Minutes of the fifth meeting of the 2015/2016 session which was held in Lecture Theatre 1 of GDH on Tuesday 23rd February 2016, commencing at 7pm.

There were 77 members and guests in attendance. Apologies were received from 6 members. The minutes of the previous meeting, published online, were approved.

The President, Professor John Gibson, welcomed the members and guests to the meeting.

The President then introduced the speaker, Professor Trevor Burke, and invited him to give his address to the Society, entitled, ‘What I have learned from a lifetime in Primary Dental Care’.

Professor Burke started his lecture by discussing his involvement in the design of the first bonding agents and explaining to the audience that you can be involved with dental research if you work in general practice. He then discussed amalgam restorations and why he thinks they will be abolished and what effect that will have on general dental practice. Their use in general practice is decreasing. In 2002 86% of restorations placed in premolars and molars were amalgam; this had reduced to 59% in 2008. He feels that they will be abolished because of the effect on amalgam on the environment and not because they are hazardous to patients. They are more hazardous to GDPs. Their short term memory is poorer compared to control and they have X4 increased incidence of kidney problems. The UK has signed up to the Minamata Convention on mercury which is a global treaty to protect human health and the environment from the adverse effects of mercury. The aesthetics of posterior teeth are becoming more important to patients. The attitudes of both patients and GDPs are changing towards amalgam. It has been used for so long because there is no replacement material that is a great improvement but it will be phased out. Composite has advantages – it is tooth coloured, minimal risk to the patient, no risk to the operator and adhesive cavity design preserves tooth substance.

Professor Burke then discussed the tooth coloured alternatives to amalgam starting with the historical materials. Silicates were technically difficult to place but fluoride ions leached from them so secondary caries was not seen around them. Early composites showed unacceptable wear as the filler was not well bonded to the resin. Glass ionomer cements had poor bond strength. Resin bonded glass ionomer cements have better strength and fracture toughness. They also have an increased release of fluoride ions. They can be finished at the time of placement. The literature shows that roughening the surface of the cavity improves the bond by 40% but they are very moisture sensitive. Placement under rubber dam gets round this problem. In Class V cavities the RMGI 5year survival is better than composite (78.6% vs. 68.3%) and there is no need to bevel the cavity. He then went onto discuss Glass Carbomers which have GI like characteristics with hydroxyappatite like material within it. They are thermocured which induces the production of secondary dentine. He then discussed gold and ceramic restorations.

Professor Burke then discussed his involvement with PREP (Product Research and Evaluation by Practitioners). He explained that practitioners carry out a lot of restoration and treatment and so it is relatively straightforward to get results quickly. General practice is where the longevity of restorations can be studied. He reiterated that there are many advantages to the use of adhesive restorations but they are technique sensitive. He then discussed self-etching adhesives, selective enamel etching and etch – and – rinse. There is a better bond if selective enamel etching is used. He felt that improvements in dentine bonding have opened a new era in adhesive dentistry. The future for composite, he feels, includes self etch, low shrink, 5mm depth cure, for dentine bonding agents the reduction in the number of steps. Any new material developed has to be environmentally sound in manufacture and disposal as well as not being cytotoxic or genotoxic.

In Professor Burkes opinion the biggest threat to dentistry in 2020 and beyond are dentists who join the profession and see it as a business opportunity, in particular poorly carried out cosmetic dentistry and instant orthodontics.

He finished by saying that patients carry visible evidence of the quality of our work in their mouths. The best treatment is the simplest and most tooth preserving.

There followed a lively question and answer session.

The President then asked Professor Jeremy Bagg to propose the vote of thanks. Professor Bagg thanked Professor Burke for his presentation. He asked the audience to thank the speaker in the usual manner. The President then presented Professor Burke with a Glasgow Odontological Society paperweight.

Under ‘Any other competent business’, The President reminded the audience of the next meeting on Tuesday 15th March in Lecture Theatre 1 of GDH when he will present his paper on ‘What I have learned from a lifetime at the GDC (or did it just feel like a lifetime?)!. The President also encouraged everyone to book the Annual Dinner to avoid disappointment! The After Dinner Speaker will be Mr J. P. Leitch.

The meeting closed at 20.56.