

Effectiveness of a Novel Approach to Managing Dry Mouth in Palliative Care

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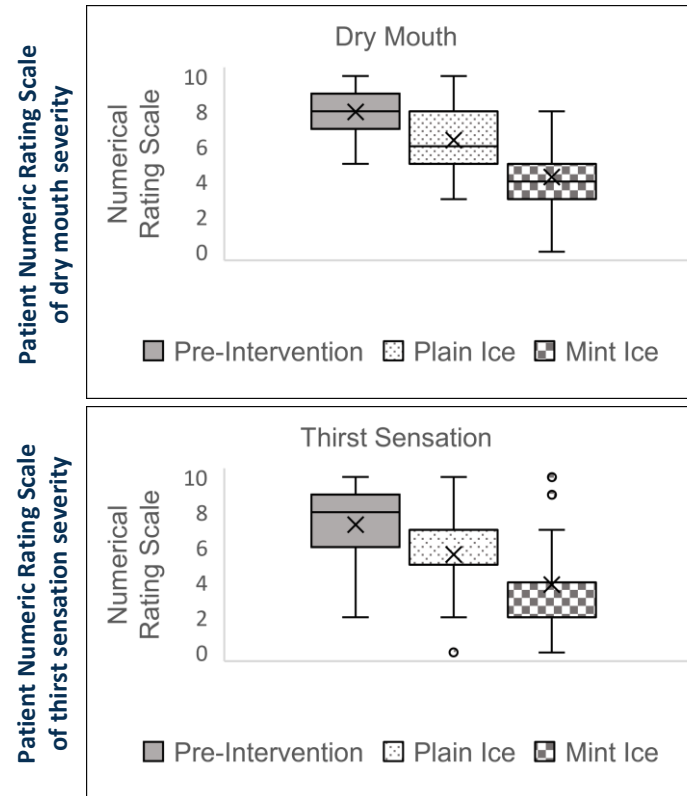
Introduction:

- Dry mouth and the sensation of thirst are common and significant symptoms experienced by people with advanced illness, with nearly 80% of patients in palliative care reporting the symptom¹
- The current management strategies for alleviating the symptom of dry mouth are limited and lack a strong evidence base, particularly in the palliative care setting²
- The use of mini mint ice cubes for the relief of thirst was established as effective in significantly reducing thirst intensity and distress in critical care patients in two French intensive care units³
- Demonstrating the efficacy of this intervention for palliative care patients and comparing against a control intervention will comprise a meaningful and novel contribution to the evidence base.

Methods:

- We undertook a prospective cross-over randomised interventional study to investigate the effectiveness of a novel approach to alleviating the level of intensity of the symptoms of dry mouth, by comparing usual mouth care techniques with ice chips made from a mint syrup.
- Palliative care patients admitted to an inpatient hospice were randomised to receive either one of two interventions, the first was usual mouthcare with plain water ice cubes, and the second was usual care and ice cubes made from a mint syrup, made from the Teisseire® brand.
- The intensity of dry mouth was assessed, using a verbal numeric rating scale, as well as patient satisfaction with the treatment. After 24 hours the patients were swapped over to the other intervention and the intensity of dryness and satisfaction with treatment was assessed.

Results: 30 patients completed the study over 48 hours



Both interventions resulted in improvement in dry mouth and thirst scores. On average, those who had plain ice scored their dry mouth at 1.6 less dry and were 2 less thirsty. The mint intervention saw a greater reduction in both symptoms, with an average reduction of 3.6 and 3.4.

Discussion:

- Patients described thirst as a constant and overwhelming experience, which can be as distressing as pain.⁴
- There is a paucity of clinical research trials examining the best management strategies for thirst and dry mouth in the palliative care. To date most of the work has been in the critical care setting.
- The cross-over design has ensured all patients have access to treatment.
- Usual mouth care and the two ice related interventions were both able to reduce the intensity of dry mouth and the sensation of thirst, however, the mint intervention had a greater patient response.
- Temperature was an important variable in the inhibition of thirst-promoting neurons, with cold temperatures causing rapid decrease in neuronal activity and thus quenching sensation of thirst and dry mouth faster.
- It is unclear if the effectiveness of the mint ice intervention was due to the cooling effect of the menthol or the cold temperature, future research should consider exploring this comparison.
- The investigators are planning to expand the study to include other groups across the rehabilitation, aged and palliative care patient cohorts, utilising a sugar free mint cordial from the same Teisseire® brand.

References:

1. Fleming et al. (2020) Palliative care assessment of dry mouth: what matters most to patients with advanced disease?. *Supportive Care Cancer* 28: 1121–1129
2. Furness et al. (2011) Interventions for the management of dry mouth: topical therapies. *Cochrane Database Systematic Review*
3. Lemyze et al. (2020) To relieve the patient's thirst, refresh the mouth first: a pilot study using mini mint ice cubes in severely dehydrated patients. *Journal of Pain and Symptom Management*, 60(1): e82-e88
4. Halm (2022) Managing Thirst in the Critically Ill *American Journal of Critical Care* 31(2): 161-165