.3)	0.85
OPS versus NS	1.2 (0.46, 2.6)	0.90 (0.51, 1.7)	1.0 (0.63, 1.6)	0.64

NW versus NS	0.99 (0.47, 2.2)	0.99 (0.57, 1.9)	1.0 (0.62, 1.7)	0.96
TS versus NS	0.94 (0.48, 1.6)	1.3 (0.69, 2.5)	1.1 (0.79, 1.8)	0.44
O versus NS	0.98 (0.25, 3.3)	0.70 (0.22, 2.5)	0.72 (0.30, 1.7)	0.73
TS versus Sputum	1.1 (0.69, 1.9)	0.72 (0.30, 1.6)	0.97 (0.66, 1.5)	0.34
NW versus NPA	1.4 (0.70, 3.3)	1.0 (0.50, 2.2)	1.1 (0.73, 2.)	0.44
N-TS versus NPA	0.94 (0.39, 1.9)	0.93 (0.22, 4.)	0.93 (0.41, 1.7)	1
NPW versus NW	0.92 (0.45, 2.2)	0.66 (0.19, 1.9)	0.85 (0.45, 1.7)	0.62
NA versus NW	0.63 (0.16, 2.0)	0.73 (0.24, 2.9)	0.74 (0.29, 1.5)	0.91
NA versus N-TS	0.97 (0.51, 2.2)	1.1 (0.30, 3.4)	0.93 (0.46, 1.9)	0.86

3d.Node-splitting analysis of inconsistency for INFb

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
MTS versus NPS	0.86 (0.42, 1.8)	1.3 (0.43, 4.4)	1.0 (0.54, 1.7)	0.58
NS versus NPS	0.89 (0.51, 1.6)	0.87 (0.50, 1.4)	0.88 (0.64, 1.2)	0.99
Sputum versus NPS	0.97 (0.67, 1.4)	1.2 (0.47, 3.4)	1.0 (0.64, 1.4)	0.67
NPA versus NPS	0.73 (0.41, 1.3)	0.86 (0.44, 1.8)	0.75 (0.50, 1.2)	0.73
NW versus NPS	0.82 (0.49, 1.4)	1.1 (0.41, 2.7)	0.87 (0.53, 1.4)	0.62
TS versus NPS	1.4 (0.79, 2.4)	0.73 (0.44, 1.1)	0.96 (0.63, 1.5)	0.06
NPW versus NPS	0.81 (0.38, 2.1)	0.58 (0.14, 2.3)	0.74 (0.40, 1.3)	0.63
NPW versus MTS	0.66 (0.31, 1.3)	0.79 (0.33, 2.7)	0.75 (0.41, 1.3)	0.72
NPA versus NS	0.91 (0.52, 1.5)	0.82 (0.44, 1.6)	0.88 (0.56, 1.3)	0.85
OPS versus NS	1.2 (0.46, 2.6)	0.90 (0.51, 1.7)	1.0 (0.63, 1.6)	0.64

NW versus NS	0.99 (0.47, 2.2)	0.99 (0.57, 1.9)	1.0 (0.62, 1.7)	0.96
TS versus NS	0.94 (0.48, 1.6)	1.3 (0.69, 2.5)	1.1 (0.79, 1.8)	0.44
NA versus NS	0.98 (0.25, 3.3)	0.70 (0.22, 2.5)	0.72 (0.30, 1.7)	0.73
TS versus Sputum	1.1 (0.69, 1.9)	0.72 (0.30, 1.6)	0.97 (0.66, 1.5)	0.34
NW versus NPA	1.4 (0.70, 3.3)	1.0 (0.50, 2.2)	1.1 (0.73, 2.)	0.44
NPW versus NW	0.92 (0.45, 2.2)	0.66 (0.19, 1.9)	0.85 (0.45, 1.7)	0.62
NA versus NW	0.63 (0.16, 2.0)	0.73 (0.24, 2.9)	0.74 (0.29, 1.5)	0.91
NA versus N-TS	0.97 (0.51, 2.2)	1.1 (0.30, 3.4)	0.93 (0.46, 1.9)	0.86
N-TS versus NPA	0.94 (0.39, 1.9)	0.93 (0.22, 4.)	0.93 (0.41, 1.7)	1

3e.Node-splitting analysis of inconsistency for RV

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
NS versus NPS	0.97 (0.57, 2.0)	0.45 (0.12, 1.1)	0.87 (0.50, 1.4)	0.1
NW versus NPS	0.58 (0.21, 1.5)	1.1 (0.55, 2.4)	0.85 (0.36, 1.3)	0.23
NW versus NS	1.1 (0.75, 1.7)	0.53 (0.18, 1.3)	0.98 (0.56, 1.4)	0.11
NW versus OPS	0.86 (0.31, 2.4)	2.5 (0.83, 6.8)	1.7 (0.70, 3.5)	0.17

3f.Node-splitting analysis of inconsistency for RSV

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
Saliva versus NPS	0.0055 (0.00025, 22.)	0.93 (0.63, 1.4)	0.81 (0.52, 1.2)	0.5
MTS versus NPS	0.44 (0.23, 0.99)	0.72 (0.49, 0.98)	0.69 (0.45, 0.90)	0.35
NS versus NPS	0.98 (0.80, 1.3)	0.92 (0.68, 1.2)	0.94 (0.77, 1.1)	0.71
NPA versus NPS	1.0 (0.79, 1.2)	1.1 (0.76, 1.4)	1.0 (0.89, 1.2)	0.72
NW versus NPS	0.93 (0.18, 3.8)	0.95 (0.65, 1.4)	0.91 (0.62, 1.4)	0.92
NPW versus NPS	1.1 (0.83, 1.5)	0.65 (0.25, 2.1)	1.1 (0.76, 1.3)	0.38
VTM-S versus NPS	0.99 (0.76, 1.3)	0.95 (0.21, 2.8)	0.97 (0.75, 1.3)	0.94
TS versus Saliva	0.94 (0.69, 1.3)	2.8e+03 (20., 4.5e+04)	1.0 (0.72, 1.4)	0
NPW versus MTS	1.5 (1.0, 2.0)	2.5 (1.1, 6.5)	1.5 (1.2, 2.1)	0.26
NPA versus NS	1.1 (0.99, 1.3)	0.99 (0.78, 1.4)	1.1 (0.99, 1.3)	0.4

OPS versus NS	0.86 (0.53, 1.3)	0.94 (0.71, 1.3)	0.94 (0.75, 1.2)	0.66
NW versus NS	0.61 (0.17, 2.4)	1.0 (0.63, 1.8)	1.0 (0.67, 1.5)	0.5
TS versus NS	0.93 (0.68, 1.2)	0.060 (0.00015, 3.8)	0.89 (0.63, 1.2)	0.46
NW versus OPS	0.61 (0.12, 4.3)	1.0 (0.75, 1.5)	1.0 (0.68, 1.6)	0.64
NPW versus OPS	0.97 (0.50, 1.8)	1.2 (0.74, 1.9)	1.2 (0.83, 1.5)	0.55
VTM-S versus NW	1.0 (0.74, 1.4)	1.1 (0.40, 3.9)	1.1 (0.76, 1.4)	0.9

3g.Node-splitting analysis of inconsistency for PIV

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
Saliva versus NPS	0.85 (0.24, 2.7)	1.4 (0.076, 15.)	1.4 (0.36, 7.6)	0.69
NPA versus NPS	0.36 (0.11, 1.2)	1.0 (0.73, 1.5)	0.94 (0.58, 1.4)	0.16
NW versus NPS	0.19 (0.020, 0.94)	0.83 (0.36, 2.5)	0.49 (0.26, 1.2)	0.04
TS versus Saliva	0.31 (0.14, 0.78)	0.18 (0.0042, 4.6)	0.39 (0.17, 0.68)	0.72
NS versus NPS	1.0 (0.77, 1.3)	0.45 (0.17, 2.0)	0.89 (0.61, 1.2)	0.41
NPA versus NS	1.0 (0.77, 1.3)	0.40 (0.093, 1.7)	1.0 (0.79, 1.3)	0.18
NW versus NS	0.87 (0.36, 1.9)	0.55 (0.11, 3.4)	0.56 (0.30, 1.5)	0.54
TS versus NS	0.68 (0.11, 4.9)	0.40 (0.067, 2.5)	0.58 (0.18, 2.6)	0.74
NW versus OPS	0.66 (0.015, 7.)	1.3 (0.51, 3.3)	0.81 (0.44, 2.2)	0.98

3h.Node-splitting analysis of inconsistency for ADV

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
Saliva versus NPS	14. (3.4, 70.)	0.73 (0.015, 21.)	9.8 (3.1, 30.)	0.1
NS versus NPS	0.93 (0.39, 2.3)	0.76 (0.13, 7.3)	0.96 (0.53, 2.3)	0.9
NW versus NPS	0.21 (0.029, 0.75)	0.60 (0.14, 3.3)	0.50 (0.18, 1.2)	0.26
TS versus Saliva	0.65 (0.037, 6.9)	0.026 (0.00013, 0.53)	0.17 (0.020, 1.5)	0.2
NW versus NS	0.65 (0.20, 2.7)	0.26 (0.043, 1.1)	0.54 (0.15, 1.2)	0.33
TS versus NS	0.57 (0.033, 9.5)	5.8 (0.21, 93.)	1.6 (0.22, 11.)	0.46
NW versus OPS	0.31 (0.042, 2.6)	0.63 (0.12, 3.4)	0.48 (0.15, 1.3)	0.55

3i.Node-splitting analysis of inconsistency for COV

Comparison	Odd Ratio (95% CrI)			P-value (indirect)
	direct	indirect	network	
NPW versus OPS	1.1 (0.58, 2.0)	1.1 (0.38, 3.2)	1.1 (0.69, 1.8)	0.94

Abbreviation: NPS=Nasopharyngeal swabs;NS=Nasal swab; MTS=Mid-turbinate swab;OPS=Oropharyngeal swab;TS=Throat swab;TS=Nose-Throat swab; NPA=Nasopharyngeal aspirate;NA=Nasal aspirate;NW=Nasopharyngeal wash; NS=Nasal wash;NB=Nasal brush;BAL=Bronchoalveolar Lavage;VTM-S=Swab with viral transport medium; VTM-A=Aspirate with viral transport medium;RVs=Respiratory viruses;INF=Influenza virus; INFa=Influenza a;INFb=Influenza b;RV=Rhinovirus;RSV=Respiratory syncytial virus; PIV=Parainfluenza virus;ADV=Adenovirus;COV=Coronavirus;

