

given to every patient who requires removal of an M3M.<sup>2</sup> This is a useful information booklet for patients regarding the removal of M3Ms and includes an explanation about the reasons of removal of M3Ms with clinical guidelines considered, the process for removal of the M3M, post-operative concerns, as well as risks post-treatment. These include general risks such as bleeding, dry socket, infection, trismus and iatrogenic damage to adjacent teeth. It also covers the risks of nerve damage, including tingling, numbness and dysaesthesia. It also briefly mentions coronectomy as an alternative treatment option and signposts one to another leaflet should a patient be considering this option instead.<sup>3</sup>

In summary, I would endorse the use of this information booklet for clinicians when consenting for removal of M3Ms as this ensures that patients are able to make an informed decision.

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## References

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## Dental education

### Flipped classrooms

Sir, over the past two 'pandemic' years, we have incorporated flipped classrooms in our teaching strategies to ensure the students do not miss out on their valuable learning time.<sup>1</sup> We have gained a lot of valuable experience in imparting teaching using these methods, the most important being that the teaching drives the technology, not the other way round. How a flipped classroom differs from the conventional model is that in the latter, the students are usually not active participants whereas in the former, we encourage students to think critically and utilise their analytical skills. It has been seen that in the traditional model, students start to lose focus after the first 15 minutes but in the flipped model, they are the most active participants. In our university, we have been using a combination of flipped

classrooms and incorporated problem-based learning (PBL) as a part of the curriculum to ensure students are not only engaged but also develop critical skills.<sup>2</sup> We have recorded lectures on our university portal to which we give access to our students so that they can learn and review anytime, and then during the scheduled lectures we engage in active discussions related to the recorded lectures. The students are divided into small groups and asked to discuss certain topics related to the lectures which encourages them not only to learn from the recorded sessions but also allows them to engage in deeper learning. Collaborative PBL has brought in good results as the students were kept engaged during the entire pandemic period until reopening. Even after reopening, we have continued the teaching by means of online classrooms and physically distanced practical sessions. Blended learning is the way to go, and it allows students flexibility to learn at their own pace and gain skills.

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## Dental amalgam

### A joined up approach

Sir, the global Minamata Convention on Mercury aims to protect human health and the environment from the negative effects of mercury. Adopted in 2013, it came into force in 2017 and has been ratified by over 100 countries, including the UK. Dental amalgam features significantly and is the only mercury-added material subject to a phase down rather than a ban or phase out, in recognition of its importance to public health. Ratifying countries are required to comply with at least two of nine provisions that include a focus on prevention, research and development and best practice for managing amalgam waste.

The use of mercury in dentistry has long been under scrutiny. For at least 15 years, the BDA, Council of European Dentists (CED) and the FDI World Dental Federation have supported the phasing down of the use of dental amalgam but maintained that it,

alongside other restorative materials, must remain available as one of the tools in the armoury of the dental profession for the repair and maintenance of damaged teeth. The BDA advocates that the treating clinician is best placed to discuss with the patient the options available and to achieve valid consent for the treatment offered. Countries worldwide have different levels of oral health and those that have invested heavily in prevention for many years are better placed to rely on mercury-free materials. Several countries in Europe have already achieved this. The socioeconomic considerations, however, affect many, including the UK – particularly as economies struggle in the wake of COVID and with war ongoing in Europe. It is consequently surprising that the recent Minamata Conference of Parties (COP4) debated a phase out proposal from the African region – opposed by FDI and ultimately not accepted.

The BDA, FDI, CED, International Association of Dental Research (IADR) and others continue to raise awareness of the mechanisms needed to accelerate the phase down of dental amalgam. Prevention of dental caries is a long game. Political short-termism works against the sustained investment and the will to commit that is so necessary.

Here in the UK, the NI Protocol means that changes in the EU still affect some of our colleagues. The EU is currently conducting a study, mandated by the Mercury Regulations, to assess the feasibility of phasing out dental amalgam by 2030. The BDA responded to the consultations in detail. Unfortunately, the data on dental amalgam use that the EU constantly requests does not exist and those conducting the study find themselves relying on guesswork and flawed data from those with a tunnel vision approach to achieving a ban. At the same time, the EU is separately reviewing the safety of other constituents of dental materials such as bisphenols and nanoparticles. Our dental patients really need a joined up approach to these reviews that includes consideration of the interactions of balance of risk, the need for national administrations to take seriously their responsibilities to prevent caries and a careful assessment of the unintended consequences of the results of single agenda actions.

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