
ASSESSMENT AND DIAGNOSIS



Importance of Pain Assessment

Pain is a significant predictor of morbidity and mortality.

- Screen for red flags requiring immediate investigation and/or referral
- Identify underlying cause
 - Pain is better managed if the underlying causes are determined and addressed
- Recognize type of pain to help guide selection of appropriate therapies for treatment of pain
- Determine baseline pain intensity to future enable assessment of efficacy of treatment

Comprehensive Pain Assessment

**Assess effects of pain
on patient's function**

**Characterize pain
location, distribution,
duration, frequency,
quality, precipitants**

**Complete risk
assessment**

**Take detailed history
(e.g., comorbidities,
prior treatment)**

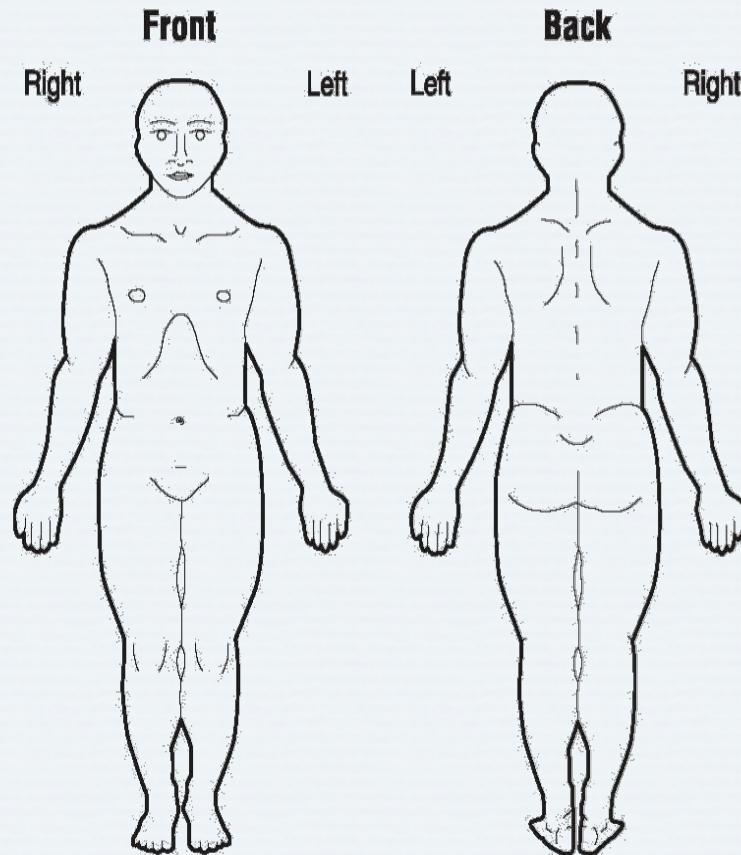
**Clarify etiology,
pathophysiology**

**Conduct physical
examination**

Pain Assessment: PQRST Mnemonic

- **P**rovocative and **P**alliative factors
- **Q**uality
- **R**egion and **R**adiation
- **S**everity
- **T**iming, **T**reatment

Locate the Pain



Body maps are useful for the precise location of pain symptoms and sensory signs.*

*In cases of referred pain, the location of the pain and of the injury or nerve lesion/dysfunction may not be correlated
Gilron I *et al.* *CMAJ* 2006; 175(3):265-75; Walk D *et al.* *Clin J Pain* 2009; 25(7):632-40.

Pain History Components

- Location of pain
- Onset
- Provocative or palliative factors
- Quality
- Radiation and related symptoms
- Severity (intensity, effect on function)
- Temporal pattern (continuous vs. intermittent)

Cognitive functioning and gender differences may affect a person's self-report of pain; therefore, caregivers are commonly used as proxies for obtaining pain reports

Physical Examination

- Assess tumor response
- Narrow differential diagnoses
- Lead to appropriate diagnostic testing and empiric treatment in the presence of new complaints

Patients with cancer indicate the physical exam is a highly positive aspect of their care

Physical Examination

- Most patients perceive the physical exam as strongly positive
- Most feel that being examined provides a symbolic and pragmatic meaning
 - Exam has meaning beyond that of an investigative bedside tool
 - *Symbolic*: provides reassurance, caring, and hope
 - *Pragmatic*: results might directly affect diagnostic, prognostic, or therapeutic assessments
- Increasing age is an independent predictor of a more positive perception of the physical exam
 - May provide an avenue to discuss issues and avoid unnecessary tests

Tools for the assessment of cancer pain



Assessing Acute Pain

Pain Intensity

- Visual analog scale (VAS)
 - Self-rating on a 0–100 mm scale
- Numerical rating scale
 - Self-rating on a 11-point scale:
0 = no pain to 10 = worst pain
- Time-specific pain intensity
 - “My pain at this time is: none, mild, moderate, severe”
(0 to 3 rating)
- Time-specific pain relief
 - “My pain relief at this time is: none, a little, some, a lot, complete” (0 to 4 rating)

Impact of Pain on Function

- American Pain Society (APS) questionnaire
 - The degree to which pain interferes with patient function, such as mood, walking and sleep
- Brief Pain Inventory (BPI)
 - Evaluates severity, impact and impairment on daily living, mood and enjoyment of life

Brief Pain Inventory

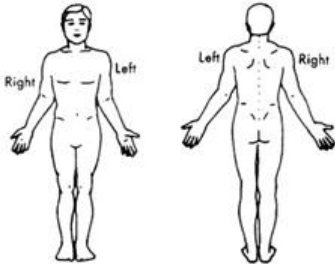
FORM 3.2 **Brief Pain Inventory**

Date ____ / ____ / ____ Time: _____

Name: _____
Last First Middle Initial

1) Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?
 1. Yes 2. No

2) On the diagram shade in the areas where you feel pain. Put an X on the area that hurts the most.



3) Please rate your pain by circling the one number that best describes your pain at its **worst** in the past 24 hours.

0 1 2 3 4 5 6 7 8 9 10
 No pain as bad as pain you can imagine

4) Please rate your pain by circling the one number that best describes your pain at its **least** in the past 24 hours.

0 1 2 3 4 5 6 7 8 9 10
 No pain as bad as pain you can imagine

5) Please rate your pain by circling the one number that best describes your pain on the **average**.

0 1 2 3 4 5 6 7 8 9 10
 No pain as bad as pain you can imagine

6) Please rate your pain by circling the one number that tells how much pain you have **right now**.

0 1 2 3 4 5 6 7 8 9 10
 No pain as bad as pain you can imagine

7) What treatments or medications are you receiving for your pain?

8) In the Past 24 hours, how much **relief** have pain treatments or medications provided? Please circle the one percentage that most shows how much relief you have received

0% 10 20 30 40 50 60 70 80 90 100%
 No Complete relief

9) Circle the one number that describes how, during the past 24 hours, pain has **interfered** with your:

A. General activity

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

B. Mood

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

C. Walking ability

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

D. Normal work (includes both work outside the home and housework)

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

E. Relations with other people

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

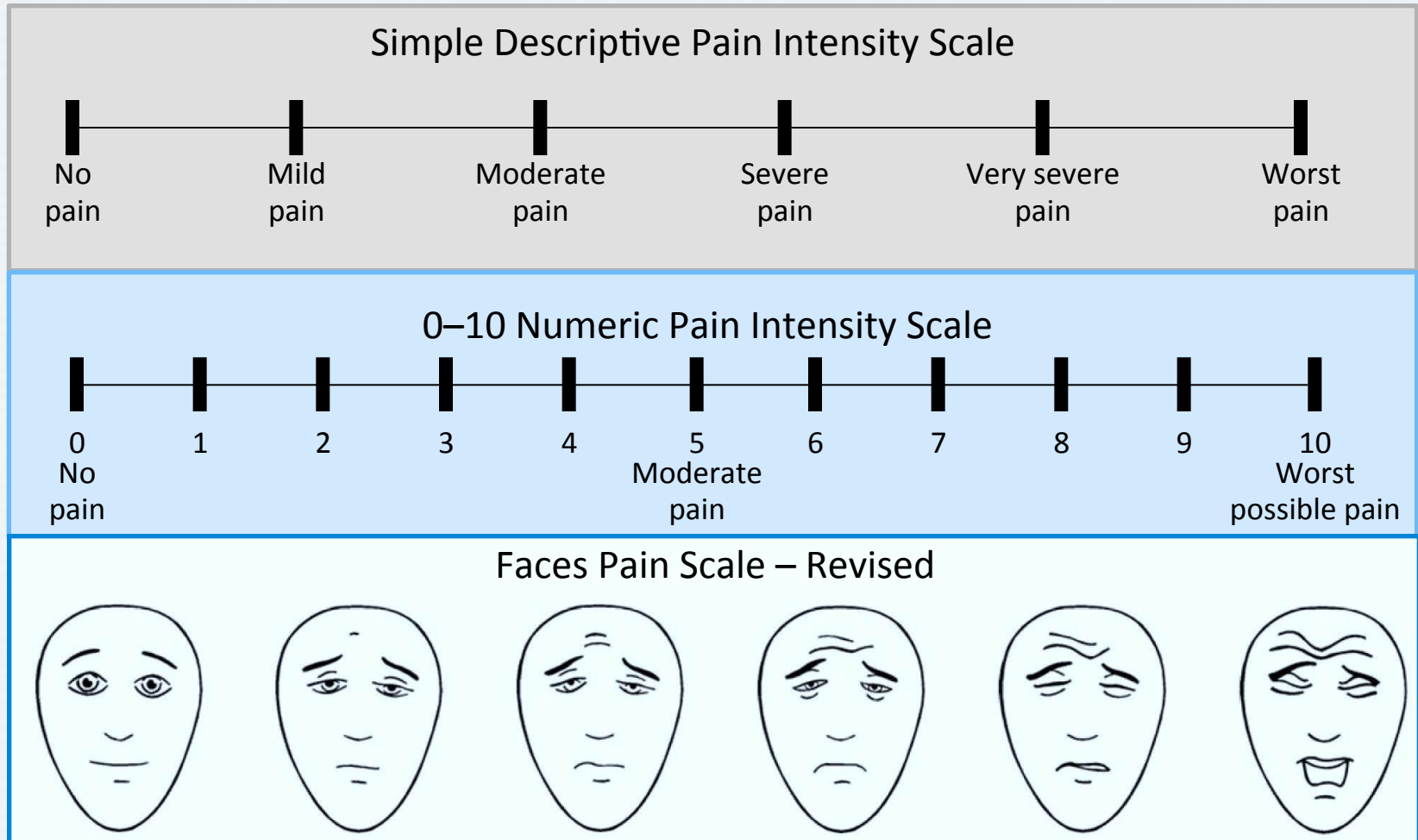
F. Sleep

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

G. Enjoyment of life

0 1 2 3 4 5 6 7 8 9 10
 Does not Completely interfere

Determine Pain Intensity



APS Questionnaire

- Measures 6 aspects of pain quality:
 - Pain severity and relief
 - Impact of pain on activity, sleep and negative emotions
 - Side effects of treatment
 - Helpfulness of information about pain treatment
 - Ability to participate in pain treatment decisions
 - Use of non-pharmacological strategies

APS Questionnaire

1. On this scale, please indicate the **least** pain you had in the first 24 hours:

0 1 2 3 4 5 6 7 8 9 10
no pain worst pain possible

2. On this scale, please indicate the **worst** pain you had in the first 24 hours:

0 1 2 3 4 5 6 7 8 9 10
no pain worst pain possible

3. How often were you in **severe** pain in the first 24 hours? Please circle your best estimate of the percentage of time you experienced severe pain:

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Never in severe pain Always in severe pain

4. Circle the one number below that best describes how much pain **interfered or prevented** you from:

a. Doing activities in bed such as turning, sitting up, repositioning.

0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

b. Doing activities out of bed such as walking, sitting in a chair, standing at the sink.

0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

c. Falling asleep

0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

d. Staying asleep

0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

5. Pain can affect our mood and emotions. On this scale, please circle the one number that best shows how much the pain caused you to feel:

a. Anxious 0 1 2 3 4 5 6 7 8 9 10

Not at all Extremely

b. Depressed 0 1 2 3 4 5 6 7 8 9 10

Not at all Extremely

c. Frightened 0 1 2 3 4 5 6 7 8 9 10

Not at all Extremely

d. Helpless 0 1 2 3 4 5 6 7 8 9 10

Not at all Extremely

6. Have you had any of the following **side effects**? Please circle "0" if no; if yes, please circle the one number that best shows the severity of each:

a. Nausea 0 1 2 3 4 5 6 7 8 9 10

None Severe

b. Drowsiness 0 1 2 3 4 5 6 7 8 9 10

None Severe

c. Itching 0 1 2 3 4 5 6 7 8 9 10

None Severe

d. Dizziness 0 1 2 3 4 5 6 7 8 9 10

None Severe

Tools to Assess Psychiatric/ Psychosocial Comorbidities



Depression Scales



PHQ-9

Nine-symptom Checklist

Name _____ Date _____

Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

(For office coding: Total Score _____ = _____ + _____ + _____)

If you checked off *any* problems, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all

Somewhat difficult

Very difficult

Extremely difficult

Hospital Anxiety and Depression Scale

A	I feel tense or 'wound up':	
	Most of the time	3
	A lot of the time	2
	From time to time (occ.)	1
	Not at all	0
D	I still enjoy the things I used to enjoy:	
	Definitely as much	0
	Not quite as much	1
	Only a little	2
	Hardly at all	3
A	I get a sort of frightened feeling as if something awful is about to happen:	
	Very definitely and quite badly	3
	Yes, but not too badly	2
	A little, but it doesn't worry me	1
	Not at all	0
D	I can laugh and see the funny side of things:	
	As much as I always could	0
	Not quite so much now	1
	Definitely not so much now	2
	Not at all	3
A	Worrying thoughts go through my mind:	
	A great deal of the time	3
	A lot of the time	2
	From time to time, but not often	1
	Only occasionally	0
D	I feel cheerful:	
	Not at all	3
	Not often	2
	Sometimes	1
	Most of the time	0
A	I can sit at ease and feel relaxed:	
	Definitely	0
	Usually	1
	Not often	2
	Not at all	3

D	I feel as if I am slowed down:	
	Nearly all the time	3
	Very often	2
	Sometimes	1
	Not at all	0
A	I get a sort of frightened feeling like "butterflies" in the stomach:	
	Not at all	0
	Occasionally	1
	Quite often	2
	Very often	3
D	I have lost interest in my appearance:	
	Definitely	3
	I don't take as much care as I should	2
	I may not take quite as much care	1
	I take just as much care	0
A	I feel restless as I have to be on the move:	
	Very much indeed	3
	Quite a lot	2
	Not very much	1
	Not at all	0
D	I look forward with enjoyment to things:	
	As much as I ever did	0
	Rather less than I used to	1
	Definitely less than I used to	2
	Hardly at all	3
A	I get sudden feelings of panic:	
	Very often indeed	3
	Quite often	2
	Not very often	1
	Not at all	0
D	I can enjoy a good book or radio/TV program:	
	Often	0
	Sometimes	1
	Not often	2
	Very seldom	3

A = anxiety; D = depression

Zigmond AS, Snaith RP. *Acta Psychiatr Scand.* 1983;67:361-70.

Hamilton Depression Rating Scale (HAM-D)

1. Depressed Mood

(sadness, hopeless, helpless, worthless)

- 0 Absent
- 1 These feeling states indicated only on questioning
- 2 These feeling states spontaneously reported
- 3 Communicates feeling states nonverbally, in expression, posture, voice and tendency to communicate
- 4 Patient reports VIRTUALLY ONLY these feeling states spontaneously verbal and nonverbal communication

2. Feelings of Guilt

- 0 Absent
- 1 Self-reproach, feels he has let people down
- 2 Ideas of guilt or rumination over past errors
- 3 Present illness is a punishment. Delusions of guilt
- 4 Hears accusatory or denunciatory voices or threatening visual hallucinations

3. Suicide

- 0 Absent
- 1 Feels life is not worth living
- 2 Wishes he were dead or any thoughts of poisoning himself
- 3 Suicide ideas or gesture
- 4 Attempts at suicide (any serious attempt recorded)

4. Insomnia - Early

- 0 No difficulty falling asleep
- 1 Complains of occasional difficulty falling asleep (less than 1/2 hour)
- 2 Complains of nightly difficulty falling asleep

5. Insomnia - Middle

- 0 No difficulty
- 1 Patient complains of being restless and disturbed during the night
- 2 Waking during the night - any getting out of bed (except for purposes of voiding)

6. Insomnia - Late

- 0 No difficulty
- 1 Waking in early hours of the morning but getting back to sleep
- 2 Unable to fall asleep again if gets out of bed

9. Agitation

- 0 None
- 1 "Playing with" hand, hair, etc.
- 2 Hand-wringing, nail-biting, biting of lips

10. Anxiety - Psychic

- 0 No difficulty
- 1 Subjective tension and irritability
- 2 Worrying about minor matters
- 3 Apprehensive attitude apparent in face or speech
- 4 Fears expressed without questioning

11. Anxiety - Somatic

- 0 Absent Physiological concomitants of anxiety such as:
- 1 Mild Gastrointestinal - dry mouth, wind, indigestion,
- 2 Moderate diarrhea, cramps, belching
- 3 Severe Cardiovascular - palpitations, headaches
- 4 Incapacitating Respiratory - hyperventilation, sighing
Urinary frequency
Sweating

12. Somatic Symptoms - Gastrointestinal

- 0 None
- 1 Loss of appetite but eating without staff encouragement. Heavy feelings in abdomen.
- 2 Difficulty eating without staff urging. Requests or requires laxatives or medications for bowels or medication for G.I. symptoms.

13. Somatic Symptoms - General

- 0 None
- 1 Heaviness in limbs, back or head, backaches, headache, muscle aches, loss of energy and fatigability
- 2 Any clear-cut symptom rates 2

14. Genital Symptoms

- 0 Absent 0 Not ascertained
- 1 Mild Symptoms such as: loss of libido,
- 2 Severe menstrual disturbances

Montgomery-Åsberg Depression Rating Scale

1. Apparent Sadness

Representing despondency, gloom and despair (more than just ordinary transient low spirits) reflected in speech, facial expression, and posture. Rate by depth and inability to brighten up.

- 0 - No sadness.
- 2 - Looks dispirited but does brighten up without difficulty.
- 4 - Appears sad and unhappy most of the time.
- 6 - Looks miserable all the time. Extremely despondent.

2. Reported Sadness

Representing reports of depressed mood, regardless of whether it is reflected in appearance or not. Includes low spirits, despondency or the feeling of being beyond help and without hope.

- 0 - Occasional sadness in keeping with the circumstances.
- 2 - Sad or low but brightens up without difficulty.
- 4 - Pervasive feelings of sadness or gloominess. The mood is still in keeping with the circumstances.
- 6 - Continuous or unvarying sadness, misery or despondency.

3. Inner Tension

Representing feelings of ill-defined discomfort, edginess, inner turmoil mounting to either panic, dread or anguish. Rate according to intensity, and the extent of reassurance called for.

- 0 - Placid. Only fleeting inner tension.
- 2 - Occasional feelings of edginess and ill-defined discomfort.
- 4 - Continuous feelings of inner tension or intermittent panic which is mastered with some difficulty.
- 6 - Unrelenting dread or anguish. Overwhelming panic.

8. Inability to Feel

Representing the subjective experience of reduced interest in the surroundings or activities that normally give pleasure. The ability to react with adequate emotion to circumstances or people is reduced.

- 0 - Normal interest in the surroundings and in other people.
- 2 - Reduced ability to enjoy usual interests.
- 4 - Loss of interest in the surroundings. Loss of feelings for friends and acquaintances.
- 6 - The experience of being emotionally paralyzed, inability to feel anger, grief or pleasure and a complete or even painful failure to feel for close relatives and friends.

9. Pessimistic Thoughts

Representing thoughts of guilt, inferiority, self-reproach, sinfulness, remorse, and ruin.

- 0 - No pessimistic thoughts.
- 2 - Fluctuating ideas of failure, self-reproach or self-depreciation.
- 4 - Persistent self-accusations or definite but still rational ideas of guilt or sin. Increasingly pessimistic about the future.
- 6 - Delusions of ruin, remorse or irredeemable sin. Self-accusations which are absurd and unshakable.

10. Suicidal Thoughts

Representing the feeling that life is not worth living, that a natural death would be welcome, suicidal thoughts, and preparations for suicide. Suicide attempts should not in themselves influence the rating.

- 0 - Enjoys life or takes it as it comes.
- 2 - Weary of life. Only fleeting suicidal thoughts.
- 4 - Probably better off dead. Suicidal thoughts are common, and suicide is considered as a possible solution, but without specific plans or intentions.
- 6 - Explicit plans for suicide when there is an opportunity. Active preparations for suicide.

Beck Depression Inventory

Beck's Depression Inventory

This depression inventory can be self-scored. The scoring scale is at the end of the questionnaire.

1.
 - 0 I do not feel sad.
 - 1 I feel sad
 - 2 I am sad all the time and I can't snap out of it.
 - 3 I am so sad and unhappy that I can't stand it.
2.
 - 0 I am not particularly discouraged about the future.
 - 1 I feel discouraged about the future.
 - 2 I feel I have nothing to look forward to.
 - 3 I feel the future is hopeless and that things cannot improve.
3.
 - 0 I do not feel like a failure.
 - 1 I feel I have failed more than the average person.
 - 2 As I look back on my life, all I can see is a lot of failures.
 - 3 I feel I am a complete failure as a person.
4.
 - 0 I get as much satisfaction out of things as I used to.
 - 1 I don't enjoy things the way I used to.
 - 2 I don't get real satisfaction out of anything anymore.
 - 3 I am dissatisfied or bored with everything.
5.
 - 0 I don't feel particularly guilty
 - 1 I feel guilty a good part of the time.
 - 2 I feel quite guilty most of the time.
 - 3 I feel guilty all of the time.
6.
 - 0 I don't feel I am being punished.
 - 1 I feel I may be punished.
 - 2 I expect to be punished.
 - 3 I feel I am being punished.
7.
 - 0 I don't feel disappointed in myself.
 - 1 I am disappointed in myself.
 - 2 I am disgusted with myself.
 - 3 I hate myself.
8.
 - 0 I don't feel I am any worse than anybody else.
 - 1 I am critical of myself for my weaknesses or mistakes.
 - 2 I blame myself all the time for my faults.
 - 3 I blame myself for everything bad that happens.
9.
 - 0 I don't have any thoughts of killing myself.
 - 1 I have thoughts of killing myself, but I would not carry them out.
 - 2 I would like to kill myself.
 - 3 I would kill myself if I had the chance.
10.
 - 0 I don't cry any more than usual.
 - 1 I cry more now than I used to.
 - 2 I cry all the time now.
 - 3 I used to be able to cry, but now I can't cry even though I want to.

11.
 - 0 I am no more irritated by things than I ever was.
 - 1 I am slightly more irritated now than usual.
 - 2 I am quite annoyed or irritated a good deal of the time.
 - 3 I feel irritated all the time.
12.
 - 0 I have not lost interest in other people.
 - 1 I am less interested in other people than I used to be.
 - 2 I have lost most of my interest in other people.
 - 3 I have lost all of my interest in other people.
13.
 - 0 I make decisions about as well as I ever could.
 - 1 I put off making decisions more than I used to.
 - 2 I have greater difficulty in making decisions more than I used to.
 - 3 I can't make decisions at all anymore.
14.
 - 0 I don't feel that I look any worse than I used to.
 - 1 I am worried that I am looking old or unattractive.
 - 2 I feel there are permanent changes in my appearance that make me look unattractive
 - 3 I believe that I look ugly.
15.
 - 0 I can work about as well as before.
 - 1 It takes an extra effort to get started at doing something.
 - 2 I have to push myself very hard to do anything.
 - 3 I can't do any work at all.
16.
 - 0 I can sleep as well as usual.
 - 1 I don't sleep as well as I used to.
 - 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
 - 3 I wake up several hours earlier than I used to and cannot get back to sleep.
17.
 - 0 I don't get more tired than usual.
 - 1 I get tired more easily than I used to.
 - 2 I get tired from doing almost anything.
 - 3 I am too tired to do anything.
18.
 - 0 My appetite is no worse than usual.
 - 1 My appetite is not as good as it used to be.
 - 2 My appetite is much worse now.
 - 3 I have no appetite at all anymore.
19.
 - 0 I haven't lost much weight, if any, lately.
 - 1 I have lost more than five pounds.
 - 2 I have lost more than ten pounds.
 - 3 I have lost more than fifteen pounds.

20.
 - 0 I am no more worried about my health than usual.
 - 1 I am worried about physical problems like aches, pains, upset stomach, or constipation.
 - 2 I am very worried about physical problems and it's hard to think of much else.
 - 3 I am so worried about my physical problems that I cannot think of anything else.
21.
 - 0 I have not noticed any recent change in my interest in sex.
 - 1 I am less interested in sex than I used to be.
 - 2 I have almost no interest in sex.
 - 3 I have lost interest in sex completely.

Anxiety Scales



Beck Anxiety Inventory

	Not At All	Mildly but it didn't bother me much.	Moderately - it wasn't pleasant at times	Severely – it bothered me a lot
Numbness or tingling	0	1	2	3
Feeling hot	0	1	2	3
Wobbliness in legs	0	1	2	3
Unable to relax	0	1	2	3
Fear of worst happening	0	1	2	3
Dizzy or lightheaded	0	1	2	3
Heart pounding/racing	0	1	2	3
Unsteady	0	1	2	3
Terrified or afraid	0	1	2	3
Nervous	0	1	2	3
Feeling of choking	0	1	2	3
Hands trembling	0	1	2	3
Shaky / unsteady	0	1	2	3
Fear of losing control	0	1	2	3
Difficulty in breathing	0	1	2	3
Fear of dying	0	1	2	3
Scared	0	1	2	3
Indigestion	0	1	2	3
Faint / lightheaded	0	1	2	3
Face flushed	0	1	2	3
Hot/cold sweats	0	1	2	3
Column Sum				

Scoring - Sum each column. Then sum the column totals to achieve a grand score. Write that score here _____ .

Hamilton Anxiety Rating Scale (HAM-A)

	0 = Not present,	1 = Mild,	2 = Moderate,	3 = Severe,	4 = Very severe.
1 Anxious mood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worries, anticipation of the worst, fearful anticipation, irritability.					
2 Tension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feelings of tension, fatigability, startle response, moved to tears easily, trembling, feelings of restlessness, inability to relax.					
3 Fears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Of dark, of strangers, of being left alone, of animals, of traffic, of crowds.					
4 Insomnia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty in falling asleep, broken sleep, unsatisfying sleep and fatigue on waking, dreams, nightmares, night terrors.					
5 Intellectual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty in concentration, poor memory.					
6 Depressed mood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loss of interest, lack of pleasure in hobbies, depression, early waking, diurnal swing.					
7 Somatic (muscular)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pains and aches, twitching, stiffness, myoclonic jerks, grinding of teeth, unsteady voice, increased muscular tone.					
8 Somatic (sensory)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tinnitus, blurring of vision, hot and cold flushes, feelings of weakness, pricking sensation.					
9 Cardiovascular symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tachycardia, palpitations, pain in chest, throbbing of vessels, fainting feelings, missing beat.					
10 Respiratory symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure or constriction in chest, choking feelings, sighing, dyspnea.					
11 Gastrointestinal symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty in swallowing, wind abdominal pain, burning sensations, abdominal fullness, nausea, vomiting, borborygmi, looseness of bowels, loss of weight, constipation.					
12 Genitourinary symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frequency of micturition, urgency of micturition, amenorrhagia, menorrhagia, development of frigidity, premature ejaculation, loss of libido, impotence.					
13 Autonomic symptoms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dry mouth, flushing, pallor, tendency to sweat, giddiness, tension headache, raising of hair.					
14 Behavior at interview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fidgeting, restlessness or pacing, tremor of hands, furrowed brow, strained face, sighing or rapid respiration, facial pallor, swallowing, etc.					

Hospital Anxiety and Depression Scale - Anxiety

Question	Frequency	Score
I feel tense or "wound up"	Most of the time	3
	A lot of the time	2
	Occasionally	1
	Not at all	0
I get a sort of frightened feeling as if something awful is about to happen	Very definitely and quite badly	3
	Yes, but not too badly	2
	A little, but it doesn't worry me	1
	Not at all	0
Worrying thoughts go through my mind	A great deal of the time	3
	A lot of the time	2
	From time to time, but not often	1
	Only occasionally	0
I can sit at ease and feel relaxed	Definitely	0
	Usually	1
	Not often	2
	Not at all	3
I get a sort of frightened feeling like "butterflies" in the stomach	Not at all	0
	Occasionally	1
	Quite often	2
	Very often	3
I feel restless as I have to be on the move	Very much indeed	3
	Quite a lot	2
	Not very much	1
	Not at all	0
I get sudden feelings of panic	Very often indeed	3
	Quite often	2
	Not very often	1
	Not often at all	0

Quality of Life Scale for Cancer Patients



HRQoL Tools Used in Oncology

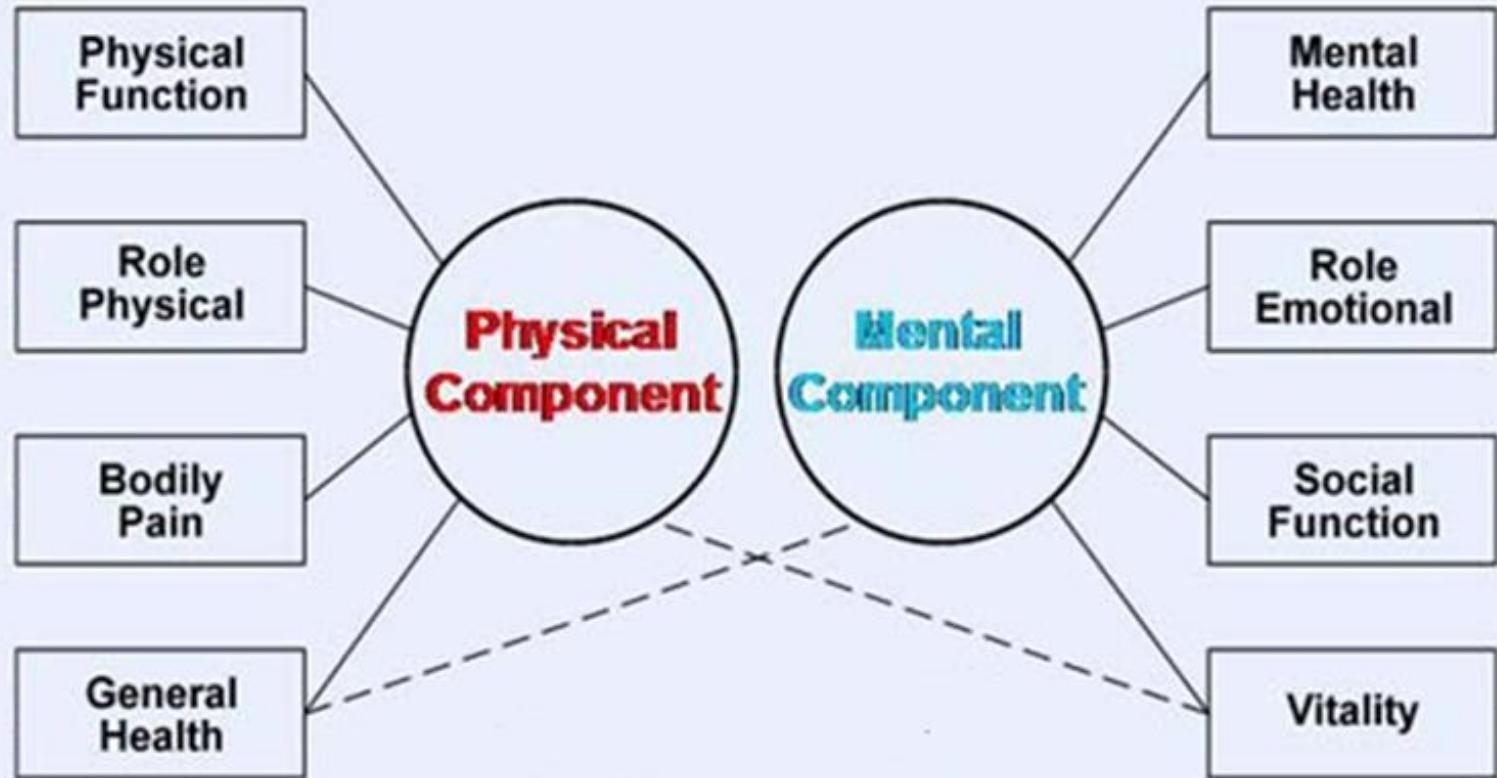
General

- Short Form 36 (SF-36)
- Hospital and Anxiety Depression Scale (HADS)

Cancer Specific

- EORTC QLQ-30
- Functional Assessment of Cancer Therapy – General (FACT-G)
- Rotterdam Symptom Checklist (RSCL)

Short Form 36 (SF-36®)



SF-36® scales measure physical and mental components of health

Hospital Anxiety and Depression Scale

A	I feel tense or 'wound up':	
	Most of the time	3
	A lot of the time	2
	From time to time (occ.)	1
	Not at all	0
D	I still enjoy the things I used to enjoy:	
	Definitely as much	0
	Not quite as much	1
	Only a little	2
	Hardly at all	3
A	I get a sort of frightened feeling as if something awful is about to happen:	
	Very definitely and quite badly	3
	Yes, but not too badly	2
	A little, but it doesn't worry me	1
	Not at all	0
D	I can laugh and see the funny side of things:	
	As much as I always could	0
	Not quite so much now	1
	Definitely not so much now	2
	Not at all	3
A	Worrying thoughts go through my mind:	
	A great deal of the time	3
	A lot of the time	2
	From time to time, but not often	1
	Only occasionally	0
D	I feel cheerful:	
	Not at all	3
	Not often	2
	Sometimes	1
	Most of the time	0
A	I can sit at ease and feel relaxed:	
	Definitely	0
	Usually	1
	Not often	2
	Not at all	3

D	I feel as if I am slowed down:	
	Nearly all the time	3
	Very often	2
	Sometimes	1
	Not at all	0
A	I get a sort of frightened feeling like "butterflies" in the stomach:	
	Not at all	0
	Occasionally	1
	Quite often	2
	Very often	3
D	I have lost interest in my appearance:	
	Definitely	3
	I don't take as much care as I should	2
	I may not take quite as much care	1
	I take just as much care	0
A	I feel restless as I have to be on the move:	
	Very much indeed	3
	Quite a lot	2
	Not very much	1
	Not at all	0
D	I look forward with enjoyment to things:	
	As much as I ever did	0
	Rather less than I used to	1
	Definitely less than I used to	2
	Hardly at all	3
A	I get sudden feelings of panic:	
	Very often indeed	3
	Quite often	2
	Not very often	1
	Not at all	0
D	I can enjoy a good book or radio/TV program:	
	Often	0
	Sometimes	1
	Not often	2
	Very seldom	3

A = anxiety; D = depression

Zigmond AS, Snaith RP. *Acta Psychiatr Scand.* 1983;67:361-70.

EORTC QLQ-C30

- Questionnaire to assess quality of life of patients with cancer
- For use in clinical trials (copyrighted)
- 30 questions rated on a 4-point Likert scale
- Nine multi-item scales
 - Functional: physical, role, cognitive, emotional, social
 - Symptom: fatigue, pain, nausea and vomiting
 - Global health and quality of life
- Several single-item symptom measures also included

Functional Assessment of Cancer Therapy – General (FACT-G)

PHYSICAL WELL-BEING

	Not at all	A little bit	Some-what	Quite a bit	Very much
I have a lack of energy	0	1	2	3	4
I have nausea	0	1	2	3	4
Because of my physical condition, I have trouble meeting the needs of my family	0	1	2	3	4
I have pain	0	1	2	3	4

SOCIAL/FAMILY WELL-BEING

	Not at all	A little bit	Some-what	Quite a bit	Very much
I am bothered by					
I feel ill					
I am forced to					
I feel close to my friends	0	1	2	3	4
I get emotional support from my family	0	1	2	3	4
I get support from my friends	0	1	2	3	4
My family has accepted my illness	0	1	2	3	4
I am satisfied with family communication about my illness	0	1	2	3	4
I feel close to my partner (or the person who is my main support)	0	1	2	3	4
<i>Regardless of your current level of sexual activity, please answer the following question. If you prefer not to answer it, please mark this box <input type="checkbox"/> and go to the next section.</i>					
I am satisfied with my sex life	0	1	2	3	4

- 33-item scale for patients receiving cancer therapy
- Easy to administer
- Brief
- Reliable
- Valid
- Responsive to clinical change

Rotterdam Symptom Checklist (RSCL)

physical symptom distress (23 items)

s1:	lack of appetite
s3:	tiredness
s5:	sore muscles
s7:	lack of energy
s8:	low back pain
s10:	nausea
s12:	difficulty sleeping
s13:	headaches
s14:	vomiting
s15:	dizziness
s16:	decreased sexual interest
s18:	abdominal (stomach) aches
s20:	constipation
s21:	diarrhoea
s22:	acid indigestion
s23:	shivering
s24:	tingling hands or feet
s25:	difficulty concentrating
s26:	sore mouth/pain when swallowing
s27:	loss of hair
s28:	burning/sore eyes
s29:	shortness of breath
s30:	dry mouth

activity level (8 items)

act1:	care for myself (wash etc.)
act2:	walk about the house
act3:	light housework/household jobs
act4:	climb stairs
act5:	heavy housework/household jobs
act6:	walk out of doors
act7:	go shopping
act8:	go to work

psychological distress (7 items)

s2:	irritability
s4:	worrying
s6:	depressed mood
s9:	nervousness
s11:	despairing about the future
s17:	tension
s19:	anxiety

overall valuation of life (1 item)

all1:	all things considered
-------	-----------------------

- Self-report measure
- 4 main scales:
 - Physical symptom distress
 - Psychological distress
 - Activity level
 - Overall global life quality
- 4-point Likert-type scales

Tools to Assess Neuropathic Pain

Sensitivity and Specificity of Neuropathic Pain Screening Tools

Name	Description	Sensitivity*	Specificity*
Interview-based			
NPQ	10 sensory-related items + 2 affect items	66%	74%
ID-Pain	5 sensory items + 1 pain location	NR	NR
painDETECT	7 sensory items + 2 spatial characteristics items	85%	80%
Interview + physical tests			
LANSS	5 symptom items + 2 clinical exam items	82–91%	80–94%
DN4	7 symptom items + 3 clinical exam items	83%	90%

Tests incorporating both interview questions and physical tests have higher sensitivity and specificity than tools that rely only on interview questions

*Compared with clinical diagnosis

DN4 = Douleur neuropathic en 4 questions; LANSS = Leeds Assessment of Neuropathic Symptoms and Signs;

NPQ = Neuropathic Pain Questionnaire; NR = not reported

Bennett MI *et al.* *Pain* 2007; 127(3):199-203.

LANSS Scale

THE LANSS PAIN SCALE
Leeds Assessment of Neuropathic Symptoms and Signs

NAME _____ DATE _____

This pain scale can help to determine whether the nerves that are carrying your pain signals are working normally or not. It is important to find this out in case different treatments are needed to control your pain.

A. PAIN QUESTIONNAIRE

- Think about how your pain has felt over the last week.
- Please say whether any of the descriptions match your pain exactly.

1) Does your pain feel like strange, unpleasant sensations in your skin? Words like pricking, tingling, pins and needles might describe these sensations.

a) NO - My pain doesn't really feel like this. _____ (0)

b) YES - I get these sensations quite a lot. _____ (5)

2) Does your pain make the skin in the painful area look mottled or more red or swollen than the surrounding skin?

a) NO - My pain doesn't affect the colour of my skin. _____ (0)

b) YES - I've noticed that the pain does make my skin look mottled or more red or swollen. _____ (5)

3) Does your pain make the affected skin abnormally sensitive to touch or pressure? Words like sharp, burning or stinging might describe these sensations.

a) NO - My pain doesn't make my skin abnormally sensitive to touch or pressure. _____ (0)

b) YES - My skin seems abnormally sensitive to touch or pressure. _____ (5)

4) Does your pain come on suddenly and in bursts? Words like electric shocks, jumping or shooting pains might describe these sensations.

a) NO - My pain doesn't really feel like this. _____ (0)

b) YES - I get these sensations quite a lot. _____ (5)

5) Does your pain feel as if the skin temperature is abnormally hot or cold? Words like hot and burning or cold and numb might describe these sensations.

a) NO - I don't really get these sensations. _____ (0)

b) YES - I get these sensations quite a lot. _____ (5)

B. SENSORY TESTING

Skin sensitivity can be examined by comparing the painful area with a contralateral or adjacent non-painful area for the presence of allodynia and an altered pin-prick threshold (PPT).

1) **ALLODYNIA**

Examine the response to lightly stroking cotton wool across the non-painful area and then the painful area. If normal sensations are experienced in the non-painful site, but pain or unpleasant sensations (tingling, nausea) are experienced in the painful area when stroking, allodynia is present.

a) NO, normal sensation in both areas _____ (0)

b) YES, allodynia in painful area only _____ (5)

2) **ALTERED PIN-PRICK THRESHOLD**

Determine the pin-prick threshold by comparing the response to a 23 gauge (blue) needle mounted inside a 2 ml syringe barrel placed gently on to the skin in a non-painful and then painful areas.

If a sharp pin prick is felt in the non-painful area, but a different sensation is experienced in the painful area e.g. none / blunt only (raised PPT) or a very painful sensation (lowered PPT), an altered PPT is present.

If a pinprick is not felt in either area, mount the syringe onto the needle to increase the weight and repeat.

a) NO, equal sensation in both areas _____ (0)

b) YES, altered PPT in painful area _____ (3)

SCORING:

Add values in parentheses for sensory description and examination findings to obtain overall score.


TOTAL SCORE (maximum 24)

If score < 12, neuropathic mechanisms are **unlikely** to be contribution to the patient's pain

If score ≥ 12, neuropathic mechanisms are **likely** to be contributing to the patient's pain

- Completed by physician in office
- Differentiates neuropathic from nociceptive pain
- 5 pain questions and 2 skin sensitivity tests
- Identifies contribution of neuropathic mechanisms to pain
- Validated

DN4



Neuropathic Pain Diagnostic Questionnaire (DN4)

Patient Name _____

Gender M F Date of Birth _____

Date _____ Time _____

Please complete this questionnaire by ticking one answer for each item in the four questions below. A YES score of ≥ 4 is diagnostic of Neuropathic Pain.

Interview of the patient

Question 1. Does the pain have one or more of the following characteristics?

	YES	NO
1. Burning	<input type="checkbox"/>	<input type="checkbox"/>
2. Painful Cold	<input type="checkbox"/>	<input type="checkbox"/>
3. Electric Shocks	<input type="checkbox"/>	<input type="checkbox"/>

Question 2. Is the pain associated with one or more of the following symptoms in the same area?

	YES	NO
4. Tingling	<input type="checkbox"/>	<input type="checkbox"/>
5. Pins and Needles	<input type="checkbox"/>	<input type="checkbox"/>
6. Numbness	<input type="checkbox"/>	<input type="checkbox"/>
7. Itching	<input type="checkbox"/>	<input type="checkbox"/>

Examination of the patient

Question 3. Is the pain located in an area where the physical examination may reveal one of more of the following characteristics?

	YES	NO
8. Touch Hypoaesthesia	<input type="checkbox"/>	<input type="checkbox"/>
9. Pricking Hypoaesthesia	<input type="checkbox"/>	<input type="checkbox"/>

Question 4. In the painful area, can the pain be caused or increased by:

	YES	NO
10. Brushing (e.g. using a New Dry hair or tooth)	<input type="checkbox"/>	<input type="checkbox"/>

Patient score _____ /10

- Completed by physician in office
- Differentiates neuropathic from nociceptive pain
- 2 pain questions (7 items)
- 2 skin sensitivity tests (3 items)
- Score ≥ 4 is an indicator for neuropathic pain
- Validated

DN4 = Douleur neuropathique en 4 questions

Bouhassira D et al. Pain 2005; 114(1-2):29-36.

painDETECT

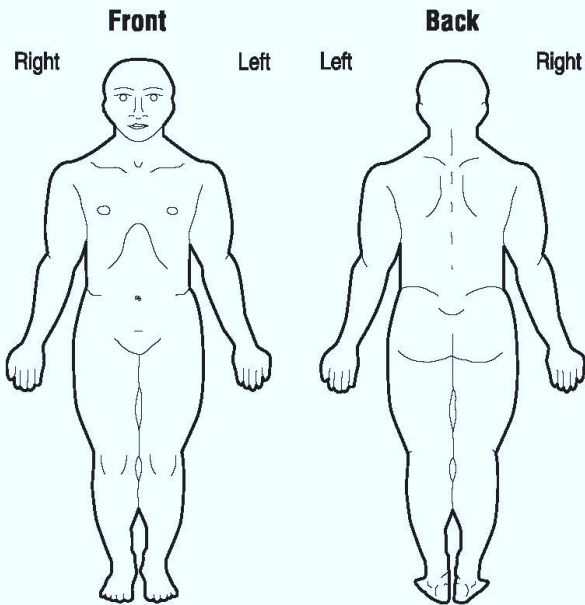
- Patient-based, easy-to-use screening questionnaire
- Developed to distinguish between neuropathic pain and non-neuropathic pain*
- Validated: high sensitivity, specificity and positive predictive accuracy
- Seven questions about quality and three about severity of pain
- Questions about location, radiation and time course

The image displays two screenshots of the painDETECT questionnaire and scoring sheet. The top screenshot shows the 'PAIN QUESTIONNAIRE' with fields for Date, Patient Last name, and First name. It includes three questions about pain severity (at this moment, strongest in the past 4 weeks, and average in the past 4 weeks) with 10-point scales. Below these are four questions about pain patterns, each with a corresponding line graph: 'Mark the picture that best describes the course of your pain' (fluctuating, persistent with attacks, attacks without pain, attacks with pain), 'Do you suffer from a burning sensation (e.g., stinging nettles) in the marked areas?', 'Do you have a tingling or prickling sensation?', and 'Do you have sudden pain attacks in this area?'. The bottom screenshot shows the 'SCORING OF PAIN QUESTIONNAIRE' with a 'Total score' field and a 'Final score' field. It lists the scoring for each question: 0 for fluctuating pain, -1 for persistent pain with attacks, +1 for attacks without pain, +1 for attacks with pain, and +2 for radiating pain. A 'Screening Result' scale from 0 to 38 is shown, with 'negative' (0-12), 'unclear' (13-18), and 'positive' (19-38) regions. Below the scale, it states: 'A neuropathic pain component is unlikely (< 15%)' for negative, 'Result is ambiguous, however a neuropathic pain component can be present' for unclear, and 'A neuropathic pain component is likely (> 90%)' for positive. A disclaimer at the bottom reads: 'This sheet does not replace medical diagnostics. It is used for screening the presence of a neuropathic pain component.'

*Validation was in patients with low back pain

ID Pain

On the diagram below, shade in the areas where you feel pain. If you have more than one painful area, circle the area that bothers you the most.



Mark 'Yes' to the following items that describe your pain over the past week and 'No' to the ones that do not.

Question	Score	
	Yes	No
1. Did the pain feel like pins and needles?	1	0
2. Did the pain feel hot/burning?	1	0
3. Did the pain feel numb?	1	0
4. Did the pain feel like electrical shocks?	1	0
5. Is the pain made worse with the touch of clothing or bed sheets?	1	0
6. Is the pain limited to your joints?	-1	0

- Patient-completed screening tool
- Includes 6 yes/no questions and pain-location diagram
- Developed to differentiate between nociceptive and neuropathic pain
- Validated

Imaging in the Diagnosis and Management of Cancer Pain

- Imaging of bone metastasis
- Spinal tumor imaging
- Plexus tumor imaging
- Celiac plexus imaging
- Tumor ablation
- Image-guided pain therapy
 - Image guidance to place a biopsy needle, therapeutic catheter, or ablation needle in the target
- Vertebral tumor image-guided interventions
 - Vertebroplasty, percutaneous nerve blocks

Literature Cited

- Aaronson, N. K., Ahmedzai, S., Bergman, B., Bullinger, M., Cull, A., Duez, N. J., ... de Haes, J. C. (1993). The European Organization for Research and Treatment of Cancer QLQ-C30: a quality-of-life instrument for use in international clinical trials in oncology. *Journal of the National Cancer Institute, 85*(5), 365–376.
- Allen, R. S., Haley, W. E., Small, B. J., & McMillan, S. C. (2002). Pain reports by older hospice cancer patients and family caregivers: the role of cognitive functioning. *The Gerontologist, 42*(4), 507–514.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of Consulting and Clinical Psychology, 56*(6), 893–897.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561–571.
- Bottomley, A. (2002). The cancer patient and quality of life. *The Oncologist, 7*(2), 120–125.
- Budassi Sheely, S., & Miller Barber, J. (1992). *Emergency Nursing: Principles and Practice*. (3rd Ed.). St Louis: Mosby.
- Cancer Pain. (n.d.). Retrieved June 19, 2015, from <http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/hematology-oncology/cancer-pain/Default.htm>

Literature Cited (*Continued*)

- Cella, D. F., Tulsky, D. S., Gray, G., Sarafian, B., Linn, E., Bonomi, A., ... Brannon, J. (1993). The Functional Assessment of Cancer Therapy scale: development and validation of the general measure. *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology*, 11(3), 570–579.
- Cleeland, C. S., & Ryan, K. M. (1994). Pain assessment: global use of the Brief Pain Inventory. *Annals of the Academy of Medicine, Singapore*, 23(2), 129–138.
- Coll, A. M., Ameen, J. R. M., & Mead, D. (2004). Postoperative pain assessment tools in day surgery: literature review. *Journal of Advanced Nursing*, 46(2), 124–133. <http://doi.org/10.1111/j.1365-2648.2003.02972.x>
- Dihle, A., Helseth, S., Kongsgaard, U. E., Paul, S. M., & Miaskowski, C. (2006). Using the American Pain Society's patient outcome questionnaire to evaluate the quality of postoperative pain management in a sample of Norwegian patients. *The Journal of Pain: Official Journal of the American Pain Society*, 7(4), 272–280. <http://doi.org/10.1016/j.jpain.2005.11.005>
- Forde, G., & Stanos, S. (2007). Practical management strategies for the chronic pain patient. *The Journal of Family Practice*, 56(8 Suppl Hot Topics), S21–30.
- Gilron, I., Watson, C. P. N., Cahill, C. M., & Moulin, D. E. (2006). Neuropathic pain: a practical guide for the clinician. *CMAJ: Canadian Medical Association Journal = Journal de l'Association Medicale Canadienne*, 175(3), 265–275. <http://doi.org/10.1503/cmaj.060146>

Literature Cited (*Continued 1*)

- Gordon, D. B., Polomano, R. C., Pellino, T. A., Turk, D. C., McCracken, L. M., Sherwood, G., ... Farrar, J. T. (2010). Revised American Pain Society Patient Outcome Questionnaire (APS-POQ-R) for quality improvement of pain management in hospitalized adults: preliminary psychometric evaluation. *The Journal of Pain: Official Journal of the American Pain Society*, *11*(11), 1172–1186. <http://doi.org/10.1016/j.jpain.2010.02.012>
- Hamilton, M. (1959). The assessment of anxiety states by rating. *The British Journal of Medical Psychology*, *32*(1), 50–55.
- Iverson, R. E., Lynch, D. J., & ASPS Committee on Patient Safety. (2006). Practice advisory on pain management and prevention of postoperative nausea and vomiting. *Plastic and Reconstructive Surgery*, *118*(4), 1060–1069. <http://doi.org/10.1097/01.prs.0000232390.14109.f5>
- Kadokia, K. C., Hui, D., Chisholm, G. B., Frisbee-Hume, S. E., Williams, J. L., & Bruera, E. (2014). Cancer patients' perceptions regarding the value of the physical examination: a survey study. *Cancer*, *120*(14), 2215–2221. <http://doi.org/10.1002/cncr.28680>
- Keller, S., Bann, C. M., Dodd, S. L., Schein, J., Mendoza, T. R., & Cleeland, C. S. (2004). Validity of the brief pain inventory for use in documenting the outcomes of patients with noncancer pain. *The Clinical Journal of Pain*, *20*(5), 309–318.
- Kreme, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*(9), 606–613.

Literature Cited (*Continued 2*)

Montgomery, S. A., & Asberg, M. (1979). A new depression scale designed to be sensitive to change. *The British Journal of Psychiatry: The Journal of Mental Science*, 134, 382–389.

National Pharmaceutical Council, Joint Commission on Accreditation of Healthcare Organizations. (2001). *Pain: Current Understanding of Assessment, Management, and Treatments*. Reston, VA.

Passik, S. D., & Kirsh, K. L. (2004). Opioid therapy in patients with a history of substance abuse. *CNS Drugs*, 18(1), 13–25.

The Rotterdam Symptom Checklist. (n.d.). Retrieved June 19, 2015, from https://www.umcg.nl/SiteCollectionDocuments/research/institutes/SHARE/assessment%20tools/handleiding_rscl2edruk.pdf

Walk, D., Sehgal, N., Moeller-Bertram, T., Edwards, R. R., Wasan, A., Wallace, M., ... Backonja, M.-M. (2009). Quantitative sensory testing and mapping: a review of nonautomated quantitative methods for examination of the patient with neuropathic pain. *The Clinical Journal of Pain*, 25(7), 632–640. <http://doi.org/10.1097/AJP.0b013e3181a68c64>

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica*, 67(6), 361–370.