

P010 European Standards Committee on Urinary (DNA) Lesions Analysis (ESCUA): towards consensus for the measurement of urinary 8-oxo-2'-7,8-dihydro-2'-deoxyguanosine
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Measurement of urinary lesions, e.g. 8-oxo-7,8-dihydro-2'-deoxyguanosine (8-oxodG), may reflect DNA repair, besides simply being a non-invasive marker of whole body oxidative stress. A discrepancy in urinary 8-oxodG levels is noted when comparing chromatographic techniques (e.g. HPLC pre-purification-GC/MS, LC-MS/MS or LC-EC) with ELISA, although all techniques can discriminate between diseased and healthy subjects, and possess good within-technique agreement. With advantages such as high throughput and lower capital outlay, ELISA has been widely used, but with questions over its utility because of this discrepancy. Understanding the basis of this discrepancy will help interpretation of the significance of urinary lesions. Furthermore, inter-laboratory assay validation of urinary 8-oxodG measurement would provide robust methods for dissemination and application. Finally, with growing clinical interest in the measurement of urinary 8-oxodG, as a means to determine the role of oxidative stress in disease, and evaluate intervention strategies, determination of a reference range is essential. The European Standards Committee on Urinary (DNA) Lesion Analysis (ESCUA) hopes to address these issues.