



Does Radiating Pain Determine Future Work Disability?

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Introduction

Studies on the socioeconomic consequences of radiating pain have primarily focused on the low back (LBP) and to a lesser extent on the neck (NP) and mid back (MBP). Additionally, few studies report on the incidence of health-related benefit use after any radiating spinal pain.

We conducted a large register-based cohort study to determine if radiating LBP, MBP, and NP is associated with the future use of health-related benefits and their duration.

Methods

A cohort of 22,952 subjects was formed from the 2002 survey of the Danish Twin Registry. The survey contained information on spinal pain and important confounding factors. Work disability over an 8-year period was determined through data linkage with the Danish DREAM register of government transfer payments.

Using marginal Cox proportional hazards models, we determined the incidence rate ratio for receipt of sickness benefit and the mean duration of the first and total sickness benefit periods by radiating and non-radiating spinal pain. Relative risks for the occurrence and number of sickness benefit episodes were calculated by radiating spinal pain status.

Results

The incidence of sickness benefit was greater for those with radiating pain: 89.6 (95% CI: 86.0, 93.2) versus 60.4 (95% CI: 57.7, 63.1) per 1000 person-yrs when compared to those with non-radiating spinal pain.

When compared to non-radiating pain, having radiating spinal pain was associated with earlier use of future sickness benefits, but not with the duration of time on future sickness benefits, nor with the number of benefit periods.

The mean duration and number of sickness benefit episodes did not show a consistent effect with increasing duration of pain and radiating pain.

On average, individuals suffering from radiating pain in multiple locations experienced the longest total duration at 26.4 weeks (sd 36.1) and the largest number of sickness benefit episodes at 2.7 (sd 4.7).

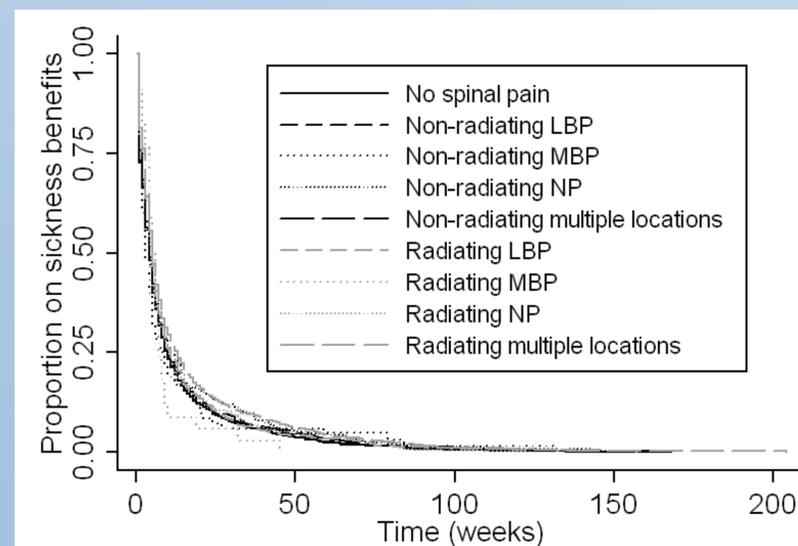


Figure 1. Duration of sickness benefit for spinal pain alone and radiating spinal pain in the neck (NP), mid back (MBP) or low back (LBP).

Only 370 (1.6%) subjects received disability pension. Individuals with radiating LBP greater than 30 days at baseline experienced the highest incidence of disability pension at 8.1 (95% CI: 5.3, 10.9) per 1000 person-yrs.

Conclusions

We found increased risk of future sickness absence for those with radiating pain, particularly from the low back, neck, and multiple locations.

Radiating pain had no effect on the duration of sickness absence.

We found that pain duration at baseline had little or no effect on the duration of subsequent sick leave and little effect on those with radiating spinal pain.

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