

Taxanes for Patients with Alcohol Use Disorder

Is the amount of ethanol in either a PACLitaxel or a DOCEtaxel infusion enough to trigger a recurrence in a patient who is currently abstinent after treatment for alcohol use disorder?

Ethanol is used as the solvent for PACLitaxel and DOCEtaxel for injection. The amount of ethanol contained in an infusion varies depending on the dose of the taxane used.

PACLitaxel for Injection® (Biolyse Pharma) contains 49.7% (v/v) ethanol.¹ For a typical dose of 175 mg/m² IV infused over 3 hours, a person with a BSA of 1.7 m² would receive close to 20 g of ethanol or about 6.5 g per hour. This is the equivalent of about one-half of a typical alcohol containing beverage each hour. (From CMA: one drink contains 13.6 g ethanol). For the weekly PACLitaxel dosing of 80 mg/m² an average sized person would receive about 9 g of ethanol in one hour. There is the potential for patients to experience some CNS impairment from PACLitaxel infusions, especially in the alcohol naïve, when large volumes are required or during shorter infusion times.

There is also the potential to precipitate a relapse in a patient recovering from alcohol use disorder. The risk is low, but present. The decision to use PACLitaxel should be based on clinical judgement of the benefits versus risks and with the full understanding of the patient. If the decision is to use PACLitaxel, the patient requires regular assessment about whether they are triggered, and if so switched to another treatment immediately. If sobriety has been short, the potential for recurrence is higher and again an alternate treatment should be used. If this is not possible, an alcohol use disorder specialist should be consulted.

DOCEtaxel infusions at typical doses contain less ethanol than PACLitaxel infusions. However, a [U.S. Food and Drug Administration \(FDA\) Safety Announcement](#) issued in June, 2014 warned that the patients may experience intoxication or feel intoxicated during and after docetaxel treatment.

As a point of interest, nab-PACLitaxel does not contain ethanol.

Reference:

1. Biolyse Pharma. Paclitaxel for Injection® Product Information. St. Catherines, Ontario; October 2014.

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