ABSTRACT TITLE
Efavirenz-based versus Lopinavir/ritonavir-based Antiretroviral Regimen for the Treatment of Naïve HIV Infected Patients. Experience at the Integrated Treatment Center in Hong Kong.

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BACKGROUND
Efavirenz (EFZ) or lopinavir/ritonavir (LPVr) in combination with two nucleoside analogue reverse transcriptase inhibitors (NRTIs) is a frequently recommended antiretroviral regimen for treatment naïve Human Immunodeficiency Virus (HIV) infected patients. There are few published data comparing the effectiveness of these regimens in a population setting.

METHODS
Data were collected retrospectively from a cohort of treatment naïve patients started on either EFZ or LPVr in combination with 2 NRTIs between January 1, 1999 and April 30, 2006. The primary end point was treatment failure defined as virologic failure, treatment discontinuation, incident AIDS defining illness (ADI), loss to follow up or death. Immunological response, metabolic abnormalities and adherence were secondary endpoints. Analysis was based on intent-to-treat. SPSS 11.0 was used for statistical analysis.

RESULTS
A total of 103 patients started EFZ + 2 NRTIs and 125 patients started LPVr + 2 NRTIs during the studied period. Median follow was 22.9 months in the EFZ group versus 11.4 months in the LPVr group ($p<0.05$). Baseline demographics were comparable, except the LPVr group had a smaller female proportion (13% vs. 25% $p<0.05$), lower baseline CD4 cell counts (median 82 cells/mm^3 vs. 161 cells/mm^3 $p<0.05$), higher viral loads (median 5.41 log_{10} vs. 4.95 log_{10} $p<0.05$) and more patients with previous ADI (47 vs. 21 $p<0.05$). 31/103 patients experienced treatment failure in the EFZ group vs. 28/125 in the LPVr group ($p=0.18$). Time to treatment failure (Kaplan-Meier analysis) was similar in both groups ($p=0.71$). No differences were found concerning reasons leading to treatment failure. The absolute increase of CD4 cell counts did not differ within the first year of treatment (EFZ 141 cells/mm^3 vs. LPVr 145 cells/mm^3 $p=0.6$) However, in the second year LPVr treated patients had a higher CD4 cell counts increase (EFZ 46 cells/mm^3 vs. LPVr 76 cells/mm^3 $p<0.05$). Diabetes was newly diagnosed in 2 patients on EFZ vs. 5 on LPVr ($p=0.46$). Hypertriglyceridemia was more frequently observed with LPVr (EFZ 28/103 vs. LPVr 56/125 $p<0.001$). Conversely, the frequency of hypercholesterolemia was similar in both groups. Self- reported adherence did not differ between groups ($p>0.3$).

CONCLUSIONS
EFZ or LPVr in combination with two NRTIs is effective in a population setting. Overall failure and time to treatment failure were similar in both groups. LPVr was associated with a more sustained immunological response. Hypertriglyceridemia was more common with LPVr.