

Anaesthesia and ARV

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As more and more HIV infected patients gain access to antiretroviral medication, this drug class and its patients have gained particular significance for anaesthetists. This paper offers an overview of antiretrovirals (ARV) with a specific focus on the implications for anaesthetic management.

The four main classes of ARV's are as follows: Nucleoside analogue reverse transcriptase inhibitors – zidovudine, didanosine, stavudine; non-nucleoside reverse transcriptase – nevirapine, delavirdine and efavirenz; protease inhibitors – saquinavir, ritonavir, indinavir; fusion inhibitors – enfuvirtide.

Common group side effects are looked at in depth. The NRTI's lactic acidosis, pancreatitis, peripheral neuropathies and hepatic failure are discussed together with their mechanisms of action and techniques to handle these

complications. The protease inhibitors cause extensive inhibition of the cytochrome P450 system that result in a profound extension of many anaesthetic drug half-lives. In addition the PI have a host of metabolic complications including lipodystrophy, insulin resistance and dyslipidemia, which result in patients at a higher risk for cardiovascular morbidity and mortality.

Anaesthetic management of the patients are discussed and the importance of enforcing universal precautions together with ensuring that ARV dosing schedules are maintained is emphasised. An aspect of great concern which is also touched on is post-exposure prophylaxis and in particular the implications when the patient has been on ARV's and may be carrying a resistant strain of HIV.