



A real-world accuracy of oral mucositis grading in patients undergoing haematopoietic stem cell transplantation (HSCT)

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Background

Oral Mucositis (OM) is a common complication during haematopoietic stem cell transplantation (HSCT). Accurate oral mucositis grading is essential in clinical practice and research.

Aims

To retrospectively evaluate the accuracy of daily oral mucositis grading (WHO) by nurses to identify training needs before planned randomised controlled trial.

Methods

- A single centre, retrospective study (2017-2020)
- Nursing daily oral assessment and oral mucositis grade were reviewed (WHO scale: Table 1)
- Accuracy of WHO grading was evaluated against their observations: pain, erythema, ulcers and diet.

Table 1. WHO oral mucositis grades

Grade 0	No pain, no ulcers
Grade 1	Pain with/ without erythema
Grade 2	Ulcers. Can eat solid
Grade 3	Ulcers. Can eat liquids only
Grade 4	Ulcers. No oral intake possible

Results

- Accurate grading was observed in 70% of assessment. However, when grade 0 was excluded, the accuracy was 46% (Figure 1).
- Common reasons for inaccurate grading are shown on Table 2.
- Majority of errors were repeated in same patients on consecutive days (Figure 2)

Figure 1. Accuracy of grading

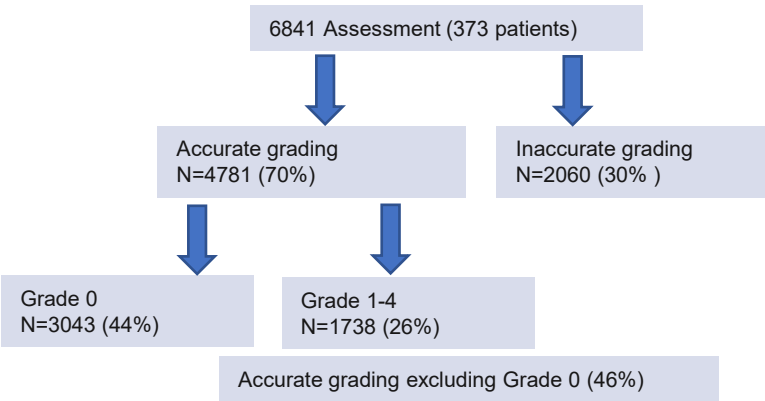


Figure 2. Number of repeated errors

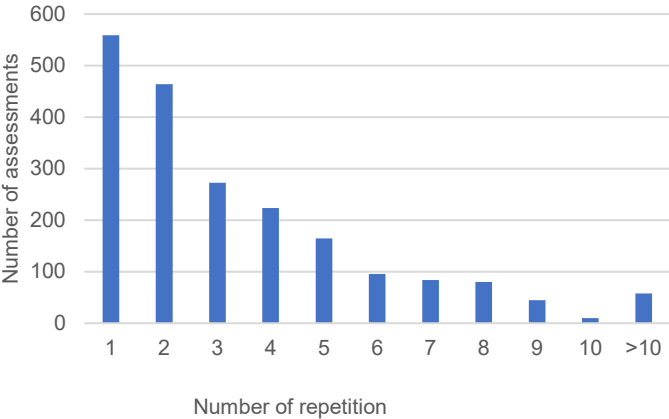


Table 2. Common reasons for inaccurate grading

Reasons	N	%
Unable to grade (diet not specified)	225	11
Not graded	152	7
No ulcers & no pain was scored 1	679	33
No ulcers was scored 2-4	332	16
Oral intake did not match the score	309	15
Pain without ulcer was scored 0	245	12
Other	118	6

Conclusions

- Inaccurate oral mucositis grading was frequently observed.
- Most common errors were between Grade 0 and 1.
- Ulcers and food intake were not accurately used to grade oral mucositis.
- Majority of errors were repeated on consecutive days (influenced by previous assessment)
- Nurse education and competency evaluation are required.