**APPENDIX 3**

**Associations between known prognostic factors and activity limitation and low back pain intensity**

**in patients in chiropractic and general practice**

**Associations between known prognostic factors and activity limitation at 2-week follow up in patients in chiropractic and general practice (activity limitation as categorical variable)**

|  |  |  |
| --- | --- | --- |
|  | CHIROPRACTIC PRACTICE | GENERAL PACTICE |
|  | Medium activity limitation\*n=226RR§ (95%CI) | High activity limitation\*n=364RR§ (95%CI)  | Medium activity limitation\*n=57RR§ (95%CI) | High activity limitation\*n=191RR§ (95%CI)  |
| Pain below knee or NRI# | 1.40 (0.60-3.33) | 3.01 (1.44-6.29) | 0.88 (0.14-5.35) | 4.44 (0.96-20.45) |
| NRI# |  0.89 (0.12-6.36) | 3.30 (0.73-14.92) | Could not be estimated | Could not be estimated |
| Poor general health#  |  1.29 (0.77-2.17) | 2.45 (1.55-3.87)  | Could not be estimated | Could not be estimated |
| Low expectations# |  1.38 (0.78-2.46) | 2.68 (1.62-4.44) | 1.82 (0.63-5.24) | 4.42 (1.72-11.36) |
| Duration ≥2 weeks# |  1.94 (1.28-2.94) | 1.79 (1.22-2.62) | 1.32 (0.53-3.27) | 3.50 (1.57-7.83) |
| More than 3 previous episodes# |  1.71 (1.16-2.53) | 1.82 (1.27-2.61) | 1.18 (0.48-2.94) | 1.48 (0.67-3.26) |
| Depressed# |  1.55 (0.64-3.78) | 4.45 (2.08-9.54) | 3.29 (0.38-28.75) | 11.61 (1.54-87.45) |
| Musculoskeletal comorbidity# |  0.81 (0.43-1.53) |  1.24 (0.72-2.11) | 1.38 (0.37-5.05) | 2.88 (0.91-9.11) |

**Associations between known prognostic factors and low back pain intensity 2-week follow up in patients in chiropractic and general practice (low back pain as categorical variable)**

|  |  |  |
| --- | --- | --- |
|  | CHIROPRACTIC PRACTICE | GENERAL PACTICE |
|  | Medium LBP intensity\*\*n=348RR§ (95%CI) | High LBP intensity\*\*n=233RR§ (95%CI) | Medium LBP intensity\*\*n=91RR§ (95%CI) | High LBP intensity\*\*n=176RR§ (95%CI) |
| Pain below knee or NRI# | 0.44 (0.17-1.15) | 1.18 (0.47-3.01) | 0.33 (0.04-2.56) | 0.49 (0.07-3.65) |
| NRI# | Could not be estimated | Could not be estimated | 0.12 (0.01-1.01) | 0.12 (0.02-0.97) |
| Poor general health#  | 1.11 (0.49-2.48) | 2.36 (1.05-5.32) | Could not be estimated | Could not be estimated |
| Low expectations# | 3.62 (0.85-15.43) | 10.11 (2.39-42.84) | 2.66 (0.30-23.14) | 7.42 (0.87-62.98) |
| Duration ≥2 weeks# | 2.76 (1.20-6.37) | 4.57 (1.96-10.67) | 1.13 (0.24-5.37) | 3.73 (0.80-17.33) |
| More than 3 previous episodes# | 1.40 (0.74-2.64) | 2.20 (1.14-4.24) | 1.94 (0.41-9-22) | 2.41 (0.52-11.11) |
| Depressed# | 2.01 (0.46-8.73) | 5.06 (1.18-21.66) | 1.28(0.25-18.11) | 2.12 (0.25-18.11) |
| Musculoskeletal comorbidity# | 1.03 (0.39-2.77) | 1.46 (0.54-3.94) | 0.26 (0.03-1.99) | 0.92 (0.13-6.77) |

**Associations between known prognostic factors and activity limitation at 3-month follow up in patients in chiropractic and general practice (activity limitation as categorical variable)**

|  |  |  |
| --- | --- | --- |
|  | CHIROPRACTIC PRACTICE | GENERAL PACTICE |
|  | Medium activity limitation\*n=212RR§ (95%CI) | High activity limitation\*n=161RR§ (95%CI)  | Medium activity limitation\*n=72RR§ (95%CI) | High activity limitation\*n=118RR§ (95%CI)  |
| Pain below knee or NRI# | 2.25 (1.16-4.38) | 5.14 (2.75-9.57) | 1.32 (0.44-3.97) |  5.73 (2.28-14.45) |
| NRI# | 4.38 (0.84-22.8) | 9.56 (2.00-45.5) |  3.48 (0.35-34.64) | 12.75 (1-62-100.43) |
| Poor general health#  | 1.10 (0.71-1.69) | 2.90 (1.90-4.41) | 0.84 (0.39-1.80) |  4.48 (2.38-8.45) |
| Low expectations# | 2.11 (1.30-3.40) | 5.25 (3.29-8.37) | 1.11 (0.54-2.30) | 5.85 (3.10-11.02) |
| Duration ≥2 weeks# | 2.51 (1.74-3.60) | 3.69 (2.48-5.48) | 1.96 (1.01-3.80) | 6.98 (3.63-13.42) |
| More than 3 previous episodes# | 1.61 (1.14-2.27) | 2.26 (1.54-3.31) | 1.20 (0.62-2.31) |  2.42 (1.33-4.41) |
| Depressed# | 1.92 (1.03-3.59) | 3.50 (1.92-6.38) | 1.31 (0.50-3.42) |  4.16 (1.89-9.17) |
| Musculoskeletal comorbidity# | 0.68 (0.38-1.23) | 1.72 (1.03-2.88) | 2.08 (0.83-5.25) | 6.91 (3.04-15.69) |

**Associations between known prognostic factors and low back pain intensity at 3-month follow up in patients in chiropractic and general practice (low back pain as categorical variable)**

|  |  |  |
| --- | --- | --- |
|  | CHIROPRACTIC PRACTICE | GENERAL PACTICE |
|  | Medium LBP intensity\*\*n=330RR§ (95%CI) | High LBP intensity\*\*n=111RR§ (95%CI) | Medium LBP intensity\*\*n=117RR§ (95%CI) | High LBP intensity\*\*n=107RR§ (95%CI) |
| Pain below knee or NRI# | 1.69 (0.93-3.07) | 3.19 (1.60-6.35) | 2.37 (0.74-7.61) |  4.26 (1.33-13.71) |
| NRI#   | 2.7 (0.72-10.05) |  2.70 (0.54-13.61) |  3.00 (0.35-25.46) |  5.77 (0.70-47.31) |
| Poor general health# | 1.17 (0.79-1.72) | 1.80 (1.09-2.97) | 1.68 (0.77-3.67) | 4.48 (2.06-9.74) |
| Low expectation# | 2.78 (1.74-4.44) | 5.19 (2.97-9.06) | 1.92 (0.89-4.17) |  6.89 (3.15-15.08) |
| Duration ≥2 weeks# | 2.49 (1.75-3.53) | 3.72 (2.35-5.91) | 3.22 (1.58-6.55) | 13.05 (5.84-29.17) |
| More than 3 previous episodes# | 2.14 (1.55-2.96) | 1.96 (1.26-3.06) | 2.88 (1.45-5.74) | 3.75 (1.85-7.60) |
| Depressed# | 1.96 (1.04-3.71) | 5.22 (2.62-10.4) | 0.74 (0.30-1.80) | 2.17 (0.95-4.97) |
| Musculoskeletal comorbidity# | 0.85 (0.51-1.42) | 1.93 (1.07-3.48) | 1.51 (0.55-4.14) |  6.44 (2.42-17.16) |

**Associations between known prognostic factors and activity limitation at 1-year follow up in patients in chiropractic and general practice (activity limitation as categorical variable)**

|  |  |  |
| --- | --- | --- |
|  | CHIROPRACTIC PRACTICE | GENERAL PACTICE |
|  | Medium activity limitation\*n=175RR§ (95%CI) | High activity limitation\*n=114RR§ (95%CI)  | Medium activity limitation\*n=66RR§ (95%CI) | High activity limitation\*n=101RR§ (95%CI)  |
| Pain below knee or NRI# | 1.31 (0.68-2.53) | 3.27(1.78-6.00) | 3.20 (1.15-8.89) | 3.81 (1.53-9.47) |
| NRI# | 4.74 (1.17-19.20) | 7.27 (1.79-29.55) | 3.55 (0.61-20.49) | 4.85 (1.00-23.53) |
| Poor general health#  | 1.54 (1.00-2.37) | 3.03 (1.91-4.82) | 1.89 (0.91-3.92) | 3.81 (1.98-7.34) |
| Low expectations# | 1.50 (0.92-2.44) | 4.24 (2.62-6.85) | 1.81 (0.86-3.78) | 7.70 (3.91-15.19) |
| Duration ≥2 weeks# | 1.91 (1.32-2.77) | 3.30 (2.14-5.11) | 2.13 (1.09-4.17) | 5.76 (2.96-11.23) |
| More than 3 previous episodes# | 2.25 (1.56-3.24) | 3.52 (2.23-5.55) | 1.62 (0.83-3.16) | 2.18 (1.18-4.02) |
| Depressed# | 1.08 (0.56-2.09) | 2.03 (1.06-3.87) | 2.36 (0.92-6.09) | 5.33 (2.31-12.28) |
| Musculoskeletal comorbidity# | 0.93 (0.50-1.74) | 3.82 (2.25-6.49) | 0.96 (0.39-2.39) | 4.20 (2.03-8.70) |

**Associations between known prognostic factors and low back pain intensity at 1-year follow up in patients in chiropractic and general practice (low back pain as categorical variable)**

|  |  |  |
| --- | --- | --- |
|  | CHIROPRACTIC PRACTICE | GENERAL PACTICE |
|  | Medium LBP intensity\*\*n=271RR§ (95%CI) | High LBP intensity\*\*n=115RR§ (95%CI) | Medium LBP intensity\*\*n=97RR§ (95%CI) | High LBP intensity\*\*n=102RR§ (95%CI) |
| Pain below knee or NRI# | 1.25 (0.68-2.28) | 2.34 (1.20-4.45) | 2.40 (0.80-7.21) | 2.93 (0.99-8.73) |
| NRI# | 0.55 (0.16-1.86) | 0.97 (0.25-3.73) | 3.56 (0.41-30.88) | 5.54 (0.67-45.79) |
| Poor general health#  | 1.35 (0.89-2.04) | 3.09 (1.90-5.04) | 1.57 (0.73-3.38) | 2.84 (1.35-6.01) |
| Low expectations# | 1.55 (0.97-2.47) | 3.86 (2.30-6.50) | 1.85 (0.83-4.09) | 6.16 (2.81-13.50) |
| Duration ≥2 weeks# | 1.69 (1.19-2.40) | 3.07 (1.97-4.81) | 2.27 (1.13-4.58) | 5.59 (2.66-11.73) |
| More than 3 previous episodes# | 1.57 (1.65-4.06) | 2.59 (1.65-4.06) | 1.31 (0.66-2.60) | 2.01 (1.00-4.05) |
| Depressed# | 1.65 (0.86-3.13) | 3.35 (1.68-6.71) | 0.85 (0.36-2.03) | 1.88 (0.84-4.21) |
| Musculoskeletal comorbidity# | 1.39 (0.79-2.42) | 3.55 (1.97-6.41) | 1.45 (0.57-3.71) | 3.90 (1.59-9.56) |

# Pain below knee or NRI= LBP with leg pain below the knee and/or LBP with signs of nerve root involvement (NRI) *versus* local LBP or LBP with leg pain above the knee; NRI = signs of nerve root involvement yes *versus* no; poor general health= 25% of patients reporting the worst general health *versus* 75% of patients reporting the best general health; low expectations=25% of patients reporting the lowest recovery expectation *versus* 75% of patients reporting the highest recovery expectation; duration ≥2 weeks *versus* duration <2 weeks; More than 3 previous episodes *versus* 0-3 previous episodes; depressed= Major Depression Inventory 0-50, sum score. Dichotomized: depressed if >19; musculoskeletal comorbidity yes *versus* no.

\*Medium activity limitation: Roland Morris Disability Questionnaire proportional score (0-100) ≥8 & <30. High activity limitation: ≥30.

\*\*Medium LBP intensity: Numeric rating scale (0-10) ≥1 & <4; High LBP intensity: Numeric rating scale ≥4.

§Risk Ratios are relative to the lowest category of scores measured on the Roland Morris Disability Questionnaire/ the lowest category of LBP intensity scores.

**Statistical significance of the associations between baseline prognostic factors and outcomes**

|  |  |  |
| --- | --- | --- |
|  | ACTIVITY LIMITATION | LOW BACK PAIN INTENSITY |
|  | 2 weeks | 3 months | 1 year | 2 weeks | 3 months | 1 year |
|  | p-value | p-value | p-value | p-value | p-value | p-value |
| CHIROPRACTIC PRACTICE |  |  |  |  |  |  |
| Leg pain location | <0.01 | <0.001 |  0.001 | <0.01 | <0.01 |  0.05 |
| NRI  |  0.07 | <0.01 | <0.01 |  0.10 |  0.28 |  0.59 |
| General Health | <0.001 | <0.001 | <0.001 | <0.001 |  0.08 | <0.001 |
| Recovery Expectations | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Duration of pain | <0.01 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Previous episodes | <0.01 | <0.001 | <0.001 | <0.01 | <0.001 | <0.001 |
| Depression | <0.001 | <0.001 |  0.11 | <0.001 | <0.001 | <0.01 |
| Musculoskeletal comorbidity |  0.29 | 0.01 | <0.001 |  0.38 | <0.02 | <0.001 |
| GENERAL PRACTICE  |  |  |  |  |  |  |
| Leg pain location | <0.001 | <0.001 | <0.01 |  0.39 |  0.03 |  0.12 |
| NRI  | <0.01 | <0.01 |  0.08 |  0.16 |  0.14 |  0.16 |
| General Health  | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |  0.01 |
| Recovery Expectations | <0.001 | <0.01 | <0.001 | <0.001 | <0.001 | <0.001 |
| Duration of pain | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Previous episodes |  0.54 | <0.001 |  0.04 |  0.42 | <0.001 |  0.12 |
| Depression | <0.001 | <0.001 | <0.001 |  0.24 | <0.01 |  0.05 |
| Musculoskeletal comorbidity |  0.04 | <0.001 | <0.001 | <0.001 | <0.001 | <0.01 |