

Antidepressants for non-specific low back pain (2008)

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Overview of the study

Objectives

- To determine whether antidepressants are more effective than placebo for the treatment of non-specific low-back pain.

Methods

- Evidence current up to 11 November 2008
- Participants: Adult subjects with non-specific low-back pain
- Intervention: Any type of antidepressant *
- Outcomes measured
 - Primary outcomes: pain intensity, overall improvement, functional status, return-to-work
 - Secondary outcomes: physiological outcomes generic functional status

* i.e. tricyclic and heterocyclic antidepressants, selective serotonin reuptake inhibitors, mono-amine oxidase inhibitors and 'atypical' antidepressant

Results & Conclusion

- 10 trials included

Treatment	Evidence/ Quality of evidence*
Antidepressants	No clear evidence in reducing depression in chronic low back pain patients compared to placebo
	Conflicting evidence in reducing pain intensity compared to placebo

⇒ There is no clear evidence that antidepressants are more effective than placebo in the management of patients with chronic low-back pain

* The GRADE approach was not used to assess quality of evidence.

Botulinum toxin injections for low-back pain and sciatica (2011)

Zeeshan Waseem, Chris Boulias, Allan Gordon, Farooq Ismail, Geoffrey Shean, Andrea D Furlan



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Overview of the study

Objectives

- To determine the effects of botulinum toxin injections in adults with low back pain (LBP)

Methods

- Evidence current up to 1 February 2010
- Participants: Adults (age ≥ 18) with non specific LBP and/or sciatica (acute, subacute, or chronic)
- Intervention: All BoNT serotypes injected intramuscularly
- Outcomes measured
 - Primary outcomes: symptoms, disability, overall improvement or proportion of patients recovered, back-specific functional status, well-being
 - Secondary outcomes: physiological outcomes, satisfaction with care, adverse events, outcomes reported for different follow-up periods

Results & Conclusion

- 3 trials (123 participants) included:

Treatment	Evidence	Quality of evidence
BoNT injections	The treatment improved pain, function, or both better than saline injections	Low
	The treatment was better for pain and function compared to traditional acupuncture or steroid injections	Very low

⇒ There is a lack of evidence to confirm effectiveness of BoNT injections for patients with LBP

Injection therapy for subacute and chronic low-back pain (2008)

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Overview of the study

Objectives

- To determine if injection therapy is more effective than placebo or other treatments for patients with subacute or chronic low-back pain

Methods

- Evidence current up to 30 March 2007
- Participants: Adults (18 to 70 years) with LBP symptoms persisting for at least one month
- Intervention: Injection therapy
- Outcomes measured: Pain, a global measure of improvement, back-specific disability, generic health status or well-being , disability for work, patient satisfaction

Results & Conclusion

- 18 trials (1179 participants) included

Intervention	Evidence	Quality of evidence*
Epidural injections	No significant difference in effects between epidural corticosteroid injections and placebo injections, and other treatments	Limited
	No significant difference in effects between epidural injections with local anaesthetics and other treatments	Moderate
Facet joint injections	No significant difference in effects between facet joint injections with corticosteroids and placebo injections, and other treatments	Limited
	Facet joint injections with lidocaine combined with peri-articular corticosteroid injections are more effective for short-term pain relief than facet joint injections with saline	Moderate
Local injections	No significant difference in effects between local injections with corticosteroids and placebo injections; between local injections with anaesthetics and placebo injections	Moderate

⇒ There is insufficient evidence to support or refute the use of injection therapy for patients with subacute and chronic LBP



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Prolotherapy injections for chronic low-back pain (2010)

Simon Dagenais, Michael J Yelland, Chris Del Mar, Mark L Schoene



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Overview of the study

Objectives

- To determine the efficacy of prolotherapy in adults with chronic low-back pain

Methods

- Evidence current up to 29 July 2009
- Participants: Adults (aged 18 years and over) with a history of non-specific low-back pain longer than three months
- Intervention: Prolotherapy
- Outcomes measured: Low-back pain, low-back-related disability, overall improvement or satisfaction with treatment, well-being, return-to work, physical examination, and side effects

Results & Conclusion

- Five trials (total 366 participants) included.

Treatment	Evidence	Quality of evidence
Prolotherapy injections	No more effective than control injection for chronic low-back pain and disability	High
	Prolotherapy injections, given with spinal manipulation, exercise, and other therapies, are more effective than control injections for chronic low-back pain and disability	High

⇒ There is conflicting evidence that prolotherapy alone is not an effective treatment for chronic low-back pain but it may improve chronic low-back pain and disability when combined with spinal manipulation, exercise, and other co-interventions.

Non-steroidal anti-inflammatory drugs for low back pain (2008)

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Overview of the study

Objectives

- To assess the effects of NSAIDs and COX-2 inhibitors in the treatment of non-specific low-back pain and to assess which type of NSAID is most effective

Methods

- Evidence current up to 30 June 2007
- Intervention: One or more types of NSAIDs
- Participants: Adults (≥ 18 years) treated for non-specific low-back pain with or without sciatica
- Outcomes measured
 - Primary outcomes: pain intensity, global measure, back pain-specific functional status, return-to-work, side effects
 - Secondary outcomes: physiological outcomes, functional status

Results & Conclusion

- 65 trials (11,237 participants) included.

Treatment	Evidence	Quality of evidence*
NSAID	NSAIDs are not more effective for pain relief and global improvement compared to paracetamol for acute LBP	Moderate
	NSAIDs are not more effective than other drugs for acute LBP	Moderate
	Various types of NSAIDs including COX-2 NSAIDs equally effective for acute LBP	Strong

⇒ Evidence suggests that NSAIDs are effective for short-term symptomatic relief in patients with acute and chronic low-back pain without sciatica, yet no specific type of NSAID is clearly more effective than others.

* The GRADE approach was not used to assess quality of evidence.



Opioids compared to placebo or other treatments for chronic low-back pain (2013)

Luis Enrique Chaparro, Andrea D Furlan, Amol Deshpande, Angela Mailis-Gagnon, Steven Atlas, Dennis C Turk



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Overview of the study

Objectives

- To determine the efficacy of opioids in adults with chronic low-back pain (CLBP)

Methods

- Evidence current up to 31 October 2012
- Participants: Adults (≥ 18 years of age) with a duration of low back pain at least 12 weeks
- Intervention: Use of opioids administered alone or in combination with other interventions
- Outcomes measured:
 - Primary outcomes: pain, function, patient satisfaction or QOL improvements, proportion of patients reporting 30% or 50% pain relief
 - Secondary outcomes: work-related disability, treatment-related adverse effects

Results & Conclusion

- 15 trials (5540 participants) included

Treatment	Evidence	Quality of evidence
Tramadol	Better than placebo for pain	Low
	Better than placebo for function	Moderate
	Little difference for pain compared to celecoxib	Very low
Transdermal buprenorphine	-Little difference for pain -No difference for function compared to placebo	Very low
Strong opioids *	Better than placebo for pain and function	Moderate
Opioids	No difference between opioids and antidepressants for either pain or function	Very low

⇒ There is some evidence for short-term efficacy of opioids to treat CLBP compared to placebo

* Morphine, Hydromorphone, Oxycodone, Oxymorphone, Tapentadol