The development of an evidenced-based and clinically trialled Oral Health Protocol for Paediatric Oncology Patients at the Women's and Children's Hospital, Adelaide, South Australia

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Over the past few decades, there have been significant advances in the management of childhood cancer. These have resulted in overall improved cure and survival rates. Despite these advancements, there still remains a significant burden on patients, families and clinicians involved in managing these children due to various short- and long-term complications. Avoiding or minimising these complications is an essential part of overall cancer care.

The development of an evidenced-based and clinically trialled Oral Health Protocol for Paediatric Oncology Patients at the Women's and Children's Hospital, Adelaide, South Australia, has demonstrated a decrease in the incidence of both short- and long-term oral complications which are associated with cancer therapy in the paediatric population. The protocol specifies comprehensive oral assessment and oral care based on the principle malignant diagnosis, cancer treatment pathway and individualised dental disease risk profiles. It defines specific evidence-based recommendations for

oral and dental care during oncology treatment aimed to reduce the incidence and severity of oral mucositis and the risk of complications through active dental disease. The oral health protocol outlines clear multidisciplinary recommendations relating to ongoing oral and dental needs during and following cancer treatment to ensure the most appropriate care is provided for paediatric oncology patients.

Application of the oral care protocol during a prospective study from January 2010 to September 2012 demonstrated successful referral of 100 % patients to the department of paediatric dentistry. Successful application of the ChIMES and WHO scale by the nursing staff for daily oral assessments was seen in 87 % of all inpatients [1]. Following the management of dental caries that was present at the time of diagnosis as per our Department's dental treatment philosophy for paediatric oncology patients, it was found that no further carious lesions developed in the study period among patients on the oral care protocol [1]. A detailed description of our oral care protocol and dental management philosophy is available from our hospital website <http://wch.sa.gov.au/services/az/divisions/psurg/dent/index.html> as a four part series:

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* Part 1: Screening and preventative practises for children undergoing oncology therapy: an oral health perspective

* Part 2: The provision of dental treatment in children undergoing oncology therapy

* Part 3: Prevention and management of acute oral complications in children undergoing oncology therapy

* Part 4: Screening and preventative practises for survivors of childhood cancer: an oral health perspective

Implementing a new or updating an existing standardised oral care protocol is not without complication. Our experience has demonstrated the importance of a collaborative approach between both the Departments of Paediatric

Oncology/Haematology and Paediatric Dentistry. All nursing staff members were educated during in-service education sessions about the changes, and the relevant evidence was discussed. This resulted in the updated protocol being included in the parent and patient education sessions and information packs provided at the time of diagnosis. Patients and parents were also educated regarding the oral health protocol at the initial dental assessment to reinforce information already provided and also provide a time for clarification from an oral health professional as needed. Dental registrars in our institution also attend the oncology ward a number of times each week to check in with staff, parents and patients to ensure that there are no inpatients with oral concerns that need to be addressed. What has been crucial in the implementation of this protocol is the unified approach from all involved staff including oncology consultants, fellows, registrars, pharmacists, nurses, paediatric dental consultants, fellows and registrars and administration staff. Our

protocol is simple, realistic and effective. Patients and their families receive a consistent message which we feel has been crucial to the successful implementation.

There has been no financial gain from any of the authors, and there is no conflict of interest to state regarding the development of this document.

The primary data from the referenced study has already been published in the below reference article. There is no new additional primary data in this series of papers.

Reference

1. Qutob AF, Allen GJ, Gue S, Revesz T et al (2013) Implementation of a hospital oral care protocol and recording of oral mucositis in children receiving cancer treatment: a retrospective and a prospective study. *Support Care Cancer* 21:1113–1120