



### Prognosis in patients with recent onset chronic low back pain: an inception cohort study

*Luciola Menezes Costa, Chris Maher, James McAuley, Mark Hancock, Rob Herbert,  
Kathryn Refshauge, Nicholas Henschke*

## What is the prognosis of chronic LBP?

Clinical guidelines portray chronic low back pain as a condition:

- Poor prognosis
- Unlikely to recover

**Survivor cohorts vs. Inception cohorts**  
This conclusion is based on studies with suboptimal designs:

- Unrepresentative samples
- Inception cohort?
- Large loss of follow-ups

## Aim

- To determine the one-year prognosis for patients with recent onset of chronic LBP
- To identify prognostic markers which could be determined at the onset of chronicity

## Methods

- An inception cohort study of consecutive patients with recent onset of chronic LBP
- The participants were drawn from a larger inception cohort of consecutive patients:
  - Acute LBP > 24 hours but < 2 weeks
- All participants in the acute cohort with LBP persisting 90 days after their onset of symptoms were invited to participate in the current study

## Recovery Measures

Pain-free  
Return to pre-episode function levels  
Return to pre-episode work status

*The outcomes were assessed by telephone interview:*

- onset of chronic LBP
- 9 months
- 12 months

## Prognostic markers

- socio-demographic characteristics
- general health
- current and previous LBP history
- red flags
- psychological characteristics
- pain intensity
- disability

## Statistical analysis

### Prognosis analysis:

Kaplan Meier survival probability estimates

- Survival curves

### Prognostic markers:

Cox regression model:

- Pain

## Results

3,184 potentially eligible patients identified by 170 GPs

973 acute LBP  
(Henschke, 2008)

567 recovered from the acute LBP

406 chronic LBP

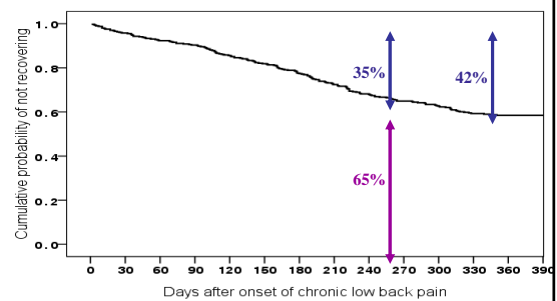
9 months follow-up  
(n=402, 99%)

12 months follow-up  
(n=368, 91%)

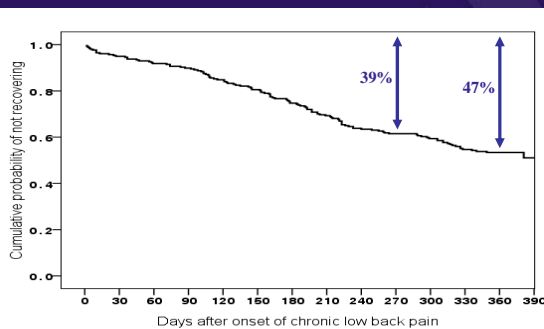
## Results

### Prognosis

## Recovery from pain (n= 406)



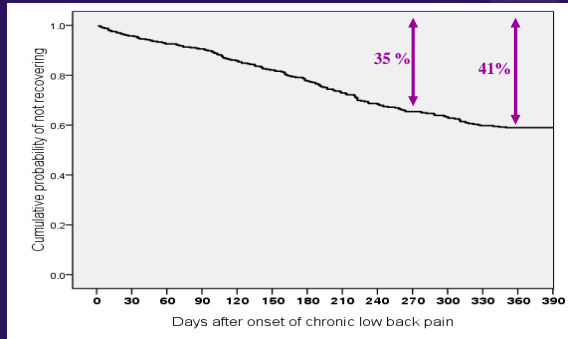
## Recovery from disability (n= 259)



## Return to work (n= 44)

- Only 44 of 406 patients had not returned to their previous work status at the onset of chronicity
- From these 44 patients, 46% had returned to their previous work status by 12 months

## Complete recovery (n= 406)



## Results

*Prognostic markers*



## Prognostic Markers

Prognostic markers	Adjusted hazard ratio (95% CI)	p value
Previous taken sick leave due to LBP	0.69 (0.50 to 0.97)	0.03
No education beyond secondary school	0.74 (0.54 to 1.00)	0.05
Disability at chronic presentation	0.68 (0.56 to 0.81)	<0.0001
Perceived risk of persistent pain	0.91 (0.86 to 0.97)	0.002



## Conclusion

- First description of the prognosis of chronic LBP in a large inception cohort from primary care setting
- After 12 months, 41% of patients report being completely recovered from their episode of chronic LBP
- Patients with less favourable prognosis:
  - who have taken previous sick leave due LBP
  - who have high disability levels at the onset of chronic LBP
  - who have little education
  - who perceive themselves as having a high risk of persistent pain



Thank you!