

Supporting Information

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Table S1. Kinetics of cytokine production of 18 H7N9 virus-infected patients

Group	Patient no.	Sex	Age, y	Days after onset of illness	IL-6, pg/mL	IL-8, pg/mL	MIP-1 β , pg/mL
A	a73	M	53	6	9.4	7.6	4.4
				9		38.5	0.0
	a107	M	47	13	16.3	0.0	0.0
				7		39.4	7.1
				9		27.4	5.0
				13		11.6	0.0
	a49	M	68	15	29.0	16.0	8.5
				9		13.1	18.5
				10		21.0	6.3
				14		16.2	0.0
	a10	M	65	18	13.8	0.0	0.0
				9		9.2	0.0
				13		0.0	0.0
	a134	F	74	17	105.2	13.8	5.0
				8		22.6	14.6
				11		67.3	45.0
	a78	M	74	17	39.5	21.0	16.0
				10		19.0	5.9
				14		33.8	5.4
	a20	F	81	18	134.6	0.0	0.0
				22		837.3	40.4
				6		47.0	26.6
				10		110.5	50.0
	a9	M	67	14	76.0	110.6	18.5
				20		60.0	7.0
				14		20.3	25.4
	a130	M	67	18	23.7	38.5	0.0
				22		10.7	0.0
				10		7.5	0.0
				11		0.0	0.0
a79	M	78	13	25.9	14.8	0.0	
			17		0.0	0.0	
			11		28.1	25.4	
			14		30.3	0.0	
a11	F	75	18	17.4	12.5	0.0	
			26		0.0	0.0	
			10		18.6	0.0	
			13		11.6	8.5	
a12	M	62	17	34.8	53.3	0.0	
			27		25.2	0.0	
			9		34.6	39.1	
			13		106.0	16.2	
B	a131	F	79	17	88.6	38.5	0.0
				25		19.4	10.4
				9		110.7	84.6
				11		72.9	24.0
				15		141.5	50.0
a22	M	58	21	122.0	35.1	10.4	
			24		40.4	23.0	
			28		44.3	10.4	
			32		48.3	76.3	
a33	M	56	40	31.4	34.2	53.0	
			9		30.6	0.0	
			11		146.9	31.8	
				12		35.4	0.0

Table S1. Cont.

Group	Patient no.	Sex	Age, y	Days after onset of illness	IL-6, pg/mL	IL-8, pg/mL	MIP-1 β , pg/mL
				16		45.7	0.0
				24	429.7	254.9	111.0
a118	M	88		10	516.9	57.1	29.7
				12	52.5	211.1	34.0
				16	25.4	82.5	14.0
				20	1,394.0	1,935.0	69.0
a150	M	80		16	198.0	70.4	27.8
				18	163.0	201.9	
a90	M	74		9	215.7	39.9	15.9
				11	9.4	30.7	0.0

MIP, macrophage inflammatory protein.

Table S2. Inflammatory cytokines in plasma and bronchoalveolar lavage in H7N9 virus-infected patients

Inflammatory cytokines, pg/mL	Patient no.		
	a33	a22	a118
IL-10			
Plasma	3.6	8.5	13.2
BAL*	59.4	9.9	42.8
IL-1 β			
Plasma	0	0	0
BAL	3,439	2,841.3	1,746.7
IL-6			
Plasma	39.3	118.5	645.3
BAL	26,010	1,812.1	4,510.2
IL-8			
Plasma	17.8	85.3	1,935
BAL	27,221	23,507	27,221
TNF- α			
Plasma	0	0	0
BAL	654.5	24	28.6
MIP-1 α			
Plasma	0	15.6	0
BAL	1,630.2	625.6	349.6
MIP-1 β			
Plasma	11.3	246.2	138.5
BAL	6,277.6	1,191.7	603.8
IFN- γ			
Plasma	2.6	2.6	8.3
BAL	11.9	1.8	4.6

*A 5-mL bronchoalveolar lavage (BAL) sample was collected from the right lower lobe of each patient.

Table S3. Association between rs12252 variants, time from disease onset to admission, virus titer, outcome of patients, and ventilation intervention

Patient no.	Days from disease onset to				Virus titers at days after disease onset, log ₁₀								Respiratory assistance
	rs12252	Oseltamivir	First methylprednisolone treatment	Admission	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Outcome	
a9	C/C	5	4	9	<2	<2	ND	ND	ND	ND	ND	Discharge	
a33	C/C	3	7	2	ND	2.85	5.34	5.06	<2	<2	3.75	Death	ECMO
a20	C/C	5	6	5	3.22	3.7	<2	3.04	<2	4.13	<2	Discharge	Mechanical
a131	C/C	6	6	6	4.75	<2	ND	<2	3	<2	<2	Death	Mechanical
a12	C/C	9	5	8	ND	2.15	ND	5.76	<2	3.96	<2	Discharge	Mechanical
a73	C/C	5	5	6	<2	<2	<2	<2	<2	<2	ND	Discharge	
a118	T/C	7	8	7	4.61	5.67	5.46	ND	3.55	5.35	5.03	Death	ECMO
a49	T/C	6	No	7	3.11	3.35	<2	<2	<2	<2	<2	Discharge	
a78	T/C	8	12	9	<2	<2	<2	<2	<2	<2	<2	Discharge	
a107	T/C	5	5	5	<2	<2	<2	2.51	<2	<2	<2	Discharge	
a10	T/C	4	No	5	ND	<2	<2	ND	<2	<2	2.21	Discharge	
a22	T/C	9	8	12	<2	<2	<2	<2	ND	ND	<2	Death	ECMO
a130	T/C	11	9	9	ND	ND	ND	ND	ND	ND	ND	Discharge	
a79	T/T	11	15	9	ND	ND	ND	2.36	<2	<2	<2	Discharge	Mechanical
a134	T/T	8	No	7	3.71	<2	3.41	ND	<2	<2	<2	Discharge	
a11	T/T	8	9	9	ND	3.05	ND	2.44	<2	<2	<2	Discharge	

Viral titers were determined by real-time PCR for cDNA copies from throat swabs in log₁₀ copies per milliliter of viral transport medium. To confirm H7N9 infection, samples were collected from stools, urine, and plasma. H7N9 infection was diagnosed when one of those samples was tested positive by two independent centers. ECMO, extracorporeal membrane oxygenation; ND, not determined.