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Bio-fuel from PPE

Sir, I concur with your correspondent R. Dean¹ on the unprecedented usage of PPE (personal protective equipment) leading to

the other PPE (polluting Planet Earth). One good alternative to protect Mother Nature in this situation is the conversion of plastic waste material into a liquid biofuel. Pyrolysis is the procedure of conversion of any material at very high temperatures. All PPEs which at present are disposed in landfills, oceans, etc, which impose negatively on aquatic animals, can be transferred to an incinerator and then pyrolysis can be done to break down the propylene chains to form a liquid. The liquid obtained can be used as a biofuel. We are very much in need of fuel for the operation of various mechanical devices.

This biofuel can be further reused thus protecting our planet. Due to the increasing population and their demand for energy consumption, this would serve as a healthy alternative and also preserve our nature.²

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Pharmaceuticals

Dexamethasone caution

Sir, were Dexamethasone to be included in the Dental Formulary, practitioners need to be aware of common and important physical and psychiatric side effects of this potent glucocorticoid (steroid), prior to prescribing for the control of pain related to root canal treatment.

It is widely recognised that steroids can cause or worsen hyperglycaemia, and national guidelines recommend monitoring glucose levels in those with and at risk of diabetes.¹ Although much of the evidence concerns long term steroid use, hyperglycaemia has been frequently reported after short courses, for example in oncology practice.²

Glucose levels can rise within hours of high dose steroids, with a disproportionate effect on afternoon and evening levels.^{3,4} Patients with or at risk of diabetes therefore need to be counselled to monitor their glucose levels after taking dexamethasone and may need to make short term adjustments of their diabetes therapy.

Even short courses of Dexamethasone in the peri-operative period may have an impact on wound healing,⁵ which would be relevant to the proposed use in endodontics.

Another established side effect of Dexamethasone is that it can cause steroid induced psychiatric reactions, including psychosis, mood changes, behavioural disturbance and cognitive dysfunction. These symptoms can develop within days of a 5 mg single dose even in those who have no psychiatric history.^{6,7,8,9} The incidence of a psychiatric episode to steroids has been

recorded at being between 13% and 62%.⁸ Many of these are mild reactions such as euphoria and increased irritability and may not impact on functioning, but patients need to be warned about the severe reactions in up to 5–6% of patients,^{8,10} such as mania and suicidal thoughts. Severe and persistent symptoms will require treatment which is beyond the remit of the dentist.

Whilst Dexamethasone may reduce pain related to endodontic procedures^{11,12} it is not a drug to be used when other safer treatment options may be available. We would be opposed to it being more widely available.

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Co-codamol okay

Sir, I was surprised to read an article (*BDJ* 2020; **229**: 15-18) reporting that dentists cannot prescribe co-codamol. I have been prescribing it for years on a private prescription in different practices and never had an issue with it, as well as other drugs that are not on the dental practitioners section of the BNF.

After seeing the article, I checked the GDC website where it states: 'A dentist can prescribe any medicine from the British National Formulary (BNF) on a private prescription; however you must only prescribe medicines to meet the identified dental needs of your patients'. As for myself, I believe that many colleagues that deal with surgical procedures are prescribing it as it would be very counterproductive and difficult to seek medical advice every time you have procedures that are bound to cause moderate to severe pain. In that same light I believe that we may prescribe any medications that we judge to be beneficial and justifiable for the patient's dental condition.

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<https://doi.org/10.1038/s41415-020-2239-6>