# PICO

What do you really want to know?

- ▶ P = Population/problem
- ▶ I = Intervention/exposure
- ➤ C = Comparison
- > O = Outcome
- In this population, does the intervention compared to the comparison improve the outcome?

#### FORMAT

In patients with amylogenesis imperfect does amalgam have greater bond strength than composite?

Does amalgam have greater bond strength in patients with AI than in patients without AI?

- P= patients with Al
- ► I = amalgam
- ➤ C = composite
- > O = bond strength

- P = 'amalgam'
- ► I = with AI
- C = without Al
- ➤ O = bond strength

#### EXAMPLE

PICO Pieces	Intervention/ Therapy (RCT)	Etiology	Diagnosis	Prevention	Prognosis
Population	Yes	Yes	Yes	Yes	Yes
Intervention/ Exposure	Yes	Yes	Yes	Yes	Yes
Comparison	Yesmaybe	Nomaybe	Yesmaybe	Yesmaybe	Yesmaybe
Outcome	Yes	Yes	Yes	Yes	Yes

### QUESTION TYPE VS. PICO FORMAT

Think design in your research question Knowledge base when asking question Think knowledge desired/needed

## PROBLEMS

What is a 'problem'?

### PROBLEM IDENTIFICATION

- <u>Setting</u>: Private practice.
- Patient: 52 year-old female, 'Jan'.
- Chief complaint: Jan has been a patient in your practice for over four years. She has had routine 6-month examinations, prophylaxis and scaling, and some restorations placed. Earlier this year, Jan was diagnosed as having multiple sclerosis (MS). Her MS is currently in remission, and her neurologist advised her, as part of her medical treatment, to have her amalgam restorations removed and replaced with a non-amalgam material. The patient states that the neurologist told her that in some patients, removal of amalgam restoration can result in a cure of MS. You have reservations about removing her amalgam restorations because you believe that replacing the restorations will result in weakened tooth structure and a decrease in her oral health.

#### 'PATIENT' PROBLEMS

- Types of information
  - Patient specific details
    - Clinical gaps
  - Scientific knowledge
    - Learning issues
- Patient (patient care) hypotheses
- ▶ Facts vs. opinions vs. 'my reality'

# WHAT DO YOU NEED TO KNOW TO MOVE FORWARD WITH THE PATIENT?

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# CLINICAL GAPS, LEARNING ISSUES & HYPOTHESIS

- Patient or problem
- ► Intervention/exposure
- Comparison
- Outcome



Question: In patient, does intervention compared to comparison action the outcome?

#### QUESTION FORMULATION

- <u>Setting</u>: Private practice.
- Patient: 52 year-old female, 'Jan'.
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#### 'PATIENT' PICO

- <u>Setting</u>: Private practice.
- Patient: 44 year-old female, Jeannie.
- Chief complaint: Jeannie stated, "My gums are pulling away from my teeth in the front and I have an infection." She requested that no radiographs be made because she is pregnant. Also, she expressed concern that dental treatments might harm the baby.
- > Jeannie appeared obviously distressed from her oral pain, and yet seemed quite anxious about the prospect of any dental treatment. Throughout the appointment, she continued to express concern for her baby.
- Medical history: Jeannie is in her 3<sup>rd</sup> trimester, and has 7 weeks remaining before her estimated date of delivery. She is currently taking PrimaCare bid.
- ➤ Jeannie's height and weight are 5' 6" and 185#, respectively.

#### PRESENTING PATIENT

#### PICO

- Population
- ▶ Intervention/exposure
- Comparison
- Outcome

#### Search Strategy

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- ► I Always
- ► C \( \delta \)
- > - Ś

#### PRACTICE SEARCH

- https://pubmed.ncbi.nlm.nih.gov/?otool=uialib
- https://www.cochranelibrary.com/?contentLanguage=eng

#### SEARCHES

## **QUESTIONS?**