Suggestions for safer non-vital bleaching

1. **Isolate tooth effectively.**
   
The use of rubber dam isolation, interproximal wedges and ligatures are strongly recommended.

2. **Protect oral mucosa.**
   
Protective cream, such as petroleum jelly must be applied to the surrounding oral mucosa to prevent chemical burns by the peroxides.

3. **Verify adequate endodontic obturation.**
   
The root canal filling must be dense and asymptomatic (showing no evidence of disease). The root canal should be completed at least a month before bleaching. Remove excess filling material from the pulp chamber to 1-1.5mm below the gingival crest but shortly of the periodontal ligament. Place a seal (e.g. zinc phosphate cement/ Cavit/glass ionomer) over the gutta percha to isolate it from the pulp chamber. Place the cement high lingually and laterally against the internal walls to prevent seepage into the PDL (periodontal ligament).
   
The quality of root canal obturation should always be assessed clinically and radiographically prior to bleaching. Adequate obturation ensures a better overall prognosis of the treated tooth. It provides an additional barrier against damage by peroxides to the periodontal ligament and periapical tissues.

4. **Use protective barrier.**
   
This is essential to prevent leakage of bleaching agents which may infiltrate between the gutta-percha and root canal walls, reaching the periodontal ligament via dentinal tubules, lateral canals or the root apex. The ideal barrier should protect the dentinal tubules and conform to the external epithelial attachment.

5. **Avoid acid etching.**
   
Acid etching has not proven to be beneficial (Casey et al 1989) and the use of caustic chemicals in the pulp chamber is undesirable, as periodontal ligament irritation may result.

6. **Recall patients periodically.**
   
Bleached teeth should be frequently examined both clinically and radiographically. Root resorption may occasionally be detected as early as
6 months after bleaching. Early detection improves the prognosis as corrective therapy may still be applied.

**Treatment procedure**

1. Isolate tooth/teeth undergoing bleaching using a rubber dam. Ensure the dam fits tightly at the cervical margin.

   Note: If a rubber dam is not use, cover approximately half of the adjacent vital teeth with 3-4mm thick layer of Gingival Barrier to insulate from heat discomfort of curing light. This is done when one tooth is being bleached non-vitally.

2. Open lingual access to pulp chamber and remove all composite, base material and gutta percha 2-3 mm apical to the CE junction. Place a glass ionomer/Cavit/zinc phosphate base, 1 mm thick to ensure a barrier between the "sealed" root canal and bleaching gel.

3. Place the Pola Office (mixed) gel into the opened pulp chamber and onto the labial surface.

4. When doing both surfaces then two curing lights can be used to activate the Pola Office or if one surface at a time then just one curing light.

   Note: The Pola Office gel needs to be light cured for 30 seconds then left on or / and inside the tooth for a total of 8 minutes.

5. Suction off the gel.

6. Repeat Step 3-5 until desired shade is achieved.

7. After the last application, suction and wash the gel off.

8. Record the final shade.

Note: If the remainder of the arch is to be bleached also, follow the instructions for Pola Office.