

# Preventive Dental Care

## An educational program to integrate oral care into pediatric oncology

Erin Hartnett, DNP, APRN-BC, CPNP, and Barbara Krainovich-Miller, EdD, PMHCNS, ANEF, FAAN

**BACKGROUND:** Early childhood dental caries (dental cavities) is an infectious process. The development of oral problems during cancer care results in pain, fever, and delay in treatment.

**OBJECTIVES:** The objective of this project was to integrate preventive oral care into pediatric oncology care.

**METHODS:** This project consisted of an educational program for pediatric oncology providers who completed pre- and postprogram surveys assessing oral health knowledge, attitudes, and practice; attended an oral health education session; and performed oral assessment and fluoride varnish application on children during cancer treatment.

**FINDINGS:** Three major outcomes resulted from this project: (a) 15 nondental healthcare providers attended the education session and 11 became certified by the American Academy of Pediatrics, (b) 53 pediatric patients with cancer received an oral assessment and fluoride varnish during the two-month project, and (c) oral health assessment and fluoride varnish was instituted as a standard of care.

### KEYWORDS

pediatrics; childhood cancer; oral health; dental caries; cavities; fluoride varnish

### DIGITAL OBJECT IDENTIFIER

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**DENTAL CARIES IS AN INFECTIOUS PROCESS** that refers to tooth decay (commonly referred to as “cavities”) and may cause serious problems for children during and after cancer treatment (Haytac, Dogan, & Antmen, 2004; Kaul, Fair, Wright, & Kirchhoff, 2016; Yeazel et al., 2004). Although chemotherapy and radiation place the child at high risk for developing oral problems, preventive dental care is not considered a priority at the time of cancer treatment (da Fonseca, 2004; Kaul et al., 2016). About 30% of all childhood cancer survivors experience dental abnormalities, but younger age and increased exposure to alkylating agents or radiation to the teeth increase this risk (Kaste et al., 2009). However, survivors reported fewer dental visits than the recommended every six months (American Academy of Pediatric Dentistry [AAPD], 2016); in addition, those who did not have regular dental visits were more likely to be from a minority group, have a lower socioeconomic status, have a lower level of education, and/or lack health or dental insurance (Kaul et al., 2016; Yeazel et al., 2004). To prevent current and future dental problems, the optimal interprofessional team is the pediatric oncology provider in collaboration with the dental provider; together, these providers can deliver preventive dental care to this population during cancer treatment (da Fonseca, 2004; Perry, Iida, Patton, & Wilder, 2015).

In 2000, the Surgeon General's *Oral Health in America* report emphasized the relationship between oral health and an individual's general health, along with the need to incorporate nondental healthcare providers into oral health care (Lewis et al., 2009). All providers need to be cognizant of the oral systemic connection when treating their patients. Oral health is one of the 12 Leading Health Indicators (LHIs) selected as part of Healthy People 2020. The objectives for the oral health LHI are to “increase awareness of the importance of oral health to overall health and well-being,” “increase acceptance and adoption of effective preventive interventions,” and “reduce disparities in access to effective preventive and dental treatment services” (HealthyPeople.gov, n.d., para. 7). The 2013 American Dental Association guideline recommends fluoride varnish for primary and permanent teeth in children aged younger than six years at risk of developing dental caries (Clark & Slayton, 2014; Weyant et al., 2013). On May 4, 2015, the U.S. Preventive Task Force recommended that primary care clinicians apply fluoride varnish to the teeth of all infants and children, starting at the age of primary tooth eruption