Aim: The aim of this review is to evaluate the studies based on caries control and caries progress activity of common bleaching materials.

Summary: There are two basic formulations of peroxide materials used in bleaching, ten percent CP is the commonly used percentage in home-bleaching and hydrogen peroxide in office bleaching procedures. The antibacterial properties of CP are well documented, as the original material was marketed as an oral antiseptic. It has also been shown that 10% CP inhibited growth of Streptococcus mutans and lactobacillus in vitro and reduced levels of salivary lactobacillus in vivo. Ammonia resulting from carbamide (urea) degradation plays a significant role in increasing salivary and plaque pH. The critical pH at which enamel and dentin begin to dissolve is 5.2 to 5.7 for enamel, and 6 to 6.5 for dentin. Elevation of saliva pH by CP also allays fears that acidic bleaching agents may cause enamel erosion. It is important to note that bleaching agents that contain hydrogen peroxide, but not CP, do not have these pH elevating effects. It has also been shown that Hydrogen peroxide bleaching materials decreased plaque pH.

Conclusion: hydrogen peroxide-based agents would not necessarily have the same cariostatic benefits of carbamide peroxide and may cause enamel erosion and subsequent caries.