

# CHECK POINTS FOR THE DIAGNOSTIC SET UP



## **SOFT TISSUE SARCOMA(1)**

**Type according to WHO:**

**Procedure:** Core biopsy / Surgical biopsy / Operation specimen

**Resection** from .....with tumor localized in cutis / subcutaneous tissue / fascia / musculature / mediastinum / abdomen / retroperitoneum. .... with extension to .....

**Tumor size:** ...x... x... cm

**Malignancy grade** 1 / 2 / 3 / 4 / Not applicable / Cannot be determined (according to SSG (2)).

**French grade** 1 / 2 / 3 / Not applicable / Cannot be determined (3)

**Mitotic count:** .../ 10 HPF (standardized HPF should be used according to the French grading system: 1 HPF=0.1734 mm<sup>2</sup>)

**Necrosis:** Not identified / Present: extent of total specimen <50 % / ≥50 % / Cannot be determined

**Growth pattern:** Diffuse infiltrating / Pushing border / Cannot be determined

**Vascular invasion:** Not identified / Present/ Cannot be determined

### **Margins:**

Margins negative for tumor: Distance of tumor from closest margin: \_\_cm, type of tissue in the resections margins: fat, skeletal muscle, facie...\_\_ /

Margins positive for sarcoma, specify / Cannot be assessed

### **Histological response after preoperative treatment:**

Status after preoperative therapy

No effect / Complete necrosis / Present: extent of total specimen <50 % / ≥50 % / % / Not applicable

### **Ancillary studies:\***

Genetic screening: Cytogenetic analysis or other: Not performed / Material sent to karyotyping and a report will be sent later / Specify.

Directed genetic analysis: Not performed / Tumor tissue sent to mutation analysis and a report will be sent later / Specify

\*Immunohistochemical analysis should be stated in the description.

## **GIST(4)**

**Procedure:** Core biopsy / Surgical biopsy / Operation specimen

**Type according to WHO:** Gastrointestinal stromal tumor (GIST)

**Resection** from stomach / small intestine / colon / rectum / esophagus / mesentery / omentum with extension to...

**Tumor size:** ... x ...x ... cm

**Mitoser:** ... /50 HPF.

**Necrosis:** Not identified / Present: extent of total specimen <50 % / ≥50 % / Cannot be determined

**Vascular invasion:** Not identified / Present / Cannot be determined

**Growth pattern:** Diffuse infiltrating / Pushing border / Cannot be determined

**Margins:** Negative margins / Positive margins / Cannot be determined

Distance of tumor from closest margin: ... cm. Tumors relation to serosa.

**Risk assessment:** Very low / Low / Intermediate / High / Metastatic (according to Joensuu 2008 (5)).

### **Histological response after preoperative treatment:**

#### **Ancillary studies:**

##### **Immunohistochemistry:**

c-KIT (CD117) positive / negative / not performed

DOG1 positive / negative / not performed

**Genetic screening:** Cytogenetic analysis or other: Not performed / Material sent to karyotyping and a report will be sent later.

**Directed genetic analysis/Mutation analysis:** Not performed / Tumor tissue sent to mutation analysis and a report will be sent later / Specify

## **BONE SARCOMAS(6)**

**Procedure:** Core biopsy / Surgical biopsy / Operation specimen

**Type according to WHO:**

**Resection/amputation** from .....with tumor localized in marrow, cortex.... with extension to .....

**Tumor size:** ...x... x... cm

**Malignancy grade** 1 / 2 / 3 / 4 / Not applicable / Cannot be determined (according to SSG (2)).

**Mitotic count:** .../ 10 HPF / Cannot be determined

**Tumor necrosis:** Not identified / Present, extent of total / Cannot be determined

**Vascular invasion:** Not identified / Present / Cannot be determined

**Margins:** Margins negative for tumor: Distance of tumor from closest margin: \_\_cm, Type of resections margins: \_\_ / Margins positive for sarcoma, specify / Cannot be assessed

**Histological response on preoperative chemotherapy (according to protocol (7)):**

Ewing sarcoma: Good / Poor response according to Picci grad 1 / 2 / 3 ref (8).

Osteosarcoma: Good ( $\geq 90\%$  tumor necrosis)/ Poor ( $< 90\%$  tumor necrosis) response

Euroboss I protocol: Good / Poor response (grade 1 / 2 / 3 / 4).

**Ancillary studies:\***

**Genetic screening:** Cytogenetic analysis or other: Not performed / Material sent to karyotyping and a report will be sent later / Specify

**Directed genetic analysis:** Not performed / Tumor tissue sent to mutation analysis and a report will be sent later / Specify.

\*Immunohistochemical analysis should be stated in the description.

References

1. Rubin BP, Cooper K, Fletcher CD, Folpe AL, Gannon FH, Hunt JL et al. Protocol for the examination of specimens from patients with tumors of soft tissue *Arch.Pathol.Lab Med.* 2010;134:e31-e39.
2. Bjerkehagen B, Wejde J, Hansson M, Domanski H, Bohling T. SSG pathology review experiences and histological grading of malignancy in sarcomas. *Acta Orthop.Suppl* 2009;80:31-6.
3. Deyrup AT, Weiss SW. Grading of soft tissue sarcomas: the challenge of providing precise information in an imprecise world. *Histopathology* 2006;48:42-50.
4. Rubin BP, Blanke CD, Demetri GD, Dematteo RP, Fletcher CD, Goldblum JR et al. Protocol for the examination of specimens from patients with gastrointestinal stromal tumor *Arch.Pathol.Lab Med.* 2010;134:165-70.
5. Joensuu H. Risk stratification of patients diagnosed with gastrointestinal stromal tumor *Hum.Pathol.* 2008;39:1411-9.
6. Rubin BP, Antonescu CR, Gannon FH, Hunt JL, Inwards CY, Klein MJ et al. Protocol for the examination of specimens from patients with tumors of bone *Arch.Pathol.Lab Med.* 2010;134:e1-e7.
7. Scandinavian Sarcoma Group Home Page <http://www.ssg-org.net/>. 2012.
8. Picci P, Bohling T, Bacci G, Ferrari S, Sangiorgi L, Mercuri M et al. Chemotherapy-induced tumor necrosis as a prognostic factor in localized Ewing's sarcoma of the extremities *J.Clin.Oncol.* 1997;15:1553-9.