

# [The if they presented with comorbidities and](https://assignbuster.com/the-if-they-presented-with-comorbidities-and/)

The first study called, A randomized, double-blind, placebo-controlled trial comparing pethidine to metamizol for treatment ofpost-anaesthetic shivering, was designed to evaluate and compare the effectivenessof pethidine (meperidine) and metamizol in the treatment of post-operativeshivering1. The study included 104 patients with complications ofpost-anesthetic shivering1. All patients were required to undergo pre-operativeevaluation and were only included if they provided written consent. Patientswere excluded if they presented with comorbidities and if they were treatedwith certain medications that would interfere with the results of the study. Thepatients were randomized to receive one treatment of placebo (no drug), meperidine, or metamizol1. The patients’ responses to treatment weremeasured in terms of severity at intervals of 5, 15, 30 and 45 minutes afteradministration1.

Severity of shivering was measured on a scale of0-2, 0 as absent, 1 as shivering present in action, and 2 as shivering presentin action and rest1. Shivering response to treatment was assessed asnull, shivering not changed; improvement, shivering decreased; and disappearance, absence of shivering1. Subjective information was also recorded, suchas the presence of muscle contractions and/or the sensation of feeling cold1. The continuous variables were analyzed with a chi square test and ANOVA, aswell as the Kruskall-Wallis test1. The results concluded that drugtreatment was useful in comparison to placebo. Meperidine appeared to have thehighest efficacy and quickest response to shivering than placebo or metamizol1. The study did not exhibit selection bias whenchoosing patients to receive treatment. Inclusion criteria allowed patients toparticipate that presented with post-operative shivering for at least 5 minutesor longer during the first hour of recovery from anesthesia1.

Internalvalidity was threatened because the study did not specify when the treatment beganafter surgery. The results could have varied if treatment was initiated 1 houror 2 hours after surgery. The study was completed on ethical measures with eachpatient informed of the study and having written consent. The sample sizerequired for the study (n= 90) was appropriately calculated with an alpha of 0. 05and a power of 0. 80; n= 104 was used in the study1.

According to theresults, the differences between the three groups proved to be statistically significant. When compared to placebo, metamizol showed a better response (P= 0. 03), but meperidine showed to bethe most effective (P < 0. 001)1. There was no statistical significance between both drugs (P= 0.

16)1. The results of this study show to exhibitexternal validity and can be extrapolated into real life situations or other studiesinvolving patients undergoing general anesthesia. The second study called, A Comparison of Tramadol, Amitriptyline, andMeperidine for Postepidural Anesthetic Shivering in Parturients, is arandomized, double- blinded, study which was designed to evaluate theeffectiveness of meperidine, tramadol, and amitriptyline in the treatment ofpost-anesthetic (epidural) shivering2. The study involved 115 obstetricfemale patients ranging from ages 18 to 40 years old that were scheduled for a cesareandelivery2. Patients were excluded if they had comorbidities, ahistory of alcohol or substance abuse, or were taking other medications thatwould interfere with the results of the study2.

Shivering wasassessed with a scale of 0-4, 0, no shivering; 1, peripheral vasoconstriction; 2, muscular activity in one group of muscles; 3, muscular activity in manymuscle groups; 4, shivering across the whole body2. Patients with ashivering score of 3 or 4 for at least 3 minutes were included in the study; only 45 patients requested treatment for shivering 2. Each patientreceived one treatment of tramadol, amitriptyline, or meperidine.