Assessment of non-traumatic lumbar back pain

Background
Non-traumatic lumbar back pain is a relatively common complaint encountered in the out-of-hospital setting. There are many causes for non-traumatic lumbar back pain, some of which require transport to ED. Most often though, non-traumatic lumbar back pain is precipitated by lifting or twisting, aggravated by movement and is often associated with muscle spasm.

This skill sheet has been developed to guide you on assessing a patient with non-traumatic lumbar back pain, and help develop an accurate provisional diagnosis and/or differential diagnosis.

Indications
Presence of non-traumatic lumbar back pain.

Contraindications and cautions
Contraindications: none
Cautions:

› A time-critical condition. If the patient has a time-critical condition, patient management and expedient transport takes precedence over a comprehensive assessment of non-traumatic lumbar back pain.

Procedure
1 Taking a history:
   – Begin by asking open questions. Allow the patient to describe their symptoms and prevent unnecessary interruptions.
   – Where feasible, do not take vital signs at the same time as taking a history because this may distract the patient and prevent them from providing important information.
   – Ask questions that systematically explore each symptom. Use section 11.6 of the Clinical Procedures and Guidelines (2016–2018) and work through the red, orange and green flags.
   – Ensure you obtain a medical history from the patient. View hospital discharge summaries if they are available and ask about the medication the patient is prescribed.

2 Acquisition of vital signs:
   – Acquiring a full set of vital signs is extremely important. It will help to build a better clinical picture of your patient, and aid in the development of an accurate provisional diagnosis.
   – The presence of abnormal vital signs is also a red flag for patients with non-traumatic back pain so it is important to obtain them.
   – Ensure you take the patient's temperature. A temperature of >38 degrees is a red flag.

3 Inspect the back:
   – Observe the patient's back, looking for any abnormalities, including swelling, bruising or muscular spasm.

4 Palpate the back:
   – Palpate the patient's back feeling for any abnormalities or signs of tenderness.

5 Assess for altered sensation:
   – Ask the patient whether they have any numbness or tingling in their saddle area – this includes the perineum, buttocks and upper posterior thighs.
   – Ask the patient whether they have any numbness of tingling in either/both of their legs.
   – Assess for sensation in the legs.

6 Assess the patient's mobility, and coordination when walking:
   – Can the patient walk? If they cannot walk, is it due to pain, decreased sensation/motor power or paralysis?
   – If the patient can walk, is it as normal? Or do they have an altered gait?

Other assessments should be driven by the patient's signs and symptoms, and the red, orange and green flags present in section 11.6 of the Clinical Procedures and Guidelines (2016–2018). While not specifically mentioned above, these must be a part of your assessment.
Additional information


Assessment criteria

If you encounter a patient with non-traumatic lumbar back pain during an assessment, you will be required to perform a good assessment. The following table will give you an idea of what the assessor will be expecting.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate appropriate assessment of a patient with non-traumatic lumbar back pain. Demonstration must include:</td>
<td></td>
</tr>
<tr>
<td>› Obtain a focused history</td>
<td></td>
</tr>
<tr>
<td>› Acquire a full set of vital signs</td>
<td></td>
</tr>
<tr>
<td>› Inspect the back – note any abnormalities</td>
<td></td>
</tr>
<tr>
<td>› Palpate the back – note any abnormalities or tenderness</td>
<td></td>
</tr>
<tr>
<td>› Assess for/ask about sensation – especially the saddle area and legs</td>
<td></td>
</tr>
<tr>
<td>› Assess the patient’s mobility and co-ordination</td>
<td></td>
</tr>
<tr>
<td>› Refer to the CPG red flags for non-traumatic lumbar back pain.</td>
<td></td>
</tr>
</tbody>
</table>