

## MEDICAL REPORT

PATIENT NAME	
HIS ID	
EXAMINATION DATE	<b>20-12-2022</b>
DOB	
POLICE ID	
	GESY REGISTRY NO

**Procedure:** 18F-PSMA PET/CT scan

Dr.Tsavaris O.

**Medical History:** Prostate Ca ID: 2001; currently cT3a cN1 cM1 (metastatic disease); Course of disease: 2001 Biopsy: confirmation of malignancy, Gleason score 5 (2+3) (no report submitted); 2001 2x Hypothermia as well as diverse alternative treatments; 2018-21 Initiation of anti-androgen, Bicalutamide (initially 50 mg then 150 mg); 2021 Gradual PSA despite Bicalutamide; 05/22 Ga68-PSMA PET/CT (Wiesbaden, Germany): highly PSMA expressing prostatic malignancy with SV invasion, and ECE with at least contact to the anterior rectal wall. Highly PSMA positive pelvic and retroperitoneal LNs, supradiaphragmatic LNs, and multiple bone lesions (Th3, Th12, 7th rib, L5); 05/22 MRI Pelvis: Prostate volume 43cc. PI-RADS V lesion within the posterior PZ extending just above the apex of the prostate.; 11/22 ADT initiation with Goserelin 10.8 mg (GOC); 12/22 SBRT of the T3 vertebra TD 30Gy (3Gy x 10); 12/22 Patient already purchased Enzalutamide and initiated treatment

**Indication/Medical question:** Restaging.

**Patient's personal data:** Weight= 83 Kg, Height= 180 cm

**Technique:** Imaging was performed 120 minutes after intravenous administration of 226 MBq 18F-PSMA (Prostate-Specific Membrane Antigen). Images were acquired using a Discovery IQ2 PET/CT system (4 rings; 16 slices) of General Electric. The images were obtained from head to mid-thighs in supine position with elevated arms. Axial, sagittal and coronal PET reconstructions with and without attenuation correction were performed. Corresponding CT images were reviewed in axial, coronal and sagittal planes. The CT scan was a limited non-contrast study for the purposes of anatomical correlation and attenuation correction (only pertinent findings will be reported). This resulted in a total DLP of the CT-examination of 785 mGy-cm. All SUV measurements provided are given as SUV Peak (as measured in the MAC plus QClear reconstruction using commercially available software) unless otherwise stated.

**Comparison:** External 68Ga-PSMA PET/CT of 05.05.2022.

## Findings:

### Head/Neck:

Physiological radiopharmaceutical distribution in the lacrimal and salivary glands. Mastoid cells and paranasal sinuses free. Persistent left lower cervical/supraclavicular LN metastases (from Se605/Im248 to Se2752/Im80) and detection of new lesions (Se2752/Im74).

### Thorax:

Persistent left infraclavicular LN metastasis (from Se605/Im240 to Se2752/Im89). In the low-dose CT no evidence of suspicious pulmonary lesions. Normal appearance of the mediastinal and axillar lymph nodes without PSMA expression. Absence of pleural or pericardial effusion.

### Abdomen/Pelvis:

Physiological radiopharmaceutical distribution in the abdominal organs and intestine. Persistent lateroaortic, common iliac and left obturator LN lesions with high PSMA-expression (e.g. from Se605/Im128 to Se2752/Im192). Status quo of the highly PSMA-expressing prostatic malignancy extended to left seminal vesicle (from Se605/Im55-71 to Se2752/Im246-258).

### Musculoskeletal system:

New as to previous exam, highly PSMA-expressing osseous metastases disseminated in the skeleton (e.g. Se2752/Im131,210,259) and progress of the known bone secondaries (e.g. from Se605/Im234 to Se2752/Im95) with progressive osteoblastic component.

## Impression

1. Progress of the metastatic burden of the skeleton with new highly PSMA-expressing osseous lesions disseminated in the skeleton and progress of the known bone secondaries.
2. Stability of the vital PSMA-expressing prostatic malignancy extended to the left seminal vesicle.
3. Progressive supra- and infradiaphragmatic LN secondaries with high PSMA-expression.
4. Patient primarily eligible for 177LuPSMA, should this be considered.

With kind regards,

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Director of Nuclear Medicine

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*(The report has been electronically signed), 21-12-2022 14:23*