



NURSING INTERVENTIONS AND SYMPTOM OUTCOMES IN PATIENTS RECEIVING TOTAL BODY IRRADIATION PRIOR TO HEMATOPOIETIC STEM CELL TRANSPLANTATION: A RETROSPECTIVE REVIEW

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BACKGROUND

Total Body Irradiation (TBI) is commonly used as a conditioning regimen prior to hematopoietic stem cell transplantation (HSCT). Patients receiving TBI frequently experience treatment-related side effects such as nausea and skin symptoms, including itching and dryness, which may cause discomfort and affect treatment tolerance.

Nurses play a crucial role in early identification of these symptoms and implementation of supportive care strategies to improve patient comfort during treatment.

OBJECTIVE

To evaluate the incidence of nausea, skin itchiness, and skin dryness among patients receiving TBI prior to HSCT, and to describe symptom improvement following nursing-led interventions.

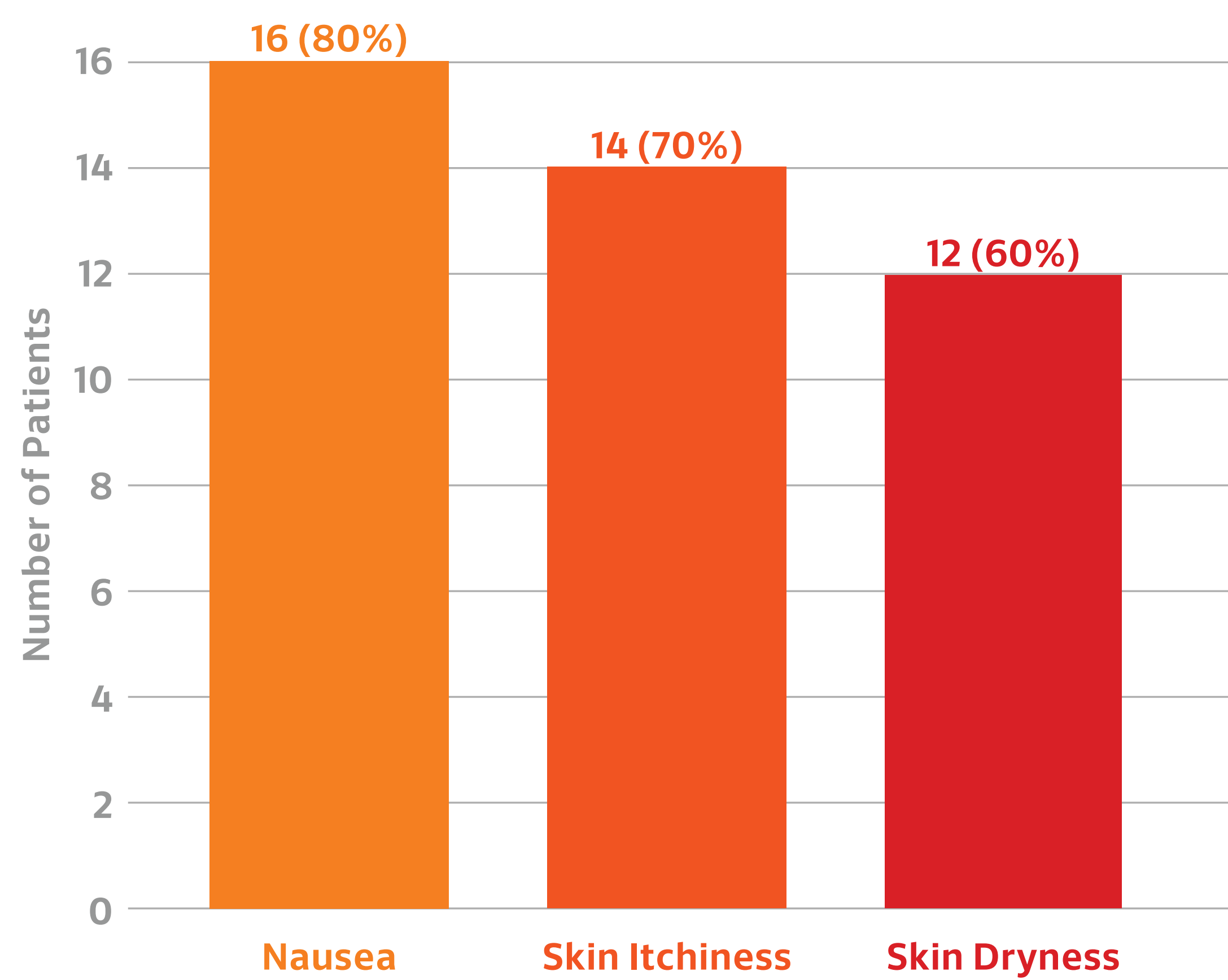
METHODS

- Retrospective review of 20 outpatients who received TBI between 2024 and 2025.
- Data on nausea, skin itchiness, and skin dryness were extracted from electronic medical records.
- Standard nursing interventions included:
 - Administration of antiemetics in the inpatient ward prior to each fraction.
 - Systematic symptom assessment before and after each treatment in the outpatient unit.
 - Pre-treatment education on expected side effects and skin care.
 - Application of aqueous cream two hours before TBI and at least twice daily, with instruction to increase frequency if symptoms worsened.
- Symptom responses following these nursing interventions were documented.

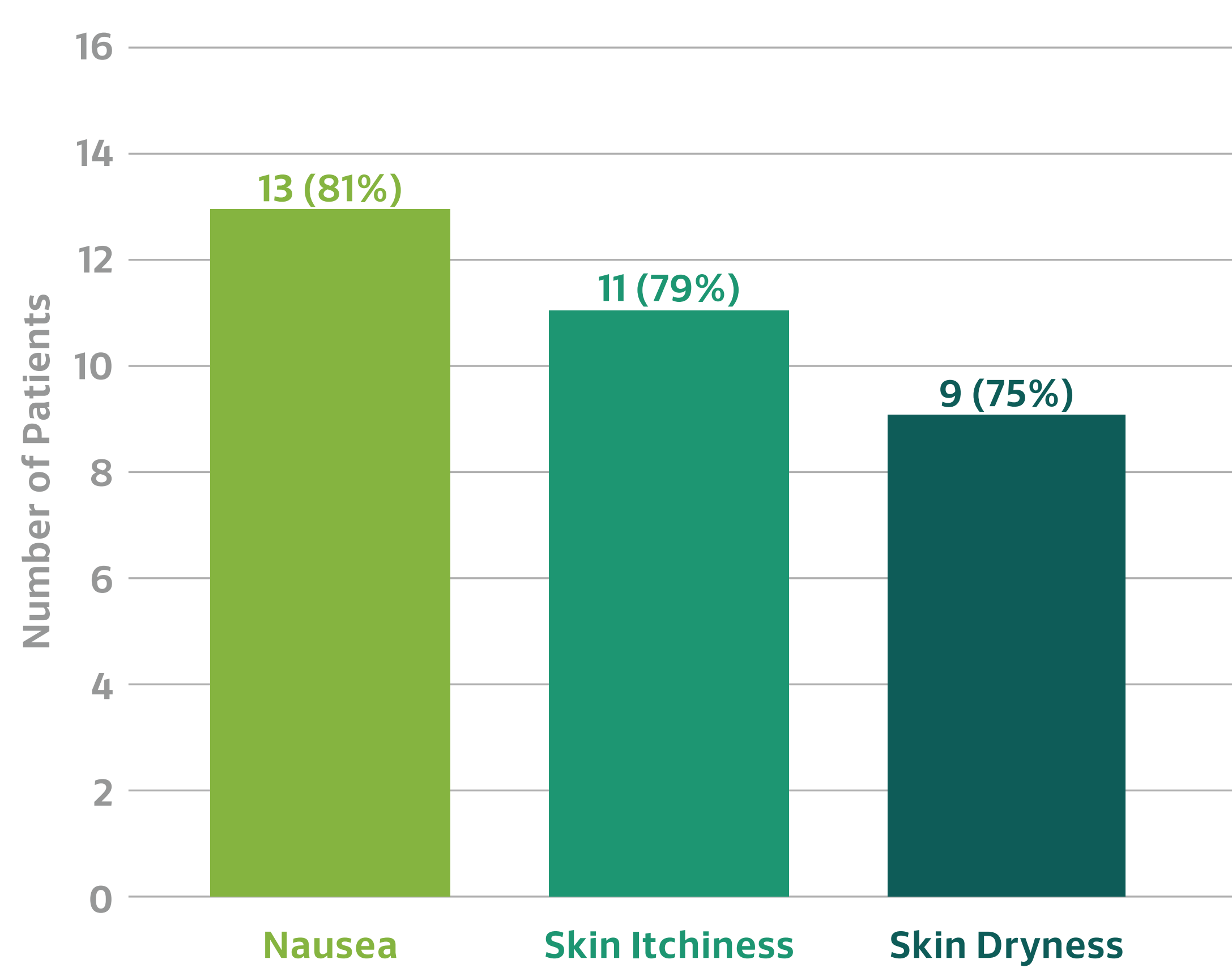
RESULTS

Among 20 patients, the incidence of nausea, skin itchiness, and skin dryness was high. Following nursing-led symptom management, clinically significant improvements were observed.

Incidents of Symptoms Among TBI Patients (n=20)



Improvement After Nursing Interventions



KEY TAKEAWAY

Most patients experienced symptoms improvement following nursing-led interventions, with improvement rates ranging from 75% to 81%.

CONCLUSIONS

Nursing-led symptom management, including proactive monitoring, patient education, and standardized skin care measures, contributes to improved symptom control in patients undergoing conditioning for HSCT.

These findings underscore the critical role of structured nursing care in enhancing symptom control and treatment tolerability in the TBI population.

Structured nursing interventions remain a key component of supportive oncology care.

NURSING IMPLICATIONS



Early symptom assessment helps identify patient discomfort promptly.



Standardized antiemetic and skin care protocols may improve treatment tolerance.



Patient education supports self-care before and after TBI.

REFERENCES

- Sunway Cancer Centre. (2025). A comprehensive introduction to haematopoietic stem cell transplantation [PDF]. <https://www.sunwaycancercentre.com/images/uploads/pdf/a-comprehensive-introduction-to-haematopoietic-stem-cell-transplantation.pdf>