



Coding stage – Session 5

Haematological Malignancies

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Preface XII

Acknowledgments XIV

Organizations Associated with the TNM System XV

Members of UICC Committees Associated with the TNM System XVI

Section Editors XVII

Introduction 1

Head and Neck Tumours 17

Lip and Oral Cavity 18

Pharynx 22

Larynx 31

Nasal Cavity and Paranasal Sinuses 36

Unknown Primary – Cervical Nodes 40

Malignant Melanoma of Upper Aerodigestive Tract 45

Major Salivary Glands 47

Thyroid Gland 51

Digestive System Tumours 55

Oesophagus and Oesophagogastric Junction 57

Stomach 63

Small Intestine 67

Appendix 70

Colon and Rectum 73

Anal Canal and Perianal Skin 77

Liver 80

Intrahepatic Bile Ducts 83

Gallbladder 85

Perihilar Bile Ducts 87

Distal Extrahepatic Bile Duct 89

Ampulla of Vater 91

Pancreas 93

Well-Differentiated Neuroendocrine Tumours of the Gastrointestinal Tract 96

Lung, Pleural, and Thymic Tumours 105

Lung 106

Pleural Mesothelioma 113

Thymic Tumours 115

Tumours of Bone and Soft Tissues 119

Bone 120

Soft Tissues 124

Gastrointestinal Stromal Tumour (GIST) 127

Skin Tumours 131

Carcinoma of Skin 133

Skin Carcinoma of the Head and Neck 136

Carcinoma of Skin of the Eyelid 139

Malignant Melanoma of Skin 142

Merkel Cell Carcinoma of Skin 147

Breast Tumours 151

Gynaecological Tumours 159

Vulva 161

Vagina 164

Cervix Uteri 166

Uterus – Endometrium 171

Uterine Sarcomas 175

Ovarian, Fallopian Tube, and Primary Peritoneal Carcinoma 179

Gestational Trophoblastic Neoplasms 184

Urological Tumours 187

Penis 188

Prostate 191

Testis 195

Kidney 199

Renal Pelvis and Ureter 202

Urinary Bladder 204

Urethra 208

Adrenal Cortex 211

Ophthalmic Tumours 215

Carcinoma of Conjunctiva 216

Malignant Melanoma of Conjunctiva 218

Malignant Melanoma of Uvea 221

Retinoblastoma 226

Sarcoma of Orbit 230

Carcinoma of Lacrimal Gland 232

Hodgkin Lymphoma 235

Non-Hodgkin Lymphomas 239

Essential TNM 241

Paediatric Tumours 247

Gastrointestinal Tumours 247

Bone and Soft Tissue Tumours 248

Gynaecological Tumours 249

Urological Tumours 250

Ophthalmic Tumours 251

Malignant Lymphoma 252

Central Nervous System 252

Lugano classification

- The current Lugano staging classification for Lymphoma is a **modification** of the Ann Arbor classification
 - Consensus conference, Lugano, 2012
- Previously used staging laparotomy and the resulting pathological staging classification = obsolete
- The Lugano classification is also used to evaluate response to therapy

Clinical Staging – Hodgkin Lymphoma

- Modified Ann Arbor Classification
- Determined by:
 - History, clinical examination,
 - Imaging
 - Blood analysis, initial biopsy report, bone marrow biopsy
- Lymphatic structures
 - Lymph nodes => are grouped into regions and 1 or > may be involved
 - ...

Lymphatic regions above the diaphragm

1. Waldeyer's Ring

- Oropharynx (palatine tonsil)
- Nasopharynx (palatine tonsil)
- Adenoids
- Base of tongue (lingual tonsil)

2. Right cervical, supraclavicular, occipital and pre-auricular

- R Auricular lymph node
- R Cervical lymph node
- R Facial lymph node
- R Jugular lymph node
- R Mandibular lymph node
- R Occipital lymph node
- R Parotid lymph node
- R Preauricular lymph node
- R Prelaryngeal lymph node
- R Pretracheal lymph node
- R Retropharyngeal lymph node
- R Scalene lymph node
- R Sublingual lymph node
- R Submandibular lymph node
- R Submaxillary lymph node
- R Submental lymph node
- R Supraclavicular lymph node

3. Right infraclavicular

- R Infraclavicular lymph node
- R Subclavicular lymph node

4. Right axillary and pectoral lymph nodes

- R Axillary lymph node
- R Pectoral lymph node
- R Subscapular lymph node
- R Internal mammary

5. Right epitrochlear and brachial

- R Brachial lymph node
- R Cubital lymph node
- R Epitrochlear lymph node

6. Hilar

- Bronchial lymph node
- Bronchopulmonary lymph node
- Hilar lymph node
- Pulmonary hilar lymph node

7. Mediastinal

- Diaphragmatic lymph node
- Esophageal lymph node
- Innominate lymph node
- Intercostal lymph node
- Mediastinal lymph node
- Parasternal lymph node
- Paratracheal lymph node
- Peritracheal lymph node
- Pulmonary lymph node, NOS
- Thoracic lymph node
- Tracheal lymph node
- Tracheobronchial lymph node
- Subaortic lymph node (para-aortic)

8. Left cervical, supraclavicular, occipital and pre-auricular

- L Auricular lymph node
- L Cervical lymph node
- L Facial lymph node
- L Jugular lymph node
- L Mandibular lymph node
- L Occipital lymph node
- L Parotid lymph node
- L Preauricular lymph node
- L Prelaryngeal lymph node
- L Pretracheal lymph node
- L Retropharyngeal lymph node
- L Scalene lymph node
- L Sublingual lymph node
- L Submandibular lymph node
- L Submaxillary lymph node
- L Submental lymph node
- L Supraclavicular lymph node

9. Left infraclavicular

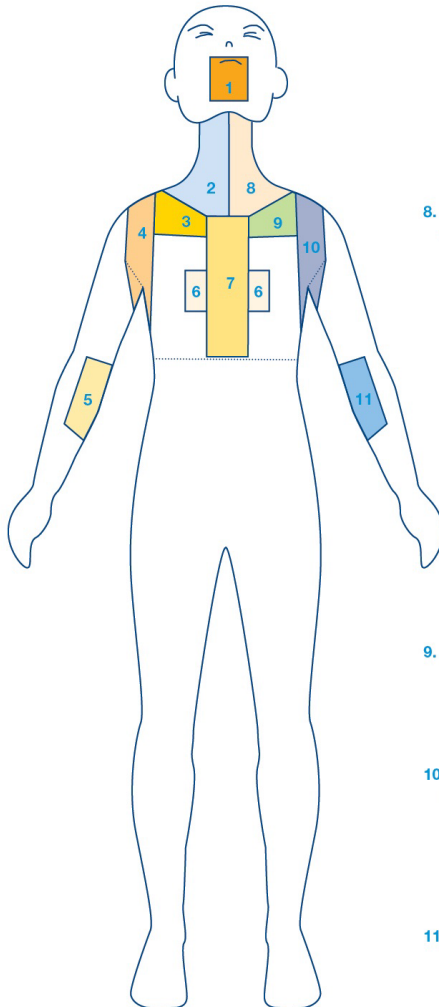
- L Infraclavicular lymph node
- L Subclavicular lymph node

10. Left axillary and pectoral lymph nodes

- L Axillary lymph node
- L Pectoral lymph node
- L Subscapular lymph node
- L Internal mammary

11. Left epitrochlear and brachial

- L Brachial lymph node
- L Cubital lymph node
- L Epitrochlear lymph node



Lymphatic regions below the diaphragm

12. Mesenteric

- Abdominal lymph node
- Colic lymph node
- Gastric lymph node
- Ileocolic lymph node
- Inferior mesenteric lymph node
- Intestinal lymph node
- Mesenteric lymph node
- Midcolic lymph node
- Superior mesenteric lymph node

13. Right pelvic and iliac lymph nodes

- R Hypogastric lymph node
- R Internal iliac
- R Inferior epigastric lymph node (External iliac)
- R Intrapelvic lymph node
- R Obturator lymph node
- R Paracervical lymph node
- R Parametrial lymph node
- R Presymphysial lymph node
- R Sacral lymph node

14. Right inguinal and femoral

- R Femoral lymph node
- R Inguinal lymph node
- R Lymph node of Cloquet
- R Lymph node of groin
- R Lymph node of lower limb
- R Lymph node of Rosenmuller
- R Subinguinal lymph node

15. Right popliteal

- R Popliteal lymph node
- R Tibial lymph node

16. Paraaortic

- Aortic lymph node
- Celiac lymph node
- Lumbar lymph node
- Pancreatic lymph node
- Para-aortic lymph node
- Peri-aortic lymph node
- Peripancreatic lymph node
- Pyloric lymph node
- Retroperitoneal lymph node
- Common duct lymph node
- Hepatic lymph node
- Porta hepatic lymph node
- Portal lymph node

17. Splenic and splenic hilar

- Spleen
- Splenic lymph node, NOS
- Splenic hilar lymph node

18. Left pelvic and iliac lymph nodes

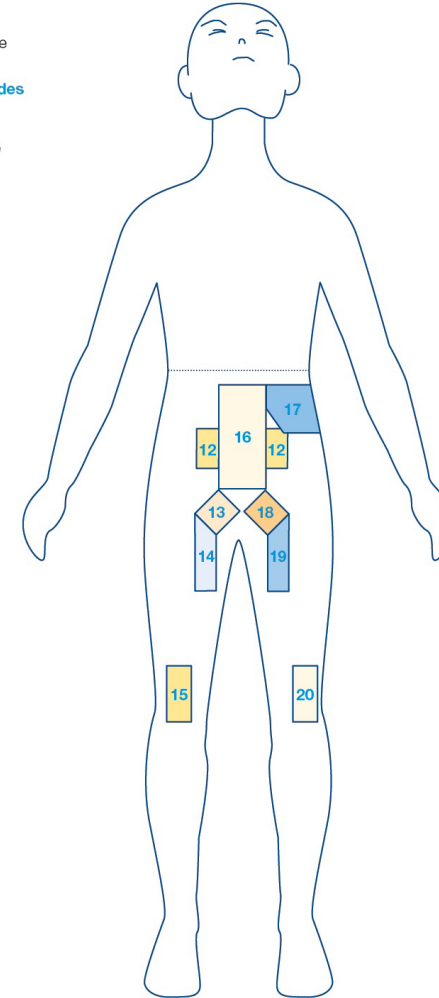
- L Hypogastric lymph node
- L Internal iliac
- L Inferior epigastric lymph node (External iliac)
- L Intrapelvic lymph node
- L Obturator lymph node
- L Paracervical lymph node
- L Parametrial lymph node
- L Presymphysial lymph node
- L Sacral lymph node

19. Left inguinal and femoral

- L Femoral lymph node
- L Inguinal lymph node
- L Lymph node of Cloquet
- L Lymph node of groin
- L Lymph node of lower limb
- L Lymph node of Rosenmuller
- L Subinguinal lymph node

20. Left popliteal

- L Popliteal lymph node
- L Tibial lymph node



Clinical Staging – Hodgkin Lymphoma

- Lymphatic structures
 - Lymph nodes => are grouped into regions and 1 or > may be involved
 - Waldeyer ring
 - Spleen (S)
 - Appendix
 - Thymus
 - Peyer patches
- Extralymphatic organs: (E), => Other than the lymphatic structures mentioned above
 - Lung involvement? Specific definition of 'localized involvement' versus diffuse!
 - Liver involvement => is always considered as 'diffuse extralymphatic disease'

Lugano classification: Hodgkin Lymphoma

Limited Stage

- *Stage I*

Involvement of a single lymph node region (I), or localized involvement of a single extralymphatic organ or site (IE).

- *Stage II*

Involvement of **≥ 2 lymph node regions** on the same side of the diaphragm (II), *OR* *localized* involvement of a single extralymphatic organ or site and its regional lymph node(s) +/- involvement of other contiguous lymph node regions on the same side of the diaphragm (IIE).

- *Bulky Stage II*

Stage II disease with a single nodal mass > than 10 cm in maximum dimension **or** greater than a 1/3 of the thoracic diameter as assessed on CT.

Lugano Classification: Hodgkin lymphoma (2)

Advanced Stage

Stage III

Involvement of **lymph node regions on both sides** of the diaphragm (III), +/- involvement of the **spleen** (IIIS)

Stage IV

Disseminated (**multifocal**) **involvement** of ≥ 1 extralymphatic organs, +/- associated lymph node involvement; or non-contiguous extralymphatic organ involvement with involvement of lymph node regions on the same or both sides of the diaphragm.

A and B Classification (Symptoms)

1. Unexplained weight loss of more than 10% of the usual body weight in the 6 months prior to first attendance
2. Unexplained fever with temperature above 38 °C
3. Night sweats

Note: Pruritus alone does not qualify for B classification, nor a short febrile illness associated with a known infection

Lugano classification: Non-Hodgkin Lymphoma

- Also Lugano classification
- **No A and B classification**
- **Only adults**
- **Stage II disease, bulk definition:**
 - >6 cm in Follicular Lymphoma
 - >10 cm for Diffuse Large Cell Lymphoma

Non-Hodgkin lymphoma – (Paediatric)

- **Tier 1**
 - Advanced: Involvement of bone marrow and/or CNS
 - Limited: No involvement of bone marrow or CNS
- **Tier 2: The St Jude/Murphy system is recommended**
 - Stage I Involvement of a **single tumour mass or nodal area**, excluding the mediastinum and abdomen
 - Stage II Involvement of a **single tumour mass with regional node(s) or two or more tumours and/or nodal regions on the same side of the diaphragm**, or a completely resected primary GI tract tumour +/-regional nodal involvement
 - Stage III Tumour masses and/or regional nodes on **opposite sides of the diaphragm** or **primary intrathoracic tumour** (mediastinal, pleural or thymic) or extensive **primary intra-abdominal** disease or **paraspinal tumour or epidural tumour**
 - Stage IV Involvement of **bone marrow** and/or **central nervous system**

Other haematological staging systems

- **Myeloma**

- (Revised) International Staging System: (R)ISS 2015: Stage I-III, based on:
 - The amount of albumin in the blood
 - The amount of beta-2-microglobulin in the blood
 - The amount of LDH in the blood
 - The specific gene abnormalities (cytogenetics) of the cancer.
- Durie - Salmon : amount of myeloma and 'damage' it has caused (anemia, bone disease)

- **CLL**

- BINET stage
 - **Binet stage A:** Fewer than 3 areas of lymphoid tissue are enlarged, with no anemia or thrombocytopenia.
 - **Binet stage B:** 3 or more areas of lymphoid tissue are enlarged, with no anemia or thrombocytopenia.
 - **Binet stage C:** Anemia and/or thrombocytopenia are present. Any number of lymphoid tissue areas may be enlarged
- RAI : divides CLL into 5 stages based on the results of blood tests and a physical examination