compared with baseline ($p = 0.006$). The proportion of patients reporting that their HAART regimen was 'very easy to take' on the PERC scale increased from 70.2% at baseline to 91.8% at week 48 after switching to EFV/FTC/TDF ($p < 0.0001$). At week 48, 68.4% of patients stated that EFV/FTC/TDF was 'much better' than their previous regimen according to the POM questionnaire.[46]

14.7 Healthcare Resource Utilization

The management of HIV disease involves the use of numerous healthcare services not only for long-term ART for HIV infection, but also to treat AIDS-associated symptoms and opportunistic infections and other HIV-related comorbidities. Effective ARV treatment has modified the clinical course of HIV infection by reducing disease progression, the incidence of AIDS-related complications and mortality, thereby lowering the burden of HIV disease on the healthcare system. Owing to this reduction in healthcare resource utilization, effective ART represents a cost-effective healthcare strategy.[7] STRs are of particular importance in this strategy since they have been associated with greater adherence and therefore better health outcomes. More complex regimens consisting of multiple ART components raise adherence concerns due to the risk of selective non-compliance of some of the separately administered drugs and therefore a potentially increased risk of treatment failure and worse health outcomes. In addition, ART regimens with multiple separate components may increase out-of-pocket costs for patients due to an increased number of co-payments for each prescription.[14] Pharmacoeconomic considerations such as drug cost and cost-effectiveness have implications not only for individual patients but also for healthcare policy, guidelines and global implementation of ART, especially in the context of limited healthcare resources.[8,47] Several studies have specifically investigated the association between regimen complexity and healthcare resource utilization as well as economic burden and demonstrated that STRs have significant advantages over multiple-pill regimens for each of these components.

ART consisting of a single pill per day (STR) was associated with a lower risk of hospitalization in a retrospective analysis of the LifeLink database. Hospitalizations were identified from the claims database using service codes. In a logistic regression analysis controlling for the number of pills per day and clinical and demographic characteristics, the adjusted rate of hospitalization was found to be significantly lower for patients receiving a one pill per day regimen compared with patients receiving a three or more pills per day regimen, as shown in Figure 14.10 (7.7% *versus* 9.9%; $p = 0.003$). Furthermore, there was a 24% lower risk of hospitalization among patients receiving a one pill per day regimen compared with patients receiving a three or more pills per day regimen (OR 0.764; 95% CI 0.638–0.915). Patients who achieved a 95% adherence threshold had a significantly lower rate of hospitalization, regardless of pill burden, than patients who did not achieve 95% adherence. Specifically, among patients receiving one pill per day, 6.6% of patients who achieved a