

APPROPRIATE AND VALUE-BASED CARE CONFERENCE 2025

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Establishing a Dental Referral Workflow for Paediatric Hematology-Oncology Patients: An Interdisciplinary Quality Improvement Initiative

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BACKGROUND

The oral cavity harbours a diverse array of microorganisms and serves as a reservoir and potential entry point for systemic infections, particularly in immunocompromised patients.^{1,2} In 2023, only 10.5% (4/38) of patients were referred for dental care, mainly for emergency reasons such as neutropenic fever or dental pain—indicating missed opportunities for preventive oral health management.

METHODS

A QI initiative was implemented in May 2024 with a structured referral workflow (Fig 1 a) between paediatric haematology-oncology and paediatric dental services at NUCOHS.

- Nurses trained to conduct basic oral screenings at cancer diagnosis.
- Dental caries risk stratification (high/low) to guide urgency of dental referral. (Fig 1 b)
- Informal post-training survey to assess nurses' knowledge.
- Referral compliance and qualitative feedback from nurses evaluate.

RESULTS

- **Pre-intervention:** 27.3% (6/22) referred, 10±9.3 days lead time.
- **Post-intervention:** 77.8% (21/27) referred, 100% in final 3 months (Fig 2). Lead time significantly reduced to 3.95±5.0 days, reflecting a 61% reduction in wait time (Fig 3).
- **Nursing evaluation:** 85% (6/7) of nurses correctly stratified risk in clinical scenarios. Feedback supported the nurse-led protocol's acceptability and sustainability within existing workflows.

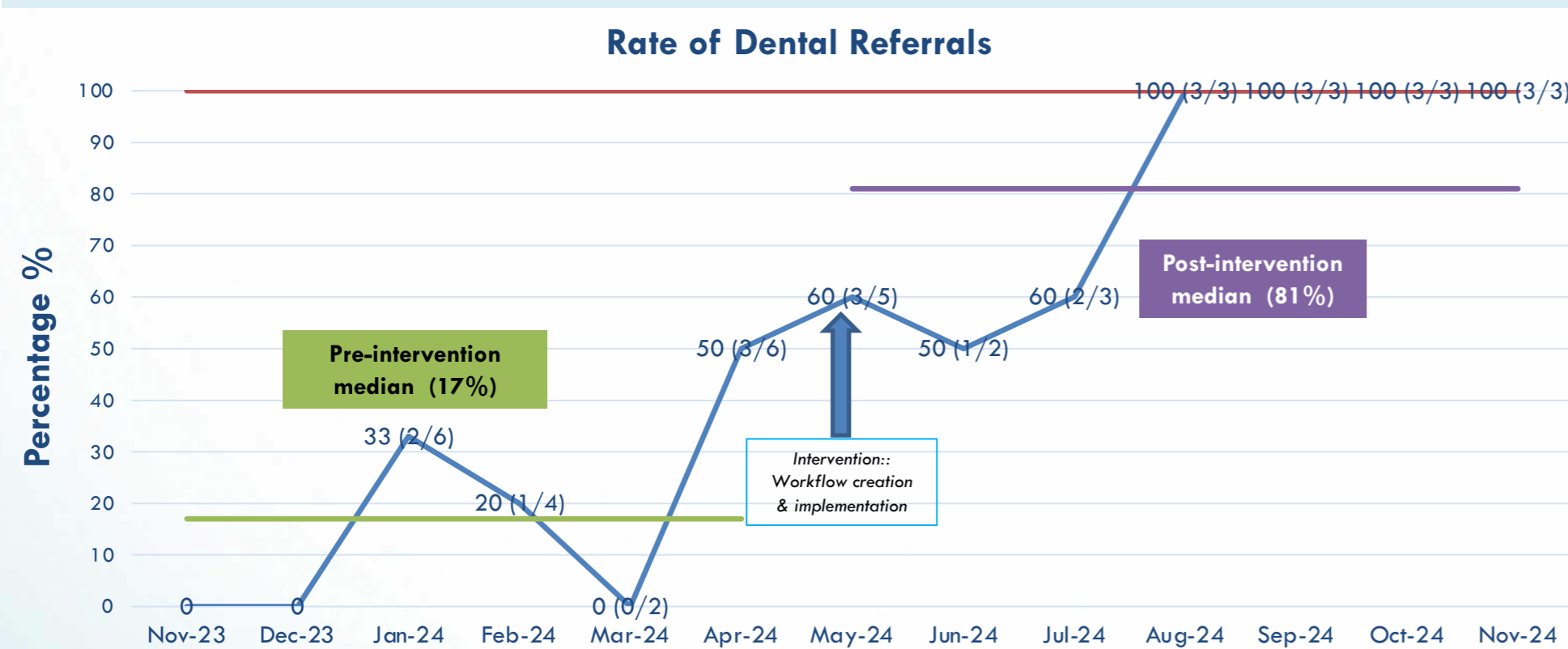


Fig 2: Monthly dental referral rates for paediatric hematology-oncology patients before and after workflow implementation. (Nov 2023- Nov 2024)

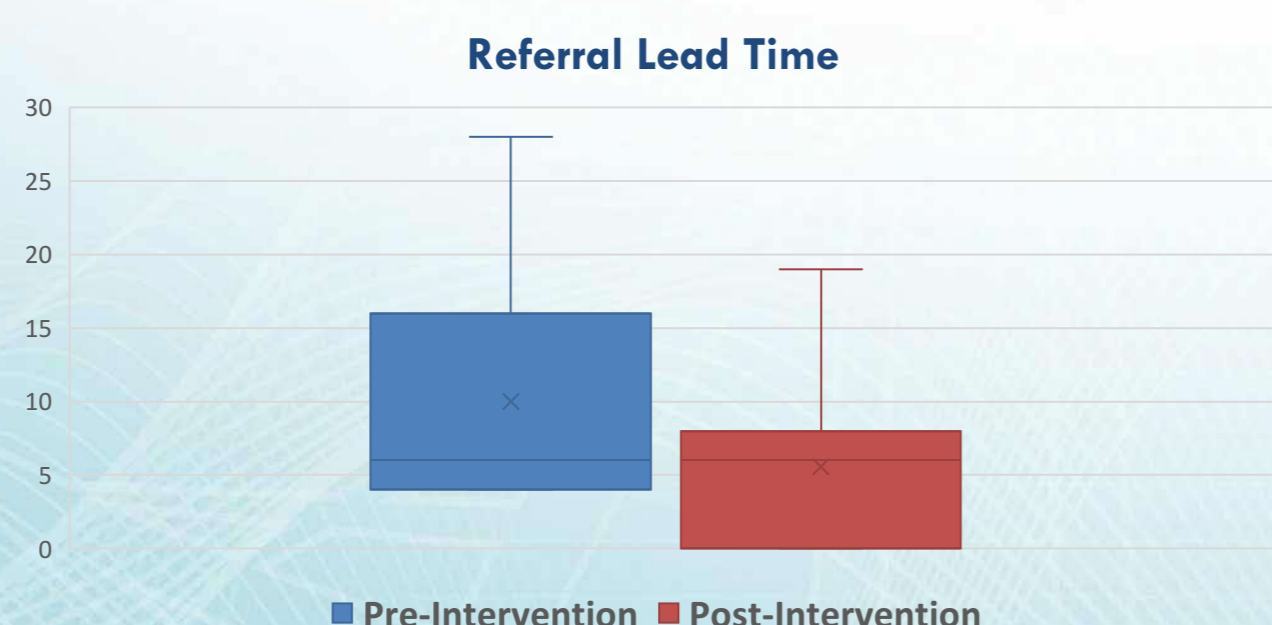


Fig 3: Reduction in mean lead from cancer diagnosis to dental appointment before and after workflow implementation.

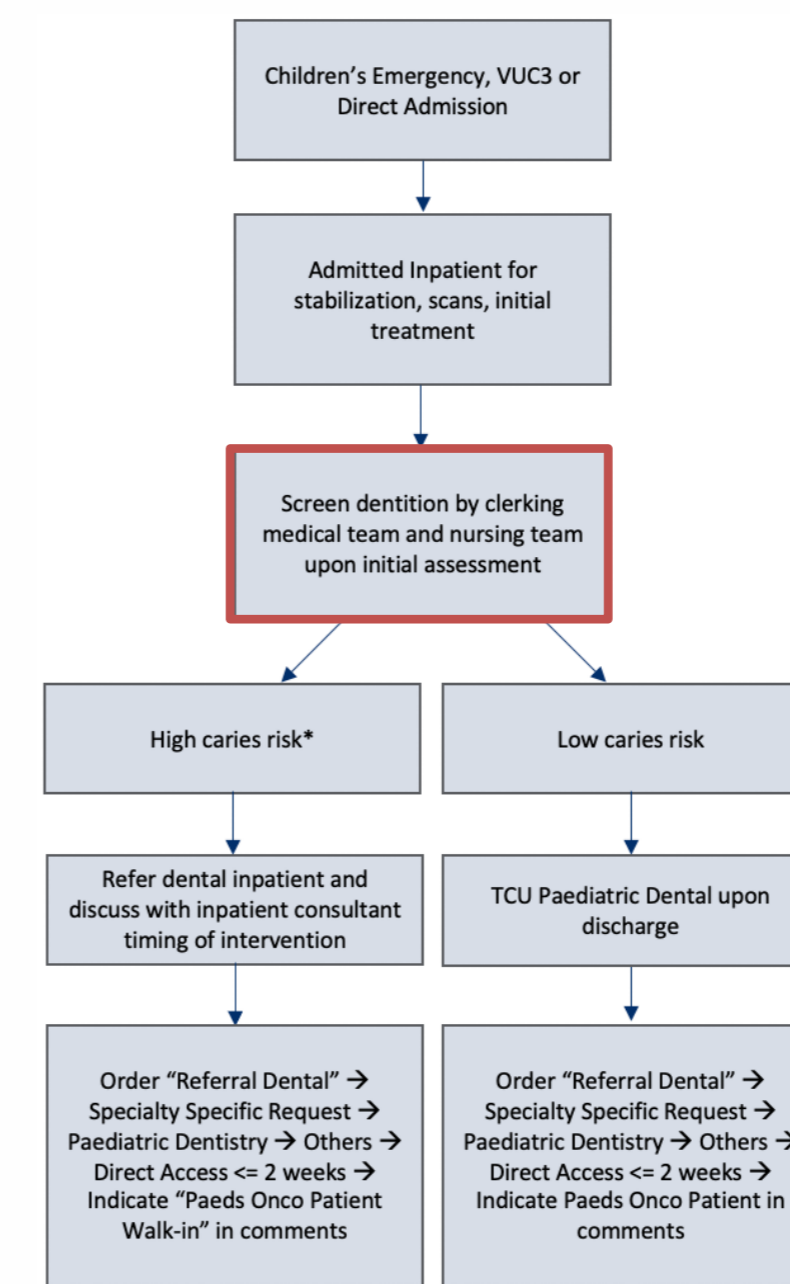
AIM

To improve dental referral rates by 100% for paediatric hematology-oncology patients over 6 months in a tertiary hospital.

Dental Referral Workflow for Paediatric Oncology Patients

I. Inpatient Referral Workflow (8B)

*For newly diagnosed OR relapsed paediatric oncology patients who require immediate admission



High caries risk* presence of dental caries, gum/facial swelling, teeth/gum pain

II. Outpatient Referral Workflow (VUC3)

*For newly diagnosed OR relapsed paediatric oncology patients who do not require immediate admission and can be seen outpatient at next visit.

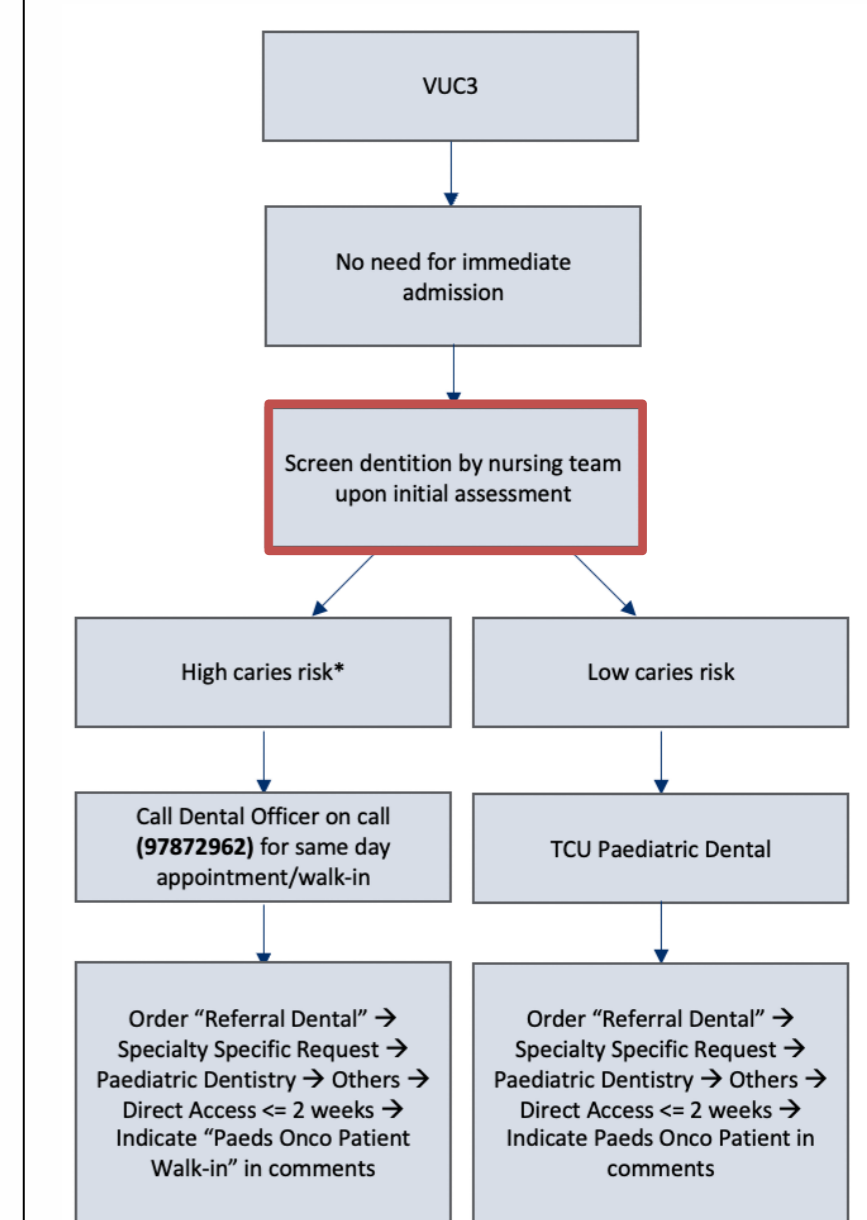


Fig 1a: Dental inpatient and outpatient referral workflows for paediatric hematology-oncology patients showing nurse-led oral screenings, risk stratification and referral pathways.

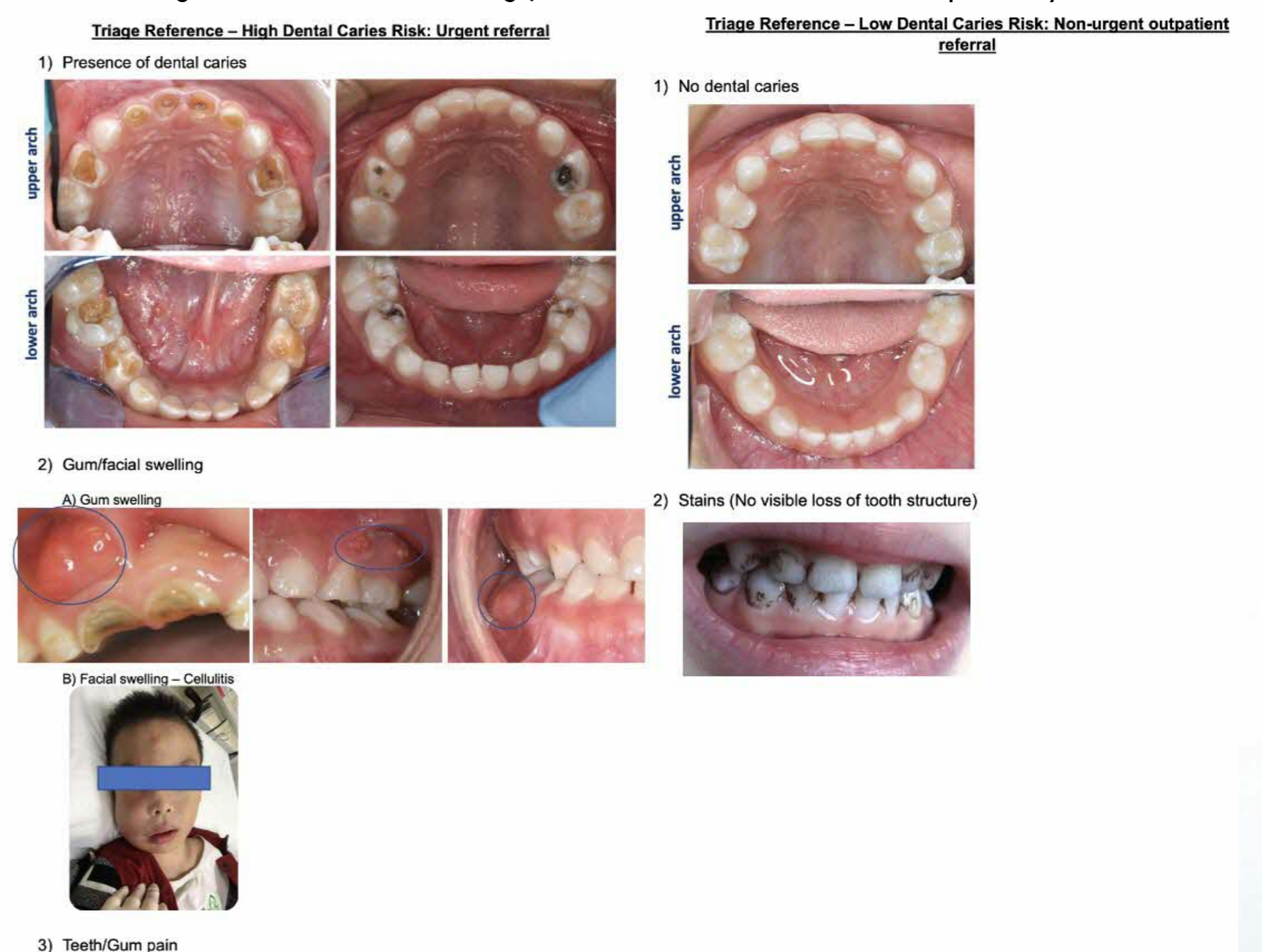


Fig 1b: Triage guide for nurses to classify dental caries risk (high/low) to determine referral urgency.

CONCLUSION

A structured, nurse-led model and interdisciplinary collaboration significantly improved early dental screenings and referral rates, enabling timely integration of oral health into paediatric hematology-oncology care pathways.

REFERENCES

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