

# What is the PICO Process?

PICO is a mnemonic used to describe the four elements of a clinical question to be formulated prior to starting one's research.

## The clinical question needs to identify:

- P**opulation or problem we intend to study
- I**ntervention or treatment we plan to use
- C**omparison of one intervention to another
- O**utcome we anticipate

Once a well-structured question is formulated, researchers will be in a better position to search the literature for evidence that will support their original PICO question.

See reverse side for PICO question examples 

In newborns experiencing pain, is there evidence to suggest that skin to skin contact is more effective than administering oral sucrose to reduce pain?

#### PICO Elements

#### Keywords

<b>P</b> (Population/Problem)	Neonatal pain
<b>I</b> (Intervention)	Oral sucrose
<b>C</b> (Comparison)	Skin to skin
<b>O</b> (Outcome)	Pain management

In cardiac patients who have undergone an angioplasty procedure, is there evidence to suggest that early ambulation is more effective than late ambulation to reduce complications?

#### PICO Elements

#### Keywords

<b>P</b> (Population/Problem)	Transfemoral coronary procedure
<b>I</b> (Intervention)	Ambulation
<b>C</b> (Comparison)	Late ambulation
<b>O</b> (Outcome)	Complications

In patients with a port-a-cath, is there evidence to suggest that flushing the central venous catheter with normal saline is more effective than a heparin flush to reduce occlusion rates?

#### PICO Elements

#### Keywords

<b>P</b> (Population/Problem)	Central venous catheter
<b>I</b> (Intervention)	Saline flush
<b>C</b> (Comparison)	Heparin flush
<b>O</b> (Outcome)	Occlusion

In patients on ventilators, is there evidence to suggest that oral hygiene involving toothbrushing is more effective than oral hygiene using chlorhexidine to prevent ventilator-associated pneumonia?

#### PICO Elements

#### Keywords

<b>P</b> (Population/Problem)	Ventilator patients
<b>I</b> (Intervention)	Toothbrushing
<b>C</b> (Comparison)	Chlorhexidine
<b>O</b> (Outcome)	Ventilator-associated pneumonia

In patients requiring intravenous delivery of medication, is there evidence to suggest that using needleless intravenous systems is more effective than standard intravenous needle systems to reduce rates of needlestick injuries?

#### PICO Elements

#### Keywords

<b>P</b> (Population/Problem)	Needlestick Injuries
<b>I</b> (Intervention)	Needleless intravenous systems
<b>C</b> (Comparison)	Sharps
<b>O</b> (Outcome)	Prevention