



## Question: What are the treatment options for a painful mouth?

**February 2017**

Stomatitis is a general term applies to diffuse inflammatory, erosive and ulcerative conditions affecting the mucous membranes lining the mouth.<sup>1</sup> The following management strategy is advised:

### 1) Evaluation of the underlying cause

Stomatitis can be caused by dry mouth (xerostomia), superadded infection, candidiasis, mucositis, various deficiency states, trauma and medications (see table below).<sup>1</sup> Correct the correctable; review precipitating factors and treat any identifiable underlying causes.<sup>1</sup> Maintain good oral hygiene, simple mouthwashes, e.g. water or 0.9% saline, can be soothing, help to maintain oral hygiene, and prevent secondary infection.<sup>2</sup>

Medications associated with oral ulceration<sup>1,2</sup>

| Class               | Medication  |
|---------------------|---|
| <b>Analgesic</b>    | NSAIDs  |
| <b>Antibiotic</b>   | Azetroneam, Clarithromycin, Proguanil, Vancomycin, Zalcitabine  |
| <b>Cardiac</b>      | Captopril, Isoprenaline, Losartan, Nicorandil, Penindione   |
| <b>Chemotherapy</b> | Bleomycin, Doxorubicin, 5-FU, Melphelan, Mercaptopurine, Methotrexate   |
| <b>Psychotropic</b> | Carbamazepine, Olanzapine, Phenytoin, Sertraline  |
| <b>Alimentary</b>   | Pancreatin  |
| <b>Others</b>       | Alendronate, Allopurinol, Emetropium, Gold, Interferons, Interleukin-2, Molgramostim, Penicillamine, Potassium Chloride |

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## 2) Stomatitis and mucositis – Step by Step Approach

A summary of treatment options is provided in the table below. For the treatment of stomatitis and mucositis, a step by step approach is recommended.<sup>1</sup>

- *Step 1* Topical NSAID<sup>1</sup>
- *Step 2* Topical local anaesthetic ± topical NSAID<sup>1</sup>
- *Step 3* Topical morphine ± systemic morphine<sup>1</sup>
- *Step 4* Concurrent use of ‘burst’ ketamine<sup>1</sup>
- *Step 5* Concurrent use of thalidomide<sup>1</sup>

N.B. Step 4 & 5 require the expertise of a Palliative Care Consultant

### References:

- 1) Twycross R, Wilcock A. Symptom Management in Advanced Cancer. Radcliffe Medical Press. 4<sup>th</sup> Edition. 2009.
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- 3) Summary of Product Characteristics Carbosan 2%w/w gel. Available from [www.hpra.ie](http://www.hpra.ie). Accessed on the 09/02/17.
- 4) MIMS Ireland. Monthly Index of Medical Specialities. March 2016.
- 5) Monograph Sucralfate. American Hospital Formulary Services. Available from [www.medicinescomplete.com](http://www.medicinescomplete.com). Accessed on the 08/02/17.
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- 7) Monograph Oral Ulceration and Inflammation. British National Formulary. Available from [www.medicinescomplete.com](http://www.medicinescomplete.com). Accessed on the 08/02/17.
- 8) Monograph Benzydamine. British National Formulary. Available from [www.medicinescomplete.com](http://www.medicinescomplete.com). Accessed on the 08/02/17.
- 9) Summary of Product Characteristics Diffiam Oral Rinse. Available from [www.hpra.ie](http://www.hpra.ie). Accessed on the 08/02/17.
- 10) Monograph Choline Salicylate. British National Formulary. Available from [www.medicinescomplete.com](http://www.medicinescomplete.com). Accessed 08/02/17.
- 11) Summary of Product Characteristics Bonjela Oromucousal Gel. Available from [www.hpra.ie](http://www.hpra.ie). Accessed on the 08/02/17.
- 12) Monograph Flubiprofen. British National Formulary. Available from [www.medicinescomplete.com](http://www.medicinescomplete.com). Accessed on the 08/02/17.

- 13) Summary of Product Characteristics Strepsils Intensive lozenges. Available from [www.hpra.ie](http://www.hpra.ie). Accessed on the 08/02/17.
- 14) Monograph BMX. Available from [www.extemp.ie](http://www.extemp.ie). Accessed on the 08/02/17.

**Table 1: Treatment Options for a Painful Mouth**

| <b>COATING AGENTS</b>   |   |   |
|---|---|---|
| Coating agents are of limited value. <sup>2</sup> They can be difficult to apply, and they do not relieve persistent pain caused by oral inflammation, but by adhering to and coating the raw surface they help reduce contact pain, e.g. from eating or drinking. <sup>2</sup> Available agents include:   |   |   |
| Carbenoxolone sodium  | Carbosan®                               | Apply thickly to lesions after meals and at bedtime <sup>3,4</sup>  |
| Carmellose sodium   | Orabase®                                | Apply the paste onto the sore area <sup>2</sup>   |
| Polyvinylpyrrolidone & sodium hyaluronate   | Gelclair®                               | Use three times daily as required. Mix contents of 1 sachet with 40ml water, rinse around mouth for at least 1min, gargle and then spit out <sup>2</sup>  |
| Sucralfate  | Antepsin®                               | Sucralfate is not of benefit in radiation-induced mucositis but may help in other types of oral stomatitis. <sup>2</sup> The evidence in the treatment of chemotherapy induced oral ulceration is ambiguous. <sup>5,6</sup> It can be given as a suspension 1g/5ml four times daily <sup>2</sup>                  |
| <b>TOPICAL ANALGESICS – NON OPIOID</b>  |   |   |
| Local analgesics have a limited role in the management of oral ulceration. <sup>7</sup> When applied topically their action is of a relatively short duration so that analgesia cannot be maintained continuously throughout the day. <sup>7</sup>  |   |   |
| Benzylamine - an NSAID with antimicrobial and mild local anaesthetic effects.   | Difflam®                                | It is used to ease the discomfort associated with various causes of sore mouth. <sup>7</sup> Rinse or gargle 15ml for 20–30 seconds before spitting out, repeat every 1.5-3 hours as required. <sup>8,9</sup> Dilute with an equal volume of water if the full-strength mouthwash causes stinging. <sup>2,7</sup> |
| Choline salicylate  | Bonjela®                                | Apply 1–2cm with gentle massage every 3 hours as required. Maximum recommended dose is 6 applications/day. <sup>2,10,11</sup> Excessive application or confinement under a denture irritates the mucosa and can cause ulceration. <sup>11</sup>   |
| Flurbiprofen lozenge  | Strepsils Intensive®                    | Every 3 -6 hours as required for oral and pharyngeal pain; maximum recommended dose 5 lozenges/24h. <sup>12,13</sup> Can cause oral ulceration; the risk is reduced by moving the lozenge around the mouth. <sup>2,13</sup>   |
| Diclofenac  | Diclac®                                 | The use of dispersible tablets may be considered. <sup>2</sup> However; dispersible tablets are not licensed in Ireland. Crushing or dispersal of tablet preparations available in Ireland is unlicensed.   |
| <b>TOPICAL LOCAL ANAESTHETICS</b>   |   |   |
| The efficacy of topical local anaesthetics relates to the formulation, duration of application (at least 5min is required) and site of application; they are less effective in more keratinized areas of the mouth, e.g. the palate. <sup>2</sup> Some systemic absorption of the local anaesthetic occurs, which is increased by mucosal inflammation. <sup>2</sup> However, plasma levels are generally low, and toxicity has been reported only in exceptional circumstances. <sup>2</sup> With all topical local anaesthetic preparations care must be taken not to produce anaesthesia. <sup>2</sup> |   |   |
| Lidocaine   | Lidocaine ointment 5%                   | No licensed preparation available in Ireland. Applied before meals and as required. <sup>2</sup> May need to be extemporaneously prepared.  |
|   | Xylocaine spray 10%                     | Applied thinly to ulcer using a cotton bud before meals and as required. <sup>7</sup> The use in this way is unlicensed. <sup>7</sup>   |
| <b>TOPICAL ANALGESICS – OPIOID</b>  |   |   |
| Opioids have a topical analgesic effect on inflamed tissue and can be used as a mouthwash. <sup>2</sup> Some recommend that the mouthwash is subsequently swallowed in order to combine a systemic analgesic effect with the topical one. <sup>2</sup>  |   |   |
| Morphine sulphate   | Oramorph 10mg/5ml                       | Take every three to four hours, hold in the mouth for 2min and then spit out or swallow. <sup>2</sup>   |
| <b>OTHERS</b>   |   |   |
| BML (or BMX) Mouthwash  | Extemporaneously prepared <sup>14</sup> | BML is an extemporaneously prepared solution that contains benlyn traditional cough mixture (46%), maalox (46%) and lignocaine 2% (8%). <sup>14</sup> It may provide symptomatic relief. <sup>14</sup>  |
| On recommendation from a palliative care specialist the following mouthwashes maybe considered; Ketamine, Allopurinol, Phenytoin and Diphenhydramine hydrochloride. Please contact Palliative Meds Info for further information.  |   |   |

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