## Healthcare study comparison and analysis tool (NLP NER model)

## Aspects to compare and analyse

When comparing a new disease with existing ones for medical assistance, it's important to consider various aspects to aid researchers and scientists in understanding and managing the new disease. Here are 20 aspects to compare:

- 1. Symptoms: Compare the symptoms described with symptoms of known diseases to identify similarities and differences.
- 2. Epidemiology: Compare the prevalence, incidence, and distribution patterns of the new disease with those of similar diseases.
- 3. Risk Factors: Identify common risk factors associated with the new disease and compare them with known risk factors for existing diseases.
- 4. Diagnostic Tests: Evaluate diagnostic tests used for detecting the new disease and compare their efficacy with tests for existing diseases.
- 5. Treatment Options: Compare treatment options available for the new disease with those for similar diseases, including pharmacological and non-pharmacological interventions.
- 6. Prognosis: Assess the prognosis and outcomes associated with the new disease and compare them with those of existing diseases.
- 7. Disease Progression: Compare the progression patterns of the new disease with those of knowndiseases, including acute vs. chronic courses.
- 8. Affected Populations: Analyze demographic characteristics of populations affected by the new disease and compare them with populations affected by similar diseases.
- 9. Immune Response: Compare the immune responses elicited by the new disease with those of existing diseases, including inflammatory markers.
- 10. Transmission Routes: Compare routes of transmission of the new disease with those of similar

diseases, including direct contact, droplet, airborne, etc.

11. Public Health Measures: Compare public health measures recommended for controlling the

spread of the new disease with measures for managing similar diseases.

12. Study Outcomes: Compare the outcomes or findings of the new study with those of previous

studies, including any differences or similarities observed.

13. Limitations of the Study: Identify and compare the limitations of the new study with limitations

of previous studies, such as small sample size, selection bias, etc.

14. Implications for Practice: Assess the implications of the new study findings for clinical practice

and compare them with implications of findings from previous studies.

15. Implications for Policy: Compare the implications of the new study findings for healthcare policy

with implications of findings from previous studies.

16. Innovative Approaches: Evaluate any innovative approaches or methodologies used in the new

study and compare them with approaches used in previous research.

Some Useful links can be:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7149510/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7119055/

https://wwwnc.cdc.gov/eid/article/1/1/95-0102 article

 $\label{eq:contribution} Table~2$  Major factors currently contributing to the increased prevalence of emerging and reemerging infectious diseases

Major factors	Contributing factors	Future trends
Changes in global population; demographics and distribution	Population growth and density, migration to urban areas, widespread travel, immigration, housing density	All contributing factors expected to continue to increase
Human behavior change	Liberation of sexual practices, increased need for child care outside the home, alcohol and drug abuse, food distribution and transportation practices, immunization practices	Lifestyle changes required to control infectious diseases; increased controls on food packaging and distribution; increased childhood immunization rates
Environmental and land use change	Global climate changes such as warming, deforestation, land development, and natural disasters (El Niño, droughts, floods)	All contributing factors expected to continue to increase
Chronic manifestations of infectious diseases	$\label{lem:medical technology} \mbox{ Modern medical technology in industrialized countries is prolonging life of people with life-threatening chronic diseases.}$	Escalating costs of health care in industrialized countries may force rationing of expensive procedures (eg, transplantation, cancer chemotherapy)
Enhanced pathogen detection	Molecular methods have enhanced detection of fastidious, uncultivatable organisms.	Variety of pathogens discovered by molecular methods will continue to expand
Microbial evolution	$\label{thm:microorganisms} \mbox{ naturally adapt to their environment in order to survive.}$	Pathogens will continue to evolve at a rapid rate; microbes will move into new niches; antimicrobial resistance in a wide variety of microorganisms will continue to increase.
Breakdown of public health system and bioterrorism	Decreased funding of the public health system, lack of public health infrastructure, population mobility, international travel, immigration and refugees, wars, bioterrorism	Recent events (eg. bioterrorism, SARS) will accelerate funding of national and global public health systems; primary health care networks will become part of the public health system.