Please make a search using this [method](https://drive.google.com/file/d/1tisoT2x47hfGxYFzyXwI7lZuvptHVulq/view?usp=sharing) & provide your vision of 350+ biomarkers which we should track to predict development of top 20 diseases & articles proving that list. The answer should be in the simple presentation

Disease prognosis biomarkers are helpful in predicting the course of the disease, treatment and its outcome.

According to the WHO below is the link for top 10 causes of death and most of them can be predicted definitively through clinical biomarkers.

<https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>

Here are some of the qualified biomarkers approved by FDA, used in the prognosis of

1. Nephrotoxicity- Albumin, Beta 2- Microglobulin, Clusterin, Cystatin C, KIM-1, Total protein and Trefoil factor-3, Renal papillary Antigen.

2.Cardiotoxicity- Cardiac troponin T (cTnT) and (cTnl).

3.Invasive Aspergillosis- Galactomannan.

4.COPD exacerbation- Fibrinogen.

5.Autosomal Dominant Polycystic Kidney Disease- Total Kidney Volume (TKV) assessed by MRI,CT and US.

<https://www.fda.gov/drugs/biomarker-qualification-program/list-qualified-biomarkers>

Some of the conditions which can be diagnosed by the change in the biomarkers are as follows:

1. Anemia- Erythropoietin, ferritin, folic acid, hemoglobin, iron, iron saturation, reticulocytes, transferrin, soluble transferrin receptor ( sTrR), Unsaturated Iron Binding Capacity (UIBC), vitamin B12.

2. Autoimmune disease- Anti- Double stranded DNA Ab (ds DNA)

Anti- Nuclear Ab (ANA)

Anti- Smooth Muscle Antibody (ASMA)

Anti- Sjogren Syndrome Ab ( SS-A/Ro, SS-B/La)

Anti- RibonucleoProtein Ab (RNP)

Anti- Mitochondrial Ab (AMA)

Anti- Thyroid Peroxidase Ab (TPO).

Here are some more biomarkers related to Crohn’s disease, Ulcerative colitis, Rheumatoid arthritis, Psoriasis and Systemic Lupus Erythematosus.

<https://myriadrbm.com/products-services/therapy-indications/autoimmune-disease-and-arthritis/>

3.Bone Diseases- Alkaline Phosphatase (ALP)

Amino Terminal Propeptide Type 1 Collagen (PINP)

Bone Specific Alkaline Phosphatase (BSAP)

Calcium (Ca)

C- Terminal Type I Collagen Telopeptide (CTx)

N- Terminal Type I Collagen Telopeptide (NTx)

Osteocalcin

Parathyroid Hormone (PTH)

Tartrate Resistant Acid Phosphatase-5b (TRACP5b)

Vitamin D, 1.25 Dihydroxy, 25 Hydroxy.

The link below has some more Bone Disease biomarkers.

<https://myriadrbm.com/products-services/therapy-indications/bone-disease-metabolism/>

4.Cardiovascular Diseases- There are a large number of biomarkers to identify different cardiovascular conditions like Coronary Artery Disease (CAD), Cardiomyopathy, Congestive Heart Failure (CHF), Acute Coronary Syndrome, Atherosclerosis etc.

<https://myriadrbm.com/products-services/therapy-indications/cardiac-and-vascular-markers-disease/>

5.Diabetes and Metabolic Disorders- Some of the metabolic disorders like Diabetes, Hypertension and Metabolic syndromes which usually involve a cluster of conditions can be diagnosed accurately by biomarkers. Blood glucose and HBA1C are the widely used biomarkers for Diabetes. The link below shows the other biomarkers.

<https://myriadrbm.com/products-services/therapy-indications/diabetes-lipid-and-carbohydrate-metabolism/>

6. Inflammatory and Immune response Conditions- There are many conditions like COPD, Pulmonary Fibrosis, Alzhemier’s disease, Crohn's disease, SLE etc. Some conditions like Systemic Lupus Erythematosus can be diagnosed by specific biomarkers like Anti Nuclear Antibodies (ANA). Find the link below for other biomarkers.

<https://myriadrbm.com/products-services/therapy-indications/inflammation-and-immune-response/>

7. Nephrology- Acute and Chronic Kidney disease, Nephrotoxicity and Nephropathies can be found by the change in the biomarkers. These include.

<https://myriadrbm.com/products-services/therapy-indications/renal-function-toxicity/>

8.Oncology- Malignant conditions are better investigated by the biomarkers and their response to specific treatment is also shown in the levels of the biomarkers. Cancer related biomarkers are,

<https://myriadrbm.com/products-services/therapy-indications/cancer/>

9. Neurology- Many Neurodegenerative, Neuromuscular and Neuropsychiatric conditions are identified by biomarkers. Some of the diseases like Alzheimer’s can be detected earlier with biomarkers Beta-amyloid and tau levels in cerebrospinal fluid. Find the link below for other biomarkers.

<https://myriadrbm.com/products-services/therapy-indications/neuroscience-and-neurological-disease/>