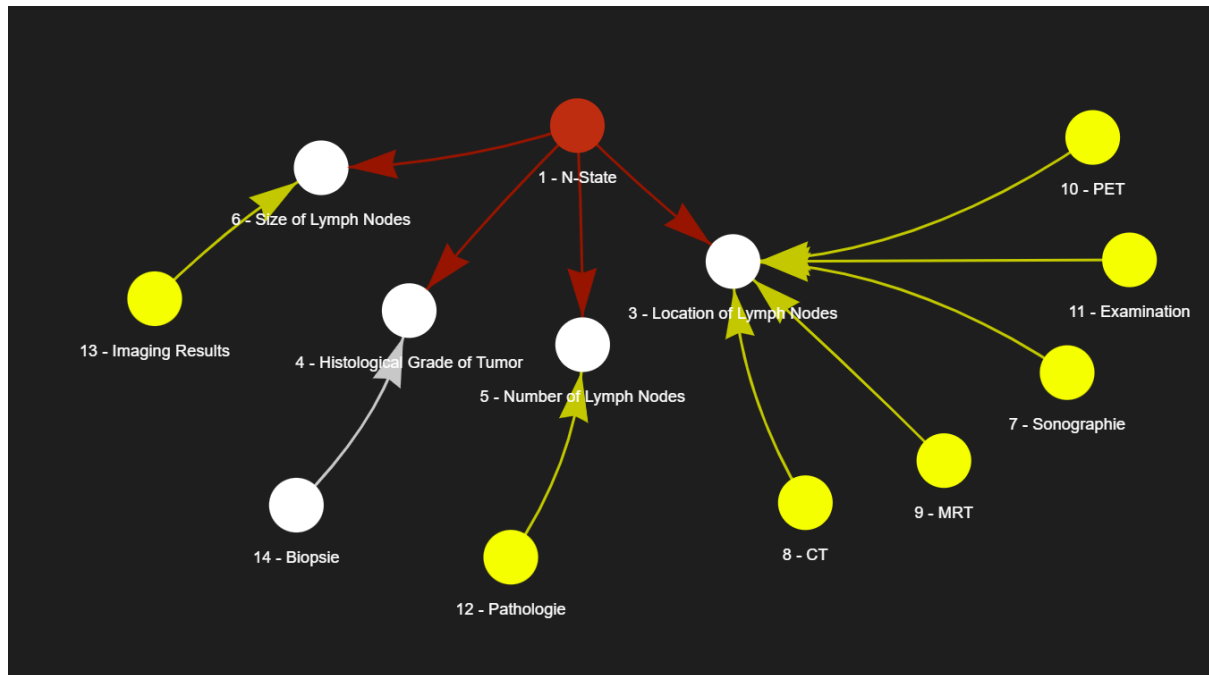


N-Stage-Eenas

Inputs to this were only the node identifiers and their states and the edges. CPTs also however are just placeholders with uniform distribution.



Nodes Informations (extracted using the tool):

1. **Id:** N_State_1

States: ['present', 'absent']

Type: Decision Node

Observability: Needs to be Predicted

Label: Nearby Lymph Nodes Cancer State

Description: This node represents the clinical situation regarding the presence or absence of cancer in nearby lymph nodes. It is a critical factor in cancer staging and prognosis, as the involvement of lymph nodes can indicate the spread of cancer and affect treatment decisions.

Node States:

State Name	State Description
present	Cancer is present in the nearby lymph nodes, indicating potential metastasis and a more advanced stage of cancer.
absent	Cancer is absent in the nearby lymph nodes, suggesting that the cancer has not spread to these nodes and may be in an earlier stage.

Entities Information:

Ontology Name	Label	Description
MeSH	Lymph Nodes	Small, bean-shaped organs located throughout the lymphatic system that filter lymph and store white blood cells.
MeSH	Laryngeal Neoplasms	Tumors or cancer of the LARYNX.
SNOMED-CT	Lymph node structure	Anatomical structure that is part of the lymphatic system, involved in the filtration of lymph and immune response.
SNOMED-CT	Malignant neoplasm	A cancerous growth that has the potential to invade and destroy nearby tissue and spread to other parts of the body.
Wikidata	Lymph node	An organ of the lymphatic system and the adaptive immune system that is widely present throughout the body.

Wikidata	Laryngeal cancer	Cancer that occurs in the larynx, the voice box.
----------	------------------	--

2. **Id:** Location_of_Lymph_Nodes_3

States: ['present', 'absent']

Type: Patient Situation

Observability: Unobserved

Label: Location of Lymph Nodes

Description: This node represents the presence or absence of lymph nodes in a specific location, which is crucial for cancer diagnosis and staging. The detection of lymph nodes can indicate the spread of cancer and affect treatment decisions.

Node States:

State Name	State Description
present	Lymph nodes are detected in the specified location, which may indicate the spread of cancer and is important for staging and treatment planning.
absent	Lymph nodes are not detected in the specified location, which may suggest no spread of cancer to this area and is important for staging and treatment planning.

Entities Information:

Ontology Name	Label	Description
MeSH	Lymph Nodes	Small, bean-shaped organs located throughout the lymphatic system that filter lymph and store white blood cells.
SNOMED-CT	Lymph node structure	Anatomical structure that is part of the lymphatic system, involved in the filtration of lymph and immune response.
Wikidata	Lymph node	An organ of the lymphatic system and the adaptive immune system that is widely present throughout the body.

3. **Id:** Histological_Grade_of_Tumor_4

States: ['present', 'absent']

Type: Patient Situation

Observability: Unobserved

Label: Histological Grade of Tumor 4

Description: This node represents the histological grade of a tumor, specifically grade 4, which is a classification based on the microscopic appearance of tumor cells. The histological grade is an important factor in determining the aggressiveness of the tumor and its potential response to treatment. Grade 4 typically indicates poorly differentiated or undifferentiated tumor cells, suggesting a more aggressive and potentially less favorable prognosis.

Node States:

State Name	State Description
present	The state 'present' indicates that the tumor has been assessed and classified as histological grade 4, meaning the tumor cells are poorly differentiated or undifferentiated, which is associated with a more aggressive behavior.
absent	The state 'absent' indicates that the tumor is not classified as histological grade 4, suggesting that the tumor cells are not poorly differentiated or undifferentiated, which may be associated with a less aggressive behavior.

Entities Information:

Ontology Name	Label	Description
MeSH	Neoplasm Grading	A system of classifying cancer cells in terms of how abnormal they look under a microscope and how quickly the tumor is likely to grow and spread.
MeSH	Laryngeal Neoplasms	Tumors or cancer of the LARYNX.
SNOMED-CT	Histologic grade	A classification of a tumor based on the appearance of cells under a

		microscope and the degree of differentiation.
SNOMED-CT	Laryngeal tumor	A tumor located in the larynx.
Wikidata	Histopathology	The study of changes in tissues caused by disease.
Wikidata	Tumor	A tumor is a mass of tissue that's formed by an accumulation of abnormal cells.

4. **Id:** Number_of_Lymph_Nodes_5

States: ['present', 'absent']

Type: Patient Situation

Observability: Unobserved

Label: Number of Lymph Nodes

Description: This node represents the presence or absence of a specific number of lymph nodes, which can be clinically significant in assessing the spread of cancer or other diseases.

Node States:

State Name	State Description
present	The state 'present' indicates that the specific number of lymph nodes is detected or considered in the clinical assessment.
absent	The state 'absent' indicates that the specific number of lymph nodes is not detected or considered in the clinical assessment.

Entities Information:

Ontology Name	Label	Description
MeSH	Lymph Nodes	Small, bean-shaped organs located throughout the lymphatic system that filter lymph and store white blood cells.
SNOMED-CT	Lymph node structure	Anatomical structure that is part of the lymphatic system, involved in the filtration of lymph and immune response.
Wikidata	Lymph node	An organ of the lymphatic system and the adaptive immune system that is widely present throughout the body.

5. **Id:**Size_of_Lymph_Nodes_6

States: ['present', 'absent']

Type: Patient Situation

Observability: Unobserved

Label: Size of Lymph Nodes

Description: This node represents the clinical assessment of the size of lymph nodes in a patient. The size of lymph nodes can be an important indicator in diagnosing conditions such as infections, immune responses, or cancer metastasis. Enlarged lymph nodes may suggest the presence of disease, while normal-sized lymph nodes are typically not indicative of pathology.

Node States:

State Name	State Description
present	The lymph nodes are enlarged or have a significant size, which may indicate the presence of disease such as infection, inflammation, or metastasis.
absent	The lymph nodes are not enlarged and are of normal size, suggesting no significant pathology or disease.

Entities Information:

Ontology Name	Label	Description
MeSH	Lymph Nodes	Small, bean-shaped organs located throughout the lymphatic system that filter lymph and store white blood cells.

SNOMED-CT	Lymph node structure	Anatomical structure that is part of the lymphatic system, involved in the filtration of lymph and immune response.
Wikidata	Lymph node	An organ of the lymphatic system and the adaptive immune system that is widely present throughout the body.

6. **Id:** Sonographie_7

States: ['present', 'absent']

Type: Examination Result

Observability: Observed

Label: Ultrasound Examination Result

Description: This node represents the result of an ultrasound examination, which is a diagnostic imaging technique used to visualize internal organs and structures. The result can indicate whether certain findings are present or absent, which can aid in the diagnosis and management of various conditions.

Node States:

State Name	State Description
present	The ultrasound examination has detected the presence of a specific finding or abnormality.
absent	The ultrasound examination has not detected the specific finding or abnormality, indicating its absence.

Entities Information:

Ontology Name	Label	Description
MeSH	Ultrasonography	A non-invasive diagnostic technique that uses ultrasound to visualize internal organs.
MeSH	Physical Examination	Systematic and thorough inspection or testing of a patient for signs of disease.
SNOMED-CT	Ultrasound examination	A diagnostic imaging technique using ultrasound waves to produce images of structures within the body.
SNOMED-CT	Examination - action	The act of inspecting or testing something, typically as part of a medical assessment.
Wikidata	Ultrasound	Sound waves with frequencies higher than the upper audible limit of human hearing, used in medical imaging.
Wikidata	Medical examination	A process by which a medical professional investigates the body of a patient for signs of disease.

7. **Id:** CT_8

States: ['present', 'absent']

Type: Examination Result

Observability: Observed

Label: Computed Tomography Examination Result

Description: This node represents the result of a CT scan examination, which is used to diagnose or assess medical conditions by providing detailed imaging of internal structures.

Node States:

State Name	State Description
present	The finding or condition being assessed by the CT scan is present.
absent	The finding or condition being assessed by the CT scan is absent.

Entities Information:

Ontology Name	Label	Description
MeSH	Tomography, X-Ray	A method of body imaging in which a thin X-ray beam rotates around

	Computed	the patient, producing signals that are processed by the machine's computer to generate cross-sectional images, or 'slices'.
SNOMED-CT	Computed Tomography	A diagnostic imaging procedure that uses a combination of X-rays and computer technology to produce cross-sectional images of the body.
Wikidata	Computed tomography	A medical imaging technique used in radiology to obtain detailed internal images of the body.

8. **Id:** MRT_9

States: ['present', 'absent']

Type: Examination Result

Observability: Observed

Label: Magnetresonanztomographie Examination Result

Description: This node represents the result of a Magnetresonanztomographie (MRI) examination. It indicates whether a particular finding or condition is present or absent based on the MRI scan. MRI is a crucial imaging technique used to diagnose and monitor various medical conditions by providing detailed images of the organs and tissues within the body.

Node States:

State Name	State Description
present	The 'present' state indicates that the MRI examination has detected the specific finding or condition in question. This could mean the presence of a lesion, abnormality, or other clinically significant feature that was being investigated.
absent	The 'absent' state indicates that the MRI examination did not detect the specific finding or condition in question. This suggests that there is no evidence of the lesion, abnormality, or feature that was being investigated, based on the MRI scan.

Entities Information:

Ontology Name	Label	Description
MeSH	Magnetic Resonance Imaging	A noninvasive diagnostic technique that uses magnetic fields and radio waves to produce a detailed image of the body's soft tissue and bones.
SNOMED-CT	Magnetic Resonance Imaging	A medical imaging technique used in radiology to form pictures of the anatomy and the physiological processes of the body.
Wikidata	Magnetic Resonance Imaging	A medical imaging technique used in radiology to form pictures of the anatomy and the physiological processes of the body.

9. **Id:** PET_10

States: ['present', 'absent']

Type: Examination Result

Observability: Observed

Label: Positron Emission Tomography Examination Result

Description: This node represents the result of a Positron Emission Tomography (PET) scan, which is an imaging test that helps reveal how your tissues and organs are functioning. A PET scan uses a radioactive drug (tracer) to show this activity. This node indicates whether the PET scan detected any abnormal metabolic activity, which could suggest the presence of disease such as cancer.

Node States:

State Name	State Description
present	The 'present' state indicates that the PET scan detected abnormal metabolic activity, suggesting the presence of disease such as cancer. such as cancer cells, in the lymph node.
absent	The 'absent' state indicates that the PET scan did not detect any abnormal metabolic activity, suggesting the absence of disease.

Entities Information:

Ontology Name	Label	Description
MeSH	Positron-Emission Tomography	An imaging technique that uses radioactive substances to visualize and measure changes in metabolic processes.
SNOMED-CT	Positron emission tomography	A nuclear medicine functional imaging technique used to observe metabolic processes in the body.
Wikidata	Positron emission tomography	A type of nuclear medicine procedure that measures metabolic activity of the cells of body tissues.

10. **Id:** Examination_11

States: ['present', 'absent']

Type: Examination Result

Observability: Observed

Label: Diagnostic Examination Result

Description: This node represents the result of a specific diagnostic examination, which is observed and can indicate the presence or absence of a particular condition or finding.

Node States:

State Name	State Description
present	The result of the examination indicates the presence of the condition or finding being tested for.
absent	The result of the examination indicates the absence of the condition or finding being tested for.

Entities Information:

Ontology Name	Label	Description
MeSH	Diagnostic Techniques and Procedures	Methods, procedures, and tests performed to diagnose disease, disordered function, or disability.
SNOMED-CT	Diagnostic procedure	A procedure performed to identify the cause of a health problem.
Wikidata	Medical test	A medical procedure performed to detect, diagnose, or monitor diseases, disease processes, susceptibility, or to determine a course of treatment.

11. **Id:** Pathologie_12

States: ['present', 'absent']

Type: Examination Result

Observability: Observed

Label: Pathology Examination Result

Description: This node represents the result of a specific pathology examination, which has been observed. It indicates whether a particular pathological finding or condition is present or absent.

Node States:

State Name	State Description
present	The pathological finding or condition was observed in the examination.
absent	The pathological finding or condition was not observed in the examination.

Entities Information:

Ontology Name	Label	Description
---------------	-------	-------------

MeSH	Pathology	Pathology is the study of the causes and effects of disease or injury.
SNOMED-CT	Pathology	Pathology is the medical specialty concerned with the study of the nature and causes of diseases.
Wikidata	Pathology	Pathology is the study of the causes and effects of disease or injury.

12. **Id:** Imaging_Results_13

States: ['present', 'absent']

Type: Examination Result

Observability: Observed

Label: Imaging Examination Results

Description: This node represents the results of an imaging examination, which could include modalities such as ultrasound, MRI, or other diagnostic imaging techniques. The results indicate whether specific findings are present or absent, which can be crucial for diagnosis and treatment planning.

Node States:

State Name	State Description
present	The 'present' state indicates that the imaging examination has identified specific findings or abnormalities that are relevant to the clinical context.
absent	The 'absent' state indicates that the imaging examination did not identify any specific findings or abnormalities of interest in the clinical context.

Entities Information:

Ontology Name	Label	Description
MeSH	Diagnostic Imaging	The production of diagnostic images, including radiography, ultrasonography, and other imaging techniques.
SNOMED-CT	Diagnostic imaging procedure	A procedure that uses imaging technology to diagnose a disease or condition.
Wikidata	Medical imaging	The technique and process of creating visual representations of the interior of a body for clinical analysis and medical intervention.

13. **Id:** Biopsie_14

States: ['present', 'absent']

Type: Patient Situation

Observability: Unobserved

Label: Biopsy in Patient Situation

Description: This node represents the result of a biopsy in a specific patient situation. A biopsy is a medical procedure that involves taking a small sample of tissue for examination to diagnose a disease or condition. In this context, the node indicates whether a particular finding from the biopsy is present or absent.

Node States:

State Name	State Description
present	The 'present' state indicates that the biopsy has revealed the presence of a particular finding or condition in the patient.
absent	The 'absent' state indicates that the biopsy did not reveal the presence of the particular finding or condition in the patient.

Entities Information:

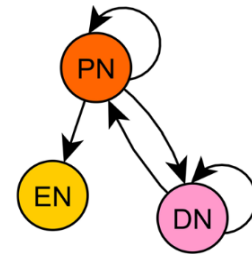
Ontology Name	Label	Description
MeSH	Biopsy	The removal and examination of tissue, cells, or fluids from the living body.

SNOMED-CT	Biopsy procedure	A procedure involving the removal of tissue for examination.
Wikidata	Biopsy	A medical test involving the extraction of sample cells or tissues for examination to determine the presence or extent of a disease.

Invalid Edges:

Invalid Edges based on Edge Dependencies schema

1. Sonographie_7 [Examination Result (EN)] ----> Location_of_Lymph_Nodes_3 [Patient Situation (PN)]
2. CT_8 [Examination Result (EN)] ----> Location_of_Lymph_Nodes_3 [Patient Situation (PN)]
3. MRT_9 [Examination Result (EN)] ----> Location_of_Lymph_Nodes_3 [Patient Situation (PN)]
4. PET_10 [Examination Result (EN)] ----> Location_of_Lymph_Nodes_3 [Patient Situation (PN)]
5. Examination_11 [Examination Result (EN)] ----> Location_of_Lymph_Nodes_3 [Patient Situation (PN)]
6. Pathologie_12 [Examination Result (EN)] ----> Number_of_Lymph_Nodes_5 [Patient Situation (PN)]
7. Imaging_Results_13 [Examination Result (EN)] ----> Size_of_Lymph_Nodes_6 [Patient Situation (PN)]



Node Types:

☒ Check Node Types

Select Node Type:

☒ Patient Situation ☐ Examination Result ☐ Decision Node ☐ Unknown

▼

{

0

:

"Biopsie_14"

1

:

"Location_of_Lymph_Nodes_3"

2

:

"Number_of_Lymph_Nodes_5"

3

:

"Size_of_Lymph_Nodes_6"

4

:

"Histological_Grade_of_Tumor_4"

}

☐ Check Isolated Nodes

☒ Check Node Types

Select Node Type:

☐ Patient Situation ☒ Examination Result ☐ Decision Node ☐ Unknown

[

0 : "Sonographie_7"

1 : "CT_8"

2 : "MRT_9"

3 : "PET_10"

4 : "Examination_11"

5 : "Pathologie_12"

6 : "Imaging_Results_13"

]

☐ Check Isolated Nodes

☒ Check Node Types

Select Node Type:

☐ Patient Situation ☐ Examination Result ☒ Decision Node ☐ Unknown

```
[
  |
  | 0 : "N_State_1"
]
```

☐ Check Isolated Nodes

Multiple Paths

No Multiple Paths detected.