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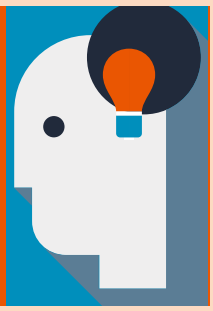

This is a methodologically sound paper which shows comprehensively that povidone iodine (PVP-I) is a very effective anti-viral agent *in vitro* and adds to the growing literature supporting this view. It has been tested under both clean and 'dirty' conditions to try and mimic *in vivo* conditions. The authors conclude that the PVP-I mouthwash product is widely available and could be readily integrated into infection control measures during dental treatment including pre-procedural oral decontamination. Most antibacterial mouthwashes, not surprisingly, also have an antiviral component and PVP-I is probably the most effective antiviral agent in those currently available.

This leads to the question of why antiviral mouthwashes have not become a standard part of dental PPE in the UK? Would routine pre-procedural mouthwashes significantly reduce the cross infection risk and if so for how long? Definitive answers to these questions remain unclear but are being addressed in clinical trials. Conservative estimates suggested 20 minutes,[1] but very recent pilot studies indicate that the viral load in the oral cavity might be reduced significantly for up to 3 hours.[2,3] It is now well established that the coronavirus replicates in minor salivary glands and that in the first week or so of infection up to ten million viral particles per ml of saliva can be found.[4] The nose and mouth contain similar concentrations of virus, and thus a combination of mouthwash and nasal spray is likely to be the most effective. The clear implication is that the risk to healthcare workers operating around the mouth and nose could be reduced by the application of pre-procedural virucidal agents. However, final proof of efficacy *in vivo* needs to be established.

Is there a downside? The authors rightly point out an established safety record of povidone iodine at 1 or 0.5% concentrations including toxicity or allergy. Recently it has been reported that 19 million dental appointments were missed during the first UK lockdown. This paper therefore contributes nicely to the suggestion that pre-procedural mouthwashes (and nasal sprays) should be immediately considered to enable dentistry to contribute fully to the oral health of the nation during the coronavirus pandemic. ■

References

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