

Building goal attainment scaling into clinical thinking

The “GAS – light” model

Background:

Goal setting is an integral part of clinical decision-making in rehabilitation.

Goal attainment scaling (GAS) provides a flexible and responsive method of evaluating outcomes in complex interventions, but clinicians have reported a number of problems that have limit its uptake as an outcome measure for routine clinical practice:

1. The rigorous GAS methodology used in research is time-consuming
2. Clinicians are confused by the various different scoring methods reported in the literature.
3. They generally dislike applying negative scores which may be discouraging to patients, and are put off by the complex formula.

This ‘GAS-light’ model has been devised to help clinicians to build GAS into their clinical thinking and is described here as an aid to decision-making and outcome evaluation for rehabilitation in the context of routine practice.

Six key steps in decision-making and records needed to inform GAS-light

Key steps	Clinical decision-making	Record
1. What are the pt’s principal presenting problems?	Which, if any, are likely to change with rehabilitation? What are the patient/family’s key goals for the programme? Are they likely to be achievable?	Key problem areas to address: <input type="checkbox"/> Reducing impairment <input type="checkbox"/> Passive function - reducing care needs <input type="checkbox"/> Mobility <input type="checkbox"/> Activities - Independence in ADL/ EADL <input type="checkbox"/> Symptom relief – pain, depression <input type="checkbox"/> Communication / Cognitive function <input type="checkbox"/> Managed discharge <input type="checkbox"/> Other:
2. What do you expect to be able to achieve with rehabilitation?	Is this likely to be worthwhile? a) to the patient b) value for money Will you offer treatment?	If so, with input from pt/family, define: Primary goal for treatment Secondary goals (limit to 2-3 max)
3. Is the team and the pt/family agreed on the expected outcome?	If not, can use GAS 5-point scale to negotiate realistic outcome for key goal areas Try to keep goals as person-centred as possible (eg “to walk to their local shops”, instead of “ to walk 500 yards”)	SMARTen goals as reasonably possible: Relate to a specific function and define <ul style="list-style-type: none"> ▪ expected level of achievement* by ▪ intended date (usually 3-4 mths) Goal weighting** is optional, but may be useful for qualitative interpretation
4. How will outcome be assessed?	Decide which, if any, outcome measures to use. (GAS does not replace standard measures)	Baseline values of chosen measures eg <ul style="list-style-type: none"> ▪ Baseline GAS scores for each goal ▪ Goal-related parameters*
5. Plan treatment	Therapy, medical, nursing programme, Follow-up / review time-points	Record interventions: <ul style="list-style-type: none"> ▪ Disciplines involved, treatment times ▪ (NPTDA NPDS record therapy and nursing hours)
6. Review	Have the goals been achieved? What, if any, further treatment is necessary?	Record level of achievement for each goal Enter in software to derive GAS T score

*It is often helpful to use tools such as numeric or visual analogue scales to record levels of pain or ease of caring and to use these for goal setting eg to reduce from a reported pain level of 7/10 to 4/10

** Importance of goal to the patient (low, medium high) and/or goal difficulty as perceived by team (low, medium high) may be recorded if desired, but mkes little difference to the quantitative evaluation of GAS.

Using GAS to negotiate realistic goals

Although the originators of GAS recommended a priori definition of each goal level in a 'follow-up guide' this is found to be excessively time-consuming.

In the GAS-light model, clinicians are advised to concentrate on defining the expected 'level 0' outcome as SMARTly as is reasonably possible within the clinical setting. Providing that this level has been carefully documented, outcome scores may then be allocated by team agreement at the point of evaluation using the verbal rating system shown below.

However, predefinition of GAS levels can, on occasion, provide a useful tool for negotiation. For example, if a patient wants to achieve active hand function, when realistically using the affected hand as a prop is the expected outcome. In this situation, the active function task can be set at level 2, and use as a prop at level 0. This way, the patient's goal is not totally dismissed, but is clearly defined as beyond the level of expectation.

Recording GAS without numbers


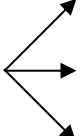
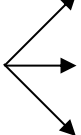
Clinicians often think in terms of change from baseline.

- A problem with the 5-point GAS score is that it does not allow 'partial achievement' of a goal to be recorded if the baseline score was -1.
- On the other hand if all baseline scores are recorded at -2, this does not allow for worsening.

The following algorithm allows clinicians to record goal attainment without reference to the numeric scores, and so avoids the perceived negative connotations of zero and minus scores.

A number of scoring systems are currently being explored, including a -3 and a -0.5 option. In the meantime, we propose that clinicians should use a 6-point verbal scale which covers all eventualities and can be computed in any of the models, providing the baseline score is known.

The **GAS-light verbal scoring system** is shown below:

				Computerisation		
At Baseline	With respect to this goal do they have?		Some function	<input type="checkbox"/>	-1	
			No function (as bad as they could be)	<input type="checkbox"/>		-2
At Outcome: Was the goal achieved?	Yes		A lot more	<input type="checkbox"/>	+2	+2
			A little more	<input type="checkbox"/>	+1	+1
			As expected	<input type="checkbox"/>	0	0
	No		Partially achieved	<input type="checkbox"/>	(-1)	-1
			No change	<input type="checkbox"/>	-1	-2
			Got worse	<input type="checkbox"/>	-2	

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