which virologically suppressed (HIV-1 RNA <50 copies mL^{-1} for ≥ 3 months) HIV-1-infected patients with no previous documented VF switched to EFV/FTC/TDF STR. Patients ($N=212$) were previously on a stable regimen of EFV + TDF + either FTC or 3TC; 47% of patients were on their first ARV regimen. The primary endpoint of the study was adherence as measured by the visual analog scale (VAS). The results showed that switching to an STR improved adherence significantly at 1 month (93.8% at baseline to 96.1% at month 1; $p<0.01$) and adherence was maintained throughout the study (96.2% at 6 months).[22]

14.2.2 Retrospective and Observational Studies

ART consisting of a single pill per day (STR) was associated with increased adherence to therapy in a large retrospective analysis of the LifeLink database of managed care enrollees in the USA who received treatment for HIV or AIDS ($N=7073$). All patients were on a complete ARV regimen (two NRTIs + a third agent) for ≥ 3 months. Data were reported for three cohorts: STR cohort ($n=2365$), two pills per day cohort ($n=411$) and three or more pills per day cohort ($n=4297$). Adherence was assessed using the medication possession ratio (MPR), which was calculated as the number of prescription days supplied for all regimen components divided by the number of days from the first observed prescription in the regimen through the earliest of either the exhaustion of the days supplied of the last observed prescription or the end of follow-up. Patients on the STR consistently achieved higher adherence levels than patients on two or three or more pills per day regimens. Patients receiving a single pill per day had significantly better adherence than patients receiving multiple pills per day. Approximately 47% of patients receiving a single pill per day achieved $\geq 95\%$ adherence, compared with 41% of patients receiving two pills per day and 34% of patients receiving three or more pills per day ($p=0.019$ for single pill *versus* two pills; $p<0.001$ for single pill *versus* three or more pills; Figure 14.2). The mean (standard deviation) MPR was 0.92 (0.09) among patients receiving a single pill per day, 0.90 (0.10) among patients receiving two pills per day and 0.90 (0.09) among patients receiving three or more pills per day ($p<0.01$ for single pill *versus* two pills and for single pill *versus* three or more pills) Multivariate logistic regression models showed that receiving a single pill per day was associated with a 59% greater likelihood of achieving a 95% adherence threshold, compared with receiving three or more pills per day [odds ratio (OR) 1.587; 95% confidence interval (CI) 1.415–1.780; $p<0.001$].[17]

Adherence was higher with EFV/FTC/TDF STR compared with non-one pill once daily ARV regimens in the REACH cohort. This prospective, observational, 6-month study assessed adherence and virologic response among a cohort of homeless and marginally housed individuals ($N=118$) compared with historical controls in the same cohort. ARV regimens included EFV/FTC/TDF STR ($n=47$), two NRTIs + RTV-boosted PI (PI/r; $n=57$) or two NRTIs + NNRTI ($n=14$). The primary endpoint was adherence by