

### Initial assessment of low back symptoms

<u>Step</u>	<u>Data item</u>	<u>Representation</u>	<u>Rep.</u>
Adults with < 3 months of activity intolerance due to low back pain and/or back-related leg symptoms.	Age	<i>ClinicalAttribute</i> <i>Name:age</i> <i>Time</i> <i>Value</i> <i>Unit:year</i>	<i>Age.instance.value &gt; 18</i>
	activity intolerance due to low back pain and/or back-related leg symptoms.	<i>Symptom</i> <i>Name: activity intolerance due to low back pain and/or back-related leg symptoms.</i> <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Moderating factors</i>	activity intolerance due to low back pain and/or back-related leg symptoms.instance.duration < 3 months
Perform focused medical history and physical examination	order		
Search for “red flags”			
age	age	<i>ClinicalAttribute</i> <i>Name:age</i> <i>Time</i> <i>Value</i> <i>Unit:year</i>	<i>Age.instance.value &gt; 50</i>
Previous cancer history	Cancer	<i>Diagnosis</i> <i>Name: cancer</i> <i>Time</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i>	<i>Cancer.instance == true</i>

Unexplained weight loss	Unexplained weight loss	<i>Symptom</i> <i>Name:</i> Unexplained weight loss <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Moderating factors</i>	Unexplained weight loss.instance == true
Failure to improve with one month of therapy	Activity intolerance due to low back pain and/or back-related leg symptoms.	<i>Symptom</i> <i>Name:</i> activity intolerance due to low back pain and/or back-related leg symptoms. <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Moderating factors</i>	*I_1 = get (activity intolerance due to low back pain and/or back-related leg symptoms, last, less(drug.start_time) *I_2 = get (activity intolerance due to low back pain and/or back-related leg symptoms, last, more(drug.start_time + 1 month)
	Lower back pain drug therapy	<i>Drug</i> <i>Name:</i> pain killer for LBP <i>time</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Dose</i> <i>unit</i>	I_1.instance.severity <= I_2.insrtance.severity
Bed rest no relief	Low back pain	<i>Symptom</i> <i>Name:</i> Low back pain <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Moderating factors:</i>	Low back pain.instance.moderating_factor. == true
Duration of pain > 1 month	Low back pain	<i>Symptom</i> <i>Name:</i> Low back pain. <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Moderating factors</i>	Low back pain.instance.duration > 1 month

Intravenous drug abuse	Intravenous drug abuse	<i>Diagnosis</i> <i>Name:</i> Intravenous drug abuse <i>Time</i> <i>start_time</i> <i>end_time</i> <i>duration</i>	Intravenous drug abuse.instance == true Intravenous drug abuse.instance.end_time > Lower back pain.instance.start_time
Urinary tract infection	Urinary tract infection	<i>Diagnosis</i> <i>Name:</i> Urinary tract infection <i>start_time</i> <i>end_time</i> <i>duration</i>	Urinary tract infection.instance==true Urinary tract infection.instance.end_time > Lower back pain.instance.start_time
Skin infection	Skin infection	<i>Diagnosis</i> <i>Name:</i> Skin infection <i>start_time</i> <i>end_time</i> <i>duration</i>	Skin infection.instance==true Skin infection.instance.end_time > Lower back pain.instance.start_time
Trauma	Trauma	<i>Diagnosis</i> <i>Name:</i> Trauma <i>start_time</i> <i>end_time</i> <i>duration</i>	Trauma ==true Trauma.instance.end_time > Lower back pain.instance.start_time
corticosteroid	corticosteroid	<i>Drug</i> <i>Name:</i> <i>Time</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Dosage</i> <i>unit</i>	Corticosteroid.instance == true
Sciatica	Lower back pain	<i>Symptom</i> <i>Name:</i> Lower back pain <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Associated symptoms</i> <i>Moderating factors</i>	Lower back pain.instance. Associated symptoms == sciatica

pseudoclaudication	Lower back pain	<i>Symptom</i> <i>Name:</i> Lower back pain <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Associated symptoms</i> <i>Moderating factors</i>	Lower back pain.instance. Associated symptoms == pseudoclaudication
morning stiffness	Lower back pain	<i>Symptom</i> <i>Name:</i> Lower back pain <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Associated symptoms</i> <i>Moderating factors</i>	Lower back pain.instance. Associated symptoms == morning stiffness
Neurological screening	Neurological screening	<i>DiagnosticProcedure</i> <i>Name:</i> Neurological screening <i>Observation_time:</i> <i>Start_time:</i> <i>End_time:</i> <i>Status:order</i> <i>Indication:low back pain</i> <i>Location:</i>	
SLR	SLR	<i>DiagnosticProcedure</i> <i>Name:</i> SLR <i>Observation_time:</i> <i>Start_time:</i> <i>End_time:</i> <i>Status:order</i> <i>Indication:low back pain</i> <i>Location:</i>	
Plain X-ray of lumbosacral spine	Plain X-ray of lumbosacral spine	<i>DiagnosticProcedure</i> <i>Name:</i> Plain X-ray <i>Observation_time:</i> <i>Start_time:</i> <i>End_time:</i> <i>Status:order</i> <i>Indication:low back pain</i> <i>Location:lumbosacral spine</i>	

Spine fracture is still suspected	Spine fracture is still suspected	<i>DiseaseOrSyndrom:</i> <i>Name:</i> Spine_fracture <i>Observation_time:</i> <i>start_time</i> <i>end_time</i> <i>certainty:</i>	Spine_fracture.instance.certainty = suspected
Multiple sites of pain	Multiple sites of pain	<i>Symptom</i> <i>Name:</i> Lower back pain <i>Time:</i> <i>Start_time</i> <i>End_time</i> <i>Duration</i> <i>Location:</i> <i>No_of_events</i> <i>Severity</i> <i>Quality</i> <i>Associated symptoms</i> <i>Moderating factors</i>	Lower back pain.instance.location.length>1
Bone scan	Bone scan	<i>DiagnosticProcedure</i> <i>Name:</i> Bone scan <i>Observation_time:</i> <i>Start_time:</i> <i>End_time:</i> <i>Status:consider</i> <i>Indication:low back pain</i> <i>Location:</i>	
consultation	consultation	<i>Consultation:</i> <i>Name:</i> consultation <i>Observation_time:</i> <i>Start_time:</i> <i>End_time:</i> <i>Status:consider</i> <i>Indication:low back pain</i> <i>Consultant:Orthopedic surgeon</i>	
CT	CT	<i>DiagnosticProcedure</i> <i>Name:</i> CT <i>Observation_time:</i> <i>Start_time:</i> <i>End_time:</i> <i>Status:consider</i> <i>Indication:low back pain</i> <i>Location:spine</i>	