

## The Nocebo Effect

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Learning Objective	Podcast Discussion Summary
Define the Nocebo Effect	The nocebo effect describes the phenomenon where negative expectations or beliefs about a treatment lead to the exacerbation of symptoms or the manifestation of adverse effects. The nocebo effect arises from various factors, including negative suggestions or warnings about potential side effects, past negative experiences with similar treatments, hearing or reading about negative outcomes or side effects, experienced by others, and anxiety or fear associated with the treatment or disease itself.
Appraise Nocebo Effect Research as It Pertains to Biosimilars	Tweehuysen et al. investigated the reasons for the discontinuation of biosimilar infliximab in patients with ankylosing spondylitis who had previously been treated with reference infliximab. They conducted an open-label, non-mandatory transition study, meaning that patients were aware that they would be switching to biosimilar infliximab, but they were not required to do so. A total of 103 patients participated in the study. Of these, 21.4% discontinued biosimilar infliximab within 18 months of switching. The most common reason for discontinuation was subjective complaints, such as fatigue, headache, and muscle pain. Other reasons for discontinuation included the loss of efficacy, adverse events, and patient preference. The authors of the study concluded that subjective complaints possibly explained by the nocebo effect are the most common reason for the discontinuation of biosimilar infliximab in patients with ankylosing spondylitis who have previously been treated with reference infliximab.
Explain Effective Ways to Counter the Nocebo Effect Such as Patient Counseling	In their ACR abstract, Jørgensen et al. explored the significance of communication strategies in avoiding the nocebo effect when patients transition from an originator product to its biosimilar counterpart. The researchers utilized the Parker Model to conduct a 3-step qualitative research study to explore the impact of performing a non-medical switch from reference etanercept to a biosimilar. They concluded that clear communication about the logistics must be provided, and in order to preserve patient engagement and empowerment, patients transitioned to a biosimilar must have ample opportunity to ask relevant questions. Smolen et al. support this idea, stating, "To avoid contributing to the nocebo effect, it is very important that clinicians carefully consider how they communicate with their patients and make an effort to frame communications in a positive context."