

MOUTH CARE FOR CHILDREN AND ADOLESCENTS WITH CANCER

Quick Reference Guide

(Recommendations taken from the Evidence-based Guidelines produced by the UKCCSG-PONF Mouth Care Group, 2005)

ORAL CARE AT TIME OF CANCER DIAGNOSIS

All children should undergo a dental assessment at the time of cancer diagnosis and, if possible, before cancer treatment commences.	✓
For paediatric dental units working with a cancer centre there should be a mechanism of notification for new patients.	✓
Ideally the oncology team should include a paediatric dentist or a dental hygienist and these persons are the most suitable to undertake the initial assessment. If, however, there is not a dentally trained individual linked to the cancer centre, then this assessment should be undertaken by a member of the medical or nursing team.	✓
If any invasive dental treatment is required this should be undertaken by either a consultant or specialist paediatric dentist.	✓
The routine dental care provider in the general or community dental service should be notified of the cancer diagnosis and arrangements for care during cancer treatment.	✓
If there is not a paediatric dental unit liaising with a cancer centre there should be clear communication between the cancer centre and routine dental provider.	✓
Appropriate training in mouth care assessment should be available within the cancer centre, ideally in collaboration with a member of the dental team.	✓

ORAL HYGIENE AT DIAGNOSIS AND DURING CANCER TREATMENT

Oral hygiene advice should be given to children and parents prior to commencing cancer treatment and this should be provided both verbally and in writing.	✓
Oral hygiene advice should be given by a designated member of the dental team or, in the absence of a dentally trained individual, a member of the medical or nursing team who has received appropriate training.	✓
The advice should be to brush at least twice a day, preferably after meals, with a fluoride toothpaste. The toothbrush should be for the sole use of the child and changed on a 3 monthly basis, or when bristles splay if earlier. If the child has a sore mouth a soft brush with a small head should be used and a mild tasting toothpaste recommended.	✓
For children up to the age of 6 years, parents/carers should be instructed on how to brush their teeth.	✓
For children where it is not possible to brush teeth, parents/cares should be instructed on how to clean the mouth with oral sponges, as a temporary measure. The sponge should be moistened ideally with an antimicrobial agent such as diluted chlorhexidine or water.	✓
Additional aids should only be recommended as appropriate and preventive treatments such as fluoride supplements should be prescribed only as necessary, according to risk assessment by a member of the dental team.	✓

ORAL CARE DURING CANCER TREATMENT

An oral assessment should be undertaken every three to four months by a member of the dental team.	✓
The dental team should be notified of any oral problems arising during cancer treatment and the cancer team should be informed of the type and extent of dental treatment required.	✓
Decisions regarding the oral management of children require collaboration of the dental and cancer team. If there is not a dedicated dental team there needs to be clear communication between the cancer team and a routine dental provider.	✓

ORAL CARE AFTER CANCER TREATMENT

Parents and children should be informed, at an appropriate time, of the possible long-term dental/orofacial effects of childhood cancer and treatment. Children should continue to be monitored during the period of growth and development.	✓
Children should be referred back to their routine dental provider who should be advised of the preventive regime recommended by the consultant/specialist paediatric dental team and advised of future care arrangements and systems for referral as necessary.	✓

ORAL ASSESSMENT DURING CANCER TREATMENT

There is a variety of oral assessment tools from which to choose. Using those which have been shown to be valid and reliable would be most valuable.	✓
The Eilers' Oral Assessment Guide offers a valid, reliable and clinically useful tool for assessing oral status.	D
Those responsible for assessment of the oral cavity should be appropriately trained in the use of the selected assessment tool. Ideally, some form of reliability (inter and/or intra-rater) testing of the tool in the clinical setting should be evaluated.	✓
Nursing staff are best placed for the regular assessment of the child's oral status.	D
The frequency with which a child's mouth is assessed will depend upon their oral status. Frequency should increase at the onset of mucositis.	D
Oral assessment should be used to check good basic oral hygiene is being maintained and that appropriate pain control and therapeutic interventions are available.	✓
It would be advantageous to ensure that the timing of assessment is consistent in relation to the child's oral hygiene routine.	✓

THE PREVENTION OF ORAL MUCOSITIS

Parents and patients should be informed of the importance of keeping the mouth clean and encouraged to practice good, basic oral hygiene.	✓
The following have all been shown to be potentially beneficial for the prevention of mucositis in adult populations; Amifostine, allopurinol mouthrinse, ice-chips, GM-CSF, benzydamine, antibiotic pastilles/pastes (containing PTA), povidone-iodine, pilocarpine (not currently available in a form suitable for children), hydrolytic enzymes. Their use in children for the prevention of radiotherapy and/or chemotherapy induced mucositis can only be recommended within the constraints of an RCT.	B
RCTs of allopurinol mouthwash are not recommended for children receiving cancer treatment other than 5-FU.	D
Prostaglandin E is not recommended for the prevention of chemotherapy or radiotherapy induced mucositis as there is evidence that it may promote mucositis.	B
Folinic acid is not recommended for the routine prevention of chemotherapy or radiotherapy induced mucositis as there is evidence that it may promote mucositis.	B
However, folinic acid may be used for the prevention of toxicity following methotrexate.	D

There is no evidence to support the use of the following agents for the prevention of chemotherapy or radiotherapy induced mucositis in children; Lozenges containing bacitracin, clotrimazole, and gentamicin (BcoG), propathelene, chlorhexidine, fluconazole, amphotericin B, sucralfate, prednisone, glutamine, pentoxifyline, Na-sucrose gel, traumeel, chamomile. Their use in children for the prevention of radiotherapy and/or chemotherapy induced mucositis can only be recommended within the constraints of an RCT.	B
TREATMENT OF ORAL MUCOSITIS	
Appropriate pain control is recommended and the continuation of good oral hygiene, as tolerated.	√
Pain associated with mucositis can be severe. Opiates are required for the control of such pain.	√
RCTs of patient controlled analgesia versus continuous infusion for controlling oral pain in children are required.	B
The following have been shown to be potentially beneficial for the treatment of mucositis in adult populations; Vitamin E, immunoglobulin, allopurinol mouthwash. Their use in children receiving radiotherapy and/or chemotherapy can only be recommended within the constraints of an RCT.	B
RCTs of allopurinol mouthwash are not recommended for children receiving cancer treatment other than 5-FU.	D
There is no evidence to support the use of the following for the treatment of chemotherapy or radiotherapy induced mucositis in children; benzydamine, chlorhexidine, sucralfate, tetrachlorodecaoxide, 'Magic' (lidocaine solution, diphenhydramine hydrochloride and aluminum hydroxide suspension). Their use in children for the prevention of radiotherapy and/or chemotherapy induced mucositis can only be recommended within the constraints of an RCT.	B
PREVENTION OF ORAL CANDIDIASIS	
Some groups of patients are more likely to get candidiasis than others. Evidence cannot necessarily be generalised. Preventative therapy is not recommended for most patients (for example, those receiving treatment for solid tumours). A decision needs to be made by the clinician on whether to prevent candidiasis according the patients risks. Further studies are recommended to identify risk factors.	D
When choosing an antifungal agent for the prevention of candidiasis one that is absorbed from the GI tract is recommended (for example fluconazole, itraconazole or ketoconazole).	A
Drug doses should be prescribed according to Medicines for Children.	√
Amphotericin B is recommended for the prevention of candidiasis only within the constraints of an RCT.	B
There is no evidence to support the use of nystatin or chlorhexidine for the prevention of candidiasis in children treated for cancer.	A
TREATMENT OF ORAL CANDIDIASIS	
There is no research evidence to demonstrate the effect of either topical or systemic antifungal agents for the treatment of oral candidiasis. Based on evidence for prevention of oral candidiasis, absorbed or partially absorbed antifungal agents could be used for the treatment of visible oral candidiasis.	D
Further controlled trials assessing the effectiveness of current antifungal agents and new interventions for treating oral candidiasis are required.	D
PREVENTION OF XEROSTOMIA	
There is insufficient evidence to support the use of amifostine for the prevention of salivary gland damage, or pilocarpine or biperiden for the prevention of xerostomia, in children treated for cancer. Future use of any such pharmacological agents for the prevention of salivary gland damage and xerostomia should be within the constraints of an RCT only.	B
TREATMENT OF XEROSTOMIA	
Saliva stimulants and artificial saliva may be beneficial for the treatment of post-radiation xerostomia.	D
PREVENTION OF HERPES SIMPLEX VIRUS	
Aciclovir is only recommended as a preventative strategy for herpes simplex in patients undergoing high dose chemotherapy with stem cell transplant.	B
Aciclovir is not recommended for routine use due to rarity of problem and cost.	D
TREATMENT OF HERPES SIMPLEX VIRUS	
Aciclovir is effective for the treatment of herpes simplex virus in patients receiving chemotherapy and/or radiotherapy.	A
Mild and non-progressing lesions on the lip should be treated with topical aciclovir.	D
Progressing and severe lesions on the lip should be treated with oral aciclovir.	D
Intra-oral lesions should be treated with oral aciclovir.	D
For severe cases, or where oral administration not tolerated, i.v. aciclovir should be used.	D
Drug doses should be prescribed according to Medicines for Children.	√
Thymostimulin and vidarabine are not recommended for routine treatment of herpes simplex unless within the constraints of an RCT.	B

- A** At least one meta analysis, systematic review, or RCT rated as 1++, and directly applicable to the target population; or a systematic review of RCTs or a body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results
- B** A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; or extrapolated evidence from studies rated as 1++ or 1+
- C** A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; or extrapolated evidence from studies rated as 2++
- D** Evidence level 3 or 4; or extrapolated evidence from studies rated as 2+
- √ Best Practice

(**1++** High quality meta-analyses/systematic reviews of RCTs or RCTs with a very low risk of bias; **1+** Well conducted meta-analyses/systematic review of RCTs, or RCTs with low risk of bias; **1-** Meta-analyses/ systematic reviews of RCTs, or RCTs with high risk of bias; **2++** High quality systematic reviews of case-control or cohort studies; High quality case-control or cohort studies with a very low risk of confounding, bias, or chance and high probability that the relationship is causal; **2+** Well conducted case-control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal; **2-** Case-control or cohort studies with a high risk of confounding, bias, or chance and a significant risk that the relationship is not causal; **3** Non-analytic studies, e.g. case series, cross-sectional surveys; **4** Expert opinion/non-systematic review article)