

{ "008.45": "Clostridioides infection",
"Protocol 3-1", "Medical-Abdominal Pain" }

Diagnosis code

Query

API or WebDriver



KnowBase_1 KnowBase_i

Knowledge Bases

Graph from
KnowBase_1

Graph from
KnowBase_i

...

Heterogenous
Knowledge Graphs

Text Content

Early symptoms include
cough, wheezing,
shortness of breath.
Other symptoms may
include anxiety,
depression. Give
antibiotics Lung
transplantation...

Medical Concept
Normalization

UMLS API

UMLS Semantic
Types

SYMPTOM: sosy, dsyn...
TREATMET: clnd, antb...

GPT-4 Prompt

Let's think step by step

Token Classification

Label the token one by one
symptom, treatment or none

-"Early": none
-"symptoms": none
-"include": none
-"cough": symptom
-"wheezing": symptom
...

Span Detection

Locate minimal spans
representing symptoms, or
treatments

-"cough": symptom
-"wheezing": symptom
...
-"lung transplantation": treatment

Formatting Output

\begin{SYMPTOM}
\item{cough}
...
\end{SYMPTOM}
\begin{TREATMENT}
\item{antibiotics}
...
\end{TREATMENT}

Relation Extraction
identify the relation [positive,
negative] between entity with
disease

"cough": positive
-"wheezing": positive
...
-"lung transplantation": positive

