

The Counterfactual Medical Record

Absurd Health Institute · Hypothesis and mechanistic perspective

Central hypothesis

Patients and clinicians naturally ask what would have happened under a different intervention. The counterfactual record proposes organizing longitudinal clinical data to compare plausible alternative trajectories, while making clear that an individual life supplies only one directly observed history.

The biological route

Time-series measurements, known pharmacology, prior events and population-level causal evidence may inform hypothetical comparisons. Modern causal inference emphasizes exchangeability, measurement of confounding, positivity and careful choice of comparison groups. A patient's symptom improvement after stopping one food or medicine can be informative but cannot, by itself, establish what would have happened without the change.

An illustrative scenario

After starting a new diet, a patient feels better. The missing comparison is the same patient's trajectory without the change. Spontaneous recovery, altered sleep, reduced caloric intake and expectation could all matter. A counterfactual record could make these possibilities explicit, but it cannot conjure an unobserved alternate history into evidence. Its value is honest reasoning, not artificial certainty.

Alternative explanations and limits

Regression to the mean, spontaneous recovery, co-interventions, seasonal patterns and expectation can all create persuasive but false causal stories. Highly detailed electronic records do not remove unobserved confounding, and synthetic "alternate lives" may imply unjustified certainty.

What would change the conclusion?

A responsible system should present competing explanations, confidence levels and the assumptions needed for each counterfactual estimate. Its value is tested against externally observed outcomes and expert review. If predictions are unstable across reasonable assumptions, it should state that the cause cannot be identified.

The distinctive prediction

Every counterfactual estimate depends on assumptions about what would otherwise have happened. The most truthful record would show sensitivity to those assumptions and sometimes conclude that the cause remains unknowable.

Clinical interpretation

This is a framework for more transparent reasoning about clinical history, not an automated proof engine or substitute for randomized evidence where that is needed.

Selected scientific reading

Contextual background, not direct validation of the proposed hypothesis.

Pyrkov TV et al. Longitudinal analysis of blood markers reveals progressive loss of resilience and predicts human lifespan limit. Nat Commun. 2021.

<https://www.nature.com/articles/s41467-021-23014-1>

McEwen BS. Stress, adaptation, and disease: Allostasis and allostatic load. Ann N Y Acad Sci. 1998.

<https://pubmed.ncbi.nlm.nih.gov/9629234/>

Editorial note: Original theoretical perspective, not an original clinical study, validated diagnosis, or treatment protocol.