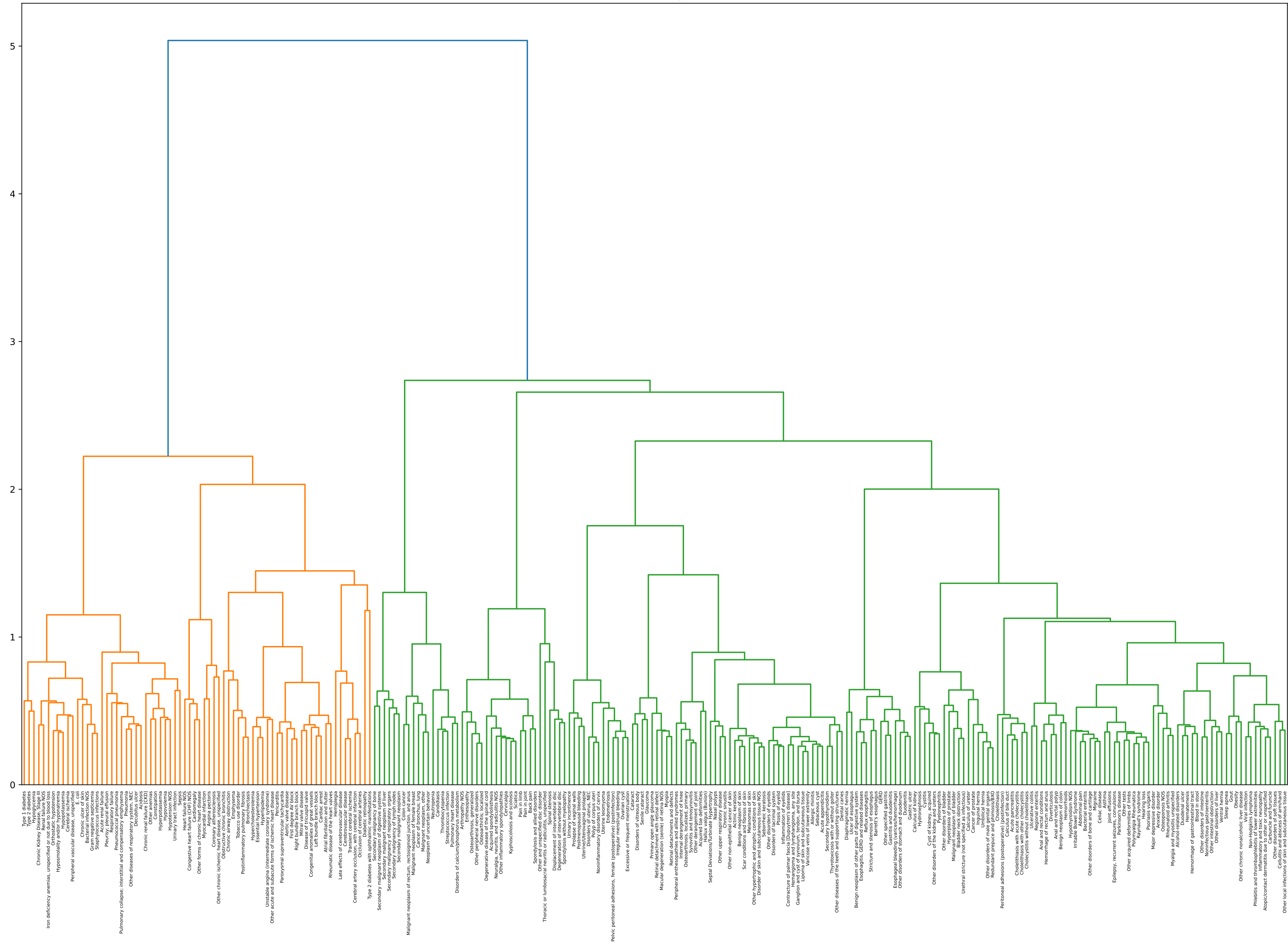
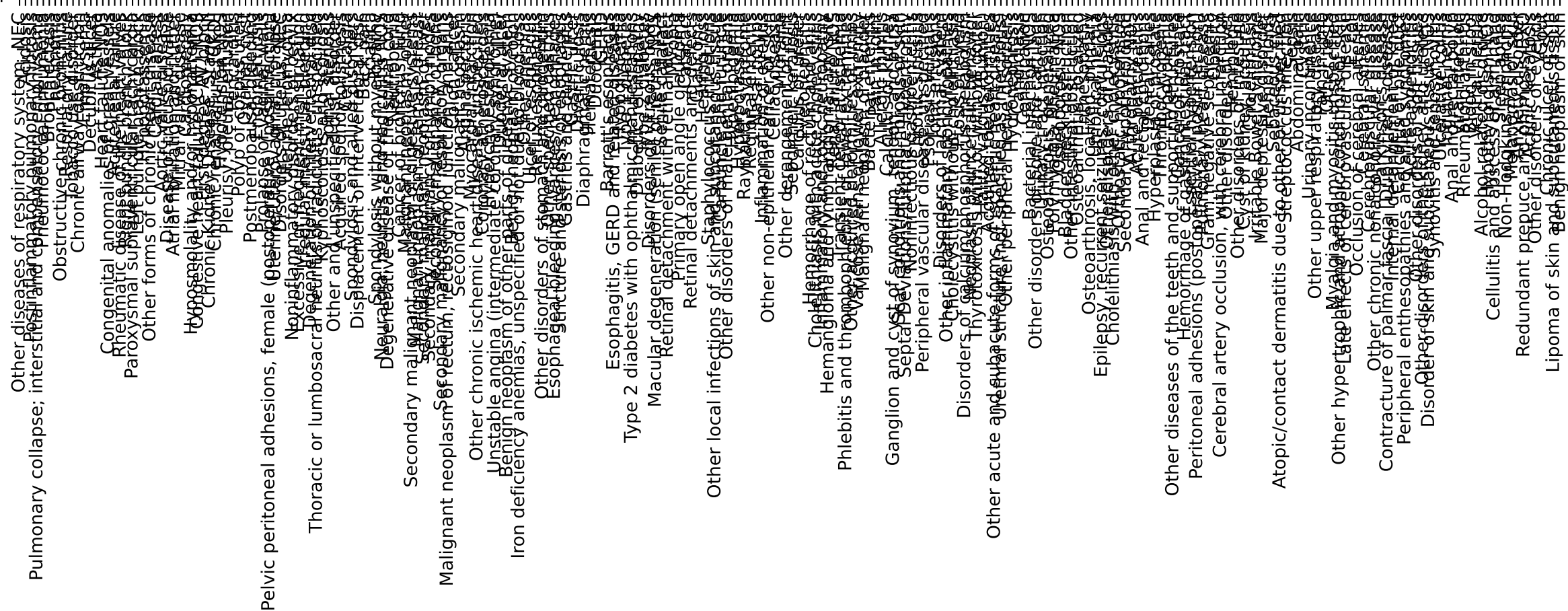
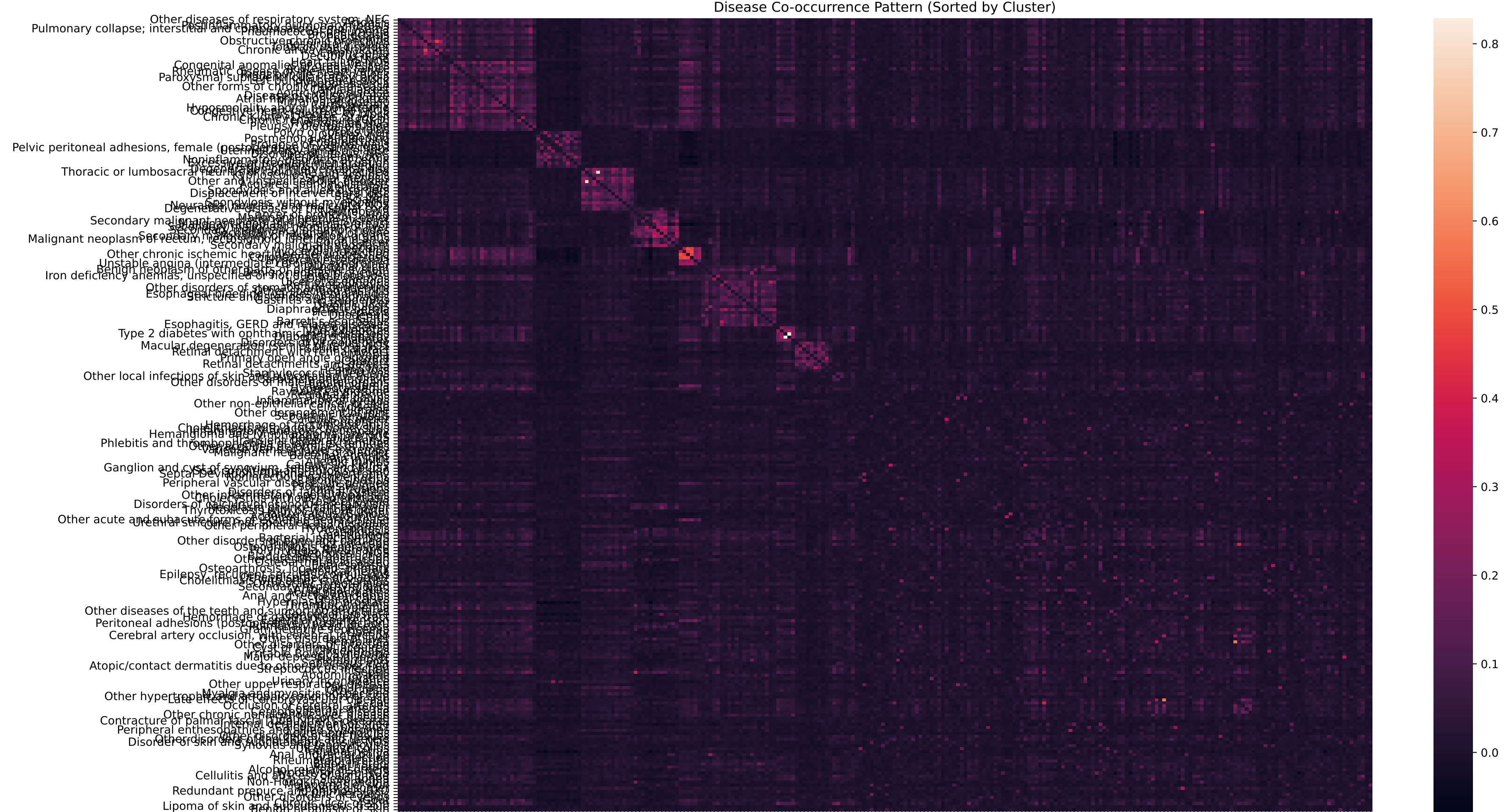


## Hierarchical Clustering of Diseases



Disease Co-occurrence Pattern (Sorted by Cluster)





#### Disease Clusters:

##### Cluster 1:

- Pneumonia (prevalence: 0.043)
- Pneumococcal pneumonia (prevalence: 0.063)
- Asthma (prevalence: 0.157)
- Decubitus ulcer (prevalence: 0.019)
- Other diseases of respiratory system, NEC (prevalence: 0.058)
- Respiratory failure (prevalence: 0.033)
- Pulmonary collapse; interstitial and compensatory emphysema (prevalence: 0.034)
- Acidosis (prevalence: 0.016)
- Postinflammatory pulmonary fibrosis (prevalence: 0.011)
- Tobacco use disorder (prevalence: 0.084)
- Chronic airway obstruction (prevalence: 0.065)
- Bronchiectasis (prevalence: 0.019)
- Emphysema (prevalence: 0.017)
- Obstructive chronic bronchitis (prevalence: 0.025)

##### Cluster 2:

- Cardiomegaly (prevalence: 0.035)
- Pericarditis (prevalence: 0.011)
- Pleurisy; pleural effusion (prevalence: 0.067)
- Hypotension NOS (prevalence: 0.043)
- Hyposmolality and/or hyponatremia (prevalence: 0.034)
- Acute renal failure (prevalence: 0.081)
- Chronic renal failure [CKD] (prevalence: 0.036)
- Hypopotassemia (prevalence: 0.026)
- Aortic valve disease (prevalence: 0.011)
- Congenital anomalies of great vessels (prevalence: 0.019)
- Chronic Kidney Disease, Stage III (prevalence: 0.049)
- Congestive heart failure (CHF) NOS (prevalence: 0.028)
- Atrial fibrillation and flutter (prevalence: 0.073)
- Other forms of chronic heart disease (prevalence: 0.032)
- Left bundle branch block (prevalence: 0.020)
- Heart failure NOS (prevalence: 0.048)
- Rheumatic disease of the heart valves (prevalence: 0.018)
- First degree AV block (prevalence: 0.016)
- Mitral valve disease (prevalence: 0.025)
- Cardiac arrest (prevalence: 0.012)
- Disease of tricuspid valve (prevalence: 0.018)
- Paroxysmal supraventricular tachycardia (prevalence: 0.019)
- Right bundle branch block (prevalence: 0.019)

##### Cluster 3:

- Polyp of corpus uteri (prevalence: 0.034)
- Postmenopausal bleeding (prevalence: 0.040)
- Ovarian cyst (prevalence: 0.021)
- Pelvic peritoneal adhesions, female (postoperative) (postinfection) (prevalence: 0.014)
- Prolapse of vaginal walls (prevalence: 0.036)
- Noninflammatory disorders of cervix (prevalence: 0.013)
- Uterine leiomyoma (prevalence: 0.047)
- Disorders of uterus, NEC (prevalence: 0.016)
- Excessive or frequent menstruation (prevalence: 0.034)
- Uterine/Uterovaginal prolapse (prevalence: 0.025)
- Endometriosis (prevalence: 0.017)
- Irregular menstrual bleeding (prevalence: 0.012)

##### Cluster 4:

- Back pain (prevalence: 0.088)
- Spondylosis and allied disorders (prevalence: 0.029)
- Kyphoscoliosis and scoliosis (prevalence: 0.012)
- Degenerative disease of the spinal cord (prevalence: 0.013)
- Spinal stenosis (prevalence: 0.038)
- Acquired spondylolisthesis (prevalence: 0.013)