

Patient-Generated Subjective Global Assessment (PG-SGA)

PG-SGA is a 4-in-1 tool that can be used for malnutrition screening, nutrition assessment, triaging and monitoring.

Materials required:

- PG-SGA worksheet

Procedure:

The PG-SGA consists of 2 main components. The patient-generated component (also known as the PG-SGA Short Form) and the clinician completed components in Worksheets 1 to 5. To diagnose malnutrition and determine severity, the full PG-SGA must be completed, including a nutrition-focused physical examination. You can watch the 'How to Complete the PG-SGA' instructional video for more guidance.

Patient-generated component:

Boxes 1-4 are referred to as the PG-SGA Short Form (SF) and are designed to be completed by the patient prior to dietitian assessment.



Scored Patient-Generated Subjective Global Assessment (PG-SGA)

History: Boxes 1 - 4 are designed to be completed by the patient.
[Boxes 1-4 are referred to as the PG-SGA Short Form (SF)]

1. Weight (See Worksheet 1)

In summary of my current and recent weight:

I currently weigh about _____ kg

I am about _____ cm tall

One month ago I weighed about _____ kg

Six months ago I weighed about _____ kg

During the past two weeks my weight has:

☐ decreased ⁽¹⁾ ☐ not changed ⁽⁰⁾ ☐ increased ⁽⁰⁾

Box 1 ☐

Patient Identification Information

2. Food Intake: As compared to my normal intake, I would rate my food intake during the past month as

- ☐ unchanged ⁽⁰⁾
☐ more than usual ⁽⁰⁾
☐ less than usual ⁽¹⁾

I am now taking

- ☐ normal food but less than normal amount ⁽¹⁾
☐ little solid food ⁽²⁾
☐ only liquids ⁽³⁾
☐ only nutritional supplements ⁽³⁾
☐ very little of anything ⁽⁴⁾
☐ only tube feedings or only nutrition by vein ⁽⁰⁾

Box 2 ☐

3. Symptoms: I have had the following problems that have kept me from eating enough during the past two weeks (check all that apply)

- ☐ no problems eating ⁽⁰⁾ ☐ vomiting ⁽³⁾
☐ no appetite, just did not feel like eating ⁽³⁾ ☐ diarrhea ⁽³⁾
☐ nausea ⁽¹⁾ ☐ dry mouth ⁽¹⁾
☐ constipation ⁽¹⁾ ☐ smells bother me ⁽¹⁾
☐ mouth sores ⁽²⁾ ☐ feel full quickly ⁽¹⁾
☐ things taste funny or have no taste ⁽¹⁾ ☐ fatigue ⁽¹⁾
☐ problems swallowing ⁽²⁾
☐ pain; where? ⁽³⁾ _____
☐ other ^{(1)**} _____
**Examples: depression, money, or dental problems

Box 3 ☐

4. Activities and Function:

Over the past month, I would generally rate my activity as:

- ☐ normal with no limitations ⁽⁰⁾
☐ not my normal self, but able to be up and about with fairly normal activities ⁽¹⁾
☐ not feeling up to most things, but in bed or chair less than half the day ⁽²⁾
☐ able to do little activity and spend most of the day in bed or chair ⁽³⁾
☐ pretty much bed ridden, rarely out of bed ⁽³⁾

Box 4 ☐

The remainder of this form is to be completed by your doctor, nurse, dietitian, or therapist. Thank you.

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Additive Score of Boxes 1-4 ☐ A

Box 1 - Captures the patient's current weight, recent weight change and longer-term weight history.

The patient records their current weight and height, as well as their weight one month ago and six months ago. The patient also indicates whether their weight has decreased, not changed, or increased during the past two weeks.

Refer to worksheet 1 for weight loss scoring. Using the weights provided, calculate the percentage weight change. Use the one-month weight change for scoring where possible.

Scoring for this box is **+ ADDITIVE**. To score Box 1, add the points calculated in Worksheet 1 to any points recorded in Box 1. Record the total as the Box 1 score.

Box 2 - Captures the patient's current food intake compared with their usual intake.

The patient determines if their intake over the past month has stayed the same, increased or decreased. If their intake is less than usual, they should select the most accurate description from the options listed.

Important considerations for scoring:

1. If the patient ticks more than one box (for example "little solid food" AND "very little of anything") use the highest point score.
2. If the patient ticks "only tube feedings or only nutrition by vein" AND they are meeting their estimated requirements, score 0 points
3. If the patient ticks "only tube feedings or only nutrition by vein" BUT they are NOT meeting their estimated requirements, score 3 points

Scoring for Box 2 is **- NOT ADDITIVE**. Record the highest score selected in Box 2

1. Weight (See Worksheet 1)

In summary of my current and recent weight:

I currently weigh about _____ kg
I am about _____ cm tall

One month ago I weighed about _____ kg
Six months ago I weighed about _____ kg

During the past two weeks my weight has:

☐ decreased ⁽¹⁾ ☐ not changed ⁽⁰⁾ ☐ increased ⁽⁰⁾

Box 1 ☐

Worksheet 1 – Scoring Weight Loss

To determine score, use 1-month weight data if available. Use 6-month data only if there is no 1-month weight data. Use points below to score weight change and add one extra point if patient has lost weight during the past 2 weeks. Enter total point score in Box 1 of PG-SGA.

Weight loss in 1 month	Points	Weight loss in 6 months
10% or greater	4	20% or greater
5-9.9%	3	10- 19.9%
3-4.9%	2	6- 9.9%
2-2.9%	1	2- 5.9%
0-1.9%	0	0- 1.9%

Numerical score from Worksheet 1 ☐

2. Food intake: As compared to my normal intake, I would rate my food intake during the past month as

- ☐ unchanged ⁽⁰⁾
☐ more than usual ⁽⁰⁾
☐ less than usual ⁽¹⁾

I am now taking

- ☐ normal food but less than normal amount ⁽¹⁾
☐ little solid food ⁽²⁾
☐ only liquids ⁽³⁾
☐ only nutritional supplements ⁽³⁾
☐ very little of anything ⁽⁴⁾
☐ only tube feedings or only nutrition by vein ⁽⁰⁾

Box 2 ☐

Note: patients who tick "more than usual" are often on corticosteroids such as prednisone or experiencing unwanted weight gain. These patients are also important to assess for nutritional issues.

Box 3 - Captures symptoms that have negatively impacted food intake, absorption or utilisation of nutrients during the past 2 weeks.

The patient indicates which symptoms have impacted their nutritional intake during the past 2 weeks.

Symptoms do not need to occur daily to be counted; if they were present at any time in the past 2 weeks and affected nutritional intake, they should be scored, even if they have resolved.

Scoring for this box is **+** ADDITIVE. To score Box 3, add the points for all relevant symptoms selected and record the total in Box 3.

Box 4 - Assesses the patient's activity level and functional capacity over the past month and is based on the Eastern Cooperative Oncology Group (ECOG) performance status.

The patient selects the single option that best describes their usual activity and function over the past month.

Score reduced activity regardless of the underlying cause. Any reduction in activity is relevant, as reduced activity is associated with loss of muscle mass and functional decline.

Scoring for this box is **-** NOT ADDITIVE. To score Box 4, record the highest score selected directly in Box 4.

Scoring Boxes 1-4

Boxes 1-4 are scored by the clinician using the following rules:

+ ADDITIVE (boxes on the left)

- Add all points together to determine the box total.

- NOT ADDITIVE (boxes on the right)

- Record only the single highest score selected for each box.

Add the final scores from Boxes 1-4 and record the combined total score in Box A.

Note: when using the PG-SGA short form as a screening tool - a score of ≥ 4 in BOX 1 would generally trigger a referral to a dietitian, however each organisation may determine a cut-off value for triggering a dietetics referral based on service priorities and workforce capacity.

3. Symptoms: I have had the following problems that have kept me from eating enough during the past two weeks (check all that apply)

- | | |
|---|--|
| ☐ no problems eating (0) | ☐ vomiting (3) |
| ☐ no appetite, just did not feel like eating (3) | ☐ diarrhea (3) |
| ☐ nausea (1) | ☐ dry mouth (1) |
| ☐ constipation (1) | ☐ smells bother me (1) |
| ☐ mouth sores (2) | ☐ feel full quickly (1) |
| ☐ things taste funny or have no taste (1) | ☐ fatigue (1) |
| ☐ problems swallowing (2) | |
| ☐ pain; where? (3) _____ | |
| ☐ other (1)** _____ | |

Examples: depression, money, or dental problems **Box 3 ☐

4. Activities and Function:

Over the past month, I would generally rate my activity as:

- | |
|--|
| ☐ normal with no limitations (0) |
| ☐ not my normal self, but able to be up and about with fairly normal activities (1) |
| ☐ not feeling up to most things, but in bed or chair less than half the day (2) |
| ☐ able to do little activity and spend most of the day in bed or chair (3) |
| ☐ pretty much bed ridden, rarely out of bed (3) |

Box 4 ☐

Clinician generated component:

Worksheet 2 – identifies conditions that may increase nutritional risk or nutritional requirements.

Tick all relevant conditions and add 1 point for each identified.

Scoring for Worksheet 2 is **+ ADDITIVE**. Add all points and record the total score in Box B.

5. Worksheet 2 – Disease and its relation to nutritional requirements:

Score is derived by adding 1 point for each of the following conditions:

- | | |
|--|---|
| ☐ Cancer | ☐ Presence of decubitus, open wound or fistula |
| ☐ AIDS | ☐ Presence of trauma |
| ☐ Pulmonary or cardiac cachexia | ☐ Age greater than 65 |
| ☐ Chronic renal insufficiency | |
- Other relevant diagnoses (specify) _____

Primary disease staging (circle if known or appropriate) I II III IV Other

Numerical score from Worksheet 2 B

Worksheet 3 – assesses metabolic stress such as fever and corticosteroid use.

6. Worksheet 3 – Metabolic Demand

Score for metabolic stress is determined by a number of variables known to increase protein & caloric needs. **Note:** Score fever intensity or duration, whichever is greater. The score is additive so that a patient who has a fever of 38.8 °C (3 points) for < 72 hrs (1 point) and who is on 10 mg of prednisone chronically (2 points) would have an additive score for this section of 5 points.

Stress	none (0)	low (1)	moderate (2)	high (3)
Fever	no fever	> 37.2 and < 38.3	≥ 38.3 and < 38.8	≥ 38.8 °C
Fever duration	no fever	< 72 hours	72 hours	> 72 hours
Corticosteroids	no corticosteroids	low dose (< 10 mg prednisone equivalents/day)	moderate dose (≥ 10 and < 30 mg prednisone equivalents/day)	high dose (≥ 30 mg prednisone equivalents/day)

Numerical score from Worksheet 3 C

For fever, score either the intensity (how high) or duration (for how long), whichever is greater.

If the patient is using corticosteroids, score according to the prescribed dose. Refer to the table below for prednisone equivalents.

Prednisone Equivalents			
	Low dose	Medium dose	High dose
Prednisone	10 mg	20 mg	30 mg
Cortisone	50 mg	100 mg	150 mg
Hydrocortisone	40 mg	80 mg	120 mg
Prednisolone	10 mg	20 mg	30 mg
Methylprednisolone	8 mg	16 mg	24 mg
Dexamethasone	1.5 mg	3 mg	4.5 mg

Scoring for Worksheet 3 is **+ ADDITIVE**. Add all points and record the total score in Box C.

Worksheet 4 – captures the results of a nutrition-focused physical examination which is required to make a malnutrition diagnosis and determine severity.

7. Worksheet 4 – Physical Exam

Exam includes a subjective evaluation of 3 aspects of body composition: fat, muscle, & fluid. Since this is subjective, each aspect of the exam is rated for degree. Muscle deficit/loss impacts point score more than fat deficit/loss. Definition of categories: 0 – no abnormality, 1+ – mild, 2+ – moderate, 3+ – severe. Rating in these categories is *not* additive but are used to clinically assess the degree of deficit (or presence of excess fluid).

Muscle Status

temples (temporalis muscle)	0	1+	2+	3+
clavicles (pectoralis & deltoids)	0	1+	2+	3+
shoulders (deltoids)	0	1+	2+	3+
interosseous muscles	0	1+	2+	3+
scapula (latissimus dorsi, trapezius, deltoids)	0	1+	2+	3+
thigh (quadriceps)	0	1+	2+	3+
calf (gastrocnemius)	0	1+	2+	3+
Global muscle status rating	0	1+	2+	3+

Fat Stores

orbital fat pads	0	1+	2+	3+
triceps skin fold	0	1+	2+	3+
fat overlying lower ribs	0	1+	2+	3+
Global fat deficit rating	0	1+	2+	3+

Fluid status

ankle edema	0	1+	2+	3+
sacral edema	0	1+	2+	3+
ascites	0	1+	2+	3+
Global fluid status rating	0	1+	2+	3+

Point score for the physical exam is determined by the overall subjective rating of the total body deficit. No deficit score = 0 points
Mild deficit score = 1 point
Moderate deficit score = 2 points
Severe deficit score = 3 points

Again, muscle deficit/loss takes precedence over fat loss or fluid excess.

Numerical Score for Worksheet 4 D

Total PG-SGA Score (Total numerical score of A+B+C+D)

Global PG-SGA Category Rating (Stage A, Stage B or Stage C)

Clinician Signature _____ RD RN PA MD DO Other _____ Date _____

Evaluate multiple sites to inform an overall clinical impression of skeletal muscle status, fat stores, and fluid status. Evaluate as many sites as is practical. For more details on how to complete the physical exam, refer to the PG-SGA physical exam How to Guide and instructional video.

Each site assessed in the physical exam is rated for degree (i.e. 0, 1+, 2+, 3+). Ratings for individual sites are not additive and are used to clinically assess the degree of deficit for muscle and fat or presence of excess fluid. Determine the global rating for muscle, fat and fluid status by selecting the most common degree of deficit selected.

0 = none

1+ = mild

2+ = moderate

3+ = severe

Scoring criteria for physical exam:

Scoring for Worksheet 4 is **NOT ADDITIVE**. Assign an overall subjective rating of total body deficit based on the global assessment. To score, record the points (that is, 0, 1, 2 or 3) in Box D.

None score = 0 points
Mild score = 1 point
Moderate score = 2 points
Severe score = 3 points

Point score for the physical exam is determined by the overall subjective rating of the total body deficit.

No deficit	score = 0 points
Mild deficit	score = 1 point
Moderate deficit	score = 2 points
Severe deficit	score = 3 points

Again, muscle deficit/loss takes precedence over fat loss or fluid excess.

Total PG-SGA Score:

a numerical score. The total numerical score is calculated as the sum of box A+B+C+D.

Total PG-SGA Score (Total numerical score of A+B+C+D)

Global PG-SGA Category Rating (Stage A, Stage B or Stage C)

The higher the score, the higher the nutritional risk and need for intervention.

TOTAL PG-SGA SCORE = A + B + C + D

The numerical score can be used to help triage nutrition intervention.

- A score of 4-8 indicates the need for intervention by a dietitian
- A score of 9 or more indicates a critical need for improved symptom management and/or nutritional intervention

Nutritional Triage Recommendations: Additive score is used to define specific nutritional interventions including patient & family education, symptom management including pharmacologic intervention, and appropriate nutrient intervention (food, nutritional supplements, enteral, or parenteral triage).

First line nutrition intervention includes optimal symptom management.

Triage based on PG-SGA point score

- | | |
|-----|--|
| 0-1 | No intervention required at this time. Re-assessment on routine and regular basis during treatment. |
| 2-3 | Patient & family education by dietitian, nurse, or other clinician with pharmacologic intervention as indicated by symptom survey (Box 3) and lab values as appropriate. |
| 4-8 | Requires intervention by dietitian, in conjunction with nurse or physician as indicated by symptoms (Box 3). |
| ≥ 9 | Indicates a critical need for improved symptom management and/or nutrient intervention options. |

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Worksheet 5 – captures the clinician’s global assessment of nutritional status and is used to determine malnutrition diagnosis and severity.

The global assessment integrates information from the patient-reported sections, clinician worksheets and the nutrition-focused physical exam.

Assign the overall global PG-SGA category as either:

Stage A = well-nourished

Stage B = moderate malnourished or suspected malnutrition

Stage C = severely malnourished

The global PG-SGA categories (A, B, or C) are used to determine nutritional status and malnutrition severity. The numerical PG-SGA score provides additional context but does not correspond to specific numerical thresholds for assigning the A, B, or C category.

The global assessment is based on clinical judgement and overall interpretation of the patient’s current nutritional status, including whether the patient appears stable, improving, or declining.

To assist with assigning the global category, it may be helpful to circle A, B or C for each category as you work down the list. The global status corresponds to the column with the most circles.

Worksheet 5 – PG-SGA Global Assessment Categories			
	Stage A	Stage B	Stage C
Category	Well-nourished	Moderate/suspected malnutrition	Severely malnourished
Weight	No weight loss	≤ 5% loss in 1 month (≤10% in 6 months)	> 5% loss in 1 month (>10% in 6 months)
Nutrient intake	No deficit OR Significant recent improvement	OR Progressive weight loss Definite decrease in intake	OR Progressive weight loss Severe deficit in intake
Nutrition Impact Symptoms (NIS)	None OR significant recent improvement allowing adequate intake	Presence of NIS (Box 3 of PG-SGA)	Presence of NIS (Box 3 of PG-SGA)
Functioning	No deficit OR Significant recent improvement	Moderate functional deficit OR Recent deterioration	Severe functional deficit OR Recent significant deterioration
Physical Exam	No deficit OR chronic deficit but with recent clinical improvement	Evidence of mild to moderate loss of muscle mass &/or muscle tone on palpation &/or loss of SQ fat	Obvious signs of malnutrition (e.g., severe loss muscle, fat, possible edema)

Frequently asked Questions:

Questions relating to Boxes 1-4

Q Should weight loss over 1 month or 6 months be used for scoring?

A Use 1 month weight change for scoring where available as this provides a more recent indication of metabolic status (anabolic or catabolic). The 6-month weight history may provide additional context, particularly where recent weight change may be influenced by fluid shifts, oedema or ascites.

Q If a patient is receiving 100% of estimated nutritional requirements via enteral/parenteral nutrition but still has nutrition-impact symptoms, should symptoms still be scored?

A Yes. Nutrition-impact symptoms should still be scored. This section identifies symptoms that are limiting the patient meeting nutritional requirements and helps guide symptom management and nutrition interventions, regardless of the route of nutrition support

Q Which nutrition impact symptoms should be scored?

A The patient indicates which symptoms have directly impacted their food intake during the past 2 weeks. What matters most is how the patient *experiences* their symptoms—not what we, as clinicians, think is contributing. For example, pain that isn't well controlled—no matter where it is—can reduce a patient's food intake simply because it stops them from getting up, walking to the kitchen, or preparing a meal.

Q If a symptom impacted food intake within the past 2 weeks but has resolved on the day of assessment, should it still be scored?

A Yes. Symptoms do not need to occur daily to be counted. If they were present at any time in the past 2 weeks and directly impacted their food intake during this period, they should be scored.

Q Should reduced activity levels be scored even if they are not related to nutritional status (e.g. trauma)?

A Yes. Reduced activity should still be scored. Periods of immobility and bed rest are associated with a loss of skeletal muscle mass.

Questions relating to Worksheets 1-5

Questions about the PG-SGA

Q How can the PG-SGA be used as a monitoring tool?

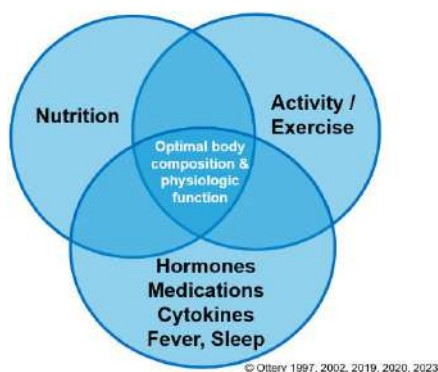
A Complete the PG-SGA at initial nutrition assessment and repeat it at regular intervals or whenever the clinical situation changes (for example, at commencement of enteral or parenteral nutrition). Consideration of your local clinical context is important, as is the frequency of dietitian/clinician review. For inpatients, this may include weekly PG-SGA and then at discharge. For outpatients, this may include completing the PG-SGA at the start, middle and completion of treatment.

Q How can the PG-SGA be used alongside the Global Leadership Initiative on Malnutrition (GLIM) criteria?

A The PG-SGA complements the GLIM framework. It supports identification of nutritional risk and provides the nutrition-focused physical examination required to assess phenotypic criteria. GLIM does not function as a standalone assessment and requires clinical assessment to diagnose malnutrition and determine its severity.

Q What does the term ‘anabolic competence’ mean?

A This is defined as the state that optimally supports protein synthesis and lean body mass; global aspects of muscle and organ function; immune response; and quality of life. Anabolism (maintaining or building up) is the goal of proactive, interdisciplinary care of patients who are either malnourished or at nutritional risk due to their underlying condition or its treatment. Anabolic success results in optimal body composition and physiologic function. Physiologically, anabolism is accomplished with positive nitrogen balance, while catabolism is seen in negative nitrogen balance.



Q Is the PG-SGA available in other languages?

A The PG-SGA is available on the patient global platform in more than 20 languages (<https://pt-global.org/pt-global/>). Each language has been translated and culturally adapted using ISPOR (or International Society for Pharmacoeconomics and Outcomes Research) methods for patient reported outcomes.

Q Is the subjective nature of the tool a limitation?

A This is a really important issue. By making the PG-SGA Short Form a patient reported outcome (PRO) the only truly subjective component is the physical examination, everything else is measurable or quantifiable AND only contributes a small portion of the full score/patient assessment

Key references:

Ottery FD. Patient-Generated Subjective Global Assessment In: The Clinical Guide to Oncology Nutrition ed. PD McCallum & CG Poliseena, 2000; pp 11–23 Chicago: The American Dietetic Association

Bauer J, Capra S, Ferguson M. Use of the scored Patient-Generated Subjective Global Assessment (PG-SGA) as a nutrition assessment tool in patients with cancer. Eur J Clin Nutr. 2002 Aug;56(8):779-85. doi: 10.1038/sj.ejcn.1601412.