Title: Posterior Glass ionomer cements: pros and cons

Abstract: Glass ionomer cements (GICs) are a group of dental materials which have widespread uses in dentistry. A few years ago some types of GICs have been introduced to overcome the disadvantages of the older ones like mechanical properties. There are some characteristics such as bulk filled, monomer free carbonised nano-glass restorative cement with specially designed filler and fluor/hydroxyapatite particles, extremely reduced solubility, superior flexural, compressive strength and high wear resistance which have been considered for these materials and make them suitable for both pediatric and geriatric restorations and high caries risk patients. Compared to composite resin and amalgam, these types of GICs offer easier application and better mechanical features but the longevity of these restorative materials in clinical situations needs to be evaluated.

Conclusion: New posterior GICs could be considered as an alternative material in restoration of the teeth in patients with high caries risk.

Keywords: Glass ionomer cement, posterior restorative material, amalgam alternative