

## **Title**

Neck and shoulder pain: Do clinical examination and cervical spine MRI provide added value to the assessment of RTW prognosis?

## **Author and co-authors**

Line Thorndal Moll <sup>1,2,3</sup>

Christina Malmose Stapelfeldt <sup>1,2</sup>

Merete Labriola <sup>1,2</sup>

Berit Schiøttz-Christensen <sup>4</sup>

## **Affiliations**

<sup>1</sup> DEFACTUM, Central Denmark Region, Aarhus

P.P. Oerums Gade 11, bygn. 1B

DK-8000 Aarhus C.

Denmark

<sup>2</sup> Section of Clinical Social Medicine and Rehabilitation, Department of Public Health, Aarhus

University

P.P. Oerums Gade 9-11, bygn. 1B

DK-8000 Aarhus C.

Denmark

<sup>3</sup> Spine Centre, Diagnostic Centre, Silkeborg Regional Hospital

Falkevej 1-3

DK-8600 Silkeborg

Denmark

<sup>4</sup> Spine Centre of Southern Denmark, Hospital Lillebaelt Middelfart and Institute of Regional

Health Research, University of Southern Denmark

Oestre Hougvej 55

DK-5500 Middelfart

Denmark

## **Introduction**

Among workers with neck and shoulder pain, both psychosocial and work-related factors affecting the prognosis for return-to-work (RTW) have been identified. At the same time, the use of magnetic resonance imaging (MRI) is increasing and patients consider MRI pivotal in the assessment of their condition. However, the role of diagnostic imaging in RTW prognosis has been scarcely investigated. More specifically, whether increasing numbers of degenerative findings on MRI contribute to sensitivity and specificity in the RTW prognosis has not yet been investigated. The aim of this study was – in workers with neck and shoulder pain - to assess the value of socio-demographic, patient-reported, clinical, and MRI measures for RTW prognosis and to explore whether clinical and MRI measures provide added value to the prognosis compared to socio-demographic and patient-reported variables alone.

## **Methods**

168 workers on sick leave due to neck or shoulder pain were included. Independent variables were socio-demographic and patient-reported variables, neurological findings at clinical examination, and a sum-score of degenerative findings on MRI of the cervical spine. Since the median time until first RTW was 29 weeks, follow-up time comprised the weeks 30-104 and successful RTW was defined as work participation score >75% of the time. Univariate and multivariate logistic regression analyses were performed. Sensitivity, specificity and area under curve were calculated by including first socio-demographic variables and then, using a stepwise approach, adding patient-reported, clinical, and MRI findings in this order.

## **Results**

Will be presented at the conference.

## **Discussion and conclusion**

Will be presented at the conference.

N.B. Preferrably an oral presentation, if possible.