Results: The sample values gained with BÜHLMANN calibrators showed an excellent correlation with values gained with the WHO international standard for infliximab as calibrator. Passing-Bablok regression analysis revealed a slope of 0.98 and correlation coefficient (R) of 0.99. Bland-Altman analysis revealed a mean difference in the obtained values of less than five percent. Regarding spiking recovery analysis, all tests exhibit an excellent mean recovery of 101% (85-114%; a), 99% (91-105%; b); 101% (95-107%; c) and 94% (88-100%, d).

Conclusion: Current standardization of Quantum Blue® Infliximab rapid test correlates very well with the WHO international standard for infliximab (NIBSC 16/170). Spiking recovery was highly comparable for ELISAs and the Quantum Blue® Infliximab assay. This rapid test represents a unique and modern analytical method, for fast time-to-result and simplicity of usage in a more patient near medical environment.

References:

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PREDICTIVE VALUE OF FLUORESCENCE-OPTICAL IMAGING TECHNIQUE IN DETECTION OF PSORIATIC ARTHRITIS IN PSORIASIS PATIENTS

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Background: Psoriasis (Pso) is one of the most common chronic inflammatory skin diseases in Europe. Psoriatic arthritis (PsA) is closely associated to Pso whereas the skin manifestation appears usually years before PsA-related symptoms emerge. Up to 30% of Pso patients develop PsA, but there is no clear correlation between disease duration of PsA and PsA development. Therefore, biomarkers for its early detection are of major importance. In early PsA, changes in synovial vascularisation combined with increased expression of proangiogenic factors appear first. Therefore, imaging biomarkers for detection of changes in vascularisation might be useful for early detection of musculoskeletal disease.

Fluorescence-optical imaging (FOI) is a new method to detect changes in microvascularisation of the hands.

Objectives: To determine the number of positive PsA diagnosis within a 24 month follow-up period in PsO only patients with subclinical MSK-inflammation detected in FOI.

Methods: Sensitivity of FOI for detection of subclinical signs of musculoskeletal inflammation as biomarker for early PsA was observed in a prospective, multicentre study (XCITING) including patients with dermatological confirmed skin psoriasis. 411 patients were included from dermatology care units across Germany without diagnosis of PsA but potential risk factors for its development (nail psoriasis and/or joint pain or swelling within the last 6 months). Clinical examination (CE; swollen (66) and tender (68) joint count, enthesitis, dactylitis assessment) and standardised ultrasound (US) assessment was performed by a qualified rheumatologist to assess musculoskeletal inflammation. FOI was performed additionally. Data was analysed in focus on increased vascularisation of musculoskeletal structures as inflammatory markers. In case of discrepant results (positive FOI and negative CE and US), MRI was performed to prove the findings. In case of MRI negativity, a follow-up period of 24-months was performed including FOI, CE, US and MRI assessment.

Results: 83 of the 411 patients of the cohort were negative in all assessments (PsO only), 136 of the 411 patients were classified as PsA by rheumatologic assessments. 119 patients showed subclinical signs of musculoskeletal inflammation in the central reading of FOI, whereas CE and US were negative. In 375% of those patients, subclinical inflammation was confirmed by MRI assessment. 22 patients of the cohort without MRI positivity were willing to be followed up until month 24. 5 (7.5%) patients developed a clinical PsA until month 24 whereas 7 (10.5%) patients converted to be FOI negative. In 5 patients an additional MRI examination was performed in which one patient showed positive signs for inflammation.

Conclusion: FOI is an innovative method for measurement of changes in microvascularisation in the hands. 6/22 patients initial only positive in FOI (no clinical signs for PsA, negative US, negative MRI) developed either clinical evident PsA (n=5) or new inflammation in MRI (n=1) during follow-up of 24 months. Therefore, FOI positive signals in PsO patients increase the probability for PsA development.