

Interactions between Methadone and Rifampicin: a case series

JEKU JACOB¹, GEORGIA FREEMAN¹, MAURIZIO STEFANI², CRAIG RODGERS¹
NADINE EZARD¹

¹*Alcohol and Drug Services, St Vincent's Hospital Sydney*, ²*Department of Infectious Diseases, St Vincents Hospital, Sydney*

Presenter's email: jeku.jacob@svha.org.au

Introduction: Methadone is a long acting opioid that has been used for more than four decades in opioid dependence. It is metabolized by the cytochrome p450 system and so is subject to multiple medication interactions. Rifampicin induces increased methadone clearance, and thereby opioid withdrawal. Methadone dosage increases can be upto 50 %. In these situations, balancing narcosis and withdrawal is challenging for the methadone prescriber. There are currently no formal guidelines for safe methadone dose changes during rifampicin therapy.

Approach: We report three cases of patients who required rifampicin therapy for severe infection (two cases of infective endocarditis, one case of vertebral discitis) along with methadone as opioid agonist therapy. Opioid withdrawal was managed in each case with increase in methadone dose by 5-10mg every 2-3 days along with short acting opioids, until resolution of opioid withdrawal symptoms. On rifampicin cessation, methadone doses were reduced every 1-2 days with down titration beginning either the day prior or the day of rifampicin cessation so as to avoid opioid toxicity.

Key Findings: Methadone doses were increased by 45-60% from baseline during administration of rifampicin and reduced to usual dose at the end of rifampicin therapy. There were no events of major opioid withdrawal or toxicity.

Discussions and Conclusions: Rifampicin causes opioid withdrawal when used with methadone. There is a paucity of guidance around this issue. We suggest that dose increases every 3rd day by 5-10mg is safe and minimises opioid withdrawal symptoms. Similarly, dose reduction by 10mg every 1-2 days on rifampicin cessation safely minimises opioid withdrawal symptoms and toxicity.

Implications for Practice or Policy: This protocol can assist with guideline creation around concomitant methadone and rifampicin use.

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