What is the PICOTS framework?

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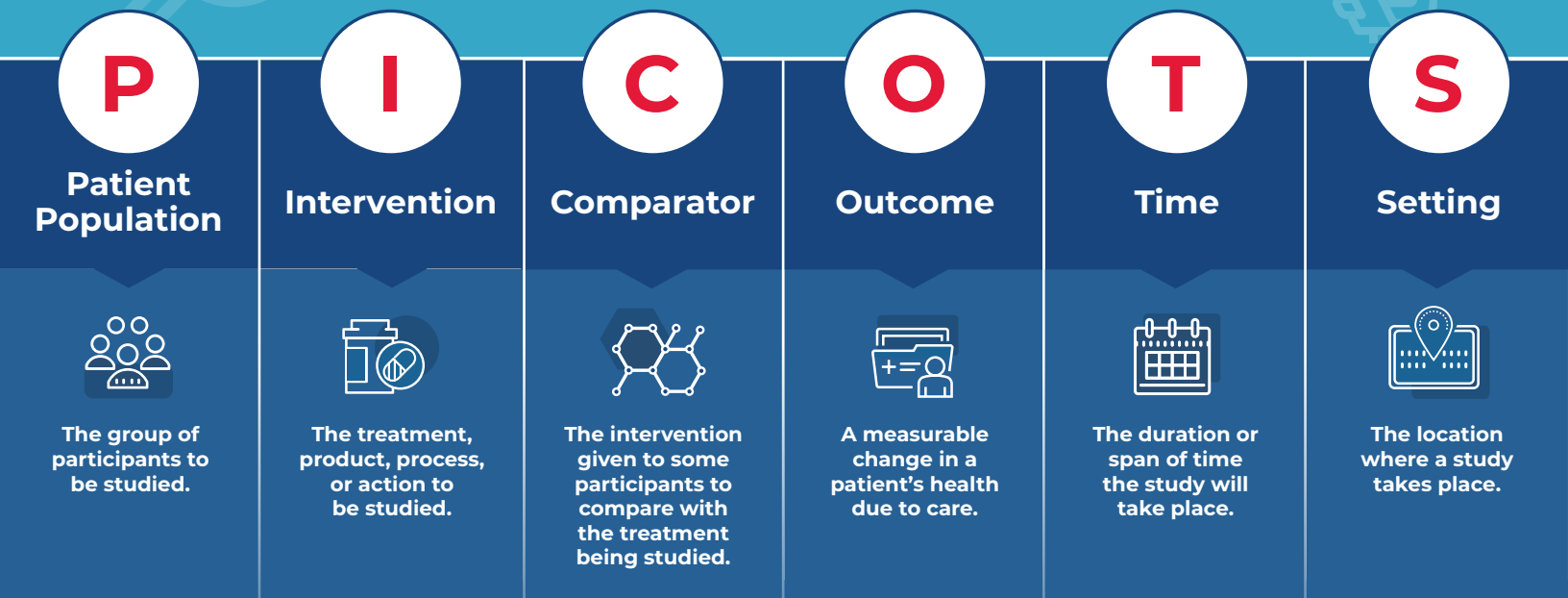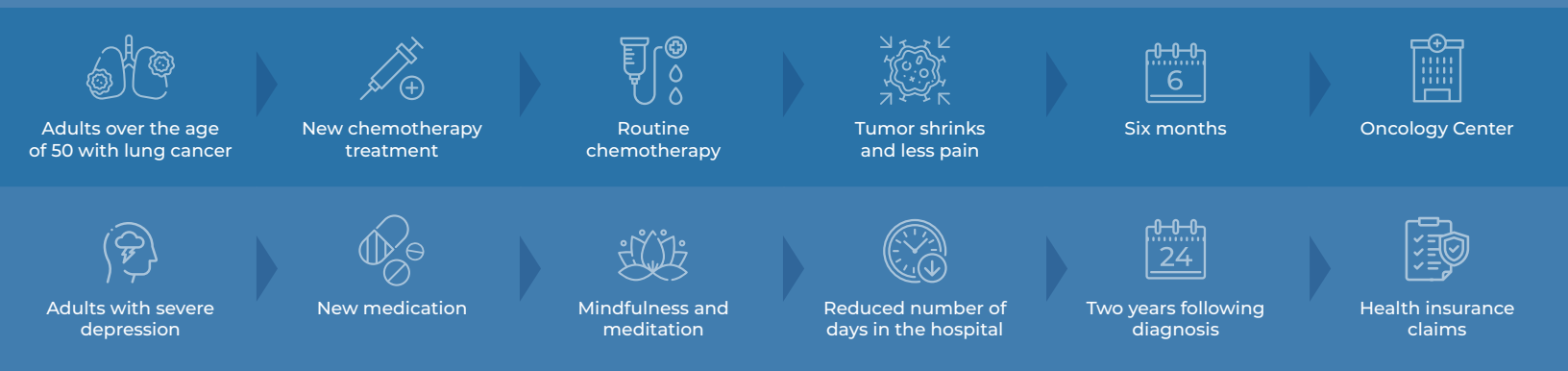
PICOTS is an acronym that stands for the key parts of a research question. It is a tool that helps researchers be certain questions are clearly defined and specific.

P	**I**	**C**	**O**	**T**	**S**
Patient Population	**Intervention**	**Comparator**	**Outcome**	**Time**	**Setting**
The group of participants to be studied.	The treatment, product, process, or action to be studied.	The intervention given to some participants to compare with the treatment being studied.	A measurable change in a patient's health due to care.	The duration or span of time the study will take place.	The location where a study takes place.

EXAMPLES

Adults over the age of 50 with lung cancer	New chemotherapy treatment	Routine chemotherapy	Tumor shrinks and less pain	Six months	Oncology Center
Adults with severe depression	New medication	Mindfulness and meditation	Reduced number of days in the hospital	Two years following diagnosis	Health insurance claims

Sample Questions to Develop a PICOTS Framework

P	**I**	**C**	**O**	**T**	**S**
Patient Population	**Intervention**	**Comparator**	**Outcome**	**Time**	**Setting**
• What is the patient population? • How does it compare to the general population? • How might sociodemographic (age, race, etc.) and clinical characteristics (severity of condition, comorbidities) impact treatment outcomes or preferences?	• What intervention or treatment will you study?	• What active comparator or placebo will you use? • Is it relevant to current medical practice?	• What outcomes will you measure? • Do those outcomes matter to patients? • How do you plan to measure the outcomes?	• How long will participants take the treatment? • What will the follow-up schedule look like?	• Where will the study take place? • Is the study setting relevant to real-world use?