

Table 1: Laboratory test results upon admission

Variable	Reference Range	On Admission	The 4th Day
White cell count (per mm ³)	4000-15,000	7250	13,150
Differential count (%)			
Neutrophils	50-70	75.5	85.5
Lymphocytes	20-40	17.5	11.2
Eosinophils	0.5-5	0.4	0
Platelet count (per mm ³)	100,000-550,000	193,000	253,000
Hematocrit (%)	33-47.3	25	19.6
Hemoglobin (g/dl)	11-16	8.2	6.4
Erythrocyte count (per mm ³)	3700,000-5800,000	2740,000	2220,000
D-Dimer (mg/liter)	< 0.3	1.81	1.55
Activated partial-thromboplastin time (sec)	28-45	34.5	28.9
Prothrombin time (sec)	9-14	10.9	10.7
International normalized ratio for prothrombin time	0.9-1.4	1.01	0.99
Fibrinogen (g/liter)	1.5-4.0	4.3	2.98
Sodium (mmol/liter)	137-145	139	133
Potassium (mmol/liter)	3.5-5.1	4.44	4.31
Chloride (mmol/liter)	98-107	109	105
Carbon dioxide combining power (mmol/liter)	22-30	18	18
Urea nitrogen (mmol/L)	2.5-6.1	10.1	15.7
Creatinine (μmol/liter)	9-88	120	128
Endogenous creatinine clearance (ml/min)	75-115	38.32	/
Protein (g/liter)			
Total	63-82	63.9	49.4
Albumin	35-50	28.3	22.2
Globulin	18-32	35.6	27.2
Calcium (mmol/L)	2.23-2.80	2.01	1.95
Phosphorus (mmol/L)	1.45-2.10	1.56	1.94
Creatine kinase (U/liter)	30-135	63	/
Creatine kinase MB isoenzymes (μg/liter)	< 3.7	< 0.5	/
Troponin I (μg/liter)	< 0.02	0.02	< 0.02
Ferritin (ng/ml)	15-160	/	125.3
C reactive protein (mg/L)	< 8	16	3
Erythrocyte sedimentation rate (mm/hr)	0-20	92	/
Antineutrophil cytoplasmic autoantibody			
Cytoplasmic (Ab to proteinase 3)	Negative	Negative	/
Perinuclear (Ab to myeloperoxidase)	Negative	Positive	
Antinuclear antibody	Negative	1:100	/
		(speckled pattern)	
Direct (U/ml)			
Anti-RNP antibody (U/ml)	Negative	Negative	/

Anti-Smith antibody (U/ml)	Negative	Negative	/
Anti-SS-A antibody (U/ml)	Negative	Positive	/
Anti-SS-B antibody (U/ml)	Negative	Negative	/
Anti-double-stranded DNA	Negative	Negative	/
Anticardiolipin antibody (U/ml)	Negative	Negative	/
p-ANCA	Negative	Positive	/
c-ANCA	Negative	Negative	/
Anti-MPO	Negative	Positive	/
Anti-PR3	Negative	Negative	/
Complement (g/liter)			
C3	0.9-1.8	0.87	/
C4	0.1-0.4	0.15	/
Blood gases (venous) while breathing high-flow oxygen by oxygen mask			
pH	7.35-7.45	/	7.455
Partial pressure of carbon dioxide (mm Hg)	32-45	/	26.7
Partial pressure of oxygen (mm Hg)	83-110	/	58.9
Base excess (mmol/liter)	-3 - +3	/	-4.7
Urine			
pH	5-7	6.0	5.0
Color	Yellow	Yellow	Yellow
Turbidity	Clear	Clear	Clear
Screening-dipstick test			
Glucose	Negative	Negative	1+
Bilirubin	Negative	Negative	Negative
Ketones	Negative	Negative	1+
Occult blood	Negative	4+	4+
Protein	Negative	3+	3+
Urobilinogen	Negative	Negative	Negative
Nitrites	Negative	Negative	Negative
White cells	Negative	Negative	Negative
Sediment			
Red cells (per high-power field)	0-3	Full field of vision	Full field of vision
White cells (per high-power field)	0-5	6-9	0
Hyaline casts (per low-power field)	0-2	0	0
Granular casts (per low-power field)	0	0	0
Muddy casts (per low-power field)	0-2	0	0
24 hour urine protein (mg/24h)	40-225	3540	/
Blood culture	Negative	Negative	/
Epstein-Barr DNA	< 5*10 ³ copies/ml	< 5*10 ³ copies/ml	/
Cytomegalovirus DNA	< 500 copies/ml	< 500 copies/ml	/
Sputum hemosiderin	Negative	/	Negative
Coombs test			
Direct Coombs test	Negative	Positive	/

Indirect Coombs test

Negative

Negative

/

Table 2: Differential diagnosis

Infectious diseases

Bacteria Infection

Bacterial endocarditis

Legionnaires disease

Tuberculosis

Fungus Infection

Histoplasmosis

Aspergillosis

Virus Infection

HIV, EBV, CMV, hepatitis B/C, parvovirus

Malignant tumors

Lymphoma

Immune-mediated disorders

Systemic lupus erythematosus (with or without ANCA, anti-GBM antibody, or anti-phospholipid autoantibody)

ANCA associated vasculitis

Microscopic polyangiitis (MPA)

Granulomatosis with polyangiitis (GPA)

Eosinophilic granulomatosis with polyangiitis (EGPA)

Mixed cryoglobulinaemia

Anti-GBM disease

Combined anti-GBM disease and ANCA associated vasculitis

Mixed connective tissue disease

Progressive systemic sclerosis

Idiopathic pulmonary hemosiderosis (with delayed anti-GBM disease)

Hypersensitivity to drugs

Other disorders

Hemolytic–uremic syndrome (with glomerular thrombotic microangiopathy)

Membranoproliferative glomerulonephritis

Focal and segmental glomerulosclerosis

Acute tubular necrosis

Silica dust exposure (with anti-GBM antibody or ANCA)

Multiple pulmonary emboli and a coexistent renal disease (membranous glomerulopathy)

Uremic pneumonitis
