Imaging studies in metastatic urogenital cancer patients undergoing systemic therapy: recommendations of a multidisciplinary consensus meeting of the Association of Urological Oncology of the German Cancer Society.

Abstract:
Imaging studies are an integral and important diagnostic modality to stage, to monitor and follow-up patients with metastatic urogenital cancer. The currently available guidelines on diagnosis and treatment of urogenital cancer do not provide the clinician with evidence-based recommendations for daily practice. To develop scientifically valid recommendations with regard to the most appropriate imaging technique and the most useful time interval in metastatic urogenital cancer patients undergoing systemic therapy. A systematic literature review was performed searching MedLine, Embase and Web of Science databases using the terms prostate, renal cell, bladder and testis cancer in combination with the variables lymph node, lung, liver, bone metastases, chemotherapy and molecular therapy, and the search terms computed tomography, magnetic resonance imaging and positron emission tomography were applied. A total of 11,834 records were retrieved from all databases. The panel reviewed the records to identify articles with the highest level of evidence using the recommendation of the US Agency for Health Care Policy and
Research. Contrast-enhanced computed tomography remains the standard imaging technique for monitoring of pulmonary, hepatic and lymph node metastases. Bone scintigraphy is still the most widely used imaging technique for the detection and follow-up of osseous lesions. For clinical trials it might be replaced by either PET-CT or MRI of the skeletal axis. Response assessment for patients treated with cytotoxic regime is best performed by the RECIST/WHO criteria; treatment response to molecular triggered therapy is best assessed by CT evaluating decrease in tumor size and density. Cross-sectional imaging studies for response assessment might be obtained after each 2 cycles of systemic therapy to early stratify responders from non-responders.