

single case supplement

| 1  |        |     |  |                      |   |                     |  |
|--|--------|-----|--|----------------------|---|---------------------|--|
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Top Five Fit                             | Male   | 45  |  |                      | heat intolerance (time since onset: more than one year)<br>reduced exercise tolerance (time since onset: more than one year)<br>fatigue<br>IgG4 level (result: elevated)<br>dyspepsia/indigestion (time since onset: one week to one month repeat consult: yes)<br>diarrhea (time since onset: one week to one month)<br>malaise (time since onset: one week to one month)<br>myalgia<br>dyspnea (repeat consult: yes time since onset: one month to one year severity: on exertion)<br>flatulence (dairy products: no effect)  |                     |  |
| Diagnosis                                | Male   | 56  | IgG4-related disease                                 |                      | heat intolerance (time since onset: more than one year)<br>reduced exercise tolerance (time since onset: more than one year)<br>fatigue<br>dyspepsia/indigestion (time since onset: more than one year repeat consult: yes)<br>malaise (time since onset: more than one year)<br>myalgia<br>dyspnea (repeat consult: yes time since onset: more than one year severity: on exertion)<br>flatulence (dairy products: no effect)<br>constipation (time since onset: more than one year repeat consult: yes)<br>headache (laterality: unilateral throbbing quality: yes repeat consult: yes intensity: severe time since onset: more than one year)<br>impaired vision (time since onset: more than one year)<br>polyuria (time since onset: one month to one year)<br>blood pressure<br>tremor (time since onset: one month to one year)<br>dry throat<br>dry mouth (time since onset: more than one year)<br>cough (time since onset: more than one year repeat consult: yes clear or yellow phlegm: no)<br>IgG4 level (result: elevated)<br>hematuria<br>feeling of heavy legs<br>dermatitis<br>dry skin<br>foreign body sensation in the eye<br>predominance of IgG4 positive plasma cells in histopathology |                     | polydipsia<br>airway obstruction<br>wheezing on auscultation   |
| 2  |        |     |  |                      |   |                     |  |
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Diagnosis                                | Female | 63  | Sarcoidosis  |                      | malaise<br>spots on the knee (color: purple)<br>Lymphadenopathy on palpation<br>high blood pressure<br>headache<br>nausea<br>impaired vision (laterality: bilateral)<br>cough (clear or yellow phlegm: no bloody: no)<br>dyspnea<br>peripheral edema (pitting)<br>spots on the lower extremity (color: purple with elevated margin and central clearing: no with black dots on surface: no scaly surface: no)<br>renal insufficiency<br>bacteria in urine<br>microhematuria<br>leukocyturia<br>nitrituria<br>interstitial nephritis<br>nephrosclerosis<br>renal cysts<br>liver cyst<br>steatosis hepatitis<br>hilar lymphadenopathy (laterality: bilateral)<br>mediastinal lymphadenopathy<br>pulmonary radiopacity<br>microalbuminuria   |                     | hypercalcemia<br>glomerulonephritis<br>restrictive ventilation pattern<br>mixed pattern in spirometry<br>obstructive ventilation pattern   |
| 3  |        |     |  |                      |   |                     |  |
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Top Fit, Top Five Fit (<= 1 month early) | Female | 59  |  |                      | spots on the lower extremity (color: purple time since onset: one day to one week)<br>groin pain<br>purpura<br>lower extremity pain (laterality: bilateral)<br>swelling of the lower leg (laterality: bilateral time since onset: one day to one week)<br>fever (time since onset: one day to one week high grade: no)<br>chills (time since onset: one day to one week)  |                     |  |
| Diagnosis                                | Female | 60  | Henoch-Schonlein Purpura (HSP)                       |                      | spots on the lower extremity (color: purple time since onset: one week to one month)<br>groin pain (time since onset: one week to one month)<br>purpura<br>lower extremity pain (laterality: bilateral time since onset: one week to one month)<br>swelling of the lower leg (laterality: bilateral time since onset: one week to one month)<br>urinary tract infection<br>leukocytoclastic vasculitis  |                     | antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present<br>perinuclear anti-neutrophil cytoplasmic antibodies present<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>complement C3 level<br>complement C4 level<br>serum complement level<br>elevated rheumatoid factor<br>free T3<br>free T4<br>thyroglobulin antibodies<br>thyroid peroxidase antibodies<br>hepatitis C virus<br>deep vein thrombosis |
| 4  |        |     |  |                      |   |                     |  |
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Top Five Fit                             | Female | 42  |  |                      | sinusitis<br>pulmonary nodules  |                     |  |
| Top Fit                                  | Female | 53  |  |                      | nasal polyp<br>sinusitis<br>eosinophilia in blood   |                     |  |
| Diagnosis                                | Female | 57  | Eosinophilic Granulomatosis with Polyangiitis (EGPA) |                      | dyspnea (severity: daily activities)<br>pulmonary nodules<br>eosinophils in bronchoalveolar lavage<br>Total IgE level, elevated<br>eosinophilia in blood<br>anti-cyclic citrullinated protein antibodies  |                     | malignant cells in pulmonary tissue<br>perinuclear anti-neutrophil cytoplasmic antibodies present<br>cytoplasmic antineutrophil cytoplasmic antibodies present   |
| 5  |        |     |  |                      |   |                     |  |
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Diagnosis                                | Female | 32  | Small Fiber Neuropathy<br>ENaC/CFTR channelopathy    |                      | dyspepsia/indigestion<br>painful dysesthesia of the hand (distribution: symmetrical)<br>painful dysesthesia of the foot (distribution: symmetrical)<br>arthralgia<br>neutropenia<br>lymphocytosis<br>creatinine kinase level, elevated<br>muscular atrophy of the lower limb<br>diminished deep tendon reflexes<br>vitamin B12 level (result: reduced)<br>myopia<br>double vision<br>airway obstruction<br>hyperventilation<br>painful dysesthesia<br>steatorrhea<br>dry skin   |                     | erythrocyte sedimentation rate<br>CRP, elevated<br>antinuclear antibody level, elevated<br>anti-cyclic citrullinated protein antibodies<br>IgG level<br>IgA level<br>IgM level<br>pyramidal signs<br>pathological visual evoked potentials<br>pathological acoustic evoked potentials<br>helicobacter pylori in stomach/duodenum<br>alpha-1 antitrypsin level, decreased<br>fecal calprotectin, elevated<br>CFTR gene mutation                         |
| 6  |        |     |  |                      |   |                     |  |
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Diagnosis                                | Male   | 25  | Granulomatosis with Polyangiitis (GPA)               |                      | swelling, ankle joint (laterality: unilateral time since onset: one month to one year)<br>blue skin, foot (time since onset: one month to one year laterality: unilateral)<br>ear swelling (bilateral distribution: yes)<br>glomerular filtration rate, reduced<br>serum creatinine level (result: elevated)<br>proteinuria<br>hematuria<br>dysmorphic RBCs in urine<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>proteinase 3 antibody titer, elevated<br>CRP, elevated<br>anemia<br>alanine transaminase level, elevated<br>aspartate transaminase level, elevated<br>swelling of the nasal and sinus mucosa   |                     | pulmonary nodules<br>pulmonary infiltrates<br>pulmonary cavitation   |
| 7  |        |     |  |                      |   |                     |  |
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Diagnosis                                | Male   | 22  | Granulomatosis with Polyangiitis (GPA)               |                      | sensory deficit, lower leg (distribution: bilateral, symmetrical time since onset: one month to one year)<br>lower extremity pain (laterality: bilateral time since onset: one month to one year)<br>peripheral polyneuropathy<br>lower extremity paresis (laterality: bilateral time since onset: one month to one year)<br>hearing deficit (laterality: unilateral time since onset: one month to one year)<br>rhinitis<br>gait impairment (time since onset: one month to one year)<br>pulmonary cavitation<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>proteinase 3 antibody titer, elevated<br>steatosis hepatitis<br>hepatomegaly<br>liver cyst<br>splenomegaly<br>splenic mass seen on imaging<br>pericardial effusion<br>insomnia (time since onset: one month to one year)   |                     |  |
| 8  |        |     |  |                      |   |                     |  |
| Visit                                    | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |

|  |        |     |  |                      |   |                     |  |  |
|--|--------|-----|--|----------------------|---|---------------------|--|--|
| <b>Top Five Fit</b>                                | Male   | 51  |  |                      | cough (time since onset: more than one year repeat consult: yes bloody: yes)<br>pulmonary radiopacity<br>chest pain (position: retrosternal sharp: no burning: no exertion: exacerbates)<br>atrial fibrillation<br>tachycardia on ECG<br>serum cardiac troponin level, elevated<br>CRP, elevated<br>leukocytosis<br>fever (high grade: no)<br>urinary urgency<br>episcleritis<br>pulmonary nodules<br>pleural effusion  |                     | mycobacterium tuberculosis in lower respiratory tract<br>legionella pneumophila in lower respiratory tract<br>fungi in lower respiratory tract<br>bronchiectasis   |  |
| <b>Top Fit</b>                                     | Male   | 53  |  |                      | cough (time since onset: more than one year repeat consult: yes bloody: yes)<br>pulmonary radiopacity<br>atrial fibrillation<br>tachycardia on ECG<br>CRP, elevated<br>leukocytosis<br>fever (high grade: no time since onset: more than one year)<br>urinary urgency<br>episcleritis<br>pulmonary nodules<br>pleural effusion<br>sinusitis   |                     | mycobacterium tuberculosis in lower respiratory tract<br>legionella pneumophila in lower respiratory tract<br>fungi in lower respiratory tract<br>bronchiectasis   |  |
| <b>Diagnosis</b>                                   | Male   | 54  | Granulomatosis with Polyangiitis (GPA) |                      | cough (time since onset: more than one year repeat consult: yes bloody: yes)<br>pulmonary radiopacity<br>hemoptysis (time since onset: more than one year)<br>CRP, elevated<br>leukocytosis<br>fever (high grade: no)<br>urinary urgency<br>episcleritis<br>pulmonary nodules<br>hemoglobin level (result: reduced)<br>sinusitis  |                     | mycobacterium tuberculosis in lower respiratory tract<br>legionella pneumophila in lower respiratory tract<br>fungi in lower respiratory tract<br>bronchiectasis   |  |
| <b>9</b>   |        |     |  |                      |   |                     |  |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |  |
| <b>Diagnosis</b>                                   | Female | 34  | Takayasu's arteritis                   |                      | fatigue<br>CRP, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>circumferential thickening of the carotid artery wall<br>anterior neck pain (position: lateral time since onset: one month to one year)<br>cervical lymphadenopathy<br>vasculitis  |                     | diarrhea<br>constipation<br>abdominal pain<br>dyspepsia/indigestion<br>abdominal mass seen on imaging<br>ascites<br>splenomegaly<br>hepatomegaly<br>cholecystitis<br>abnormal bile duct<br>gallstone<br>carotid bruit<br>stenosis of the carotid artery<br>obstruction of subclavian veins<br>aortitis<br>stenosis of the ascending aorta<br>arterial aneurysm of the thoracic aorta<br>arterial aneurysm of the abdominal aorta<br>stenosis of the renal artery |  |
| <b>10</b>  |        |     |  |                      |   |                     |  |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |  |
| <b>Top Five Fit, Top Fit (&lt;= 1 month early)</b> | Female | 70  |  |                      | reduced exercise tolerance (time since onset: one month to one year)<br>headache<br>facial pain<br>erythrocyte sedimentation rate (result: elevated)<br>leukocyte level (result: elevated)<br>jaw claudication  |                     |  |  |
| <b>Diagnosis</b>                                   | Female | 70  | Giant Cell Arteritis                   |                      | reduced exercise tolerance (time since onset: one month to one year)<br>headache (time since onset: one month to one year intensity: severe)<br>jaw claudication<br>facial pain<br>erythrocyte sedimentation rate (result: elevated)<br>leukocyte level (result: elevated)<br>syncope<br>temporary loss of consciousness<br>nausea<br>vomiting<br>malaise<br>facial pallor<br>weight loss<br>hyperhidrosis, generalized<br>chills<br>multinucleated giant cells   |                     | fever  |  |
| <b>11</b>  |        |     |  |                      |   |                     |  |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |  |
| <b>Top Five Fit</b>                                | Female | 27  |  |                      | feeling of heavy legs (time since onset: one month to one year)<br>epistaxis (time since onset: one month to one year)<br>fever (time since onset: one month to one year)<br>malaise (time since onset: one month to one year repeat consult: yes)<br>myalgia (time since onset: one month to one year)<br>hearing deficit (laterality: unilateral time since onset: one month to one year)   |                     |  |  |
| <b>Top Fit (&lt;= 1 month early)</b>               | Female | 27  |  |                      | feeling of heavy legs (time since onset: one month to one year)<br>epistaxis (time since onset: one month to one year)<br>fever (time since onset: one month to one year)<br>malaise (time since onset: one month to one year repeat consult: yes)<br>myalgia (time since onset: one month to one year)<br>hearing deficit (laterality: bilateral time since onset: one month to one year)<br>otalgia<br>lower extremity pain (laterality: bilateral)<br>gait impairment<br>fatigue   |                     |  |  |
| <b>Diagnosis</b>                                   | Female | 27  | Granulomatosis with Polyangiitis (GPA) |                      | feeling of heavy legs (time since onset: one month to one year)<br>epistaxis (time since onset: one month to one year)<br>fever (time since onset: one month to one year)<br>malaise (time since onset: one month to one year repeat consult: yes)<br>myalgia (time since onset: one month to one year)<br>hearing deficit (laterality: bilateral time since onset: one month to one year)<br>otalgia<br>lower extremity pain (laterality: bilateral)<br>gait impairment<br>fatigue<br>CRP, elevated<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>proteinase 3 antibody titer, elevated  |                     | perinuclear anti-neutrophil cytoplasmic antibodies present   |  |
| <b>12</b>  |        |     |  |                      |   |                     |  |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |  |
| <b>Top Five Fit, Top Fit</b>                       | Female | 37  |  |                      | necrosis of the toes<br>peripheral hypoperfusion<br>peripheral cyanosis<br>generalized arthralgia<br>peripheral polyneuropathy<br>otitis media  |                     |  |  |
| <b>Diagnosis</b>                                   | Female | 37  | Granulomatosis with Polyangiitis (GPA) |                      | otitis media<br>necrosis of the toes (time since onset: one month to one year)<br>peripheral hypoperfusion<br>peripheral cyanosis (time since onset: one month to one year)<br>generalized arthralgia (time since onset: one month to one year)<br>peripheral polyneuropathy<br>pleural effusion<br>pericardial effusion  |                     |  |  |
| <b>13</b>  |        |     |  |                      |   |                     |  |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |  |
| <b>Top Five Fit, Top Fit (&lt;= 1 month early)</b> | Female | 60  |  |                      | ankle pain (laterality: unilateral time since onset: more than one year)<br>hyperpigmentation of the lower extremity<br>CRP, elevated<br>leukocytosis<br>lymphocytosis<br>periosteal thickening<br>fever (time since onset: more than one year)<br>cough (time since onset: more than one year)<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>pulmonary nodules<br>thrombocytosis<br>normocytic anemia<br>mean corpuscular hemoglobin (result: reduced)<br>unexplained fracture<br>tricuspid valve regurgitation on imaging<br>alkaline phosphatase level (result: elevated)<br>erythrocyte sedimentation rate (result: elevated)<br>gamma gt level, elevated<br>alanine transaminase level, elevated<br>IgA level (result: elevated) | alcohol abuse       | pneumonia<br>endocarditis<br>hepatitis C virus<br>Hepatitis B virus<br>Lyme-specific IgM level, elevated<br>Lyme-specific IgG level, elevated<br>antinuclear antibody level, elevated<br>anti-Sm antibodies<br>anti-dsDNA antibodies<br>anticardiolipin antibodies, elevated<br>pulmonary infiltrates<br>aortitis<br>iron level<br>pleural effusion<br>hepatic mass seen on imaging<br>liver cirrhosis<br>hepatomegaly<br>liver abscess                          |  |

|                              |        |     |  |                      |  |                     |   |  |
|------------------------------|--------|-----|--|----------------------|--|---------------------|---|--|
| <b>Diagnosis</b>             | Female | 60  | Granulomatosis with Polyangiitis (GPA) |                      | ankle pain (laterality: unilateral time since onset: more than one year)<br>hyperpigmentation of the lower extremity<br>CRP elevated<br>leukocytosis<br>lymphocytosis<br>periosteal thickening<br>fever (time since onset: more than one year)<br>cough (time since onset: more than one year)<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>pulmonary nodules<br>thrombocytosis<br>normocytic anemia<br>mean corpuscular hemoglobin (result: reduced)<br>unexplained fracture<br>tricuspid valve regurgitation on imaging<br>alkaline phosphatase level (result: elevated)<br>erythrocyte sedimentation rate (result: elevated)<br>gamma gt level, elevated<br>alanine transaminase level, elevated<br>saddle nose deformity<br>myalgia<br>proteinase 3 antibody titer, elevated  | alcohol abuse       | pneumonia<br>endocarditis<br>hepatitis C virus<br>Hepatitis B virus<br>Lyme-specific IgM level, elevated<br>Lyme-specific IgG level, elevated<br>antinuclear antibody level, elevated<br>anti-Sm antibodies<br>anti-dsDNA antibodies<br>anticardiolipin antibodies, elevated<br>pulmonary infiltrates<br>aortitis<br>iron level<br>pleural effusion<br>hepatic mass seen on imaging<br>liver cirrhosis<br>hepatomegaly<br>liver abscess |  |
| <b>14</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |
| <b>Diagnosis</b>             | Male   | 56  | Granulomatosis with Polyangiitis (GPA) |                      | localized arthralgia (laterality: bilateral)<br>epistaxis (time since onset: one month to one year)<br>nasal discharge (time since onset: one month to one year appearance: crusty)<br>microhematuria<br>antineutrophil cytoplasmic antibodies present<br>influenza A virus subtype H1N1 in respiratory tract<br>pulmonary infiltrates<br>CRP elevated<br>glomerular filtration rate, reduced<br>hemoptysis  |                     | serum creatinine level  |  |
| <b>15</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |
| <b>Top Five Fit</b>          | Female | 18  |  |                      | reduced exercise tolerance<br>sinus pain (time since onset: one month to one year)   |                     |   |  |
| <b>Top Fit</b>               | Female | 19  |  |                      | reduced exercise tolerance<br>sinus pain (time since onset: one month to one year)<br>otitis media   |                     |   |  |
| <b>Diagnosis</b>             | Female | 19  | Granulomatosis with Polyangiitis (GPA) |                      | reduced exercise tolerance<br>sinus pain (time since onset: more than one year)<br>otitis media<br>headache (intensity: severe)<br>knee pain (laterality: bilateral)<br>elbow pain (laterality: bilateral)<br>fever  |                     |   |  |
| <b>16</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |
| <b>Top Five Fit</b>          | Female | 26  |  |                      | elbow pain (intensity: severe time since onset: one month to one year)<br>shoulder pain (intensity: severe time since onset: one month to one year)<br>knee pain (intensity: severe time since onset: one month to one year)<br>nasal discharge (time since onset: one month to one year)<br>sinus pain (time since onset: one month to one year)  |                     | epistaxis   |  |
| <b>Diagnosis</b>             | Female | 26  | Granulomatosis with Polyangiitis (GPA) |                      | elbow pain (intensity: severe time since onset: one month to one year)<br>shoulder pain (intensity: severe time since onset: one month to one year)<br>knee pain (intensity: severe time since onset: one month to one year)<br>nasal discharge (time since onset: one month to one year)<br>sinus pain (time since onset: one month to one year)<br>fever (time since onset: one month to one year)<br>reduced exercise tolerance (time since onset: one month to one year)<br>conjunctivitis (distribution pattern: bilateral)<br>cough (bloody: yes clear or yellow phlegm: yes)<br>pulmonary hemorrhage<br>renal insufficiency<br>oliguria<br>glomerulonephritis   |                     | epistaxis<br>dyspnea<br>microhematuria  |  |
| <b>17</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |
| <b>Diagnosis</b>             | Male   | 50  | Granulomatosis with Polyangiitis (GPA) |                      | rhinitis<br>hemoptysis<br>headache<br>knee pain (laterality: bilateral)<br>ankle pain (laterality: bilateral)<br>wrist pain (laterality: bilateral)<br>high blood pressure<br>generalized arthralgia<br>hearing deficit (laterality: unilateral)   |                     |   |  |
| <b>18</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |
| <b>Diagnosis</b>             | Female | 45  | Cryoglobulinemia                       |                      | recurrent respiratory tract infections<br>leukocytoclastic vasculitis<br>pathologically increased cryoglobulin level<br>IgM monoclonal antibody<br>mesangiocapillary glomerulonephritis  |                     | axillary lymphadenopathy<br>cervical lymphadenopathy<br>supraclavicular lymphadenopathy<br>lower airway obstruction   |  |
| <b>19</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |
| <b>Diagnosis</b>             | Male   | 57  | Cryoglobulinemia                       |                      | reduced exercise tolerance<br>dyspnea<br>headache (intensity: severe)<br>nausea<br>abdominal pain<br>high blood pressure<br>pleural effusion<br>generalized lymphadenopathy<br>splenomegaly<br>renal insufficiency<br>proteinuria<br>metabolic acidosis<br>serum creatinine level (result: elevated)<br>serum albumin level (result: reduced)<br>CRP elevated<br>BNP in serum, elevated<br>d-dimer level in blood, elevated<br>hematuria<br>complement C3 level (result: reduced)<br>complement C4 level (result: reduced)<br>IgG level (result: reduced)<br>beta 2 microglobulin level, elevated<br>vascular markings of the lung (result: elevated)<br>lobar consolidation<br>pulmonary infiltrates (laterality: bilateral)<br>swelling, ankle joint (laterality: bilateral)<br>ankle pain (laterality: bilateral)<br>effusion, ankle<br>purpura<br>nephrotic syndrome<br>mesangiocapillary glomerulonephritis<br>pathologically increased cryoglobulin level  |                     | antinuclear antibody level, elevated<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>perinuclear anti-neutrophil cytoplasmic antibodies present<br>anti-GBM antibodies present<br>Bence-Jones protein   |  |
| <b>20</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |
| <b>Top Five Fit, Top Fit</b> | Female | 50  |  |                      | reduced exercise tolerance<br>fatigue<br>fever<br>knee pain (laterality: unilateral)<br>CRP elevated<br>general muscle weakness<br>toe pain (laterality: bilateral)  |                     |   |  |
| <b>Diagnosis</b>             | Female | 52  | Antisynthetase Syndrome                |                      | reduced exercise tolerance (time since onset: more than one year)<br>fatigue<br>fever (time since onset: more than one year)<br>knee pain (laterality: unilateral time since onset: more than one year)<br>CRP elevated<br>lymphocytosis<br>swelling of the foot (laterality: unilateral time since onset: more than one year)<br>dyspnea (severity: on exertion time since onset: more than one year repeat consult: yes)<br>air-fluid levels in the sinus<br>cough (clear or yellow phlegm: no time since onset: more than one year repeat consult: yes)<br>weight loss<br>malaise (time since onset: more than one year)<br>sinus pain (time since onset: more than one year)<br>swelling, ankle joint (laterality: unilateral time since onset: more than one year)<br>peripheral edema (pitting) (time since onset: more than one year)<br>lymphocytosis in bronchoalveolar lavage<br>mitral valve regurgitation on imaging<br>high blood pressure (time since onset: more than one year)<br>enlarged thyroid gland<br>CD4+ to CD8+ ratio (result: elevated)<br>ground-glass opacities<br>vascular markings of the lung (result: elevated)<br>swelling of the nasal and sinus mucosa<br>hyperhidrosis, generalized (night sweats: yes time since onset: more than one year)<br>general muscle weakness (time since onset: more than one year)<br>antinuclear antibody level, elevated<br>anti-SSR antibodies<br>toe pain (laterality: bilateral time since onset: more than one year) |                     | pulmonary infiltrates<br>pulmonary embolism<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Scl-70<br>anti-Jo 1 antibodies<br>glomerular filtration rate, reduced<br>pulmonary nodules<br>pleural effusion<br>hilar lymphadenopathy<br>mediastinal lymphadenopathy  |  |
| <b>21</b>                    |        |     |  |                      |  |                     |   |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                    | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |  |

|  |        |     |  |                      |   |                     |   |
|--|--------|-----|--|----------------------|---|---------------------|---|
| <b>Top Five Fit</b>                                | Female | 58  |  | diabetes mellitus    | reduced exercise tolerance (time since onset: more than one year)<br>dyspnea (severity: daily activities time since onset: one month to one year)<br>foot pain (laterality: unilateral time since onset: one month to one year)<br>diffusion capacity (result: reduced)<br>leukopenia<br>dizziness (time since onset: one month to one year)<br>weight loss<br>creatinine kinase level, elevated  |                     | arthralgia<br>headache  |
| <b>Top Fit</b>                                     | Female | 59  |  | diabetes mellitus    | reduced exercise tolerance (time since onset: more than one year)<br>foot pain (laterality: unilateral time since onset: one month to one year)<br>diffusion capacity (result: reduced)<br>leukopenia<br>dizziness (time since onset: one month to one year)<br>weight loss<br>creatinine kinase level, elevated<br>ground-glass opacities<br>pulmonary fibrosis<br>dyspnea (time since onset: one month to one year)   |                     | arthralgia<br>headache  |
| <b>Diagnosis</b>                                   | Female | 60  | Antisynthetase Syndrome                        | diabetes mellitus    | reduced exercise tolerance (time since onset: more than one year)<br>dyspnea (severity: daily activities time since onset: one month to one year)<br>foot pain (laterality: unilateral time since onset: one month to one year)<br>diffusion capacity (result: reduced)<br>leukopenia<br>dizziness (time since onset: one month to one year)<br>weight loss<br>creatinine kinase level, elevated<br>ground-glass opacities<br>pulmonary fibrosis<br>anti-PL 7 antibodies  |                     | arthralgia<br>headache  |
| <b>22</b>  |        |     |  |                      |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                            | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit</b>                       | Male   | 41  |  |                      | fever (time since onset: one month to one year high grade: no)<br>CRP, elevated<br>sinusitis<br>leukocytosis<br>leukocyte 'left shift'<br>dyspnea<br>chest pain (respiration: exacerbates)<br>erythema nodosum<br>retinitis<br>aphthous ulcerations of the oral cavity<br>erythrocyte sedimentation rate (result: elevated)<br>gamma gt level, elevated<br>alkaline phosphatase level (result: elevated)<br>alpha 2 globulin level (result: elevated)<br>swelling of the nasal and sinus mucosa<br>cervical lymphadenopathy<br>mediastinal lymphadenopathy  |                     | antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>hilar lymphadenopathy<br>pulmonary radiopacity<br>pulmonary infiltrates                        |
| <b>Diagnosis</b>                                   | Male   | 48  | Behcet's disease                               |                      | fever (time since onset: more than one year high grade: no)<br>CRP, elevated<br>sinusitis<br>leukocytosis<br>leukocyte 'left shift'<br>erythema nodosum<br>retinitis<br>aphthous ulcerations of the oral cavity<br>erythrocyte sedimentation rate (result: elevated)<br>gamma gt level, elevated<br>alkaline phosphatase level (result: elevated)<br>alpha 2 globulin level (result: elevated)<br>swelling of the nasal and sinus mucosa<br>cervical lymphadenopathy<br>mediastinal lymphadenopathy<br>thrombocytosis<br>swelling, knee   |                     | antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>hilar lymphadenopathy<br>pulmonary radiopacity<br>pulmonary infiltrates                        |
| <b>23</b>  |        |     |  |                      |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                            | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                                   | Male   | 67  | Polymyositis<br>Primary sclerosing cholangitis |                      | creatinine kinase level, elevated<br>myalgia (time since onset: one month to one year)<br>upper extremity paresis (time since onset: one month to one year)<br>proteinuria (intensity: moderate to severe)<br>serum creatinine level (result: elevated)<br>glomerular filtration rate, reduced<br>antinuclear antibody level, elevated<br>atrial fibrillation<br>left axis deviation<br>left fascicular hemiblock<br>serum cardiac troponin level, elevated<br>stenosis of the arteries of the leg<br>stenosis of the coronary artery<br>muscle necrosis<br>steatosis hepatis<br>aspartate transaminase level, elevated<br>alanine transaminase level, elevated<br>gamma gt level, elevated<br>antimitochondrial antibody<br>arrhythmias on ECG<br>BNP in serum, elevated<br>proximal lower extremity paresis (time since onset: one month to one year) | diabetes mellitus   | cardiac CK-MB level, elevated<br>anticardiolipin antibodies, elevated<br>anti-dsDNA antibodies  |
| <b>24</b>  |        |     |  |                      |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                            | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>                                | Female | 28  |  |                      | petechiae<br>headache<br>bad taste in mouth<br>malaise  |                     | chills<br>pruritus<br>sinus pain  |
| <b>Top Fit</b>                                     | Female | 28  |  |                      | petechiae<br>headache<br>bad taste in mouth<br>malaise  |                     | chills<br>pruritus<br>hemoglobin level<br>platelet count<br>antinuclear antibody level, elevated<br>elevated rheumatoid factor<br>leukocyte level<br>sinus pain |
| <b>Diagnosis</b>                                   | Female | 31  | Henoch-Schönlein Purpura (HSP)                 |                      | petechiae<br>headache<br>bad taste in mouth<br>malaise<br>mesangiocapillary glomerulonephritis  |                     | chills<br>pruritus<br>hemoglobin level<br>platelet count<br>antinuclear antibody level, elevated<br>elevated rheumatoid factor<br>leukocyte level<br>sinus pain |
| <b>25</b>  |        |     |  |                      |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                            | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                                   | Female | 17  | Systemic Lupus Erythematosus (SLE)             |                      | malaise<br>reduced exercise tolerance<br>antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>serum complement level (result: reduced)<br>nephrotic syndrome<br>proteinuria (intensity: moderate to severe)<br>serum creatinine level (result: elevated)<br>pericardial effusion<br>polyserositis<br>pericarditis<br>anemia<br>renal insufficiency  |                     |   |
| <b>26</b>  |        |     |  |                      |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                            | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit (&lt;= 1 month early)</b> | Female | 21  |  | Hx: recent infection | fever (high grade: yes)<br>myalgia<br>abdominal pain (position: epigastric)<br>fatigue<br>arthralgia<br>reduced exercise tolerance<br>diarrhea<br>proteinuria<br>pancytopenia<br>splenomegaly<br>fluid in recto-uterine pouch<br>peritonism<br>proof of acute pancreatitis<br>volume depletion  |                     |   |
| <b>Diagnosis</b>                                   | Female | 21  | Systemic Lupus Erythematosus (SLE)             | Hx: recent infection | fever (high grade: yes)<br>myalgia<br>abdominal pain (position: epigastric)<br>fatigue<br>arthralgia<br>reduced exercise tolerance<br>diarrhea<br>proteinuria<br>pancytopenia<br>splenomegaly<br>fluid in recto-uterine pouch<br>peritonism<br>proof of acute pancreatitis<br>volume depletion<br>general muscle weakness<br>ascites<br>anti-dsDNA antibodies<br>anti-Sm antibodies<br>creatinine kinase level, elevated<br>lactate dehydrogenase level, elevated   |                     |   |
| <b>27</b>  |        |     |  |                      |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                            | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |

|  |        |     |  |   |   |                     |   |
|--|--------|-----|--|---|---|---------------------|---|
| <b>Top Five Fit</b>                                | Female | 21  |  |   | tricolor pattern of discoloration of the fingers and toes (time since onset: one month to one year)<br>foamy urine  |                     |   |
| <b>Diagnosis</b>                                   | Female | 24  | Systemic Lupus Erythematosus (SLE)<br>Mixed connective tissue disease (MCTD) |   | tricolor pattern of discoloration of the fingers and toes (time since onset: more than one year)<br>foamy urine (time since onset: one month to one year)<br>peripheral edema (pitting) (time since onset: one month to one year)<br>dyspnea (severity: daily activities)<br>amenorrhea<br>dysphagia<br>glomerular filtration rate, reduced<br>glomerulonephritis<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-dsDNA antibodies<br>partial thromboplastin time (result: prolonged)<br>hematuria<br>proteinuria<br>renal insufficiency<br>microcytic anemia<br>arthritis<br>polyserositis<br>hepatomegaly<br>splenomegaly<br>cachexia<br>anti-SSA autoantibodies  |                     |   |
| <b>28</b>  |        |     |  |   |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                                   | Female | 39  | Sjogren's syndrome<br>Systemic Lupus Erythematosus (SLE)                     |   | leukopenia<br>hemoglobin level (result: reduced)<br>dry mouth<br>dry eye<br>diarrhea<br>anti-alpha-fodrin antibodies<br>missed menstruation   |                     |   |
| <b>29</b>  |        |     |  |   |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>                                | Male   | 35  |  |   | epistaxis (time since onset: one month to one year repeat consult: yes)<br>sneezing (time since onset: one month to one year)<br>swelling of the nasal and sinus mucosa<br>elbow pain (laterality: bilateral)<br>knee pain (laterality: bilateral)<br>ankle pain (laterality: bilateral)  |                     |   |
| <b>Diagnosis</b>                                   | Male   | 36  | Granulomatosis with Polyangiitis (GPA)                                       |   | epistaxis (time since onset: more than one year repeat consult: yes)<br>sneezing (time since onset: one month to one year)<br>swelling of the nasal and sinus mucosa<br>elbow pain (time since onset: one month to one year laterality: bilateral)<br>knee pain (time since onset: one month to one year laterality: bilateral)<br>ankle pain (time since onset: one month to one year laterality: bilateral)<br>nasal discharge (appearance: crusty time since onset: one month to one year)<br>hemoptysis   |                     |   |
| <b>30</b>  |        |     |  |   |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit (&lt;= 1 month early)</b> | Male   | 33  |  |   | spots on the lower extremity (color: purple pruritus: no)<br>spots on the trunk (color: purple pruritus: no)<br>spots on the upper extremity (color: purple pruritus: no)<br>swelling, wrist  |                     |   |
| <b>Diagnosis</b>                                   | Male   | 33  | Henoch-Schönlein Purpura (HSP)   | elevated BMI  | spots on the lower extremity (color: purple pruritus: no time since onset: one week to one month)<br>spots on the trunk (color: purple pruritus: no time since onset: one week to one month)<br>spots on the upper extremity (color: purple pruritus: no time since onset: one week to one month)<br>swelling, wrist (time since onset: one week to one month)<br>weight gain<br>swelling of the lower extremity<br>foamy urine<br>dyspnea<br>post-nasal drip<br>mesangiocapillary glomerulonephritis<br>proteinuria (intensity: moderate to severe)<br>cholesterol level (result: elevated)<br>triglyceride level (result: elevated)<br>nephrotic syndrome<br>peripheral edema (pitting)<br>dysmorphic RBCs in urine   |                     | epistaxis<br>hemoptysis<br>antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present<br>anti-dsDNA antibodies<br>Hepatitis B virus<br>confirmed human immunodeficiency virus infection<br>IgG level<br>hyperproteinemia   |
| <b>31</b>  |        |     |  |   |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>                                | Female | 47  |  |   | facial nerve palsy (position: peripheral time since onset: one month to one year)<br>hearing deficit (time since onset: one month to one year laterality: bilateral)<br>dizziness (time since onset: one week to one month)<br>nystagmus (direction: horizontal)<br>mastoiditis<br>vesicle in the oral cavity (time since onset: one month to one year)<br>swelling, ankle joint (laterality: unilateral)   |                     |   |
| <b>Top Fit</b>                                     | Female | 47  |  |   | facial nerve palsy (position: peripheral time since onset: one month to one year)<br>hearing deficit (time since onset: one month to one year laterality: bilateral)<br>dizziness (time since onset: one week to one month)<br>mastoiditis<br>rapid pulse<br>palpitation<br>weight loss<br>irregular menstrual bleeding<br>vesicle in the oral cavity (time since onset: one month to one year)<br>swelling, ankle joint (time since onset: one month to one year laterality: unilateral)<br>vertigo (time since onset: one month to one year)<br>complement C3 level (result: reduced)<br>complement C4 level (result: reduced)<br>anticardiolipin antibodies, elevated<br>Melkersson-Rosenthal syndrome   |                     | anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-Sc1-70<br>anti-Jo 1 antibodies<br>anti-dsDNA antibodies<br>anti-alpha-fodrin antibodies<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>perinuclear anti-neutrophil cytoplasmic antibodies present<br>antinuclear antibody level, elevated   |
| <b>Diagnosis</b>                                   | Female | 48  | Sarcoidosis  |   | facial nerve palsy (position: peripheral time since onset: one month to one year)<br>hearing deficit (time since onset: one month to one year laterality: bilateral)<br>dizziness (time since onset: one week to one month)<br>mastoiditis<br>rapid pulse<br>palpitation<br>weight loss<br>irregular menstrual bleeding<br>vesicle in the oral cavity (time since onset: one month to one year)<br>swelling, ankle joint (time since onset: one month to one year laterality: unilateral)<br>vertigo (time since onset: one month to one year)<br>complement C3 level (result: reduced)<br>complement C4 level (result: reduced)<br>anticardiolipin antibodies, elevated<br>Melkersson-Rosenthal syndrome   |                     | anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-Sc1-70<br>anti-Jo 1 antibodies<br>anti-dsDNA antibodies<br>anti-alpha-fodrin antibodies<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>perinuclear anti-neutrophil cytoplasmic antibodies present<br>antinuclear antibody level, elevated   |
| <b>32</b>  |        |     |  |   |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                                   | Male   | 35  | Chronic Polyarthritis<br>Familial Mediterranean Fever (FMF)                  | Recent travel to tropic<br>elevated BMI               | elbow pain (time since onset: more than one year laterality: bilateral)<br>knee pain, patellar (time since onset: more than one year)<br>morning stiffness (time since onset: more than one year)<br>acne<br>swelling, knee (laterality: unilateral time since onset: more than one year)<br>foot pain (laterality: bilateral time since onset: more than one year)<br>tenderness, knee (laterality: unilateral time since onset: more than one year)<br>tenderness, wrist (laterality: unilateral time since onset: more than one year)<br>effusion, knee<br>toe pain (laterality: bilateral time since onset: more than one year)<br>creatinine kinase level, elevated<br>polyuria<br>polydipsia<br>fatigue<br>headache<br>IgG4 level (result: elevated)<br>tenderness, MCP joints (time since onset: more than one year laterality: bilateral)<br>MEFV gene mutation |                     | Lymphadenopathy on palpation<br>enlarged thyroid gland<br>erythema of the oral cavity<br>effusion, ankle<br>fever<br>double vision<br>disorientation<br>facial pallor<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>antinuclear antibody level, elevated<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sc1-70<br>anti-Jo 1 antibodies<br>anti-alpha-fodrin antibodies<br>serum complement level<br>anti-dsDNA antibodies |
| <b>33</b>  |        |     |  |   |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                                   | Female | 55  | Familial Mediterranean Fever (FMF)   | elevated BMI<br>Hx: hypertension<br>diabetes mellitus | fever (time since onset: more than one year high grade: no)<br>myalgia (time since onset: more than one year)<br>arthralgia (time since onset: more than one year)<br>hyperhidrosis, generalized (night sweats: yes time since onset: more than one year)<br>dyspnea (severity: on exertion)<br>CRP, elevated<br>reduced exercise tolerance<br>diverticula<br>splenomegaly<br>steatosis hepatis<br>ovarian cyst seen on imaging   |                     | leukocytosis<br>antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present<br>antimitochondrial antibody<br>anti-smooth-muscle antibodies<br>vasculitis  |
| <b>34</b>  |        |     |  |   |   |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit</b>                       | Male   | 50  |  |   | swelling, wrist (time since onset: more than one year)<br>arthritis, wrist (time since onset: more than one year)<br>swelling, ankle joint (laterality: bilateral)<br>arthritis, ankle<br>carpal tunnel syndrome  |                     |   |

|  |        |     |                      |   |   |                     |  |
|--|--------|-----|----------------------|---|---|---------------------|--|
| <b>Diagnosis</b>                                   | Male   | 59  | Whipple disease      | smoker<br>elevated BMI                      | swelling, wrist (time since onset: more than one year)<br>swelling, ankle joint (laterality: bilateral time since onset: more than one year)<br>swelling, finger joints (time since onset: more than one year)<br>swelling, toe joint (time since onset: more than one year)<br>swelling, knee (time since onset: more than one year)<br>wrist pain (time since onset: more than one year laterality: bilateral)<br>ankle pain (time since onset: more than one year laterality: bilateral)<br>finger joint pain (laterality: bilateral time since onset: more than one year)<br>toe pain (laterality: bilateral time since onset: more than one year)<br>knee pain (laterality: bilateral time since onset: more than one year)<br>generalized arthralgia (time since onset: more than one year)<br>effusion, wrist<br>tendinitis, hand and wrist<br>CRP, elevated<br>gamma gt level, elevated<br>uric acid level (result: elevated)<br>peripheral edema (pitting)<br>back pain (time since onset: more than one year)<br>hip pain (time since onset: more than one year)<br>paresthesia of the hand (distribution: asymmetrical time since onset: more than one year)<br>feeling of lump in the throat<br>hyperhidrosis, generalized (night sweats: yes time since onset: more than one year)<br>arthritis (time since onset: more than one year)<br>effusion, knee<br>effusion, ankle<br>right ventricular pressure, elevated<br>pulmonary hypertension<br>erythrocyte sedimentation rate (result: elevated)<br>antinuclear antibody level, elevated<br>helicobacter pylori in stomach/duodenum<br>erosions and ulcerations of the stomach<br>mesenteric lymphadenopathy<br>morning stiffness<br>reduced exercise tolerance<br>abdominal pain (position: upper left quadrant)<br>flank pain (side: left)<br>abdominal tenderness<br>loss of appetite<br>weight loss<br>steatosis hepatitis<br>elevated skin temperature of the joint<br>myalgia<br>elevated skin temperature of the ankle<br>anti-SRP antibodies<br>fever<br>Tropheryma whipplei   |                     | elevated rheumatoid factor<br>antineutrophil cytoplasmic antibodies present<br>anti-cyclic citrullinated protein antibodies<br>HLA-B27 positive<br>alanine transaminase level, elevated<br>aspartate transaminase level, elevated<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sci-70<br>anti-Jo 1 antibodies   |
| <b>35</b>  |        |     |                      |   |   |                     |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                        | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit (&lt;= 1 month early)</b> | Male   | 28  |                      | Recent travel to tropic<br>Hx: hypertension | fatigue<br>pruritus, upper extremity<br>pruritus, lower extremity<br>fever (time since onset: one week to one month)<br>cough (clear or yellow phlegm: yes time since onset: one week to one month)<br>sputum (bloody: no time since onset: one week to one month)<br>nasal discharge (time since onset: one week to one month)<br>dyspnea (time since onset: one week to one month)<br>left ventricular dilatation<br>cardiac ejection fraction (result: reduced)<br>pericardial effusion<br>serum cardiac troponin level, elevated<br>dilated cardiomyopathy<br>renal insufficiency<br>glomerular filtration rate, reduced  |                     | stenosis of the coronary artery  |
| <b>Diagnosis</b>                                   | Male   | 28  | Takayasu's arteritis | Recent travel to tropic<br>Hx: hypertension | fatigue<br>pruritus, upper extremity (time since onset: one month to one year)<br>pruritus, lower extremity (time since onset: one month to one year)<br>fever (time since onset: one month to one year)<br>cough (clear or yellow phlegm: yes time since onset: one month to one year)<br>sputum (bloody: no time since onset: one month to one year)<br>nasal discharge (time since onset: one month to one year)<br>dyspnea (time since onset: one month to one year)<br>left ventricular dilatation<br>cardiac ejection fraction (result: reduced)<br>pericardial effusion<br>serum cardiac troponin level, elevated<br>dilated cardiomyopathy<br>renal insufficiency<br>glomerular filtration rate, reduced<br>myocarditis<br>hypertrophic cardiomyopathy  |                     | stenosis of the coronary artery<br>antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present   |
| <b>36</b>  |        |     |                      |   |   |                     |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors                        | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>                                | Female | 56  |                      |   | hip pain (laterality: bilateral intensity: severe time since onset: more than one year)<br>gait impairment<br>paresthesia of the lower extremity (distribution: symmetrical time since onset: one month to one year)<br>lower leg pain (laterality: bilateral time since onset: one month to one year)<br>chills (time since onset: one month to one year)<br>hyperhidrosis, generalized (night sweats: yes paroxysmal sweats: yes time since onset: more than one year)<br>chest pain (time since onset: one month to one year)<br>flushing (time since onset: one month to one year)<br>alopecia (time since onset: one month to one year)<br>loose teeth<br>headache (time since onset: one month to one year)<br>palpitation (time since onset: one month to one year)<br>chest tightness (time since onset: one month to one year)<br>high blood pressure (time since onset: one month to one year)<br>agitation<br>swelling of the lower leg (laterality: bilateral time since onset: one month to one year)<br>lower extremity pain (laterality: bilateral time since onset: one month to one year)<br>fever (time since onset: one month to one year)<br>erythema of the trunk<br>erythema of the cheeks<br>erythema of the thigh<br>vaginal wall bleeding<br>Insulin-like growth factor 1 level (result: elevated)<br>lowered skin temperature of the leg<br>lowered skin temperature of the foot<br>increased urinary frequency<br>constipation<br>MCP I joint pain (laterality: bilateral)<br>limited range of motion of the MCP I joint<br>dyspnea (severity: on exertion)<br>painful dysesthesia of the lower extremity (distribution: symmetrical)<br>groin pain<br>vertigo<br>facial pain<br>sinus pain<br>swelling of the nasal and sinus mucosa<br>gastroesophageal reflux<br>swelling of the eyelid<br>polydipsia<br>swelling, ankle joint<br>abdominal pain (position: epigastric)<br>feeling of lump in the throat<br>temporomandibular joint pain<br>crepitus, temporomandibular joint<br>disc displacement of the temporomandibular joint<br>bone degeneration of the temporomandibular joint<br>fatigue<br>finger joint pain (laterality: bilateral)<br>tenderness, finger joint (laterality: bilateral)<br>tenderness, hip (laterality: bilateral)<br>sensory deficit, lower extremity (distribution: bilateral, symmetrical)<br>antinuclear antibody level, elevated<br>anti-PmScl antibody titer<br>anti-PL 12 antibodies<br>elevated rheumatoid factor |                     | diminished lower extremity pulse<br>deep vein thrombosis in the lower extremity<br>pulmonary embolism<br>intracerebral mass<br>aneurysm of the intracranial arteries<br>increased intracranial pressure<br>air-fluid levels in the sinus<br>serum cardiac troponin level, elevated<br>sinusitis<br>thyroid stimulating hormone level<br>enlarged thyroid gland<br>hearing deficit<br>anti-dsDNA antibodies<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-La (SS-B)-autoantibodies<br>anti-SSA autoantibodies<br>anti-Sci-70<br>anti-Jo 1 antibodies<br>MI-2 antibody titer<br>anti-EJ antibodies<br>anticardiolipin antibodies, elevated<br>anti-alpha-fodrin antibodies<br>complement C3 level<br>complement C4 level |

|   |        |     |   |                         |  |                     |   |
|---|--------|-----|---|-------------------------|--|---------------------|---|
| <b>Diagnosis</b>                          | Female | 57  | Polymyositis/scleroderma overlap                  |                         | <p>hip pain (laterality: bilateral intensity: severe time since onset: more than one year)</p> <p>gait impairment</p> <p>paresthesia of the lower extremity (distribution: symmetrical time since onset: one month to one year)</p> <p>lower leg pain (laterality: bilateral time since onset: one month to one year)</p> <p>chills (time since onset: one month to one year)</p> <p>hyperhidrosis, generalized (night sweats: yes paroxysmal sweats: yes time since onset: more than one year)</p> <p>flushing (time since onset: one month to one year)</p> <p>alopecia (time since onset: one month to one year)</p> <p>loose teeth</p> <p>headache (time since onset: one month to one year)</p> <p>palpitation (time since onset: one month to one year)</p> <p>high blood pressure (time since onset: one month to one year)</p> <p>agitation</p> <p>lower extremity pain (laterality: bilateral time since onset: one month to one year)</p> <p>erythema of the trunk</p> <p>erythema of the cheeks</p> <p>erythema of the thigh</p> <p>vaginal wall bleeding</p> <p>Insulin-like growth factor 1 level (result: elevated)</p> <p>lowered skin temperature of the leg</p> <p>lowered skin temperature of the foot</p> <p>MCP 1 joint pain (laterality: bilateral)</p> <p>limited range of motion of the MCP 1 joint</p> <p>painful dysesthesia of the lower extremity (distribution: symmetrical)</p> <p>groin pain</p> <p>vertigo</p> <p>facial pain</p> <p>sinus pain</p> <p>swelling of the nasal and sinus mucosa</p> <p>gastroesophageal reflux</p> <p>polydipsia</p> <p>feeling of lump in the throat</p> <p>temporomandibular joint pain</p> <p>ostitis, temporomandibular joint</p> <p>disc displacement of the temporomandibular joint</p> <p>bone degeneration of the temporomandibular joint</p> <p>finger joint pain (laterality: bilateral)</p> <p>tenderness, finger joint (laterality: bilateral)</p> <p>tenderness, hip (laterality: bilateral)</p> <p>lower back pain</p> <p>lowered skin temperature of the hand</p> <p>morning stiffness</p> <p>swelling, PIP joints (finger)</p> <p>anti-PmScl antibody titer</p> <p>antinuclear antibody level, elevated</p> <p>periorbital pain</p> <p>anti-PL 12 antibodies</p> <p>proteinuria</p> <p>glomerular filtration rate, reduced</p> <p>flank pain</p> <p>leukocyturia</p> <p>brain white matter lesion</p> <p>pruritus, trunk</p> <p>pruritus, palms</p> <p>erythema nodosum</p> |                     | <p>fever</p> <p>diminished lower extremity pulse</p> <p>deep vein thrombosis in the lower extremity</p> <p>pulmonary embolism</p> <p>intracerebral mass</p> <p>aneurysm of the intracranial arteries</p> <p>increased intracranial pressure</p> <p>air-fluid levels in the sinus</p> <p>serum cardiac troponin level, elevated</p> <p>sinusitis</p> <p>thyroid stimulating hormone level</p> <p>enlarged thyroid gland</p> <p>hearing deficit</p> <p>leukocyte glucocerebrosidase activity</p> <p>limited range of motion of hip joint</p> <p>EMG abnormalities</p> <p>slowed nerve conduction velocity</p> <p>creatine kinase level, elevated</p> <p>anti-dsDNA antibodies</p> <p>elevated rheumatoid factor</p> <p>anti-Sm antibodies</p> <p>anti-SSA autoantibodies</p> <p>anti-La (SS-B)-autoantibodies</p> <p>anti-U1-RNP antibodies</p> <p>anti-Scl-70</p> <p>anti-Jo 1 antibodies</p> <p>Mi-2 antibody titer</p> <p>anti-EJ antibodies</p> <p>anticardiolipin antibodies, elevated</p> <p>anti-alpha-fodrin antibodies</p> <p>complement C3 level</p> <p>complement C4 level</p> |
| <b>37</b>                                 |        |     |   |                         |  |                     |   |
| <b>Visit</b>                              | Sex    | Age | Confirmed Diagnoses                               | Present Risk Factors    | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit (&lt;= 1 month early)</b> | Female | 28  |   | Recent travel to tropic | <p>cheek pain (time since onset: one month to one year)</p> <p>otalgia (time since onset: one month to one year)</p> <p>facial pain (time since onset: one month to one year)</p> <p>anterior neck pain (position: lateral time since onset: one month to one year)</p> <p>dizziness (time since onset: one month to one year)</p> <p>headache (laterality: unilateral)</p> <p>weight loss</p> <p>erythrocyte sedimentation rate (result: elevated)</p> <p>stenosis of the carotid artery</p>  |                     |   |
| <b>Diagnosis</b>                          | Female | 28  | Takayasu's arteritis                              | Recent travel to tropic | <p>cheek pain (time since onset: one month to one year)</p> <p>otalgia (time since onset: one month to one year)</p> <p>facial pain (time since onset: one month to one year)</p> <p>anterior neck pain (position: lateral time since onset: one month to one year)</p> <p>dizziness (time since onset: one month to one year)</p> <p>headache (laterality: unilateral time since onset: one month to one year)</p> <p>erythrocyte sedimentation rate (result: elevated)</p> <p>stenosis of the carotid artery</p> <p>vasculitis</p> <p>reduced exercise tolerance</p> <p>epistaxis</p>  |                     | <p>weight loss</p> <p>hyperhidrosis, generalized</p> <p>chest pain</p> <p>syncope</p> <p>dyspnea</p> <p>tricolor pattern of discoloration of the fingers and toes</p> <p>impaired vision</p> <p>arthralgia</p> <p>skin rash</p> <p>paresthesia</p> <p>muscle cramps</p> <p>dysuria</p> <p>stenosis of the renal artery</p>  |
| <b>38</b>                                 |        |     |   |                         |  |                     |   |
| <b>Visit</b>                              | Sex    | Age | Confirmed Diagnoses                               | Present Risk Factors    | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                          | Male   | 45  | Thrombangiitis obliterans<br>Panarteritis nodosa  |                         | <p>thrombosis, portal vein</p> <p>deep vein thrombosis in the lower extremity</p> <p>generalized lymphadenopathy</p> <p>splenic artery thrombosis</p> <p>malaise</p> <p>fever</p> <p>foot pain</p> <p>lower back pain</p> <p>cachexia</p> <p>peripheral edema (pitting) (laterality: bilateral)</p> <p>oropharyngeal candidiasis</p> <p>submandibular lymphadenopathy (consistency: soft mobility: mobile tenderness: non-tender)</p> <p>erythema of the palm</p> <p>caput medusae</p> <p>hepatomegaly</p> <p>necrosis of the toes</p> <p>blue skin, foot</p> <p>vasculitis</p>  |                     | <p>antiphospholipid antibodies, elevated</p> <p>plasma cell infiltration</p> <p>cough</p> <p>sputum</p> <p>disorientation</p> <p>partial loss of consciousness</p> <p>distended jugular veins</p> <p>scleral icterus</p> <p>change in pupil diameter</p> <p>anisocoria</p> <p>conjunctival injection</p> <p>oculomotor nerve palsy</p> <p>dry mouth</p> <p>cranial nerve disorder</p> <p>enlarged thyroid gland</p> <p>axillary lymphadenopathy</p> <p>inguinal lymphadenopathy</p> <p>facial pallor</p> <p>jaundice</p> <p>cytopenia</p> <p>prolonged capillary refill</p> <p>spider angiomas</p> <p>nail clubbing</p> <p>abdominal mass on examination</p> <p>pallor of upper extremity</p> <p>pallor of lower extremity</p> <p>increased range of joint motion</p> <p>purpura</p> <p>petechiae</p>   |
| <b>39</b>                                 |        |     |   |                         |  |                     |   |
| <b>Visit</b>                              | Sex    | Age | Confirmed Diagnoses                               | Present Risk Factors    | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>                       | Male   | 12  |   |                         | <p>abdominal pain (time since onset: more than one year)</p> <p>fever (time since onset: more than one year high grade: yes)</p> <p>diarrhea (time since onset: more than one year)</p> <p>swelling, knee (time since onset: more than one year laterality: unilateral)</p> <p>hip pain (time since onset: more than one year laterality: unilateral)</p> <p>conjunctivitis (time since onset: more than one year)</p> <p>periorbital swelling (time since onset: more than one year)</p> <p>fatigue</p> <p>CRP, elevated</p> <p>erythrocyte sedimentation rate (result: elevated)</p> <p>leukocytosis</p> <p>erythema of the skin, localized (time since onset: more than one year)</p>   |                     |   |
| <b>Top Fit</b>                            | Male   | 13  |   |                         | <p>abdominal pain (time since onset: more than one year)</p> <p>fever (time since onset: more than one year high grade: yes)</p> <p>diarrhea (time since onset: more than one year)</p> <p>swelling, knee (time since onset: more than one year laterality: unilateral)</p> <p>hip pain (time since onset: more than one year laterality: unilateral)</p> <p>conjunctivitis (time since onset: more than one year)</p> <p>periorbital swelling (time since onset: more than one year)</p> <p>fatigue</p> <p>CRP, elevated</p> <p>erythrocyte sedimentation rate (result: elevated)</p> <p>leukocytosis</p> <p>erythema of the skin, localized (time since onset: more than one year)</p> <p>hyperhidrosis, generalized (night sweats: yes time since onset: one month to one year)</p>   |                     |   |
| <b>Diagnosis</b>                          | Male   | 40  | TNF receptor associated periodic syndrome (TRAPS) |                         | <p>TNFRSF1A gene mutation</p> <p>serum creatinine level (result: elevated)</p> <p>proteinuria (intensity: moderate to severe)</p> <p>amyloid protein deposition</p> <p>splenomegaly</p> <p>mesenteric lymphadenopathy</p> <p>weight loss (more than 10% of body weight within six months: no)</p> <p>pericarditis</p> <p>epididymitis</p> <p>abdominal pain (time since onset: more than one year)</p> <p>fever (time since onset: more than one year high grade: yes)</p> <p>diarrhea (time since onset: more than one year)</p> <p>swelling, knee (time since onset: more than one year laterality: unilateral)</p> <p>hip pain (time since onset: more than one year laterality: unilateral)</p> <p>conjunctivitis (time since onset: more than one year)</p> <p>periorbital swelling (time since onset: more than one year)</p> <p>fatigue</p> <p>CRP, elevated</p> <p>erythrocyte sedimentation rate (result: elevated)</p> <p>leukocytosis</p> <p>hypoalbuminemia</p> <p>erythema of the skin, localized (time since onset: more than one year)</p> <p>hyperhidrosis, generalized (night sweats: yes time since onset: one month to one year)</p>  |                     | <p>antinuclear antibody level, elevated</p> <p>antimitochondrial antibody</p> <p>cytoplasmic antineutrophil cytoplasmic antibodies present</p> <p>anti-smooth-muscle antibodies</p> <p>anti-Saccharomyces cerevisiae antibodies</p> <p>gladin antibodies</p>  |
| <b>40</b>                                 |        |     |   |                         |  |                     |   |
| <b>Visit</b>                              | Sex    | Age | Confirmed Diagnoses                               | Present Risk Factors    | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |

|                              |        |     |  |                      |  |                     |  |
|------------------------------|--------|-----|--|----------------------|--|---------------------|--|
| <b>Diagnosis</b>             | Female | 36  | Familial Mediterranean Fever (FMF)<br>Behcet's disease   |                      | fever (time since onset: more than one year high grade: no)<br>malaise<br>reduced exercise tolerance (time since onset: more than one year)<br>AV block second degree<br>lower back pain (Intensity: severe time since onset: more than one year)<br>double vision (time since onset: more than one year)<br>arthritis, shoulder (time since onset: more than one year)<br>myalgia (time since onset: more than one year)<br>proteinuria (intensity: trace to mild)<br>headache (time since onset: one month to one year)<br>perioral paresthesia (time since onset: one month to one year)<br>sensory deficit, face (distribution: unilateral time since onset: one month to one year)<br>finger pain (laterality: unilateral time since onset: one month to one year)<br>CRP, elevated<br>leukocytosis<br>erythrocyte sedimentation rate (result: elevated)<br>procalcitonin level, elevated<br>alpha 2 globulin level (result: elevated)<br>temporary loss of consciousness<br>aphthous ulcerations of the oral cavity (time since onset: more than one year)<br>mesangial cell proliferation<br>microhematuria<br>inflammatory back pain<br>MEFV gene mutation<br>aphthous ulcerations of the genital area |                     | eosinophilia in blood<br>antinuclear antibody level, elevated<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>perinuclear anti-neutrophil cytoplasmic antibodies present<br>anticardiolipin antibodies, elevated<br>anti-dsDNA antibodies<br>thyroid peroxidase antibodies<br>thyrotropin receptor antibodies<br>thyroglobulin antibodies  |
| <b>41</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b> | Male   | 8   |  |                      | fever (high grade: yes time since onset: more than one year)<br>urticaria (time since onset: more than one year)<br>arthritis, knee (time since onset: more than one year)   |                     |  |
| <b>Diagnosis</b>             | Male   | 37  | TNF receptor associated periodic syndrome (TRAPS)<br>Cryopyrin-associated periodic syndrome (CAPS) |                      | fever (high grade: yes time since onset: more than one year)<br>urticaria (time since onset: more than one year)<br>arthritis, knee (time since onset: more than one year)<br>sensorineural hearing deficit (laterality: bilateral)<br>panic attacks<br>supraventricular arrhythmias in ECG<br>CRP, elevated<br>arthritis (time since onset: more than one year)<br>TNFRSF1A gene mutation<br>NLRP3 gene mutation  |                     |  |
| <b>42</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b> | Female | 15  |  |                      | lower back pain (time since onset: one month to one year Intensity: severe)<br>sinusitis<br>CRP, elevated<br>papule on the scalp<br>papule on the upper extremity<br>papule on the lower extremity<br>reduced exercise tolerance (time since onset: one month to one year)<br>osteomyelitis<br>antinuclear antibody level, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>IgG level (result: elevated)<br>platelet count (result: elevated)<br>anemia<br>aspartate transaminase level, elevated<br>alanine transaminase level, elevated<br>gamma gt level, elevated<br>fever (time since onset: one month to one year high grade: no)<br>dry skin on other location<br>leukocytosis  |                     | dyspnea<br>tachypnea<br>anti-dsDNA antibodies<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-La (SS-B)-autoantibodies<br>anti-SSA autoantibodies<br>anti-Scl-70<br>anti-Jo 1 antibodies<br>lactate dehydrogenase level, elevated<br>alkaline phosphatase level<br>serum creatinine level<br>proteinuria<br>pitted nails<br>oil drop nail<br>endocarditis<br>swelling, joint<br>abdominal tenderness<br>hepatomegaly<br>splenomegaly<br>abdominal distension<br>abdominal pain<br>abdominal mass on examination  |
| <b>Diagnosis</b>             | Female | 15  | Takayasu's arteritis   |                      | lower back pain (time since onset: one month to one year Intensity: severe)<br>sinusitis<br>CRP, elevated<br>papule on the scalp<br>papule on the upper extremity<br>papule on the lower extremity<br>reduced exercise tolerance (time since onset: one month to one year)<br>dyspnea<br>osteomyelitis<br>antinuclear antibody level, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>IgG level (result: elevated)<br>anemia<br>gamma gt level, elevated<br>serum creatinine level (result: elevated)<br>fever (time since onset: one month to one year high grade: no)<br>dry skin on other location<br>abdominal pain (position: epigastric eating: no effect)<br>flank pain (side: bilateral)<br>vomiting (time since onset: one week to one month)<br>loss of appetite<br>high blood pressure<br>facial pallor<br>serum CA-125 level, elevated<br>blood urea nitrogen level (result: elevated)<br>convulsion<br>fecal calprotectin, elevated<br>stenosis of the renal artery<br>stenosis of the mesenteric artery   |                     | tachypnea<br>anti-dsDNA antibodies<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-La (SS-B)-autoantibodies<br>anti-SSA autoantibodies<br>anti-Scl-70<br>anti-Jo 1 antibodies<br>platelet count<br>aspartate transaminase level, elevated<br>alanine transaminase level, elevated<br>lactate dehydrogenase level, elevated<br>alkaline phosphatase level<br>proteinuria<br>pitted nails<br>oil drop nail<br>endocarditis<br>swelling, joint<br>abdominal tenderness<br>hepatomegaly<br>splenomegaly<br>abdominal distension<br>abdominal mass on examination<br>leukocyte level<br>cervical lymphadenopathy<br>glomerulonephritis<br>gladin antibodies |
| <b>43</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>          | Female | 56  |  |                      | cough (bloody: yes time since onset: one month to one year)<br>weight loss<br>pulmonary nodules<br>cytoplasmic antineutrophil cytoplasmic antibodies present<br>epistaxis<br>CRP, elevated   |                     | glomerulonephritis<br>glomerular filtration rate, reduced  |
| <b>Diagnosis</b>             | Female | 59  | Sarcoidosis  |                      | pulmonary nodules<br>epistaxis (time since onset: more than one year)<br>hyperhidrosis, generalized (time since onset: one month to one year)<br>proteinase 3 antibody titer, elevated<br>fatigue (time since onset: more than one year)<br>hemoptysis (time since onset: one month to one year)<br>reduced exercise tolerance (time since onset: one month to one year)<br>dyspnea (severity: on exertion time since onset: one month to one year)<br>pulmonary radiopacity<br>adrenal mass seen on imaging<br>nasal discharge (appearance: crusty)<br>urinary tract infection<br>thyroid stimulating hormone level (result: reduced)<br>knee pain<br>elbow pain<br>cervical lymphadenopathy<br>sore throat<br>gingivitis<br>facial swelling<br>peripheral edema (pitting)<br>submandibular lymphadenopathy<br>skin abscess<br>facial nerve palsy<br>lagophthalmos<br>microcytic anemia<br>hyperkalemia<br>eosinophils in bronchoalveolar lavage<br>Melkersson-Rosenthal syndrome   |                     | cough<br>CRP, elevated<br>glomerulonephritis<br>glomerular filtration rate, reduced<br>arthralgia<br>procalcitonin level, elevated<br>proteinuria<br>fever<br>dysuria  |
| <b>44</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>          | Female | 16  |  |                      | leukopenia<br>neutropenia<br>splenomegaly<br>submandibular lymphadenopathy<br>microcytic anemia<br>erythrocyte sedimentation rate (result: elevated)   |                     |  |
| <b>Top Fit</b>               | Female | 23  |  |                      | leukopenia<br>neutropenia<br>splenomegaly<br>submandibular lymphadenopathy<br>microcytic anemia<br>erythrocyte sedimentation rate (result: elevated)<br>lower back pain (time since onset: more than one year radiating down the leg: yes)<br>reduced exercise tolerance (time since onset: more than one year)<br>imbalance (time since onset: more than one year)<br>renal cysts<br>disc herniation<br>arthritis, PIP joints (finger)<br>wrist pain (laterality: bilateral)<br>knee pain (laterality: unilateral)<br>ankle pain (laterality: bilateral)<br>hip pain (laterality: unilateral)<br>limited range of motion of the finger joints   |                     | swelling, joint  |



|                              |        |     |  |                      |  |                     |  |
|------------------------------|--------|-----|--|----------------------|--|---------------------|--|
| <b>Diagnosis</b>             | Female | 27  | Felty syndrome                                   |                      | leukopenia<br>neutropenia<br>splenomegaly<br>submandibular lymphadenopathy<br>microcytic anemia<br>erythrocyte sedimentation rate (result: elevated)<br>lower back pain (time since onset: more than one year radiating down the leg: yes)<br>reduced exercise tolerance (time since onset: more than one year)<br>imbalance (time since onset: more than one year)<br>renal cysts<br>disc herniation<br>arthritis, PIP joints (finger) (time since onset: more than one year)<br>wrist pain (laterality: bilateral time since onset: more than one year)<br>knee pain (laterality: unilateral time since onset: one month to one year)<br>ankle pain (laterality: bilateral time since onset: one month to one year)<br>hip pain (laterality: unilateral time since onset: more than one year)<br>limited range of motion of the finger joints (time since onset: more than one year)<br>proof of miscarriage<br>thrombophlebitis<br>neck pain (time since onset: more than one year)<br>gait impairment (time since onset: more than one year)<br>dizziness (time since onset: more than one year)<br>headache (time since onset: one month to one year)<br>dyspnea (severity: on exertion time since onset: one month to one year)<br>calf pain (laterality: bilateral time since onset: one month to one year)<br>muscular atrophy of the lower limb (time since onset: one month to one year)<br>paresthesia of the hand (time since onset: one month to one year)<br>paresthesia of the lower extremity (time since onset: one month to one year)<br>foot pain (laterality: bilateral time since onset: one month to one year)<br>painful dysesthesia of the lower extremity (time since onset: one month to one year)<br>painful dysesthesia of the upper extremity (time since onset: one month to one year)<br>hepatomegaly<br>nephrocalcinosis<br>hypophosphatemia<br>granulocytopenia |                     | swelling, joint<br>peripheral vascular disease<br>decreased venous flow in the lower extremity<br>hyperreflexia, upper limb<br>hyperreflexia, lower limb<br>diminished reflexes, upper limb<br>diminished reflexes, lower limb<br>pulmonary embolism<br>myositis<br>peripheral polyneuropathy<br>pulmonary infiltrates<br>pulmonary mass |
| <b>45</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                              | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>          | Female | 32  |  |                      | neck pain (time since onset: one month to one year)<br>leukocytosis<br>thrombocytosis<br>swelling, wrist (time since onset: one month to one year)<br>wrist pain (time since onset: one month to one year)<br>increased range of joint motion<br>shoulder pain (laterality: unilateral)<br>elbow pain (laterality: unilateral)<br>knee pain (laterality: unilateral)<br>heel pain (laterality: bilateral)<br>lower back pain<br>gluteal pain   |                     | HLA-B27 positive   |
| <b>Diagnosis</b>             | Female | 32  | Ankylosing spondylitis (Spondyloarthritis)       |                      | neck pain (time since onset: one month to one year)<br>leukocytosis<br>thrombocytosis<br>swelling, wrist (time since onset: one month to one year)<br>wrist pain (time since onset: one month to one year)<br>increased range of joint motion<br>shoulder pain (laterality: unilateral)<br>elbow pain (laterality: unilateral)<br>knee pain (laterality: unilateral)<br>heel pain (laterality: bilateral)<br>lower back pain<br>gluteal pain<br>HLA-B51 positive   |                     | HLA-B27 positive   |
| <b>46</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                              | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Diagnosis</b>             | Female | 54  | Psoriatic arthritis (Spondyloarthritis)          |                      | antinuclear antibody level, elevated<br>creatinine kinase level, elevated<br>weight gain (rapid: no)<br>erythema of the trunk (scaly surface: yes time since onset: more than one year)<br>cholesterol level (result: elevated)<br>thyroid stimulating hormone level (result: elevated)<br>scaling skin of the extensor surfaces of the extremities<br>arthralgia (time since onset: more than one year)<br>morning stiffness (time since onset: one month to one year)<br>enthesitis<br>fatigue<br>shoulder pain (laterality: unilateral)<br>exocrine dysfunction of the pancreas<br>tenderness, MCP joints (laterality: bilateral)<br>tenderness, MTP joints (laterality: bilateral)<br>general muscle weakness (time since onset: more than one year)<br>myalgia (time since onset: more than one year)<br>skin rash of the extensor surfaces of the extremities (elevated: yes time since onset: more than one year)<br>heel pain<br>dry eye<br>effusion, knee<br>tenderness, knee<br>tenderness, hip  |                     | CRP elevated   |
| <b>47</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                              | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Diagnosis</b>             | Male   | 48  | Thrombotic thrombocytopenic purpura (TTP)        |                      | vertigo<br>imbalance<br>thrombocytopenia<br>alanine transaminase level, elevated<br>impaired concentration<br>reduced exercise tolerance (time since onset: one day to one week)<br>lactate dehydrogenase level, elevated<br>serum creatinine level (result: elevated)<br>glomerular filtration rate, reduced<br>blood urea nitrogen level (result: elevated)<br>aspartate transaminase level, elevated<br>lipase level, elevated<br>procalcitonin level, elevated<br>hemoglobin level (result: reduced)<br>d-dimer level in blood, elevated<br>ADAMTS-13 activity, decreased<br>trigeminal nerve disorder<br>schistocytes<br>partial loss of consciousness  |                     |  |
| <b>48</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                              | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Diagnosis</b>             | Female | 66  | Cryoglobulinemia                                 |                      | extremity pain (time since onset: one month to one year)<br>painful dysesthesia of the hand (distribution: asymmetrical time since onset: one month to one year)<br>neck pain (time since onset: one month to one year)<br>limited range of motion of the wrist (time since onset: one month to one year)<br>weight loss<br>complement C3 level (result: elevated)<br>CRP, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>alpha 2 globulin level (result: elevated)<br>ferritin level (result: elevated)<br>alanine transaminase level, elevated<br>stenosis of the subclavian artery<br>pathologically increased cryoglobulin level<br>erosion and ulceration of the lower extremity<br>elevated rheumatoid factor  |                     | proteinase 3 antibody titer, elevated<br>myeloperoxidase antibodies present<br>complement C4 level<br>antinuclear antibody level, elevated   |
| <b>49</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                              | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b> | Male   | 38  |  |                      | proof of acute pancreatitis<br>hypothyroidism<br>antinuclear antibody level, elevated  |                     | anti-dsDNA antibodies  |
| <b>Diagnosis</b>             | Male   | 47  | IgG4-related disease                             | smoker               | proof of acute pancreatitis<br>hypothyroidism<br>antinuclear antibody level, elevated<br>obstructive sleep apnea<br>thyroid stimulating hormone level (result: elevated)<br>thyroid peroxidase antibodies<br>free T4 (result: reduced)<br>leukocytosis<br>lipase level, elevated<br>CRP, elevated<br>gallstone<br>gamma gt level, elevated<br>pruritus<br>speech difficulties<br>stenosis of the carotid artery<br>vasculitis<br>dilated cardiomyopathy<br>bradycardia on ECG<br>atrioventricular dissociation<br>erythrocyte sedimentation rate (result: elevated)<br>perinuclear anti-neutrophil cytoplasmic antibodies present<br>parathyroid hormone level (result: elevated)<br>microcytic anemia<br>depressed mood<br>nausea<br>weight loss<br>IgG4 level (result: elevated)   |                     | pancreatic pseudocyst/ cyst<br>transaminase levels, elevated<br>cardiac ejection fraction<br>calcium level<br>anti-dsDNA antibodies  |
| <b>50</b>                    |        |     |  |                      |  |                     |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                              | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Diagnosis</b>             | Male   | 70  | IgG4-related disease<br>Retroperitoneal fibrosis |                      | dilated renal calyces<br>ureteric stenosis<br>serum creatinine level (result: elevated)<br>CRP, elevated<br>periaortic fibrotic mass<br>splenic mass seen on imaging<br>hydronephrosis<br>retroperitoneal fibrosis<br>predominance of IgG4 positive plasma cells in histopathology<br>plasma cell infiltration   |                     | flank pain<br>renal mass seen on imaging<br>Lymphadenopathy on investigation   |
| <b>51</b>                    |        |     |  |                      |  |                     |  |

| Visit                        | Sex        | Age        | Confirmed Diagnoses                | Present Risk Factors        | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors        | Non-pathological Symptoms/Findings  |
|------------------------------|------------|------------|------------------------------------|-----------------------------|--|----------------------------|---|
| <b>Top Five Fit, Top Fit</b> | Female     | 23         |                                    | pregnancy, confirmed        | chest pain (position: bilateral sharp: yes)<br>pleuritis<br>pleural effusion<br>fever<br>splenomegaly<br>CRP, elevated<br>d-dimer level in blood, elevated<br>loss of appetite<br>nausea<br>malaise<br>sinus tachycardia<br>microcytic anemia  |                            | serum creatinine level<br>antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present<br>HLA-B27 positive<br>anticardiolipin antibodies, elevated<br>anti-beta 2 glycoprotein antibodies, elevated<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sm antibodies<br>pleural empyema   |
| <b>Diagnosis</b>             | Female     | 25         | Familial Mediterranean Fever (FMF) |                             | chest pain (position: bilateral sharp: yes time since onset: one month to one year)<br>pleuritis<br>pleural effusion<br>fever (time since onset: one month to one year)<br>splenomegaly<br>CRP, elevated<br>d-dimer level in blood, elevated<br>loss of appetite (time since onset: one month to one year)<br>malaise (time since onset: one month to one year)<br>sinus tachycardia<br>microcytic anemia<br>hypothyroidism<br>lactate dehydrogenase level, elevated<br>lymphopenia<br>sodium level (result: reduced)<br>calcium level (result: reduced)<br>cervical inflammation<br>dyspnea<br>chills<br>MEFV gene mutation   |                            | serum creatinine level<br>antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present<br>HLA-B27 positive<br>anticardiolipin antibodies, elevated<br>anti-beta 2 glycoprotein antibodies, elevated<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sm antibodies<br>right ventricular pressure, elevated<br>right ventricular enlargement<br>anti-dsDNA antibodies<br>pleural empyema |
| <b>52</b>                    |            |            |                                    |                             |  |                            |   |
| <b>Visit</b>                 | <b>Sex</b> | <b>Age</b> | <b>Confirmed Diagnoses</b>         | <b>Present Risk Factors</b> | <b>Pathological Symptoms/Findings (with attributes)</b>  | <b>Absent Risk Factors</b> | <b>Non-pathological Symptoms/Findings</b>   |
| <b>Diagnosis</b>             | Male       | 55         | Systemic sclerosis (renal crisis)  |                             | fatigue<br>reduced exercise tolerance (time since onset: one month to one year)<br>malaise (time since onset: one month to one year)<br>tricolor pattern of discoloration of the fingers and toes (time since onset: one month to one year)<br>weight loss<br>arthralgia (time since onset: one month to one year)<br>serum creatinine level (result: elevated)<br>anti-Scl-70<br>restless legs  |                            |   |
| <b>53</b>                    |            |            |                                    |                             |  |                            |   |
| <b>Visit</b>                 | <b>Sex</b> | <b>Age</b> | <b>Confirmed Diagnoses</b>         | <b>Present Risk Factors</b> | <b>Pathological Symptoms/Findings (with attributes)</b>  | <b>Absent Risk Factors</b> | <b>Non-pathological Symptoms/Findings</b>   |
| <b>Top Five Fit</b>          | Female     | 37         |                                    |                             | swelling, MCP joints (time since onset: one month to one year)<br>swelling of the fingers (time since onset: one month to one year)<br>myalgia (time since onset: one month to one year)<br>lower extremity pain (time since onset: one month to one year)<br>tricolor pattern of discoloration of the fingers and toes (time since onset: one month to one year)<br>erythema of the forearm<br>CRP, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>leukocytosis<br>anemia<br>neutrophilia<br>lymphopenia<br>creatinine kinase level, elevated<br>cardiac CK-MB level, elevated<br>hypoalbuminemia<br>alpha 2 globulin level (result: elevated)<br>antinuclear antibody level, elevated<br>antimitochondrial antibody  |                            | anti-dsDNA antibodies   |
| <b>Top Fit</b>               | Female     | 42         |                                    |                             | swelling, MCP joints (time since onset: one month to one year)<br>swelling of the fingers (time since onset: one month to one year)<br>myalgia (time since onset: one month to one year)<br>lower extremity pain (time since onset: one month to one year)<br>tricolor pattern of discoloration of the fingers and toes (time since onset: one month to one year)<br>erythema of the forearm<br>CRP, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>leukocytosis<br>anemia<br>neutrophilia<br>lymphopenia<br>creatinine kinase level, elevated<br>cardiac CK-MB level, elevated<br>hypoalbuminemia<br>alpha 2 globulin level (result: elevated)<br>antinuclear antibody level, elevated<br>antimitochondrial antibody<br>myositis<br>myopathic pattern on EMG<br>anti-alpha-fodrin antibodies<br>cough<br>fever<br>pruritus<br>weight loss<br>morning stiffness<br>swelling, knee<br>swelling, ankle joint<br>reduced exercise tolerance<br>cardiac troponin T level, elevated<br>tachycardia on ECG                         |                            | anti-dsDNA antibodies   |
| <b>Diagnosis</b>             | Female     | 44         | Antisynthetase Syndrome            |                             | swelling, MCP joints (time since onset: one month to one year)<br>swelling of the fingers (time since onset: one month to one year)<br>myalgia (time since onset: one month to one year)<br>lower extremity pain (time since onset: one month to one year)<br>tricolor pattern of discoloration of the fingers and toes (time since onset: one month to one year)<br>erythema of the forearm<br>CRP, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>leukocytosis<br>anemia<br>neutrophilia<br>lymphopenia<br>creatinine kinase level, elevated<br>cardiac CK-MB level, elevated<br>hypoalbuminemia<br>alpha 2 globulin level (result: elevated)<br>antinuclear antibody level, elevated<br>antimitochondrial antibody<br>myositis<br>myopathic pattern on EMG<br>anti-alpha-fodrin antibodies<br>cough<br>fever<br>pruritus<br>weight loss<br>morning stiffness<br>swelling, knee<br>swelling, ankle joint<br>reduced exercise tolerance<br>cardiac troponin T level, elevated<br>tachycardia on ECG<br>anti-PL 7 antibodies |                            | anti-dsDNA antibodies<br>anti-Jo 1 antibodies   |
| <b>54</b>                    |            |            |                                    |                             |  |                            |   |
| <b>Visit</b>                 | <b>Sex</b> | <b>Age</b> | <b>Confirmed Diagnoses</b>         | <b>Present Risk Factors</b> | <b>Pathological Symptoms/Findings (with attributes)</b>  | <b>Absent Risk Factors</b> | <b>Non-pathological Symptoms/Findings</b>   |
| <b>Top Five Fit</b>          | Male       | 46         |                                    |                             | anterior ischemic optic neuropathy<br>reduced visual acuity (time since onset: one week to one month)<br>leukocytosis in CSF<br>gamma gt level, elevated<br>LDL level (result: elevated)<br>alanine transaminase level, elevated<br>brain white matter lesion  |                            | cardiomegaly<br>pericardial effusion<br>heart valve defect<br>aneurysm of the intracranial arteries   |
| <b>Diagnosis</b>             | Male       | 46         | Antiphospholipid Syndrome (APS)    |                             | anterior ischemic optic neuropathy<br>reduced visual acuity (time since onset: one week to one month)<br>leukocytosis in CSF<br>gamma gt level, elevated<br>LDL level (result: elevated)<br>alanine transaminase level, elevated<br>brain white matter lesion<br>cholesterol level (result: elevated)<br>feeling of heavy legs<br>neck pain<br>lupus anticoagulant antibodies, elevated  |                            | cardiomegaly<br>pericardial effusion<br>heart valve defect<br>aneurysm of the intracranial arteries   |
| <b>55</b>                    |            |            |                                    |                             |  |                            |   |
| <b>Visit</b>                 | <b>Sex</b> | <b>Age</b> | <b>Confirmed Diagnoses</b>         | <b>Present Risk Factors</b> | <b>Pathological Symptoms/Findings (with attributes)</b>  | <b>Absent Risk Factors</b> | <b>Non-pathological Symptoms/Findings</b>   |
| <b>Top Five Fit</b>          | Female     | 26         |                                    |                             | microhematuria<br>proteinuria (intensity: trace to mild)<br>parotid gland enlargement<br>fever (high grade: no)<br>erythrocyte sedimentation rate (result: elevated)<br>CRP, elevated<br>transaminase levels, elevated<br>dry mouth<br>reduced exercise tolerance<br>loss of appetite<br>hyperhidrosis, generalized (night sweats: yes)<br>erythema<br>cervical lymphadenopathy<br>axillary lymphadenopathy<br>hyposalivation<br>thinning of the glomerular basement membrane  |                            | arthralgia<br>morning stiffness<br>inflammatory back pain<br>aphthous ulcerations of the oral cavity<br>tricolor pattern of discoloration of the fingers and toes<br>venous thrombosis<br>proof of miscarriage<br>dry eye<br>hepatomegaly<br>splenomegaly   |

|  |        |     |   |                      |   |                     |  |
|--|--------|-----|---|----------------------|---|---------------------|--|
| <b>Diagnosis</b>                                   | Female | 28  | Sarcoidosis                                   |                      | microhematuria<br>proteinuria (intensity: trace to mild)<br>parotid gland enlargement<br>fever (high grade: no)<br>erythrocyte sedimentation rate (result: elevated)<br>CRP elevated<br>transaminase levels, elevated<br>dry mouth<br>reduced exercise tolerance<br>loss of appetite<br>hyperhidrosis, generalized (night sweats: yes)<br>erythema<br>axillary lymphadenopathy<br>cervical lymphadenopathy<br>weight loss<br>impaired vision<br>back pain<br>eye pain (intensity: severe laterality: unilateral)<br>anterior uveitis<br>hyposalivation<br>thinning of the glomerular basement membrane  |                     | arthralgia<br>morning stiffness<br>inflammatory back pain<br>aphthous ulcerations of the oral cavity<br>tricolor pattern of discoloration of the fingers and toes<br>venous thrombosis<br>proof of miscarriage<br>dry eye<br>hepatomegaly<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>mumps virus<br>confirmed human immunodeficiency virus infection<br>Epstein-Barr virus<br>splenomegaly<br>ACE level<br>hilar lymphadenopathy<br>pulmonary nodules<br>interleukin 2 receptor, elevated<br>granuloma   |
| <b>56</b>  |        |     |   |                      |   |                     |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b>                       | Female | 58  |   | smoker               | high blood pressure (time since onset: one month to one year)<br>cholesterol level (result: elevated)<br>triglyceride level (result: elevated)<br>double vision (time since onset: one month to one year)<br>oculomotor nerve palsy (time since onset: one month to one year)<br>sinusitis<br>exophthalmos (laterality: unilateral)<br>swelling of the eyelid<br>glomerular filtration rate, reduced<br>orbital mass  |                     | CRP elevated<br>orbital fracture<br>thrombosis, venous sinus   |
| <b>Diagnosis</b>                                   | Female | 58  | IgG4-related disease                          | smoker               | high blood pressure (time since onset: one month to one year)<br>cholesterol level (result: elevated)<br>triglyceride level (result: elevated)<br>double vision (time since onset: one month to one year)<br>oculomotor nerve palsy (time since onset: one month to one year)<br>sinusitis<br>exophthalmos (laterality: unilateral time since onset: one month to one year)<br>swelling of the eyelid (time since onset: one month to one year)<br>glomerular filtration rate, reduced<br>orbital mass<br>hepatic mass seen on imaging<br>left ventricular hypertrophy<br>mitral valve regurgitation on imaging<br>aortic valve regurgitation on imaging<br>tricuspid valve regurgitation on imaging<br>predominance of IgG4 positive plasma cells in histopathology  | Hx: eye trauma      | CRP elevated<br>orbital fracture<br>vitamin D level, decreased<br>thyroid peroxidase antibodies<br>thyrotropin receptor antibodies<br>thyroglobulin antibodies<br>ACTH level<br>antineutrophil cytoplasmic antibodies present<br>anti-GBM antibodies present<br>IgG4 level<br>thrombosis, venous sinus<br>free T4<br>thyroid stimulating hormone level<br>elevated rheumatoid factor<br>cardiac ejection fraction<br>positive interferon gamma release assay for tuberculosis  |
| <b>57</b>  |        |     |   |                      |   |                     |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b>                       | Female | 58  |   |                      | lipoprotein a level, elevated<br>cholesterol level (result: elevated)<br>antinuclear antibody level, elevated<br>myalgia (time since onset: one month to one year)<br>upper back pain (time since onset: one month to one year)<br>wedging of vertebral body<br>osteoporosis<br>lower back pain (time since onset: one month to one year)<br>rib fracture<br>arthralgia   | Hx: spinal trauma   | creatinine kinase level, elevated  |
| <b>Diagnosis</b>                                   | Female | 62  | Hypophosphatasia                              |                      | lipoprotein a level, elevated<br>cholesterol level (result: elevated)<br>antinuclear antibody level, elevated<br>myalgia (time since onset: more than one year)<br>upper back pain (time since onset: more than one year)<br>wedging of vertebral body<br>osteoporosis<br>alkaline phosphatase level (result: reduced)<br>lower back pain (time since onset: more than one year)<br>scoliosis<br>rib fracture<br>knee pain<br>ankle pain<br>muscle cramps in the lower extremity  | Hx: spinal trauma   | creatinine kinase level, elevated<br>erythrocyte sedimentation rate<br>CRP, elevated<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>anti-dsDNA antibodies<br>complement C3 level<br>complement C4 level<br>proteinase 3 antibody titer, elevated<br>myeloperoxidase antibodies present<br>anti-ScI-70  |
| <b>58</b>  |        |     |   |                      |   |                     |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Diagnosis</b>                                   | Female | 44  | Cryopyrin-associated periodic syndrome (CAPS) |                      | fever (time since onset: one month to one year high grade: yes)<br>chills (time since onset: one month to one year)<br>hyperhidrosis, generalized (night sweats: yes time since onset: one month to one year)<br>reduced exercise tolerance (time since onset: one month to one year)<br>arthralgia (time since onset: one month to one year)<br>knee pain (time since onset: one month to one year)<br>erythrocyte sedimentation rate (result: reduced)<br>anemia<br>thrombocytosis<br>leukocytosis<br>CRP elevated<br>calcium level (result: elevated)<br>alpha 2 globulin level (result: elevated)<br>gamma gt level, elevated<br>alkaline phosphatase level (result: elevated)<br>alanine transaminase level, elevated<br>hepatomegaly<br>paraortic lymphadenopathy<br>myalgia (time since onset: one month to one year)<br>sore throat<br>gallstone<br>enlarged thyroid gland<br>serum free light chain level, elevated<br>cervical lymphadenopathy<br>bowel wall thickening<br>arthritis<br>NLRP3 gene mutation |                     | malignant cells in bone marrow<br>lymphoblastic hyperplasia<br>myeloid hyperplasia<br>ACE level<br>immune deposits<br>anti-dsDNA antibodies<br>liver abscess<br>increased hepatic echogenicity<br>hilar lymphadenopathy<br>pulmonary nodules<br>pulmonary infiltrates<br>pleural effusion<br>antinuclear antibody level, elevated<br>ferritin level<br>antistreptolysin O antibody titer, elevated<br>swelling, joint<br>tricolor pattern of discoloration of the fingers and toes<br>dry mouth<br>dry eye<br>uveitis<br>stenosis of the carotid artery<br>stenosis of the subclavian artery<br>MEFV gene mutation<br>TNFRSF1A gene mutation   |
| <b>59</b>  |        |     |   |                      |   |                     |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit (&lt;= 1 month early)</b> | Male   | 28  |   |                      | lower back pain<br>PIP joint pain (finger) (laterality: unilateral)<br>sacroiliitis<br>fever (high grade: no)<br>CRP elevated<br>hyperuricemia<br>renal insufficiency<br>anemia   |                     | malaise  |
| <b>Diagnosis</b>                                   | Male   | 28  | Gout arthritis                                |                      | lower back pain (time since onset: one month to one year)<br>PIP joint pain (finger) (laterality: unilateral time since onset: one month to one year)<br>weight loss<br>sacroiliitis<br>swelling, elbow<br>urate crystals in synovial fluid<br>arthritis, MTP 1 joint<br>creatinine kinase level, elevated<br>lactate dehydrogenase level, elevated<br>mean corpuscular volume (result: reduced)<br>parathyroid hormone level (result: elevated)<br>CRP elevated<br>iron level (result: reduced)<br>ferritin level (result: reduced)<br>triglyceride level (result: elevated)<br>anemia<br>renal insufficiency  |                     | dyspnea<br>chest pain<br>fever<br>hyperuricemia<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present<br>serum complement level<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-ScI-70<br>anti-Io 1 antibodies<br>abdominal tenderness  |
| <b>60</b>  |        |     |   |                      |   |                     |  |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>                                | Female | 43  |   |                      | CRP elevated<br>erythrocyte sedimentation rate (result: elevated)<br>hearing deficit (laterality: unilateral time since onset: more than one year)<br>vertigo (time since onset: more than one year)<br>fever (time since onset: more than one year high grade: no)<br>splenomegaly<br>elbow pain (time since onset: more than one year laterality: unilateral)<br>wrist pain (time since onset: more than one year)<br>hip pain (time since onset: more than one year laterality: unilateral)<br>foot pain (laterality: bilateral time since onset: more than one year)<br>knee pain (time since onset: more than one year)<br>free T3 (result: elevated)<br>complement C4 level (result: elevated)<br>calcium level (result: elevated)  |                     | myalgia<br>antinuclear antibody level, elevated<br>serum complement level<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>pathologically increased cryoglobulin level<br>anti-ScI-70<br>anti-Io 1 antibodies<br>thyroid stimulating hormone level<br>parathyroid hormone level<br>IgG level<br>IgA level<br>IgM level<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>antineutrophil cytoplasmic antibodies present<br>anticardiolipin antibodies, elevated<br>cardiac ejection fraction<br>heart valve defect<br>alkaline phosphatase level<br>facial pain<br>facial swelling<br>chest pain |

|                              |        |     |   |                      |  |                     |   |
|------------------------------|--------|-----|---|----------------------|--|---------------------|---|
| <b>Diagnosis</b>             | Female | 44  | Cryopyrin-associated periodic syndrome (CAPS) |                      | CRP, elevated<br>elbow pain (time since onset: more than one year laterality: unilateral)<br>vertigo (time since onset: more than one year)<br>wrist pain (time since onset: more than one year)<br>hip pain (time since onset: more than one year laterality: unilateral)<br>foot pain (laterality: bilateral time since onset: more than one year)<br>knee pain (time since onset: more than one year)<br>hearing deficit (laterality: unilateral time since onset: more than one year)<br>free T3 (result: elevated)<br>IgM level (result: reduced)<br>complement C4 level (result: elevated)<br>calcium level (result: elevated)<br>fever (time since onset: more than one year high grade: no)<br>tachycardia on ECG<br>potassium level (result: elevated)<br>splenomegaly<br>complement C3 level (result: elevated)<br>NLRP3 gene mutation   |                     | erythrocyte sedimentation rate<br>myalgia<br>antinuclear antibody level, elevated<br>serum complement level<br>anti-Sm antibodies<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>pathologically increased cryoglobulin level<br>anti-Sci-70<br>anti-Jo 1 antibodies<br>thyroid stimulating hormone level<br>parathyroid hormone level<br>IgG level<br>IgA level<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>antineutrophil cytoplasmic antibodies present<br>anticardiolipin antibodies, elevated<br>cardiac ejection fraction<br>heart valve defect<br>anti-dsDNA antibodies<br>glomerular filtration rate, reduced<br>creatinine kinase level, elevated<br>serum amyloid A, elevated<br>IgG4 level<br>facial pain<br>facial swelling<br>chest pain<br>alkaline phosphatase level |
| <b>61</b>                    |        |     |   |                      |  |                     |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit</b> | Male   | 38  |   | elevated BMI         | dysuria (time since onset: more than one year)<br>abdominal pain (position: epigastric time since onset: one month to one year)<br>back pain (time since onset: one month to one year)<br>brain white matter lesion<br>sensory deficit, lower leg<br>pain of the oral cavity (time since onset: one month to one year)<br>painful dysesthesia of the trunk<br>impaired vision<br>muscle fasciculation<br>cerebrospinal fluid protein level (result: elevated)<br>creatinine kinase level, elevated<br>serum creatinine level (result: elevated)<br>lactate dehydrogenase level, elevated   |                     | urethritis<br>testicular enlargement<br>scrotal mass<br>Treponema pallidum antigen<br>Lymphadenopathy on palpation<br>antinuclear antibody level, elevated<br>antimitochondrial antibody<br>antineutrophil cytoplasmic antibodies present<br>proteinase 3 antibody titer, elevated<br>myeloperoxidase antibodies present<br>meningism<br>cranial nerve disorder<br>lower extremity paresis<br>upper extremity paresis<br>muscle atrophy<br>muscular hypertonicity<br>hyperreflexic deep tendon reflexes   |
| <b>Diagnosis</b>             | Male   | 39  | Behcet's disease                              | elevated BMI         | dysuria (time since onset: more than one year)<br>abdominal pain (position: epigastric time since onset: one month to one year)<br>back pain (time since onset: one month to one year)<br>brain white matter lesion<br>pain of the oral cavity (time since onset: one month to one year)<br>impaired vision (time since onset: one month to one year)<br>muscle fasciculation (time since onset: one month to one year)<br>cerebrospinal fluid protein level (result: elevated)<br>creatinine kinase level, elevated<br>lactate dehydrogenase level, elevated<br>spinal stenosis seen on imaging<br>arthritis<br>uveitis<br>fatigue<br>aphthous ulcerations of the oral cavity<br>balanitis<br>swelling, ankle joint (laterality: unilateral)<br>gamma gl level, elevated<br>alanine transaminase level, elevated<br>high blood pressure<br>hematuria<br>epistaxis (time since onset: one month to one year)<br>foot dorsiflexor paresis<br>myalgia (time since onset: one month to one year)<br>tenderness, MTP joints (laterality: unilateral) |                     | urethritis<br>testicular enlargement<br>scrotal mass<br>Treponema pallidum antigen<br>Lymphadenopathy on palpation<br>antinuclear antibody level, elevated<br>antimitochondrial antibody<br>antineutrophil cytoplasmic antibodies present<br>proteinase 3 antibody titer, elevated<br>myeloperoxidase antibodies present<br>meningism<br>cranial nerve disorder<br>lower extremity paresis<br>upper extremity paresis<br>muscle atrophy<br>muscular hypertonicity<br>hyperreflexic deep tendon reflexes<br>serum creatinine level<br>CRP, elevated<br>HLA-B27 positive<br>HLA-B51 positive<br>anti-dsDNA antibodies<br>leukocyte level<br>erythema<br>Erirococillitis<br>sensory deficit<br>painful dysesthesia<br>elevated skin temperature of the ankle<br>skin rash<br>hepatomegaly<br>splenomegaly<br>borrelia burgdorferi antibodies in CSF                  |
| <b>62</b>                    |        |     |   |                      |  |                     |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit</b> | Female | 27  |   |                      | erosion and ulceration of the lower extremity (pain: yes crusted surface: yes time since onset: more than one year)<br>paresthesia of the lower extremity<br>macule on the lower extremity (purple: yes uneven borders: yes pain: yes time since onset: more than one year)<br>livedo (time since onset: more than one year)   |                     |   |
| <b>Diagnosis</b>             | Female | 30  | Panarteritis nodosa                           |                      | erosion and ulceration of the lower extremity (pain: yes crusted surface: yes time since onset: more than one year)<br>paresthesia of the lower extremity<br>macule on the lower extremity (purple: yes uneven borders: yes pain: yes time since onset: more than one year)<br>livedo (time since onset: more than one year)<br>CRP, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>creatinine kinase level, elevated<br>INR level (result: elevated)<br>microhematuria<br>complement C4 level (result: reduced)   |                     | antinuclear antibody level, elevated<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>complement C3 level<br>pathologically increased cryoglobulin level<br>anti-dsDNA antibodies<br>antineutrophil cytoplasmic antibodies present  |
| <b>63</b>                    |        |     |   |                      |  |                     |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit</b> | Female | 37  |   |                      | swelling, wrist (time since onset: one month to one year)<br>wrist pain (time since onset: one month to one year)<br>shoulder pain (time since onset: one month to one year)<br>gluteal pain (time since onset: one month to one year laterality: unilateral)<br>nightly awakening (adults)<br>urinary tract infection<br>sacroiliitis<br>erythrocyte sedimentation rate (result: elevated)<br>CRP, elevated<br>HLA-B27 positive<br>microcytic anemia<br>arthritis, wrist<br>enthesitis  |                     | diarrhea<br>uveitis<br>serum complement level<br>elevated rheumatoid factor<br>antinuclear antibody level, elevated<br>anticardiolipin antibodies, elevated<br>plaque of the skin<br>erythema   |
| <b>Diagnosis</b>             | Female | 53  | Spondyloarthritis                             |                      | swelling, wrist (time since onset: more than one year)<br>wrist pain (time since onset: more than one year)<br>shoulder pain (time since onset: more than one year)<br>gluteal pain (time since onset: more than one year laterality: unilateral)<br>nightly awakening (adults)<br>lower back pain (nocturnal or early morning: exacerbates time since onset: more than one year)<br>urinary tract infection<br>sacroiliitis<br>HLA-B27 positive<br>microcytic anemia<br>arthritis, wrist<br>enthesitis<br>leukopenia<br>knee pain (time since onset: more than one year)<br>morning stiffness (time since onset: one month to one year)<br>hand pain<br>paresthesia of the hand<br>headache (time since onset: more than one year)<br>dizziness<br>sensory deficit, lower extremity<br>spinal stenosis seen on imaging<br>tenosynovitis<br>serum glucose level (result: reduced)<br>BNP in serum, elevated<br>complement C3 level (result: reduced)   |                     | diarrhea<br>uveitis<br>erythrocyte sedimentation rate<br>CRP, elevated<br>serum complement level<br>elevated rheumatoid factor<br>antinuclear antibody level, elevated<br>anticardiolipin antibodies, elevated<br>plaque of the skin<br>erythema<br>glomerular filtration rate, reduced<br>anti-dsDNA antibodies<br>anti-GBM antibodies present<br>anti-Ku antibodies<br>anti-PL 7 antibodies<br>anti-PL 12 antibodies<br>anti-SRP antibodies<br>anti-Jo 1 antibodies<br>anti-PmScl antibody titer<br>anti-UJ antibodies<br>anti-EJ antibodies<br>anti-alpha-fodrin antibodies<br>serum amyloid A, elevated<br>aphthous ulcerations of the oral cavity<br>venous thrombosis<br>chest pain<br>peripheral edema (pitting)   |
| <b>64</b>                    |        |     |   |                      |  |                     |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                           | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>          | Male   | 21  |   |                      | palpitation (time since onset: one month to one year)<br>rapid pulse (time since onset: one month to one year)<br>tachycardia on ECG<br>swelling of the hand (time since onset: one month to one year laterality: bilateral)<br>acne<br>ankle pain (time since onset: more than one year alcohol: exacerbates)<br>knee pain (laterality: bilateral alcohol: exacerbates time since onset: one month to one year)<br>hand pain (time since onset: one month to one year laterality: bilateral)<br>tenderness, finger joint (time since onset: one month to one year laterality: bilateral)<br>left ventricular hypertrophy<br>alpha-galactosidase A enzyme activity, decreased  |                     | heart failure<br>syncope<br>heart valve defect<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>antinuclear antibody level, elevated<br>erythrocyte sedimentation rate<br>anti-dsDNA antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sci-70<br>skin rash<br>erythema<br>plaque of the skin<br>bone erosion of the finger joint<br>anemia<br>leukocyte level<br>platelet count  |
| <b>Top Fit</b>               | Male   | 21  |   |                      | palpitation (time since onset: one month to one year)<br>rapid pulse (time since onset: one month to one year)<br>tachycardia on ECG<br>swelling of the hand (time since onset: one month to one year laterality: bilateral)<br>acne<br>ankle pain (time since onset: more than one year alcohol: exacerbates)<br>knee pain (laterality: bilateral alcohol: exacerbates time since onset: one month to one year)<br>hand pain (time since onset: one month to one year laterality: bilateral)<br>tenderness, finger joint (time since onset: one month to one year laterality: bilateral)<br>left ventricular hypertrophy<br>alpha-galactosidase A enzyme activity, decreased<br>GLA gene mutation   |                     | heart failure<br>syncope<br>heart valve defect<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>antinuclear antibody level, elevated<br>erythrocyte sedimentation rate<br>anti-dsDNA antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sci-70<br>skin rash<br>erythema<br>plaque of the skin<br>bone erosion of the finger joint<br>anemia<br>leukocyte level<br>platelet count  |

|                              |        |     |                         |                                       |   |                                       |  |
|------------------------------|--------|-----|-------------------------|---------------------------------------|---|---------------------------------------|--|
| <b>Diagnosis</b>             | Male   | 21  | Fabry disease           |                                       | palpitation (time since onset: one month to one year)<br>rapid pulse (time since onset: one month to one year)<br>tachycardia on ECG<br>swelling of the hand (time since onset: one month to one year laterality: bilateral)<br>acne<br>ankle pain (time since onset: more than one year alcohol: exacerbates)<br>knee pain (laterality: bilateral alcohol: exacerbates time since onset: one month to one year)<br>hand pain (time since onset: one month to one year laterality: bilateral)<br>tenderness, finger joint (time since onset: one month to one year laterality: bilateral)<br>left ventricular hypertrophy<br>alpha-galactosidase A enzyme activity, decreased<br>papule in the periumbilical region<br>GLA gene mutation  |                                       | heart failure<br>syncope<br>heart valve defect<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>antinuclear antibody level, elevated<br>erythrocyte sedimentation rate<br>anti-dsDNA antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Scl-70<br>skin rash<br>erythema<br>plaque of the skin<br>bone erosion of the finger joint<br>anemia<br>leukocyte level<br>platelet count   |
| <b>65</b>                    |        |     |                         |                                       |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses     | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>          | Male   | 20  |                         | Hx: recent infection<br>smoker        | diarrhea<br>hypothyroidism<br>proteinuria (intensity: trace to mild)<br>serum creatinine level (result: elevated)<br>glomerular filtration rate, reduced<br>small kidneys (laterality: bilateral)<br>vitamin D level, decreased<br>hyperkalemia<br>blood urea nitrogen level (result: elevated)<br>serum albumin level (result: reduced)<br>serum protein level (result: reduced)<br>focal segmental glomerulosclerosis<br>renal insufficiency  | diabetes mellitus<br>Hx: hypertension | fever<br>vomiting<br>hematochezia<br>antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>serum complement level<br>antineutrophil cytoplasmic antibodies present<br>schistocytes<br>amyloid protein deposition<br>immune deposits<br>leukocyte level<br>platelet count<br>anemia  |
| <b>Diagnosis</b>             | Male   | 21  | Fabry disease           | Hx: recent infection<br>smoker        | diarrhea<br>hypothyroidism<br>proteinuria (intensity: trace to mild)<br>serum creatinine level (result: elevated)<br>glomerular filtration rate, reduced<br>small kidneys (laterality: bilateral)<br>hyperkalemia<br>blood urea nitrogen level (result: elevated)<br>serum albumin level (result: reduced)<br>serum protein level (result: reduced)<br>focal segmental glomerulosclerosis<br>renal insufficiency<br>anemia<br>parathyroid hormone level (result: elevated)<br>papule on the trunk<br>GLA gene mutation  | diabetes mellitus<br>Hx: hypertension | fever<br>vomiting<br>hematochezia<br>antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>serum complement level<br>antineutrophil cytoplasmic antibodies present<br>schistocytes<br>amyloid protein deposition<br>immune deposits<br>vitamin D level, decreased<br>leukocyte level<br>platelet count<br>hepatitis C virus<br>confirmed human immunodeficiency virus infection   |
| <b>66</b>                    |        |     |                         |                                       |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses     | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>          | Female | 50  |                         |                                       | vomiting (time since onset: more than one year)<br>cholesterol level (result: elevated)<br>steatosis hepatitis<br>lower back pain (time since onset: more than one year)<br>finger joint pain (time since onset: more than one year)<br>tricolor pattern of discoloration of the fingers and toes (time since onset: more than one year)<br>diarrhea (time since onset: more than one year)<br>groin pain (time since onset: more than one year)<br>swelling, finger joints (time since onset: more than one year)<br>morning stiffness (time since onset: more than one year)<br>shoulder pain (time since onset: more than one year)<br>neck pain (time since onset: more than one year)<br>insomnia<br>rapid pulse<br>hyperhidrosis, generalized<br>Hepatitis A virus<br>ferritin level (result: elevated)<br>triglyceride level (result: elevated)<br>cerebral atrophy<br>lipase level, elevated<br>perirenal fluid collections<br>bilirubin level, elevated<br>CRP, elevated<br>pleural effusion<br>pleuritis<br>ascites<br>renal cysts<br>nausea<br>proof of acute pancreatitis<br>ovarian cyst seen on imaging<br>IgM level (result: elevated)<br>gamma gt level, elevated   | alcohol abuse                         | antinuclear antibody level, elevated<br>antimitochondrial antibody<br>ceruloplasmin level<br>Hepatitis B virus<br>hepatitis C virus<br>Lyme-specific IgM level, elevated<br>Lyme-specific IgG level, elevated<br>vitamin B12 level<br>iron level<br>leukocytosis<br>IgG level<br>anti-smooth-muscle antibodies<br>antineutrophil cytoplasmic antibodies present  |
| <b>Diagnosis</b>             | Female | 53  | Antisynthetase Syndrome |                                       | vomiting (time since onset: more than one year)<br>cholesterol level (result: elevated)<br>steatosis hepatitis<br>lower back pain (time since onset: more than one year)<br>finger joint pain (time since onset: more than one year)<br>tricolor pattern of discoloration of the fingers and toes (time since onset: more than one year)<br>diarrhea (time since onset: more than one year)<br>groin pain (time since onset: more than one year)<br>swelling, finger joints (time since onset: more than one year)<br>morning stiffness (time since onset: more than one year)<br>shoulder pain (time since onset: more than one year)<br>neck pain (time since onset: more than one year)<br>insomnia<br>rapid pulse (time since onset: more than one year)<br>hyperhidrosis, generalized<br>Hepatitis A virus<br>ferritin level (result: elevated)<br>iron level (result: reduced)<br>triglyceride level (result: elevated)<br>cerebral atrophy<br>lipase level, elevated<br>perirenal fluid collections<br>bilirubin level, elevated<br>CRP, elevated<br>pleural effusion<br>pleuritis<br>ascites<br>renal cysts<br>nausea<br>proof of acute pancreatitis<br>ovarian cyst seen on imaging<br>IgM level (result: elevated)<br>gamma gt level, elevated<br>reduced exercise tolerance (time since onset: one month to one year)<br>elevated rheumatoid factor<br>anti-Jo 1 antibodies<br>complement C3 level (result: elevated)<br>uric acid level (result: elevated)<br>nocturia<br>erythema of the cheeks<br>tenderness, finger joint<br>swelling, MCP joints<br>elevated skin temperature of the MTP joint<br>myalgia (time since onset: one month to one year)<br>dyspnea (time since onset: one month to one year)<br>IgG level (result: elevated)<br>anticardiolipin antibodies, elevated<br>beta 2 microglobulin level, elevated<br>vitamin D level, decreased<br>peripheral polyneuropathy<br>hepatic mass seen on imaging<br>renal mass seen on imaging | alcohol abuse                         | antinuclear antibody level, elevated<br>antimitochondrial antibody<br>ceruloplasmin level<br>Hepatitis B virus<br>hepatitis C virus<br>Lyme-specific IgM level, elevated<br>Lyme-specific IgG level, elevated<br>vitamin B12 level<br>leukocytosis<br>IgG level<br>anti-smooth-muscle antibodies<br>antineutrophil cytoplasmic antibodies present<br>anti-dsDNA antibodies<br>anti-cyclic citrullinated protein antibodies<br>thrombocytopenia<br>heart valve defect<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-Scl-70<br>alpha-1 antitrypsin level, decreased<br>positive interferon gamma release assay for tuberculosis<br>lupus erythematosus |
| <b>67</b>                    |        |     |                         |                                       |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses     | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Diagnosis</b>             | Male   | 50  | CREST syndrome          | Hx: hypertension<br>immunocompromised | focal segmental glomerulosclerosis<br>uric acid level (result: elevated)<br>carpal tunnel syndrome<br>pain in the upper arm (laterality: bilateral time since onset: one month to one year)<br>thigh pain (laterality: bilateral time since onset: one month to one year)<br>neck pain (time since onset: one month to one year)<br>diarrhea<br>shoulder pain (time since onset: one month to one year)<br>swelling, shoulder (time since onset: one month to one year)<br>antinuclear antibody level, elevated<br>anti-centromere antibodies<br>erythrocyte sedimentation rate (result: elevated)<br>hemoglobin level (result: reduced)<br>thrombocytopenia<br>potassium level (result: elevated)<br>phosphate level (result: elevated)<br>serum creatinine level (result: elevated)<br>blood urea nitrogen level (result: elevated)<br>glomerular filtration rate, reduced<br>PSA level, elevated<br>ferritin level (result: elevated)<br>serum complement level (result: elevated)<br>parathyroid hormone level (result: elevated)<br>steatosis hepatitis<br>liver cyst<br>small kidneys<br>splenomegaly<br>nephrocalcinosis<br>Interleukin 2 receptor, elevated   |                                       | anti-dsDNA antibodies<br>anti-Sm antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-U1-RNP antibodies<br>anti-Scl-70<br>anti-Jo 1 antibodies   |
| <b>68</b>                    |        |     |                         |                                       |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses     | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b> | Female | 45  |                         | immunocompromised<br>Hx: hypertension | wrist pain (time since onset: more than one year laterality: unilateral)<br>swelling, wrist (time since onset: more than one year)<br>finger joint pain (time since onset: more than one year laterality: bilateral)<br>swelling, finger joints (time since onset: more than one year)<br>ankle pain (time since onset: more than one year laterality: unilateral)<br>swelling, ankle joint (time since onset: more than one year laterality: unilateral)<br>uric acid level (result: elevated)<br>headache<br>joint space narrowing of the fingers   |                                       |  |

|  |        |     |                          |                                       |  |                     |   |
|--|--------|-----|--------------------------|---------------------------------------|--|---------------------|---|
| <b>Diagnosis</b>                                   | Female | 45  | Gout arthritis           | immunocompromised<br>Hx: hypertension | wrist pain (time since onset: more than one year laterality: unilateral)<br>swelling, wrist (time since onset: more than one year)<br>ankle pain (time since onset: more than one year laterality: unilateral)<br>swelling, ankle joint (time since onset: more than one year laterality: unilateral)<br>uric acid level (result: elevated)<br>headache (time since onset: one month to one year)<br>joint space narrowing of the fingers<br>lower back pain (time since onset: one month to one year)<br>MCP joint pain (time since onset: one month to one year)<br>swelling, MCP joints (time since onset: one month to one year)   | diabetes mellitus   | sensory deficit, hand<br>antinuclear antibody level, elevated<br>elevated rheumatoid factor   |
| <b>69</b>  |        |     |                          |                                       |  |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses      | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>                                | Male   | 57  |                          | elevated BMI                          | nausea (time since onset: more than one year)<br>rapid pulse (time since onset: more than one year)<br>chest pain (position: unilateral time since onset: more than one year sharp: yes)<br>aural fullness (time since onset: more than one year)<br>hyperhidrosis, generalized (cold perspiration: yes time since onset: more than one year)<br>headache (time since onset: more than one year)<br>vertigo (time since onset: more than one year)<br>upper extremity pain (laterality: unilateral time since onset: more than one year)<br>neck pain (time since onset: more than one year)<br>high blood pressure (time since onset: more than one year)<br>lower back pain (time since onset: more than one year activity: exacerbates nocturnal or early morning: exacerbates)<br>sensory deficit, hand (distribution: bilateral, symmetrical time since onset: more than one year)<br>painful dysesthesia of the upper extremity (distribution: symmetrical time since onset: more than one year)<br>painful dysesthesia of the lower extremity (distribution: symmetrical time since onset: more than one year)<br>paresthesia of the hand (distribution: symmetrical time since onset: more than one year)<br>paresthesia of the lower extremity (distribution: symmetrical time since onset: more than one year)<br>sensory deficit, foot (distribution: bilateral, symmetrical reduced vibration sense: yes impaired proprioception: yes time since onset: more than one year)<br>Premature ventricular contraction<br>ventricular tachycardia<br>aortic valve regurgitation on imaging<br>dyspnea (severity: on exertion time since onset: more than one year)<br>LDL level (result: elevated)<br>left axis deviation<br>right bundle branch block<br>gait impairment (time since onset: more than one year)<br>spinal tenderness<br>positive straight leg raise<br>lower extremity pain (time since onset: more than one year)<br>insomnia (time since onset: more than one year)<br>reduced exercise tolerance (time since onset: more than one year)<br>peripheral polyneuropathy<br>carpal tunnel syndrome<br>panic attacks (time since onset: more than one year)<br>depressed mood (time since onset: one month to one year)<br>impaired vision (time since onset: one month to one year)<br>heat intolerance (time since onset: one month to one year)<br>tenderness, MTP joints (laterality: bilateral time since onset: one month to one year)<br>limited range of motion of the spine (time since onset: one month to one year)<br>ferritin level (result: elevated)<br>vitamin D level, decreased<br>groin pain<br>hip pain   | alcohol abuse       | upper extremity paresis<br>lower extremity paresis<br>facial nerve palsy<br>impaired fine motor skills<br>hyperreflexia, upper limb<br>hyperreflexia, lower limb<br>diminished reflexes, upper limb<br>diminished reflexes, lower limb<br>spinal stenosis seen on imaging<br>disc herniation<br>urinary incontinence<br>fecal incontinence<br>cardiac ejection fraction<br>serum cardiac troponin level, elevated<br>shortened PR interval on ECG<br>prolonged PR interval on ECG<br>shortened QT interval on ECG<br>prolonged QT interval on ECG<br>CRP, elevated<br>heart wall motion abnormality<br>ST segment changes on ECG<br>thyroid stimulating hormone level<br>calcium level<br>phosphate level<br>normetanephrine level in urine, elevated<br>swelling, joint  |
| <b>Diagnosis</b>                                   | Male   | 58  | Spondyloarthritis        | elevated BMI                          | nausea (time since onset: more than one year)<br>rapid pulse (time since onset: more than one year)<br>chest pain (position: unilateral time since onset: more than one year sharp: yes)<br>aural fullness (time since onset: more than one year)<br>hyperhidrosis, generalized (cold perspiration: yes time since onset: more than one year)<br>headache (time since onset: more than one year)<br>vertigo (time since onset: more than one year)<br>upper extremity pain (laterality: unilateral time since onset: more than one year)<br>neck pain (time since onset: more than one year)<br>high blood pressure (time since onset: more than one year)<br>lower back pain (time since onset: more than one year activity: exacerbates nocturnal or early morning: exacerbates)<br>sensory deficit, hand (distribution: bilateral, symmetrical time since onset: more than one year)<br>painful dysesthesia of the upper extremity (distribution: symmetrical time since onset: more than one year)<br>painful dysesthesia of the lower extremity (distribution: symmetrical time since onset: more than one year)<br>paresthesia of the hand (distribution: symmetrical time since onset: more than one year)<br>paresthesia of the lower extremity (distribution: symmetrical time since onset: more than one year)<br>sensory deficit, foot (distribution: bilateral, symmetrical reduced vibration sense: yes impaired proprioception: yes time since onset: more than one year)<br>Premature ventricular contraction<br>ventricular tachycardia<br>aortic valve regurgitation on imaging<br>dyspnea (severity: on exertion time since onset: more than one year)<br>LDL level (result: elevated)<br>left axis deviation<br>right bundle branch block<br>gait impairment (time since onset: more than one year)<br>spinal tenderness<br>positive straight leg raise<br>CRP, elevated<br>lower extremity pain (time since onset: more than one year)<br>insomnia (time since onset: more than one year)<br>reduced exercise tolerance (time since onset: more than one year)<br>peripheral polyneuropathy<br>carpal tunnel syndrome<br>panic attacks (time since onset: more than one year)<br>depressed mood (time since onset: one month to one year)<br>impaired vision (time since onset: one month to one year)<br>heat intolerance (time since onset: one month to one year)<br>tenderness, MTP joints (laterality: bilateral time since onset: one month to one year)<br>limited range of motion of the spine (time since onset: one month to one year)<br>ferritin level (result: elevated)<br>vitamin D level, decreased<br>groin pain (time since onset: one month to one year)<br>hip pain (time since onset: one month to one year)<br>diarrhea (time since onset: one month to one year)<br>constipation (time since onset: one month to one year)<br>intestinal meteorism<br>reduced nerve fiber density<br>transaminase levels, elevated<br>creatinine kinase level, elevated<br>splenomegaly<br>steatosis hepatitis<br>intestinal inflammation<br>gastric mucosal inflammation<br>sacroiliitis<br>inflammatory back pain | alcohol abuse       | upper extremity paresis<br>lower extremity paresis<br>facial nerve palsy<br>impaired fine motor skills<br>hyperreflexia, upper limb<br>hyperreflexia, lower limb<br>diminished reflexes, upper limb<br>diminished reflexes, lower limb<br>spinal stenosis seen on imaging<br>disc herniation<br>urinary incontinence<br>fecal incontinence<br>cardiac ejection fraction<br>serum cardiac troponin level, elevated<br>shortened PR interval on ECG<br>prolonged PR interval on ECG<br>shortened QT interval on ECG<br>prolonged QT interval on ECG<br>heart wall motion abnormality<br>ST segment changes on ECG<br>thyroid stimulating hormone level<br>calcium level<br>phosphate level<br>normetanephrine level in urine, elevated<br>swelling, joint<br>transferrin level<br>hepatitis C virus<br>hepatitis B virus<br>hepatitis A virus<br>monoclonal gammopathy<br>amyloid protein deposition<br>serum amyloid A, elevated<br>HLA-B27 positive<br>GLA gene mutation<br>Tropheryma whipplei |
| <b>70</b>  |        |     |                          |                                       |  |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses      | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit (&lt;= 1 month early)</b> | Female | 50  |                          |                                       | renal insufficiency<br>osteopenia<br>microcytic anemia<br>swelling of the nose (time since onset: more than one year)<br>erythema of the nose (time since onset: more than one year)<br>erythema of the ear (time since onset: more than one year)<br>ear swelling<br>episcleeritis<br>necrosis of the fingers (time since onset: more than one year)<br>necrosis of the toes (time since onset: more than one year)<br>impaired vision (time since onset: one month to one year laterality: unilateral)<br>shoulder pain (time since onset: one month to one year laterality: bilateral)<br>foot pain (time since onset: more than one year laterality: bilateral)<br>swelling, wrist<br>swelling of the foot (laterality: unilateral)<br>swelling, MCP I joint<br>muscular atrophy of the upper limb<br>reduced exercise tolerance<br>eosinophilia in blood<br>leukocytosis  |                     |   |
| <b>Diagnosis</b>                                   | Female | 50  | Relapsing Polychondritis |                                       | renal insufficiency<br>osteopenia<br>microcytic anemia<br>swelling of the nose (time since onset: more than one year)<br>erythema of the nose (time since onset: more than one year)<br>erythema of the ear (time since onset: more than one year)<br>ear swelling<br>episcleeritis<br>necrosis of the fingers (time since onset: more than one year)<br>necrosis of the toes (time since onset: more than one year)<br>impaired vision (time since onset: one month to one year laterality: unilateral)<br>shoulder pain (time since onset: one month to one year laterality: bilateral)<br>foot pain (time since onset: more than one year laterality: bilateral)<br>swelling, wrist<br>swelling of the foot (laterality: unilateral)<br>swelling, MCP I joint<br>muscular atrophy of the upper limb<br>reduced exercise tolerance<br>eosinophilia in blood<br>leukocytosis  |                     |   |
| <b>71</b>  |        |     |                          |                                       |  |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses      | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                                   | Female | 49  | Relapsing Polychondritis | Hx: hypertension                      | renal insufficiency<br>heart failure<br>Lymphadenopathy on examination<br>elbow pain<br>sternal tenderness<br>heel pain<br>arthritis, MCP joints (time since onset: more than one year)<br>left bundle branch block<br>aortic valve regurgitation on imaging<br>sacroiliitis<br>microhematuria<br>CRP, elevated<br>HLA-B27 positive<br>reduced exercise tolerance<br>rapid pulse<br>palpitation (time since onset: one month to one year)<br>pleural effusion<br>lower back pain (time since onset: more than one year)<br>foot pain (time since onset: more than one year)<br>ankle pain (time since onset: more than one year)<br>myalgia<br>erythema of the ear (time since onset: one month to one year pain: yes bilateral distribution: no)<br>nasal pain (time since onset: one month to one year)<br>erythema of the nose<br>aphthous ulcerations of the oral cavity<br>fatigue<br>ear swelling (bilateral distribution: no)<br>uric acid level (result: elevated)<br>erythrocyte sedimentation rate (result: elevated)<br>enthesitis<br>malaise   |                     | syncope<br>chest pain   |
| <b>72</b>  |        |     |                          |                                       |  |                     |   |
| <b>Visit</b>                                       | Sex    | Age | Confirmed Diagnoses      | Present Risk Factors                  | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |

|                              |        |     |  |                      |   |   |                     |   |   |
|------------------------------|--------|-----|--|----------------------|---|---|---------------------|---|---|
| <b>Top Five Fit</b>          | Female | 44  |  |                      |   | palmoplantar pustulosis   |                     |   |   |
| <b>Top Fit</b>               | Female | 54  |  |                      |   | palmoplantar pustulosis (time since onset: more than one year)<br>jaw swelling<br>pain in lower jaw<br>erythrocyte sedimentation rate (result: elevated)<br>bone lesion<br>Hyperostosis   |                     |   | antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>antineutrophil cytoplasmic antibodies present<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sm antibodies<br>anti-Jo 1 antibodies<br>anti-Sci-70   |
| <b>Diagnosis</b>             | Female | 57  | SAPHO Syndrome                                       |                      |   | palmoplantar pustulosis (time since onset: more than one year)<br>jaw swelling (time since onset: one month to one year)<br>pain in lower jaw (time since onset: one month to one year)<br>erythrocyte sedimentation rate (result: elevated)<br>bone lesion<br>osteomyelitis<br>CRP, elevated<br>leukocytosis<br>Hyperostosis   |                     |   | antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>antineutrophil cytoplasmic antibodies present<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sm antibodies<br>anti-Jo 1 antibodies<br>anti-Sci-70   |
| <b>73</b>                    |        |     |  |                      |   |   |                     |   |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  |   | Absent Risk Factors | Non-pathological Symptoms/Findings  |   |
| <b>Diagnosis</b>             | Male   | 35  | Behcet's disease                                     | smoker               | lower back pain (time since onset: more than one year radiating down the leg: yes)<br>neck pain (time since onset: more than one year)<br>extremity pain (at motion: exacerbates time since onset: more than one year laterality: bilateral)<br>leukocyte level (result: elevated)<br>lymphocytosis<br>creatinase level, elevated<br>nasal septum deviation<br>sinusitis<br>eosinophilia in blood<br>chest pain (respiration: exacerbates position: unilateral time since onset: more than one year)<br>headache (laterality: bilateral time since onset: more than one year)<br>bone pain (time since onset: more than one year)<br>fatigue (time since onset: more than one year)<br>kidney stone<br>myalgia (time since onset: more than one year)<br>nausea (time since onset: one month to one year)<br>vertigo (time since onset: more than one year)<br>double vision (time since onset: more than one year)<br>sensory deficit, face (distribution: unilateral time since onset: more than one year)<br>Sensory deficit of the trunk (distribution: unilateral time since onset: more than one year)<br>impaired vision (laterality: unilateral time since onset: more than one year)<br>dry eye (time since onset: more than one year)<br>ear noise (time since onset: more than one year)<br>renal tubular acidosis type 1<br>paresthesia of the foot (time since onset: more than one year)<br>paresthesia of the hand (time since onset: more than one year)<br>sensory deficit, arm (distribution: unilateral time since onset: more than one year)<br>sensory deficit, lower extremity (distribution: unilateral time since onset: more than one year)<br>hypercalcaemia<br>hematuria<br>morning stiffness (time since onset: more than one year)<br>wrist pain (time since onset: more than one year)<br>ankle pain (time since onset: more than one year)<br>abdominal pain (position: epigastric time since onset: more than one year)<br>proteinuria (intensity: trace to mild)<br>uric acid level (result: reduced)<br>dyspnea (severity: on exertion time since onset: one month to one year)<br>syncope<br>hearing deficit (laterality: unilateral)<br>papule on the trunk<br>pustule on the trunk<br>oral mucosal bleeding<br>inflammatory back pain<br>dermatitis<br>aphthous ulcerations of the oral cavity (time since onset: one month to one year)<br>arthritis (time since onset: more than one year)<br>Interleukin 2 receptor, elevated |   |                     | CRP, elevated<br>lactate dehydrogenase level, elevated<br>serum creatinine level<br>spinal stenosis seen on imaging<br>cervical spine degeneration<br>disc herniation<br>pulmonary infiltrates<br>vomiting<br>complete loss of consciousness<br>antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>antineutrophil cytoplasmic antibodies present<br>antiphospholipid antibodies, elevated<br>ACE level<br>thyroid stimulating hormone level<br>intracranial hemorrhage<br>increased intracranial pressure<br>cerebral ischemia<br>peripheral edema (pitting)<br>flammy urine<br>GLA gene mutation<br>protein S level<br>protein C level<br>lupus anticoagulant antibodies, elevated<br>heart valve defect<br>myopathy<br>cerebrospinal fluid protein level<br>CSF lymphocytosis<br>leukocytosis in CSF<br>RBC count in CSF, elevated<br>bacteria in CSF<br>arrhythmias on ECG<br>AV block<br>elevated rheumatoid factor<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Jo 1 antibodies<br>anti-Sci-70<br>anti-PL 7 antibodies<br>anti-PL 12 antibodies<br>anti-alpha-fodrin antibodies<br>serum amyloid A, elevated<br>MEFV gene mutation<br>NLRP3 gene mutation<br>TNFRSF1A gene mutation |   |
| <b>74</b>                    |        |     |  |                      |   |   |                     |   |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  |   | Absent Risk Factors | Non-pathological Symptoms/Findings  |   |
| <b>Top Five Fit, Top Fit</b> | Female | 41  |  |                      |   | sternal tenderness<br>dyspnea<br>chest pain (respiration: exacerbates)<br>arthro-osteitis   |                     |   |   |
| <b>Diagnosis</b>             | Female | 43  | SAPHO Syndrom  |                      |   | sternal tenderness (time since onset: more than one year)<br>dyspnea (time since onset: more than one year)<br>chest pain (respiration: exacerbates time since onset: more than one year)<br>erythrocyte sedimentation rate (result: elevated)<br>CRP, elevated<br>osteomyelitis<br>leukocyte level (result: elevated)<br>Hyperostosis  |                     |   | complement C4 level<br>antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sm antibodies<br>anti-Sci-70<br>anti-Jo 1 antibodies<br>antineutrophil cytoplasmic antibodies present  |
| <b>75</b>                    |        |     |  |                      |   |   |                     |   |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  |   | Absent Risk Factors | Non-pathological Symptoms/Findings  |   |
| <b>Top Five Fit</b>          | Female | 48  |  | alcohol abuse        | peripheral edema (pitting)<br>localized arthralgia<br>gingival bleeding<br>thrombocytopenia<br>epistaxis<br>Factor VIII level (result: reduced)<br>von Willebrand factor level, decreased<br>Hepatitis B virus<br>hepatitis C virus<br>gamma gt level, elevated   |   |                     | tenderness, MCP joints<br>tenderness, PIP joints (finger)<br>tenderness, DIP joints (finger)<br>distended jugular veins<br>collateral vessels   |   |
| <b>Diagnosis</b>             | Female | 48  | Chronic Hepatitis C                                  | alcohol abuse        | peripheral edema (pitting) (time since onset: one month to one year)<br>gingival bleeding (time since onset: one month to one year)<br>tenderness, MCP joints<br>epistaxis (time since onset: one month to one year)<br>depressed mood<br>hopelessness<br>Factor VIII level (result: reduced)<br>von Willebrand factor level, decreased<br>Hepatitis B virus<br>hepatitis C virus<br>sensory deficit, hand (time since onset: one month to one year distribution: bilateral, symmetrical)<br>erythema of the finger joint (time since onset: one day to one week)<br>swelling, finger joints (time since onset: one day to one week)<br>erythema of the hand<br>swelling of the hand (laterality: bilateral)<br>MCP joint pain (laterality: bilateral)<br>ankle pain (laterality: bilateral)<br>knee pain (laterality: bilateral)<br>headache<br>nausea<br>constipation<br>limited range of motion of the ankle joint<br>crepitus in knee<br>tenderness, wrist<br>paresthesia of the first three fingers (distribution: symmetrical time since onset: one day to one week)<br>transaminase levels, elevated<br>complement C4 level (result: reduced)<br>anti-smooth-muscle antibodies<br>transferin saturation (result: reduced)<br>iron level (result: reduced)<br>osteoarthritis of the spine<br>carpal tunnel syndrome   |   |                     | distended jugular veins<br>collateral vessels<br>thrombocytopenia<br>vomiting<br>diarrhea<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sm antibodies<br>anti-Jo 1 antibodies<br>anti-Sci-70<br>anti-dsDNA antibodies<br>antineutrophil cytoplasmic antibodies present<br>anticardiolipin antibodies, elevated<br>complement C3 level<br>CRP, elevated<br>hemoglobin level<br>leukocyte level<br>bone erosion of a joint<br>peripheral polyneuropathy   |   |
| <b>76</b>                    |        |     |  |                      |   |   |                     |   |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  |   | Absent Risk Factors | Non-pathological Symptoms/Findings  |   |
| <b>Top Five Fit, Top Fit</b> | Male   | 54  |  |                      |   | sinusitis<br>diverticula<br>colitis<br>eosinophilic infiltrate  |                     |   |   |
| <b>Diagnosis</b>             | Male   | 58  | Eosinophilic Granulomatosis with Polyangiitis (EGPA) |                      |   | sinusitis<br>pulmonary nodules<br>diverticula<br>dyspnea (severity: daily activities time since onset: more than one year)<br>FEV1, decreased<br>colitis<br>CRP, elevated<br>nasal polyp<br>eosinophilia in blood<br>neutrophilia<br>bronchitis<br>oropharyngeal candidiasis<br>Total IgE level, elevated<br>anti-cyclic citrullinated protein antibodies<br>mean corpuscular volume (result: reduced)<br>glomerular filtration rate, reduced<br>creatinase level, elevated<br>alanine transaminase level, elevated<br>IgG4 level (result: elevated)<br>vitamin D level, decreased<br>eosinophilic infiltrate |                     |   | hypoxemia<br>antinuclear antibody level, elevated<br>antineutrophil cytoplasmic antibodies present<br>anti-dsDNA antibodies<br>interleukin 6, elevated<br>mycobacterium tuberculosis in lower respiratory tract<br>granuloma<br>elevated rheumatoid factor<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-SSA autoantibodies<br>anti-Jo 1 antibodies<br>anti-Sci-70<br>MI-2 antibody titer<br>anti-EJ antibodies<br>anti-OJ antibodies<br>anti-Ku antibodies<br>anti-PL 7 antibodies<br>anti-PL 12 antibodies<br>anticardiolipin antibodies, elevated<br>anti-GBM antibodies present |
| <b>77</b>                    |        |     |  |                      |   |   |                     |   |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                                  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  |   | Absent Risk Factors | Non-pathological Symptoms/Findings  |   |

|                              |        |     |   |                        |   |                                       |  |
|------------------------------|--------|-----|---|------------------------|---|---------------------------------------|--|
| <b>Diagnosis</b>             | Female | 51  | Sjogren's syndrome                        |                        | dry eye (time since onset: more than one year)<br>dry mouth (time since onset: more than one year)<br>weight loss (more than 10% of body weight within six months: yes)<br>hyperhidrosis, generalized (night sweats: yes time since onset: one month to one year)<br>erosions and ulcerations of the oral cavity (time since onset: one month to one year)<br>oral mucosal bleeding (time since onset: one month to one year)<br>abdominal pain (position: lower right quadrant time since onset: one month to one year eating: no effect)<br>diarrhea (time since onset: one month to one year)<br>foul smelling stool<br>thigh pain (laterality: bilateral time since onset: one month to one year)<br>headache (time since onset: one month to one year)<br>uterine mass seen on imaging<br>hepatic mass seen on imaging<br>esophagitis<br>gastric mucosal inflammation<br>sensory deficit, upper leg (time since onset: one month to one year)<br>reduced exercise tolerance (time since onset: one month to one year)<br>brain white matter lesion<br>finger joint pain (time since onset: one month to one year)<br>livedo<br>cachexia<br>alkaline phosphatase level (result: reduced)<br>cholesterol level (result: elevated)<br>serum protein level (result: elevated)<br>abdominal tenderness (position: pelvic)<br>anti-alpha-fodrin antibodies<br>painful dysesthesia of the lower extremity<br>tricolor pattern of discoloration of the fingers and toes<br>vaginal wall bleeding<br>hyposalivation |                                       | CRP elevated<br>erythrocyte sedimentation rate<br>proteinase 3 antibody titer, elevated<br>myeloperoxidase antibodies present<br>anti-GBM antibodies present<br>anemia<br>leukocyte level<br>platelet count<br>edema (pitting)<br>serum complement level<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>anti-dsDNA antibodies<br>anticardiolipin antibodies, elevated<br>anti-U1-RNP antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Sm antibodies<br>anti-Jo 1 antibodies<br>anti-Scl-70<br>fever<br>ferritin level  |
| <b>78</b>                    |        |     |   |                        |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                       | Present Risk Factors   | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Diagnosis</b>             | Female | 78  | Sjogren's syndrome                        | Hx: hypertension       | obstructive ventilation pattern<br>pulmonary nodules<br>bronchitis<br>oropharyngeal candidiasis<br>sliding hiatal hernia<br>ground-glass opacities<br>bronchiectasis<br>neutrophilia<br>erythrocyte sedimentation rate (result: elevated)<br>CRP, elevated<br>serum creatinine level (result: elevated)<br>back pain<br>liver cyst<br>abdominal pain (position: epigastric)<br>nausea<br>dysphagia<br>sputum<br>heartburn<br>glomerular filtration rate, reduced<br>parathyroid hormone level (result: elevated)<br>swelling, ankle joint<br>fatigue<br>crackles<br>mycobacterium avium-intracellulare in blood<br>renal cysts<br>small kidneys<br>blood urea nitrogen level (result: elevated)<br>anti-alpha-fodrin antibodies<br>dizziness<br>palpitation<br>thigh pain<br>FEV1/FVC (result: reduced)<br>Premature ventricular contraction<br>hyposalivation<br>dry mouth<br>creatinine kinase level, elevated<br>tricolor pattern of discoloration of the fingers and toes<br>diffusion capacity (result: reduced)   |                                       | cough<br>malignant cells in pulmonary tissue<br>positive tuberculin skin test<br>leukocytosis<br>pulmonary infiltrates<br>pleural effusion<br>proteinuria<br>hematuria<br>anti-U1-RNP antibodies<br>anti-La (SS-B)-autoantibodies<br>antineutrophil cytoplasmic antibodies present<br>anti-SSA autoantibodies<br>anemia<br>weight loss<br>peripheral edema (pitting)<br>axillary lymphadenopathy<br>hilar lymphadenopathy<br>stenosis of the renal artery<br>renal perfusion, decreased<br>thrombocytosis<br>antinuclear antibody level, elevated<br>complement C3 level<br>complement C4 level<br>anti-PL 7 antibodies<br>AV block<br>hypolacrimation<br>anti-Jo 1 antibodies<br>partial thromboplastin time<br>anti-PL 12 antibodies<br>anti-OJ antibodies<br>anti-EJ antibodies<br>positive interferon gamma release assay for tuberculosis |
| <b>79</b>                    |        |     |   |                        |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                       | Present Risk Factors   | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b> | Female | 30  |   |                        | hip pain (time since onset: one month to one year laterality: unilateral activity: exacerbates)<br>groin pain (time since onset: one month to one year)<br>osteoarthritis of the knee<br>meniscal tear<br>knee pain (laterality: unilateral)<br>chondrodysplasia  |                                       |  |
| <b>Diagnosis</b>             | Female | 38  | Stickler Syndrom                          |                        | hip pain (time since onset: more than one year laterality: unilateral activity: exacerbates)<br>groin pain (time since onset: more than one year)<br>osteoarthritis of the knee<br>meniscal tear<br>knee pain (laterality: unilateral time since onset: more than one year)<br>gastric mucosal inflammation<br>ovarian cyst seen on imaging<br>varicose veins<br>swelling, knee (time since onset: more than one year)<br>genu valgum<br>pes cavus<br>arthritis, knee (time since onset: one month to one year)<br>renal cysts<br>low blood pressure<br>arthritis, elbow<br>glaucoma<br>swelling of the lower leg<br>dyspnea (severity: on exertion)<br>weight loss<br>tall stature<br>myopia<br>microhematuria<br>disc herniation<br>reduced visual acuity<br>finger joint pain<br>chondrodysplasia  |                                       | dysuria<br>flank pain<br>macrohematuria<br>foamy urine<br>renal insufficiency<br>complement C3 level<br>complement C4 level<br>erythrocyte sedimentation rate<br>eosinophilia in blood   |
| <b>80</b>                    |        |     |   |                        |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                       | Present Risk Factors   | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit, Top Fit</b> | Female | 23  |   |                        | uveitis<br>hyperopia<br>inflammatory back pain<br>lower back pain (nocturnal or early morning: exacerbates activity: relieves time since onset: one month to one year)<br>gluteal pain<br>morning stiffness<br>dry eye  |                                       | plaque of the skin<br>scaling of the skin, localized<br>urethritis<br>tricolor pattern of discoloration of the fingers and toes<br>aphthous ulcerations of the oral cavity<br>Lymphadenopathy on examination<br>photosensitivity of the skin<br>recurrent blood clots<br>swelling, joint<br>HLA-B27 positive<br>sacroiliitis<br>erosions and ulcerations of the large intestine<br>lactose intolerance<br>spinal deformity   |
| <b>Diagnosis</b>             | Female | 23  | Spondyloarthritis                         |                        | uveitis<br>hyperopia<br>inflammatory back pain<br>lower back pain (nocturnal or early morning: exacerbates activity: relieves time since onset: one month to one year)<br>gluteal pain (time since onset: one month to one year)<br>dry eye<br>limited range of motion of the spine<br>microhematuria<br>vitamin D level, decreased<br>kyphosis   |                                       | morning stiffness<br>plaque of the skin<br>scaling of the skin, localized<br>urethritis<br>tricolor pattern of discoloration of the fingers and toes<br>aphthous ulcerations of the oral cavity<br>Lymphadenopathy on examination<br>photosensitivity of the skin<br>recurrent blood clots<br>swelling, joint<br>HLA-B27 positive<br>sacroiliitis<br>erosions and ulcerations of the large intestine<br>lactose intolerance<br>spinal deformity<br>spinal tenderness<br>antinuclear antibody level, elevated<br>elevated rheumatoid factor<br>anti-cyclic citrullinated protein antibodies<br>serum complement level<br>antineutrophil cytoplasmic antibodies present<br>thyroid stimulating hormone level<br>parathyroid hormone level  |
| <b>81</b>                    |        |     |   |                        |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                       | Present Risk Factors   | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |
| <b>Top Five Fit</b>          | Female | 20  |   | smoker<br>elevated BMI | proteinuria (intensity: trace to mild)<br>striae<br>CRP, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>glomerular filtration rate, reduced<br>alpha 2 globulin level (result: elevated)<br>urinary pH level (pH value: pH <5.5)<br>microhematuria<br>cholesterol level (result: elevated)<br>triglyceride level (result: elevated)<br>uric acid level (result: elevated)   | diabetes mellitus<br>Hx: hypertension | peripheral edema (pitting)<br>diarrhea<br>loss of appetite<br>serum glucose level<br>malaise<br>potassium level  |
| <b>Diagnosis</b>             | Female | 21  | Focal segmental glomerulosclerosis (FSGS) | smoker<br>elevated BMI | proteinuria (intensity: trace to mild)<br>striae<br>erythrocyte sedimentation rate (result: elevated)<br>glomerular filtration rate, reduced<br>alpha 2 globulin level (result: elevated)<br>triglyceride level (result: elevated)<br>serum protein level (result: reduced)<br>increased urinary frequency<br>erythema of the skin, localized (scaly surface: yes)<br>serum albumin level (result: reduced)<br>sodium level (result: reduced)<br>blood urea nitrogen level (result: elevated)<br>transaminase levels, elevated<br>focal segmental glomerulosclerosis<br>nephrosclerosis<br>uric acid level (result: elevated)   | Hx: hypertension<br>diabetes mellitus | peripheral edema (pitting)<br>diarrhea<br>CRP, elevated<br>loss of appetite<br>serum glucose level<br>microhematuria<br>malaise<br>cholesterol level<br>potassium level<br>cough<br>dysuria<br>fever<br>reduced exercise tolerance   |
| <b>82</b>                    |        |     |   |                        |   |                                       |  |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses                       | Present Risk Factors   | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors                   | Non-pathological Symptoms/Findings   |



|                       |        |     |  |                      |  |                     |  |
|-----------------------|--------|-----|--|----------------------|--|---------------------|--|
| Top Five Fit, Top Fit | Female | 14  |  |                      | ventricular septal defect<br>dyspnea<br>splenomegaly<br>systolic heart murmur<br>aortic valve regurgitation on imaging<br>right bundle branch block<br>reduced exercise tolerance<br>fever (time since onset: one day to one week)<br>increased urinary frequency<br>hand pain (laterality: unilateral)<br>posterior neck pain<br>underweight<br>cough (clear or yellow phlegm: no)<br>erythrocyte sedimentation rate (result: elevated)<br>generalized arthralgia<br>platelet count (result: elevated)<br>glomerular filtration rate, reduced<br>proteinuria (intensity: trace to mild)<br>microcytic anemia<br>weight loss (more than 10% of body weight within six months: no)<br>secondary amenorrhea<br>shoulder asymmetry<br>flank pain (side: right)<br>interstitial nephritis<br>blood urea nitrogen level (result: elevated)<br>endocarditis  |                     | cyanosis<br>edema (pitting)<br>hepatomegaly<br>arrhythmic pulse on palpation<br>heart valve defect<br>hypoxemia<br>arrhythmias on ECG<br>supraventricular premature beats<br>Premature ventricular contraction<br>cardiomegaly<br>chest pain<br>antistreptolysin O antibody titer, elevated<br>antineutrophil cytoplasmic antibodies present<br>antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>serum complement level<br>spinal tenderness<br>uveitis<br>hyperhidrosis, generalized  |
| Diagnosis             | Female | 16  | Tubulointerstitial nephritis and uveitis syndrome (TINU) |                      | ventricular septal defect<br>dyspnea<br>splenomegaly<br>systolic heart murmur<br>aortic valve regurgitation on imaging<br>right bundle branch block<br>reduced exercise tolerance<br>fever (high grade: yes time since onset: one day to one week)<br>increased urinary frequency<br>hand pain (laterality: unilateral)<br>posterior neck pain<br>underweight<br>cough (clear or yellow phlegm: no)<br>erythrocyte sedimentation rate (result: elevated)<br>generalized arthralgia<br>platelet count (result: elevated)<br>glomerular filtration rate, reduced<br>microcytic anemia<br>weight loss (more than 10% of body weight within six months: no)<br>secondary amenorrhea<br>shoulder asymmetry<br>flank pain (side: right time since onset: one month to one year)<br>interstitial nephritis<br>blood urea nitrogen level (result: elevated)<br>endocarditis<br>anterior uveitis  |                     | cyanosis<br>edema (pitting)<br>hepatomegaly<br>arrhythmic pulse on palpation<br>heart valve defect<br>hypoxemia<br>arrhythmias on ECG<br>supraventricular premature beats<br>Premature ventricular contraction<br>cardiomegaly<br>chest pain<br>antistreptolysin O antibody titer, elevated<br>proteinuria<br>antineutrophil cytoplasmic antibodies present<br>antinuclear antibody level, elevated<br>anti-dsDNA antibodies<br>serum complement level<br>spinal tenderness<br>hyperhidrosis, generalized<br>gastroesophageal reflux<br>exocrine dysfunction of the pancreas<br>restrictive ventilation pattern<br>obstructive ventilation pattern<br>Lymphadenopathy on palpation<br>crackles<br>abdominal tenderness   |
| 83                    |        |     |  |                      |  |                     |  |
| Visit                 | Sex    | Age | Confirmed Diagnoses                                      | Present Risk Factors | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings   |
| Top Five Fit          | Female | 36  |  |                      | generalized arthralgia (time since onset: more than one year)<br>abdominal pain (time since onset: more than one year)<br>crepitus in knee<br>feeling of lump in the throat<br>palpitation (time since onset: more than one year)<br>enlarged thyroid gland<br>rapid pulse (time since onset: more than one year)<br>atrioventricular re-entrant tachycardia<br>right bundle branch block<br>myalgia (time since onset: more than one year)<br>sensory deficit<br>upper extremity paresis<br>headache<br>gastroesophageal reflux<br>neuropathic pattern on EMG<br>antinuclear antibody level, elevated<br>tricolor pattern of discoloration of the fingers and toes<br>complement C3 level (result: reduced)<br>knee pain<br>PIP joint pain (finger)<br>elbow pain<br>painful dysesthesia of the upper extremity<br>painful dysesthesia of the trunk<br>posterior neck pain<br>dysphagia (time since onset: one month to one year)<br>increased tearing<br>arthritis<br>proximal lower extremity paresis   |                     | swelling, joint<br>fever<br>urinary tract infection<br>skin rash<br>diarrhea<br>spinal tenderness<br>thyroglobulin antibodies<br>thyrotropin receptor antibodies<br>thyroid nodule on imaging<br>dry mouth<br>disorientation<br>muscle atrophy<br>muscular hypertonicity<br>muscular hypotonicity<br>clonus<br>cranial nerve disorder<br>complement C4 level<br>CRP, elevated<br>creatinine kinase level, elevated<br>serum creatinine level<br>anemia<br>lupus anticoagulant antibodies, elevated<br>elevated rheumatoid factor<br>immune deposits<br>antineutrophil cytoplasmic antibodies present<br>ACE level<br>anti-dsDNA antibodies<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Scl-70<br>anti-Jo 1 antibodies<br>erythema of the joint<br>morning stiffness<br>dry eye<br>photophobia<br>weight loss<br>hyperhidrosis, generalized   |
| Top Fit               | Female | 37  |  |                      | generalized arthralgia (time since onset: more than one year)<br>abdominal pain (time since onset: more than one year)<br>crepitus in knee<br>feeling of lump in the throat<br>palpitation (time since onset: more than one year)<br>enlarged thyroid gland<br>rapid pulse (time since onset: more than one year)<br>atrioventricular re-entrant tachycardia<br>right bundle branch block<br>myalgia (time since onset: more than one year)<br>sensory deficit<br>upper extremity paresis<br>headache<br>gastroesophageal reflux<br>neuropathic pattern on EMG<br>antinuclear antibody level, elevated<br>tricolor pattern of discoloration of the fingers and toes<br>complement C3 level (result: reduced)<br>anemia<br>knee pain<br>PIP joint pain (finger)<br>elbow pain<br>painful dysesthesia of the upper extremity<br>painful dysesthesia of the trunk<br>posterior neck pain<br>dysphagia (time since onset: one month to one year)<br>increased tearing<br>arthritis<br>muscle fasciculation<br>tenderness, MCP joints<br>tenderness, MTP joints<br>anti-PL 7 antibodies<br>proximal lower extremity paresis |                     | swelling, joint<br>fever<br>urinary tract infection<br>skin rash<br>diarrhea<br>spinal tenderness<br>thyroglobulin antibodies<br>thyrotropin receptor antibodies<br>thyroid nodule on imaging<br>dry mouth<br>disorientation<br>muscle atrophy<br>muscular hypertonicity<br>muscular hypotonicity<br>clonus<br>cranial nerve disorder<br>complement C4 level<br>CRP, elevated<br>creatinine kinase level, elevated<br>serum creatinine level<br>lupus anticoagulant antibodies, elevated<br>elevated rheumatoid factor<br>immune deposits<br>antineutrophil cytoplasmic antibodies present<br>ACE level<br>anti-dsDNA antibodies<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>anti-Scl-70<br>anti-Jo 1 antibodies<br>erythema of the joint<br>morning stiffness<br>dry eye<br>photophobia<br>weight loss<br>hyperhidrosis, generalized<br>leukopenia<br>neutropenia<br>anti-cyclic citrullinated protein antibodies<br>uveitis<br>conjunctivitis<br>erythema<br>anti-SRP antibodies<br>anti-Ku antibodies<br>anti-PL 12 antibodies<br>anticardiolipin antibodies, elevated<br>anti-EJ antibodies<br>anti-OJ antibodies<br>platelet count |

|                                      |        |     |                         |  |  |                     |   |
|--------------------------------------|--------|-----|-------------------------|--|--|---------------------|---|
| <b>Diagnosis</b>                     | Female | 37  | Antisynthetase Syndrome |  | <p>generalized arthralgia (time since onset: more than one year)</p> <p>abdominal pain (time since onset: more than one year)</p> <p>creptus in knee</p> <p>feeling of lump in the throat</p> <p>palpitation (time since onset: more than one year)</p> <p>enlarged thyroid gland</p> <p>rapid pulse (time since onset: more than one year)</p> <p>atrioventricular re-entrant tachycardia</p> <p>right bundle branch block</p> <p>myalgia (time since onset: more than one year)</p> <p>sensory deficit</p> <p>upper extremity paresis</p> <p>headache</p> <p>gastroesophageal reflux</p> <p>neuropathic pattern on EMG</p> <p>antinuclear antibody level, elevated</p> <p>tricolor pattern of discoloration of the fingers and toes</p> <p>complement C3 level (result: reduced)</p> <p>knee pain</p> <p>PIP joint pain (finger)</p> <p>elbow pain</p> <p>painful dysesthesia of the upper extremity</p> <p>painful dysesthesia of the trunk</p> <p>posterior neck pain</p> <p>dysphagia (time since onset: one month to one year)</p> <p>increased tearing</p> <p>arthritis</p> <p>muscle fasciculation</p> <p>tenderness, MCP joints</p> <p>tenderness, MTP joints</p> <p>anti-PL 7 antibodies</p> <p>aphthous ulcerations of the oral cavity (time since onset: more than one year)</p> <p>serum chromogranin A/B, elevated</p> <p>proximal lower extremity paresis</p> |                     | <p>swelling, joint</p> <p>fever</p> <p>urinary tract infection</p> <p>skin rash</p> <p>diarrhea</p> <p>spinal tenderness</p> <p>thyroglobulin antibodies</p> <p>thyrotropin receptor antibodies</p> <p>thyroid nodule on imaging</p> <p>dry mouth</p> <p>disorientation</p> <p>muscle atrophy</p> <p>muscular hypertonicity</p> <p>muscular hypotonicity</p> <p>clonus</p> <p>cranial nerve disorder</p> <p>complement C4 level</p> <p>CRP elevated</p> <p>creatine kinase level, elevated</p> <p>serum creatinine level</p> <p>anemia</p> <p>lupus anticoagulant antibodies, elevated</p> <p>elevated rheumatoid factor</p> <p>immune deposits</p> <p>antineutrophil cytoplasmic antibodies present</p> <p>ACE level</p> <p>anti-dsDNA antibodies</p> <p>anti-U1-RNP antibodies</p> <p>anti-Sm antibodies</p> <p>anti-SSA autoantibodies</p> <p>anti-La (SS-B) autoantibodies</p> <p>anti-Scl-70</p> <p>anti-Jo 1 antibodies</p> <p>erythema of the joint</p> <p>morning stiffness</p> <p>dry eye</p> <p>photophobia</p> <p>weight loss</p> <p>hyperhidrosis, generalized</p> <p>leukopenia</p> <p>anti-cyclic citrullinated protein antibodies</p> <p>uveitis</p> <p>conjunctivitis</p> <p>erythema</p> <p>anti-SRP antibodies</p> <p>anti-Ku antibodies</p> <p>anti-PL 12 antibodies</p> <p>anticardiolipin antibodies, elevated</p> <p>anti-EJ antibodies</p> <p>anti-OJ antibodies</p> |
| <b>84</b>                            |        |     |                         |  |  |                     |   |
| <b>Visit</b>                         | Sex    | Age | Confirmed Diagnoses     | Present Risk Factors                         | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>                     | Male   | 48  | SAPHO-Syndrome          | <p>diabetes mellitus</p> <p>elevated BMI</p> | <p>obstructive sleep apnea (time since onset: more than one year)</p> <p>aphthous ulcerations of the oral cavity (time since onset: more than one year)</p> <p>headache (time since onset: one month to one year)</p> <p>effusion, ankle</p> <p>osteoarthritis</p> <p>kyphosis</p> <p>memory difficulty (time since onset: more than one year)</p> <p>ankle pain (time since onset: more than one year laterality: bilateral)</p> <p>pustule on the foot</p> <p>disc degeneration</p> <p>osteomyelitis</p> <p>back pain (time since onset: more than one year)</p>   |                     | <p>nasal discharge</p> <p>ankle fracture</p>  |
| <b>85</b>                            |        |     |                         |  |  |                     |   |
| <b>Visit</b>                         | Sex    | Age | Confirmed Diagnoses     | Present Risk Factors                         | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>                  | Male   | 52  |                         |  | <p>headache (time since onset: one week to one month)</p> <p>sore throat (time since onset: one week to one month)</p> <p>fever (high grade: no time since onset: one week to one month)</p> <p>myalgia (time since onset: one week to one month)</p> <p>groin pain (time since onset: one week to one month)</p> <p>scrotal pain (time since onset: one week to one month)</p> <p>lower extremity pain (time since onset: one week to one month)</p> <p>hyperhidrosis, generalized (night sweats: yes time since onset: one week to one month)</p> <p>weight loss (more than 10% of body weight within six months: no)</p> <p>nocturia</p> <p>CRP, elevated</p> <p>vitamin D level, decreased</p> <p>parathyroid hormone level (result: elevated)</p> <p>elevated rheumatoid factor</p> <p>myositis</p>   |                     | <p>venous thrombosis</p> <p>IgA level</p> <p>IgG level</p> <p>antinuclear antibody level, elevated</p> <p>antineutrophil cytoplasmic antibodies present</p> <p>anti-dsDNA antibodies</p> <p>anti-SSA autoantibodies</p> <p>anti-La (SS-B) autoantibodies</p> <p>anti-Sm antibodies</p> <p>anti-Jo 1 antibodies</p> <p>anti-U1-RNP antibodies</p> <p>anti-Scl-70</p> <p>Hepatitis B virus</p> <p>hepatitis C virus</p> <p>confirmed human immunodeficiency virus infection</p> <p>Treponema pallidum antigen</p>   |
| <b>Top Fit (&lt;= 1 month early)</b> | Male   | 52  |                         |  | <p>headache (time since onset: one month to one year)</p> <p>sore throat (time since onset: one month to one year)</p> <p>fever (high grade: no time since onset: one month to one year)</p> <p>myalgia (time since onset: one month to one year)</p> <p>groin pain (time since onset: one month to one year)</p> <p>scrotal pain (time since onset: one month to one year)</p> <p>lower extremity pain (time since onset: one month to one year)</p> <p>hyperhidrosis, generalized (night sweats: yes time since onset: one month to one year)</p> <p>weight loss (more than 10% of body weight within six months: no)</p> <p>nocturia (time since onset: one month to one year)</p> <p>CRP, elevated</p> <p>vitamin D level, decreased</p> <p>parathyroid hormone level (result: elevated)</p> <p>elevated rheumatoid factor</p> <p>myositis</p> <p>anemia</p> <p>leukocytosis</p> <p>thrombocytopenia</p>   |                     | <p>venous thrombosis</p> <p>IgA level</p> <p>IgG level</p> <p>antinuclear antibody level, elevated</p> <p>antineutrophil cytoplasmic antibodies present</p> <p>anti-dsDNA antibodies</p> <p>anti-SSA autoantibodies</p> <p>anti-La (SS-B) autoantibodies</p> <p>anti-Sm antibodies</p> <p>anti-Jo 1 antibodies</p> <p>anti-U1-RNP antibodies</p> <p>anti-Scl-70</p> <p>Hepatitis B virus</p> <p>hepatitis C virus</p> <p>confirmed human immunodeficiency virus infection</p> <p>Treponema pallidum antigen</p>   |
| <b>Diagnosis</b>                     | Male   | 52  | Polymyositis            |  | <p>headache (time since onset: one month to one year)</p> <p>sore throat (time since onset: one month to one year)</p> <p>fever (high grade: no time since onset: one month to one year)</p> <p>myalgia (time since onset: one month to one year)</p> <p>groin pain (time since onset: one month to one year)</p> <p>scrotal pain (time since onset: one month to one year)</p> <p>lower extremity pain (time since onset: one month to one year)</p> <p>hyperhidrosis, generalized (night sweats: yes time since onset: one month to one year)</p> <p>weight loss (more than 10% of body weight within six months: no)</p> <p>nocturia (time since onset: one month to one year)</p> <p>CRP, elevated</p> <p>vitamin D level, decreased</p> <p>parathyroid hormone level (result: elevated)</p> <p>elevated rheumatoid factor</p> <p>myositis</p> <p>anemia</p> <p>leukocytosis</p> <p>thrombocytopenia</p> <p>sodium level (result: elevated)</p> <p>gamma gt level, elevated</p> <p>IgG4 level (result: elevated)</p> <p>complement C4 level (result: elevated)</p> <p>proteinase 3 antibody titer, elevated</p> <p>anti-smooth-muscle antibodies</p> <p>glomerular filtration rate, reduced</p> <p>cardiac ejection fraction (result: reduced)</p>   |                     | <p>venous thrombosis</p> <p>IgA level</p> <p>IgG level</p> <p>antinuclear antibody level, elevated</p> <p>antineutrophil cytoplasmic antibodies present</p> <p>anti-dsDNA antibodies</p> <p>anti-SSA autoantibodies</p> <p>anti-La (SS-B) autoantibodies</p> <p>anti-Sm antibodies</p> <p>anti-Jo 1 antibodies</p> <p>anti-U1-RNP antibodies</p> <p>anti-Scl-70</p> <p>Hepatitis B virus</p> <p>hepatitis C virus</p> <p>confirmed human immunodeficiency virus infection</p> <p>Treponema pallidum antigen</p> <p>antimitochondrial antibody</p> <p>anti-soluble liver antigens antibodies</p> <p>parietal cell antibodies</p> <p>heart valve defect</p> <p>partial thromboplastin time</p>  |
| <b>86</b>                            |        |     |                         |  |  |                     |   |
| <b>Visit</b>                         | Sex    | Age | Confirmed Diagnoses     | Present Risk Factors                         | Pathological Symptoms/Findings (with attributes)   | Absent Risk Factors | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit</b>         | Female | 32  |                         |  | <p>gastric mucosal inflammation</p> <p>antinuclear antibody level, elevated</p> <p>anti-SSA autoantibodies</p> <p>IgG level (result: elevated)</p> <p>intestinal inflammation</p> <p>wrist pain (laterality: bilateral time since onset: one month to one year)</p> <p>finger joint pain (laterality: bilateral time since onset: one month to one year)</p> <p>1st metatarsal joint pain (laterality: bilateral time since onset: one month to one year)</p> <p>ankle pain (laterality: bilateral time since onset: one month to one year)</p> <p>knee pain (laterality: bilateral time since onset: one month to one year)</p> <p>myalgia (time since onset: one month to one year)</p> <p>muscle cramps (time since onset: one month to one year)</p> <p>morning stiffness</p> <p>dry mouth</p> <p>headache (laterality: unilateral)</p> <p>swelling, wrist</p> <p>swelling, knee (laterality: bilateral)</p> <p>tenderness, MCP joints (laterality: bilateral)</p> <p>tenderness, MTP joints (laterality: bilateral)</p> <p>Total IgE level, elevated</p> <p>elevated rheumatoid factor</p> <p>microcytic anemia</p> <p>procalcitonin level, elevated</p>  |                     | <p>anti-U1-RNP antibodies</p> <p>anti-Sm antibodies</p> <p>anti-La (SS-B) autoantibodies</p> <p>antineutrophil cytoplasmic antibodies present</p> <p>C3 nephritic factor level, elevated</p> <p>IgA level</p> <p>complement C3 level</p> <p>complement C4 level</p> <p>tubular necrosis</p> <p>focal segmental glomerulosclerosis</p> <p>serum creatinine level</p> <p>glomerular filtration rate, reduced</p> <p>proteinuria</p> <p>hematuria</p> <p>anti-Jo 1 antibodies</p> <p>anti-alpha-fodrin antibodies</p> <p>anticardiolipin antibodies, elevated</p> <p>anti-dsDNA antibodies</p> <p>creatine kinase level, elevated</p> <p>leukocyte level</p> <p>platelet count</p> <p>CRP, elevated</p> <p>transaminase levels, elevated</p> <p>lactate dehydrogenase level, elevated</p> <p>diffusion capacity</p> <p>neutropenia</p> <p>splenomegaly</p> <p>hepatomegaly</p> <p>bone erosion of a joint</p>  |

|                              |        |     |  |                      |   |                         |   |
|------------------------------|--------|-----|--|----------------------|---|-------------------------|---|
| <b>Diagnosis</b>             | Female | 33  | Chronic Polyarthritis<br>Sjogren's syndrome                |                      | gastric mucosal inflammation<br>antinuclear antibody level, elevated<br>anti-SSA autoantibodies<br>IgG level (result: elevated)<br>intestinal inflammation<br>wrist pain (laterality: bilateral time since onset: one month to one year)<br>finger joint pain (laterality: bilateral time since onset: one month to one year)<br>tarsometatarsal joint pain (laterality: bilateral time since onset: one month to one year)<br>ankle pain (laterality: bilateral time since onset: one month to one year)<br>knee pain (laterality: bilateral time since onset: one month to one year)<br>myalgia (time since onset: one month to one year)<br>muscle cramps (time since onset: one month to one year)<br>morning stiffness<br>dry mouth<br>headache (laterality: unilateral time since onset: more than one year)<br>swelling, wrist<br>swelling, knee (laterality: bilateral)<br>tenderness, MCP joints (laterality: bilateral)<br>tenderness, MTP joints (laterality: bilateral)<br>Total IgE level, elevated<br>elevated rheumatoid factor<br>microcytic anemia<br>procalcitonin level, elevated<br>hypolacrimation<br>anti-cyclic citrullinated protein antibodies   |                         | anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-La (SS-B)-autoantibodies<br>antineutrophil cytoplasmic antibodies present<br>C3 nephritic factor level, elevated<br>IgA level<br>complement C3 level<br>complement C4 level<br>tubular necrosis<br>focal segmental glomerulosclerosis<br>serum creatinine level<br>glomerular filtration rate, reduced<br>proteinuria<br>hematuria<br>anti-Jo 1 antibodies<br>anti-alpha-fodrin antibodies<br>anticardiolipin antibodies, elevated<br>anti-dsDNA antibodies<br>creatine kinase level, elevated<br>leukocyte level<br>platelet count<br>CRP, elevated<br>transaminase levels, elevated<br>lactate dehydrogenase level, elevated<br>diffusion capacity<br>neutropenia<br>splenomegaly<br>hepatomegaly<br>bone erosion of a joint |
| <b>87</b>                    |        |     |  |                      |   |                         |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors     | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>             | Male   | 40  | Spondyloarthritis  | smoker               | chest pain (position: retrosternal radiating: yes respiration: exacerbates time since onset: one month to one year)<br>heartburn<br>fever (time since onset: one month to one year)<br>reduced exercise tolerance (time since onset: more than one year)<br>CRP, elevated<br>leukocytosis<br>crackles<br>polyserositis<br>fatigue (time since onset: more than one year)<br>alanine transaminase level, elevated<br>gamma gt level, elevated<br>lower back pain (radiating down the leg: yes time since onset: one month to one year)<br>inflammatory back pain<br>morning stiffness<br>knee pain (time since onset: more than one year laterality: bilateral)<br>elbow pain (time since onset: more than one year laterality: bilateral)<br>erosion and ulceration of the back (time since onset: more than one year)<br>limited range of motion of the spine<br>chest tightness<br>shortened PR interval on ECG<br>steatosis hepatitis<br>hepatic mass seen on imaging<br>prostate enlargement<br>diffusion capacity (result: reduced)<br>sacroiliitis<br>Interleukin 2 receptor, elevated<br>positive interferon gamma release assay for tuberculosis  |                         | pericardial effusion<br>pleural effusion<br>erythrocyte sedimentation rate<br>procalcitonin level, elevated<br>cardiac ejection fraction<br>anti-SSA autoantibodies<br>anti-U1 antibodies<br>anti-EJ antibodies<br>anti-PL 12 antibodies<br>anti-PL 7 antibodies<br>anti-SRP antibodies<br>anti-Jo 1 antibodies<br>anti-PmScl antibody titer<br>anti-Ku antibodies<br>M1-2 antibody titer<br>NFE2V gene mutation<br>glomerular filtration rate, reduced<br>anemia<br>platelet count<br>TNFRSF1A gene mutation<br>NLRP3 gene mutation<br>swelling, joint<br>abdominal lymphadenopathy<br>pulmonary infiltrates<br>HLA-B27 positive   |
| <b>88</b>                    |        |     |  |                      |   |                         |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors     | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>             | Male   | 45  | Behcet's disease<br>Spondyloarthritis                      | smoker               | headache (laterality: unilateral time since onset: more than one year)<br>sensory deficit, arm (distribution: unilateral time since onset: more than one year)<br>sensory deficit, lower extremity (distribution: unilateral time since onset: more than one year)<br>double vision (time since onset: more than one year)<br>impaired vision (time since onset: more than one year)<br>gait impairment<br>leukocytosis<br>vitamin D level, decreased<br>exophthalmos<br>hypolacrimation<br>kidney stone<br>renal tubular acidosis type 1<br>vesicle on the trunk (erythematous: yes pain: yes pruritus: yes)<br>reduced exercise tolerance (time since onset: one month to one year)<br>dyspnea (severity: on exertion)<br>aural fullness<br>mitral valve regurgitation on imaging<br>vertigo<br>ear noise (laterality: unilateral)<br>uric acid level (result: reduced)<br>thyroid stimulating hormone level (result: elevated)<br>hemiparesis<br>pustule on the trunk (time since onset: one month to one year)<br>dry mouth<br>neck pain<br>finger joint pain<br>aphthous ulcerations of the oral cavity (time since onset: one month to one year)<br>hearing deficit (laterality: unilateral time since onset: one month to one year)<br>arthritis, other location |                         | ataxia<br>disorientation<br>meningism<br>Lhermitte's sign<br>cranial nerve disorder<br>lower extremity paresis<br>upper extremity paresis<br>extensor plantar reflex<br>clonus<br>ischemic infarction<br>intracerebral hemorrhage<br>intracranial hemorrhage<br>galactorrhea<br>chest pain<br>weight loss<br>blood pressure<br>cardiac ejection fraction<br>left ventricular hypertrophy<br>heart valve defect<br>positive pathway test<br>elevated rheumatoid factor<br>ACE level<br>beta 2 microglobulin level, elevated<br>pathologically increased cryoglobulin level<br>uveitis  |
| <b>89</b>                    |        |     |  |                      |   |                         |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors     | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit, Top Fit</b> | Female | 81  |  | Hx: hypertension     | headache (time since onset: one day to one week bending forward: exacerbates)<br>alanine transaminase level, elevated<br>aspartate transaminase level, elevated<br>hepatitis C virus<br>antinuclear antibody level, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>platelet count (result: reduced)<br>CRP, elevated<br>anti-smooth-muscle antibodies<br>antimitochondrial antibody<br>leukocytoclastic vasculitis  |                         | antineutrophil cytoplasmic antibodies present<br>leukocyte level<br>hemoglobin level  |
| <b>Diagnosis</b>             | Female | 81  | Cryoglobulinemia   | Hx: hypertension     | headache (time since onset: one month to one year bending forward: exacerbates)<br>alanine transaminase level, elevated<br>aspartate transaminase level, elevated<br>hepatitis C virus<br>antinuclear antibody level, elevated<br>erythrocyte sedimentation rate (result: elevated)<br>CRP, elevated<br>anti-smooth-muscle antibodies<br>antimitochondrial antibody<br>leukocytoclastic vasculitis<br>lower extremity pain<br>complement C3 level (result: reduced)<br>complement C4 level (result: reduced)<br>pathologically increased cryoglobulin level<br>peripheral polyneuropathy<br>tricolor pattern of discoloration of the fingers and toes<br>feeling of heavy legs<br>swelling of the lower extremity<br>foot pain<br>fatigue<br>petechiae  | alcohol abuse<br>smoker | antineutrophil cytoplasmic antibodies present<br>leukocyte level<br>hemoglobin level<br>platelet count<br>abdominal pain<br>serum creatinine level<br>alkaline phosphatase level<br>anti-U1-RNP antibodies<br>anti-Sm antibodies<br>anti-SSA autoantibodies<br>anti-La (SS-B)-autoantibodies<br>proteinase 3 antibody titer, elevated<br>myeloperoxidase antibodies present<br>anti-Sci-70<br>anti-dsDNA antibodies<br>cold agglutinin<br>erosions and ulcerations of the skin  |
| <b>90</b>                    |        |     |  |                      |   |                         |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors     | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>             | Female | 52  | Mixed Amyloidosis  |                      | dyspnea (time since onset: more than one year)<br>bone pain (time since onset: more than one year)<br>CRP, elevated<br>chest pain (position: unilateral)<br>diminished sense of taste<br>intestinal meteorism<br>renal insufficiency<br>proteinuria (intensity: moderate to severe)<br>serum amyloid A, elevated<br>amyloid protein deposition<br>Total IgE level, elevated<br>positive interferon gamma release assay for tuberculosis   |                         | erythrocyte sedimentation rate<br>mycobacterium tuberculosis in lower respiratory tract<br>mycobacterium tuberculosis in upper respiratory tract<br>mycobacterium tuberculosis in urine<br>mycobacterium tuberculosis in blood<br>positive tuberculin skin test   |
| <b>91</b>                    |        |     |  |                      |   |                         |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors     | Non-pathological Symptoms/Findings  |
| <b>Diagnosis</b>             | Female | 39  | Systemic Lupus Erythematosus (SLE)<br>Renal Cell Carcinoma |                      | knee pain (time since onset: one month to one year activity: no effect intensity: severe colchicine: no effect alcohol: no effect laterality: bilateral diet rich in purine)<br>deep vein thrombosis<br>pulmonary embolism<br>Factor V level (result: reduced)<br>arthritis<br>uveitis<br>antinuclear antibody level, elevated<br>anti-beta 2 glycoprotein antibodies, elevated<br>lymphopenia<br>microhematuria<br>proteinuria<br>renal insufficiency<br>renal mass seen on imaging<br>glomerulonephritis<br>malignant cells in renal tissue   |                         | anti-dsDNA antibodies<br>elevated rheumatoid factor<br>complement C3 level<br>complement C4 level   |
| <b>92</b>                    |        |     |  |                      |   |                         |   |
| <b>Visit</b>                 | Sex    | Age | Confirmed Diagnoses  | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors     | Non-pathological Symptoms/Findings  |
| <b>Top Five Fit</b>          | Female | 9   |  |                      | short stature<br>lower extremity pain (laterality: bilateral)   |                         |   |
| <b>Top Fit</b>               | Female | 15  |  |                      | short stature<br>lower extremity pain (laterality: bilateral)<br>dental abnormalities<br>alopecia   |                         |   |

|                     |        |     |                     |                      |   |                     |   |
|---------------------|--------|-----|---------------------|----------------------|---|---------------------|---|
| <b>Diagnosis</b>    | Female | 40  | Hypophosphatasia    |                      | short stature<br>lower extremity pain (laterality: bilateral)<br>dental abnormalities<br>alopecia<br>proof of miscarriage<br>evidence of ectopic pregnancy in ultrasound<br>fatigue<br>unexplained fracture<br>alkaline phosphatase level (result: reduced)   |                     | parathyroid hormone level<br>vitamin D level, decreased |
| <b>93</b>           |        |     |                     |                      |   |                     |   |
| <b>Visit</b>        | Sex    | Age | Confirmed Diagnoses | Present Risk Factors | Pathological Symptoms/Findings (with attributes)  | Absent Risk Factors | Non-pathological Symptoms/Findings                      |
| <b>Top Five Fit</b> | Male   | 42  |                     |                      | soft tissue lump on the face (time since onset: one month to one year change in size: yes tenderness: tender consistency: firm)   |                     | sensory deficit, face                                   |
| <b>Diagnosis</b>    | Male   | 42  | Kimura Disease      |                      | soft tissue lump on the face (time since onset: one month to one year change in size: yes tenderness: tender consistency: firm)<br>preauricular lymphadenopathy (time since onset: one month to one year)<br>Total IgE level, elevated<br>eosinophilic infiltrate<br>antistreptolysin O antibody titer, elevated<br>anti-alpha-fodrin antibodies<br>parathyroid hormone level (result: elevated)<br>steatosis hepatis<br>blue skin<br>transaminase levels, elevated<br>gamma gt level, elevated<br>cholesterol level (result: elevated) |                     | sensory deficit, face<br>facial muscle weakness         |