Forming an Evidence-Based Clinical Question

To begin the Evidence-Based Dentistry (EBD) search process start with a well-developed and answerable question. A good clinical question will:

- Save time when researching
- Keep the focus directly on the patient's need
- Suggest the appropriate form that a useful answer may take

The clinical question will impact the entire Evidence-Based Dentistry (EBD) literature searching process.

Elements of the Clinical Question

A good clinical question will have four major elements considered: **P**atient, **I**ntervention, **C**omparison and **O**utcome, commonly known as **PICO**.

Patient: A clinical question must identify a patient or patient group and include any information that is relevant to the treatment or diagnosis or the patient.

For Example: You might include the patient's sex, age, race, disease history and primary complaint.

Intervention: The intervention is what you plan to do for your patient or patient group.

For example, you might: run tests, prescribe drug treatment, refer to a specialist or schedule surgery.

Comparison: In general most, but not all, clinical questions have a comparison. A comparison is the alternative that you want to compare to your intervention.

For example: Is aspirin as effective in preventing strokes as warfarin?

Outcome: The outcome is the hoped for effect of the intervention.

For example: If I prescribe aspirin for my patient it will prevent strokes. Outcome = Prevented Strokes.

Sample Case: A seven-year old male patient is found to have two cavities requiring fillings. His father asks if an electric toothbrush might help his son avoid cavities in the future.

A possible Question: In the case of a **seven-year old male** (Patient) is **a powered toothbrush** (Intervention) as effective as **a manual toothbrush** (Comparison) in **avoiding tooth decay** (Outcome)?