Scores V

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ABSTRACT

The Editorial Committee wants to provide its readers with an update on the commonly used scales. The use of tables and scales is a widespread practice in Orthopedics and Traumatology. The measurement and quantification of clinical, functional, and radiographic aspects have become an essential tool for decision-making in different aspects of healthcare activity. We carry out a review of the most used scales, defining their use and including original and updated literature.

Keywords: Scales; scores; tables; update.

Level of Evidence: V

Puntajes V

RESUMEN

El Comité Editorial quiere brindar a los lectores de la RAAOT una actualización de las escalas de uso corriente. El empleo de tablas y escalas es una práctica muy extendida en la ortopedia y traumatología. La medición y la cuantificación de los aspectos clínicos, funcionales y radiográficos se convirtieron en una herramienta imprescindible para la toma de decisiones en diferentes aspectos de la actividad asistencial. Llevamos a cabo una revisión de las escalas más utilizadas, definimos su uso e incluimos bibliografía original y actualizada.

Palabras clave: Escalas; puntajes; tablas; actualización.

Nivel de Evidencia: V

INTRODUCTION

The Editorial Committee wants to provide its readers with an update on the commonly used scales. The use of tables and scales is a widespread practice in orthopedics and traumatology. The measurement and quantification of clinical, functional, and radiographic aspects have become essential tools for decision-making in different aspects of healthcare activity.

We carried out a review of the most used scales, defining their use and including original and updated literature. In this opportunity, we dealt with the section of spine scores.

Spine Instability Neoplastic Score

The Spine Oncology Study Group (SOSG), a group of international experts dedicated to the study of spinal tumors, defines neoplastic vertebral instability as the "loss of spinal integrity as a result of a neoplastic process that is associated with movement-related pain, symptomatic or progressive deformity and/or neural compromise under physiological loads." Mechanical instability due to vertebral metastases is an indication for surgical stabilization (conventional or percutaneous), regardless of neurological compression or sensitivity to cancer treatment of the tumor (chemotherapy/radiotherapy). The SOSG has proposed the Spine Instability Neoplastic Score (SINS) as an instrument to assess oncological vertebral mechanical instability through 6 components: location

of the lesion, presence and type of pain, nature of the lesion (lytic or blastic), radiographic alignment , collapse of the vertebral body and compromise of posterior vertebral structures. Each parameter is assigned a numerical score. The SINS is obtained by adding each score of the 6 individual components. The minimum score is 0 and the maximum is 18. The total score is interpreted according to the following intervals: 0 to 6, stable; 13 to 18, unstable; 7 to 12, potentially unstable. Patients with SINS scores of 7 to 18 warrant surgical consultation.

Spine Instability Neoplastic Score (SINS)	
Components	**Score**

Location
  Junctional (occiput-C2; C7-T2; T11-L1; L5-S1)
  Mobile spine (C3-C6; L2-L4)
  Semi-rigid spine (T3-T10)
  Rigid spine (S2-S5)
	
	3
	2
	1
	0

Pain that subsides with recumbency or pain that occurs with movement or loading of the spine
  Yes
  No (occasional pain, but not mechanical)
  Pain free lesion
	
	3
	1
	0

Bone lesion
  Lytic
  Mixed (lytic/blastic)
  Blastic
	
	2
	1
	0

Radiographic spinal alignment
  Presence of subluxation/translation
  De novo deformity (kyphosis/scoliosis)
  Normal alignment
	
	4
	2
	0

Vertebral body collapse
  >50% collapse
  <50% collapse
  No collapse with >50% body involved
  None of the above
	
	3
	2
	1
	0

Posterolateral involvement of the spinal elements (fractures or tumor infiltration of the facet, pedicle, or costovertebral joint)
  Bilateral
  Unilateral
  None of the above
	
	3
	1
	0

Interpretation
  0 to 6 = stable
  7 to 12 = potentially unstable (possibly imminent)
  13 to 18 = unstable	

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Thoracolumbar AOSpine Injury score (TL AOSIS)

Over time, multiple classification systems have been proposed for traumatic thoracolumbar spinal injuries. As relevant precedents, we can highlight the classifications by Denis, Magerl (AO) and Vaccaro (TLICS, Thoracolumbar Injury Classification System). In 2013, Vaccaro et al. published the AOSpine Thoracolumbar Spine Injury Classification system, which is currently the most widely used international system for classifying this type of injury. Based on this system, the Thoracolumbar AOSpine Injury score (TL AOSIS) was developed (Table 2), which gives a score to each of the classification variables. Subsequently, the therapeutic algorithm based on the TL AOSIS was published, which is interpreted according to the following intervals: 3 points or less, initial conservative treatment; greater than 5 points, surgical treatment; 4 or 5 points, conservative or surgical treatment, according to clinical criteria.

Thoracolumbar AOSpine Injury score (TL AOSIS)	
Classification	**Points**
Type A (compression)	
A0	0
A1	1
A2	2
A3	3
A4	5
Type B (tension band injury)	
B1	5
B2	6
B3	7
Type C (translation injury)	
C	8
Neurological status	
N0	0
N1	1
N2	2
N3	4
N4	4
NX	3
Modifiers	
M1	1
M2	0
Interpretation	
3 or less = initial conservative treatment	
4 or 5 = conservative or surgical treatment, according to clinical criteria	
>5 = surgical treatment	

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Scoliosis Research Society 22r Patient Questionnaire (SRS-22r)

The SRS-22r is a questionnaire prepared by the Scoliosis Research Society to evaluate outcomes in patients operated on for idiopathic scoliosis. Since its first version published in 1999, it has undergone successive modifications (originally with 24 items).

The questionnaire covers 5 dimensions: pain (5 questions), function (5 questions), mental health (5 questions), self-image (5 questions) and satisfaction with treatment (2 questions). In each dimension, the items have 5 possible answers that are associated with a score (1 to 5) (Table 3). The point average is calculated for each dimension and for the total of the items in the questionnaire. Therefore, the best score, total and for each domain, is 5 and the worst score is 1. The higher the score, the better quality of life. If there are unanswered items, the "answered questions" denominator is reduced to the appropriate number. Items with more than one answer are removed from the calculation. The dimensions cannot be scored if less than 3 items are answered, with the exception of satisfaction with the treatment.

SRS 22r				
1. Which one of the following best describes the amount of pain you have experienced during the past 6 months?				
☐ None	☐ Mild	☐ Moderate	☐ Moderate to severe	☐ Severe
2. Which one of the following best describes the amount of pain you have experienced over the last month?				
☐ None	☐ Mild	☐ Moderate	☐ Moderate to severe	☐ Severe
3. During the past 6 months, have you been feeling very nervous?				
☐ None of the time	☐ A little of the time	☐ Some of the time	☐ Most of the time	☐ All of the time
4. If you had to spend the rest of your life with your back the way it is now, how would you feel?				
☐ Very happy	☐ Somewhat happy	☐ Neither happy nor unhappy	☐ Somewhat unhappy	☐ Very unhappy
5. What is your current level of activity?				
☐ Bedridden	☐ Primarily no activity	☐ Light tasks and light sports	☐ Moderate tasks and moderate sports	☐ Full activities without restriction
6. How do you look in clothes?				
☐ Very good	☐ Good	☐ Fair	☐ Bad	☐ Very bad
7. In the past 6 months, have you felt so low that nothing could cheer you up?				
☐ Very often	☐ Often	☐ Sometimes	☐ Rarely	☐ Never
8. Do you experience back pain when at rest?				
☐ Very often	☐ Often	☐ Sometimes	☐ Rarely	☐ Never
9. What is your current level of work or school activity?				
☐ 100% normal	☐ 75% normal	☐ 50% normal	☐ 25% normal	☐ 0% normal
10. How would you describe the appearance of your body (without taking into account that of the face and extremities)?				
☐ Very good	☐ Good	☐ Fair	☐ Poor	☐ Very poor
11. Do you take medication for your back?				
☐ None	☐ Non-narcotics weekly or less	☐ Non-narcotics daily	☐ Narcotics weekly or less	☐ Narcotics daily

12. Does your back limit your ability to carry out your usual activities at home?

☐ Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Very often

13. Have you felt calm and peaceful during the past 6 months?

☐ All of the time	☐ Often	☐ Sometimes	☐ Rarely	☐ Never

14. Do you think that the state of your back affects your personal relationships?

☐ No	☐ Slightly	☐ Mildly	☐ Moderately	☐ Severely

15. Are you and/or your family experiencing financial difficulties because of your back?

☐ Severely	☐ Moderately	☐ Mildly	☐ Slightly	☐ No

16. In the last 6 months, have you felt down and sad?

☐ Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Very often

17. In the last 3 months, how many days have you missed work or school due to back pain?

☐ 0 days	☐ 1 day	☐ 2 days	☐ 3 days	☐ 4 days or more

18. Does your back condition limit your going out with friends/family?

☐ Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Very often

19. Do you feel attractive with your current back condition?

☐ Yes, very	☐ Yes, somewhat	☐ Neither attractive nor unattractive	☐ No, not very much	☐ No, not at all

20. Have you been a happy person during the past 6 months?

☐ Never	☐ Rarely	☐ Sometimes	☐ Often	☐ Very often

21. Are you satisfied with the results of your back management?

☐ Very satisfied	☐ Satisfied	☐ Neither satisfied nor unsatisfied	☐ Unsatisfied	☐ Very unsatisfied

22. Would you have the same management again if you had the same condition?

☐ Definitely yes	☐ Probably yes	☐ Not sure	☐ Probably not	☐ Definitely not

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Oswestry Disability Index

The Oswestry Disability Index (ODI) is an outcome measure designed to assess the impact of acute or chronic low back pain on the level of activities of daily living. It consists of 10 questions addressed to the patient, whose responses are arranged as 6-point Likert scales. Alternatively, the total score can be expressed as a percentage and ranges from 0% (no disability) to 100% (most severe disability).

Oswestry Disability Index (ODI)	
Pain intensity	I can handle pain without taking painkillers. The pain is strong, but I manage without taking painkillers. Painkillers completely relieve my pain. Painkillers ease the pain a bit. Painkillers barely ease the pain. Painkillers do not take away the pain and I do not take them.
Personal care (washing, dressing, etc.)	I can look after myself normally without causing extra pain. I can look after myself normally but it causes extra pain. It is painful to look after myself and I am slow and careful. I need some help but manage most of my personal care. I need help every day in most aspects of self-care. I do not get dressed, I wash with difficulty and stay in bed.
Lifting	I can lift heavy weights without extra pain. I can lift heavy weights but it gives extra pain. Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently placed (e.g. on a table). Pain prevents me from lifting heavy objects, but I can lift light to medium objects if they are conveniently positioned. I can only lift very light weights. I cannot lift or carry anything at all.
Walking	Pain does not prevent me from walking any distance. Pain prevents me from walking more than 1 kilometer. Pain prevents me from walking more than 500 meters. Pain prevents me from walking more than 250 meters. I can only walk using a cane or crutches. I stay in bed most of the time.
Sitting	I can sit in any type of chair for as long as I want. I can only sit in my favorite chair for as long as I want. Pain prevents me from sitting for more than an hour. Pain prevents me from sitting for more than half an hour. Pain prevents me from sitting for more than ten minutes. Pain prevents me from sitting at all.
Standing	I can stand as long as I want without extra pain. I can stand as long as I want but it gives me extra pain. Pain prevents me from standing for more than 1 hour. Pain prevents me from standing for more than half an hour. Pain prevents me from standing for more than ten minutes. Pain prevents me from standing at all.
Sleeping	My sleep is never disturbed by pain. I can only sleep if I take pills. Even taking pills I sleep less than six hours. Even taking pills I sleep less than four hours. Even taking pills I sleep less than two hours. The pain completely prevents me from sleeping.

Sexual activity	My sexual activity is normal and causes no extra pain. My sexual activity is normal but causes some extra pain. My sexual activity is nearly normal but very painful My sexual activity is severely restricted by pain. My sexual activity is nearly absent because of pain. Pain prevents me from all kinds of sexual activity.
Social life	My social life is normal and gives me no extra pain. My social life is normal but the increases the degree of pain. Pain has no significant effect on my social life but it does limit my more energetic interests (e.g., dancing, etc.). Pain has restricted my social life and I do not go out as often . Pain has restricted my social life to my home. I have no social life because of pain.
Travelling	I can travel anywhere without pain. I can travel anywhere but it gives me extra pain. Pain is strong but I manage journeys over two hours. Pain restricts me to journeys of less than one hour. Pain restricts me to short necessary journeys under 30 minutes. Pain prevents me from travelling except to receive treatment.

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