

ASSESSMENT TOOLS FOR CLINICAL RESEARCH: A Comprehensive Overview

| NAME OF SCORE | PURPOSE OF SCALE USED | WEBLINK |
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| Common Terminology Criteria for Adverse Events (CTCAE) v5.0 | To assist in the collection and reporting of adverse events related to cancer therapies. | CTCAE V5.0 |
| Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE) | PRO-CTCAE Measurement System was developed to evaluate symptomatic toxicities by self-report in adults, adolescents and children participating in cancer clinical trials. It was designed to be used as a companion to the Common Terminology Criteria for Adverse Events (CTCAE), the standard lexicon for adverse event reporting in cancer trials. | PRO-CTCAE (Aged>17years) PRO-CTCAE (Aged<17years) |
| International Prostate Symptom Score (IPSS) | To evaluate the severity of urinary symptoms in men and assess the effectiveness of treatments for their urinary symptoms | IPSS |
| International Index of Erectile Function (IIEF) | For clinical assessment of erectile dysfunction and treatment outcomes in clinical trials | IIEF |
| International Prognostic Index for Aggressive Non-Hodgkin's Lymphoma | To predict outcomes in patients with aggressive non-Hodgkin's lymphoma on the basis of the patients' clinical characteristics before treatment | IPIANHL |
| Hasenclever-Index for Hodgkin's Disease | Used for predicting the outcome to avoid overtreating some patients with Hodgkin's disease, and to identify others in whom standard treatment is likely to fail. | HI |
| Performance Scales: Karnofsky & ECOG Scores | To assess a patient's level of functioning in terms of their ability to care for themselves, daily activity, and physical ability. It is widely used in oncology to determine prognosis, plan treatment, and evaluate the effectiveness of interventions. | Performance Scales |
| ESMO-Magnitude of Clinical Benefit Scale | facilitates improved decision-making regarding the value of anti-cancer therapies, promotes accessibility and reduces inequity of access to high value cancer treatments. | For solid tumors For hematological malignancy |
| ESMO Scale for Clinical Actionability of Molecular Targets (ESCAT) | To rank genomic alterations based on evidence supporting their value as clinical targets for cancer precision medicine. It aids clinicians in prioritizing genomic abnormalities for treatment decisions. | ESMO-ESCAT |
| ESMO Guidance for Reporting Oncology | To provide guidance for the reporting of all types of real-world evidence (RWE) observational or | ESMO-GROW |

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| | real-World Evidence (ESMO-GROW) | non-interventional studies in oncology. It covers descriptive and analytical research, novel study designs, and key aspects of modern oncology research. ESMO-GROW includes recommendations, an interactive checklist tool, a reporting checklist, and a flowchart for case selection. | |
| | Multinational Association for Supportive Care in Cancer (MASCC) Risk Index for Febrile Neutropenia | To identify cancer patients with febrile neutropenia who are at low risk for complications and can be treated with oral antibiotics or in an outpatient setting. | Risk Index for Febrile Neutropenia |
| | G8 Geriatric Screening Tool | To identify older adults who may benefit from comprehensive geriatric assessment by evaluating factors such as age, weight loss, mobility, and health status | g8 geriatric screening tool |
| | Spinal instability neoplastic score (SINS) | It helps to assess tumor-related instability of the vertebral column. It has been shown to be useful in guiding the mobilization or operative management of patients with neoplastic spinal disease and correlates with patient-reported outcomes | SINS2 score SINS Score |
| | Revised Tokuhashi Scoring System | To predict the prognosis of patients with spinal metastases and guide treatment decisions. It evaluates factors such as primary site of cancer, number of extraspinal bone metastases, number of metastases in the vertebral body, metastases to major internal organs, ambulatory status, and severity of palsy. Higher scores indicate better prognosis. | Revised Tokuhashi Scoring System |
| | RTOG/EORTC Radiation Toxicity Grading | To classify and grade the severity of radiation-induced toxicities in patients undergoing radiation therapy, helping clinicians assess and manage adverse effects. The grading ranges from 0 (no symptoms) to 5 (death directly related to radiation effects) and includes specific criteria for various tissues and organs. | RTOG |
| | RECIST 1.1 | This guideline describes a standard approach to solid tumour measurement and definitions for objective assessment of change in tumour size for use in adult and paediatric cancer clinical trials. | Initial Measurement Follow up Measurement |
| P a i n | FLACC (Face, Legs, Activity, Cry, Consolability) | To assess pain in children by observing five categories of behavior, scoring each from 0 to 2, resulting in a total score between 0 and 10. It is particularly useful for cognitively impaired and critically ill children. | Pain Assessment |
| | Wong-Baker FACES Pain Rating Scale | A self-report tool for children aged 3-18 years that uses facial expressions to indicate pain levels, ranging from 0 (no pain) to 10 (worst pain imaginable). | |
| | Visual Analogue Scale (VAS) | A self-report tool for children aged 8 years and older, asking them to rate their pain on a scale from 0 (no pain) to 10 (worst pain). | |

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| | Inter RAI CA (IRRS) Pain Scale Decision Tree | To assess the presence and intensity of pain in individuals using a scoring system ranging from 0 (no pain) to 4 (severe pain). This decision tree aids in determining appropriate interventions based on pain levels. | Pain scale decision tree |
| Palliative Prognostic Index | The PPI was developed and successfully validated in hospice inpatients with advanced malignant disease. The PPI relies on assessment of performance status using the Palliative Performance Scale (PPS), oral intake, and the presence or absence of dyspnea, edema, and delirium, but does not require blood tests or incorporate a clinical prediction of survival | PPI | |
| FRAX (Fracture Risk Assessment Tool) | To estimate the 10-year probability of hip and major osteoporotic fractures based on clinical risk factors. | FRAX | |
| Mirel's Score | To assess the risk of pathological fractures in patients with metastatic bone disease based on four criteria: site of lesion, nature of lesion, size of lesion, and pain level. | Mirel Score | |
| PI-RADS (Prostate Imaging Reporting and Data System) | To assess the likelihood of clinically significant prostate cancer on multiparametric MRI. | PI-RADS | |
| LI-RADS (Liver Imaging Reporting and Data System) | To standardize the interpretation and reporting of liver lesions in patients at risk for hepatocellular carcinoma (HCC). | LI-RADS | |
| TI-RADS (Thyroid Imaging Reporting and Data System) | To evaluate thyroid nodules based on ultrasound characteristics to assess the risk of malignancy. | TI-RADS | |
| BI-RADS (Breast Imaging Reporting and Data System) | To standardize breast imaging reporting and assess the risk of breast cancer based on mammography, ultrasound, and MRI findings | BI-RADS | |
| EORTC QLQ-C30 | A 30-item cancer-specific questionnaire designed to measure health-related quality of life in cancer patients, assessing functioning, symptoms, and global health status. | QLQ-C30 | |
| EORTC QLQ-F17 | A 17-item version of the EORTC QLQ-C30 that includes only the functional scales and the Global Health Status/Quality of Life scale. It is designed to assess the quality of life specifically for cancer patients. | QLQ-F17 | |
| COST (Comprehensive Score for Financial Toxicity) | A patient-reported outcome measure designed to evaluate the financial distress experienced by cancer patients. It assesses the impact of financial toxicity on patients' quality of life. | FACIT-COST | |
| Hospital Anxiety and Depression Scale (HADS) | To assess levels of anxiety and depression in patients, particularly in medical settings. The scale consists of 14 items, with 7 items for anxiety and 7 for depression, scored from 0 to 21. | HADS | |
| Deauville Score | A 5-point scoring system used to assess FDG avidity of tumor masses on PET scans in Hodgkin and Non-Hodgkin lymphoma. | Deauville score | |
| PERCIST (Positron Emission Tomography Response Criteria in Solid Tumors) | A standardized set of criteria for assessing tumor response to treatment using PET imaging, focusing on metabolic response. | PERCIST | |
| Hopkins Symptom Checklist (HSCL) | A self-report symptom inventory to measure psychological distress and psychiatric disorders. | HSCL | |

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| Health-Related Quality of Life (HRQOL) | Measures physical, mental, emotional, and social well-being from the patient's perspective, important in clinical research and practice. | |
| Aga Khan University Anxiety and Depression Scale (AKUADS) | A 25-item screening scale developed to assess anxiety and depression in the Pakistani population, evaluating psychological and somatic symptoms. | AKUADS |