This review discusses the evidence in support of the newly approved Genvoya® (elvitegravir 150 mg/cobicistat 150 mg/emtricitabine 200 mg/tenofovir alafenamide 10 mg or E/C/F/TAF), a once-daily single-tablet regimen for the treatment of HIV-1 infection.

Clinical trial data suggest that Genvoya® has an antiviral effect that is similar to that seen with the already approved combination tablet for HIV therapy, Stribild®, which contains elvitegravir, cobicistat, emtricitabine, and tenofovir disoproxil fumarate (E/C/F/TDF 300 mg).1-8 When used in patients either naïve to therapy, or who switch from a TDF-containing therapy when virologically suppressed, Genvoya® appears to have a smaller effect on bone mineral density (BMD) and less renal toxicity compared to Stribild® therapy.1-8 Another advantage of Genvoya® has been observed in treatment-experienced patients on complex multi-tablet regimens. In a trial of such patients, switching to a simplified regimen of Genvoya® plus darunavir appears to maintain viral suppression and to be a well-tolerated therapeutic option, even in those with multiclass resistance.4

In Australia, Genvoya® is approved for the treatment of HIV-1 infection in adults and adolescent patients aged ≥12 years and weighing ≥35 kg who are either treatment-naïve, or virologically suppressed (HIV-1 RNA <50 copies/mL) on a stable antiretroviral regimen at start of therapy in order to replace their current antiretroviral treatment regimen.1 Genvoya® was registered for this indication by the Therapeutic Goods Administration on 15 January 2016® and the product was listed on the Pharmaceutical Benefits Scheme (PBS) on 1 April 2016.®

Genvoya® represents an important new treatment option for patients with HIV-1 infection who are either new to therapy or who choose to switch treatments. The publication of this review was made possible by an educational grant from Gilead Sciences Pty Ltd., Australia.

Increasing numbers of people living with HIV infection

As at the end of 2014, the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimated that 36.9 million people (~1% of the global adult population aged 15–49 years) were living with HIV infection.9 While the number of new HIV infections has fallen by 35% since 2000, the overall number of people living with HIV infection has increased.8

In Australia during 2014, an estimated 27,150 people were living with HIV infection (approximately 0.15% prevalence among adults aged >15 years).4 The annual number of newly diagnosed HIV infection has gradually increased by 13% between 2005 and 2015, from 953 diagnoses in 2005 to 1,064 in 2012 and stabilising since then with 1,081 cases of newly diagnosed HIV infection in Australia in 2014.8 Over the last 10 years, there has been a large increase in both the number of people living with HIV and the proportion on antiretroviral therapy (ART); 23,800 people were living with diagnosed HIV in 2014 and required HIV care – representing an increase of 52% from the estimated 15,700 living with HIV in 2005.9

Lifesaving medications

With timely diagnosis, widening access to highly effective combination ART and good lifelong adherence, the life expectancy of a person living with HIV has increased dramatically and continues to improve.10 Nevertheless, despite the fact that their disease is well-controlled, patients with HIV infection age rapidly and die early; mortality rates among people with HIV infection are as much as 15-fold higher compared with those in the general population.11,12 Comprehensive follow-up data from an Italian cohort of HIV-infected patients identified the early occurrence of several common age-related comorbidities, including cardiovascular events, fractures, diabetes, renal failure, and hypertension.12 At a given age, HIV-infected patients were more likely to have comorbidities than control subjects from the general population matched by age, sex, and ethnicity.12 Other age-related comorbidities that have been found to be more prevalent in adult HIV-infected patients compared with persons in the general population include neurocognitive disorders, non-AIDS-defining cancers, sarcopenia, and frailty.12 Moreover, there was not only evidence of polypathology (the simultaneous presence of ≥2 comorbidities among cardiovascular diseases, hypertension, diabetes, bone fractures, and renal failure) in the Italian cohort of HIV-infected patients, but also, polypathology occurred at similar rates in the HIV-infected patients aged 40 years and in control subjects aged 55 years, revealing a 15-year-earlier ageing.12 The analyses of this cohort also revealed ART to be an independent risk factor for polypathology.12 Specifically, thymidine-nucleoside reverse-transcriptase inhibitors are associated with mitochondrial dysfunction and cell senescence, and some ritonavir-boosted protease inhibitors (PIs) induce prelamin A accumulation, oxidative stress, inflammation, and cell senescence in vitro – all of these alterations are linked to the ageing process.13

Thus, the advent of ART has meant that physicians need to be able to diagnose and effectively manage the comorbid conditions in HIV-infected patients.
New WHO guidelines on starting ART and use of PrEP

In 2015, the World Health Organization (WHO) issued guidelines detailing two important changes to current treatment recommendations. First, ART is now recommended for all people living with HIV at any CD4 cell count. The previous WHO recommendation included the option to monitor people with CD4 cell counts greater than 500 cells/mm³. The latest iteration of WHO guidelines is supported by recent clinical trial findings and observational studies confirming that early use of ART improves clinical outcomes for people living with HIV compared with delaying treatment. The second change is the use of daily oral pre-exposure prophylaxis (PrEP) is now recommended as preventive therapy as part of combination prevention approaches for people at “substantial” risk of HIV infection, in order to reduce their risk of infection. This new recommendation is supported by clinical trial evidence demonstrating the efficacy of the nucleoside analogue HIV-1 reverse transcriptase inhibitor tenofovir disoproxil fumarate (TDF), alone or in combination with emtricitabine (FTC), for use as PrEP to prevent HIV acquisition in a wide variety of settings and populations. Now that patients will begin treatment earlier and continue on ART indefinitely, how specific antiretroviral agents contribute to long-term morbidity and mortality is increasingly important. When choosing between ART regimens of comparable efficacy, factors that significantly affect long-term adherence include pill burden, dose frequency, safety, and tolerability. Once-daily, single-tablet regimens in HIV therapy simplify dosing frequency and reduce pill burden, factors that have been associated with a higher quality of life, which potentially help patients to maximise adherence and to control their HIV for many years of treatment.

In November 2015, the US Department of Health and Human Services’ Panel on Antiretroviral Guidelines for Adults and Adolescents issued a statement regarding the inclusion of E/C/F/TAF as a Recommended Initial Regimen for treatment-naïve patients with estimated creatinine clearance >30 mL/min. TDF was already recommended by the Panel as a preferred component of the nucleoside reverse transcriptase inhibitor (NRTI) backbone for HIV-1-positive treatment-naïve patients. Although clinical evidence indicates that TDF has a low overall toxicity profile and only a modest effect on estimated glomerular filtration rate (eGFR), TDF has been associated with kidney toxicity in HIV-infected patients. requires dose adjustment in patients whose creatinine clearance falls below 50 mL/min, and has been shown to result in greater loss of BMD as compared with some other NRTIs (e.g. abacavir-lamivudine). The following section describes important pharmacological differences between TDF and TAF, which have major implications for the antiviral efficacy and safety profiles of each drug.

Pharmacological properties of Genvoya®

Genvoya® is a fixed-dose combination of an HIV-1 integrase strand transfer inhibitor (INSTI), elvitegravir (boosted by the CYP3A inhibitor cobicistat), and tenofovir alafenamide (TAF). TAF is more efficient than TDF in loading tenofovir into peripheral blood mononuclear cells, including lymphocytes and macrophages. The phosphorylation of TAF into the pharmacologically active metabolite tenofovir diphosphate, primarily in lymphoid cells, helps minimise systemic exposure and off-target effects when compared to TDF. Importantly, plasma tenofovir levels were 91% lower in clinical trial participants treated with Genvoya® than in those treated with E/C/TDF. This lower plasma tenofovir conversion means that TAF has a lower potential than TDF for adverse kidney and bone effects.

Genvoya® has less impact on renal safety markers: significant decreases from baseline were observed at week 48 in both general proteinuria and proximal tubular proteinuria amongst patients who switched to Genvoya® from an emtricitabine (FTC)/TDF-based regimen compared to those who continued on an FTC/TDF-based regimen. Significant improvements in eGFR were observed at 48 weeks of treatment amongst patients who switched to Genvoya® from an FTC/TDF-based regimen compared to those who continued on an FTC/TDF-based regimen, after excluding patients on the unboosted regimen of efavirenz, emtricitabine and TDF pre-randomisation. Median change in eGFR from baseline at week 48: 1.2 mL/min for Genvoya® vs –3.7 mL/min for the TDF-based regimen. 0 cases of proximal renal tubulopathy in registration studies. Genvoya® improves bone mineral density: switching to Genvoya® significantly increased spine and hip BMD after 48 weeks vs values in patients who continued on an FTC/TDF-based regimen. Mean percent change in BMD at spine and hip from baseline to week 48: spine: 1.6 for Genvoya® vs –0.4 for the FTC/TDF-based regimen; hip: 1.5 for Genvoya® vs –0.3 for the FTC/TDF-based regimen.

Key clinical efficacy data for Genvoya®

- 97% efficacy (defined as proportion of patients with HIV-1 RNA <50 copies/mL) at week 48 in patients switching to Genvoya® from a prior TDF-based regimen compared to 93% in those remaining on the previous regimen.
- Plasma tenofovir levels were 91% lower in clinical trial participants who received Genvoya® than in those who received E/C/TDF.
- 0 cases of proximal renal tubulopathy in registration studies.
- Genvoya® is the only single-tablet regimen indicated for patients with estimated creatinine clearance ≥30 mL/min.

Genvoya® is contraindicated in patients with known hypersensitivity to any of the active substances or any other component of the tablets. Co-administration with the drugs listed in Table 1 is contraindicated due to the potential for serious and/or life-threatening events or loss of virological response and possible resistance to Genvoya®.

Table 1. Drugs that are contraindicated with Genvoya®

<table>
<thead>
<tr>
<th>Drug class</th>
<th>Drugs within class that are contraindicated with Genvoya</th>
<th>Clinical comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha 1-adrenergic antagonists</td>
<td>alfuzosin</td>
<td>Potential for increased alfuzosin concentrations, which can result in hypotension</td>
</tr>
<tr>
<td>Anticonvulsants</td>
<td>carbamazepine, phenytoin</td>
<td>Carbamazepine, phenytoin, and phenobarbital are potent inducers of CYP450 metabolisms and may cause significant decrease in the plasma concentration of elvitegravir, cobicistat, and TAF. This may result in loss of therapeutic effect to Genvoya®</td>
</tr>
<tr>
<td>Antimycobacterials</td>
<td>rifampin</td>
<td>Rifampin is a potent inducer of CYP450 metabolism and may cause significant decrease in the plasma concentration of elvitegravir, cobicistat, and TAF. This may result in loss of therapeutic effect to Genvoya®</td>
</tr>
<tr>
<td>Ergot derivatives</td>
<td>dihydrotachysteril, ergonovine, ergotamine, methylergonovine</td>
<td>Potential for serious and/or life-threatening events such as acute ergot toxicity characterised by peripheral vasospasm and ischaemia of the extremities and other tissues.</td>
</tr>
<tr>
<td>Gastrointestinal motility agents</td>
<td>cisapride</td>
<td>Potential for serious and/or life-threatening events such as cardiac arrhythmias.</td>
</tr>
<tr>
<td>Herbal products</td>
<td>St. John’s wort (Hypericum perforatum)</td>
<td>Co-administration of products containing St. John’s wort and Genvoya® may result in reduced plasma concentrations of elvitegravir, cobicistat, and TAF. This may result in loss of therapeutic effect and development of resistance.</td>
</tr>
<tr>
<td>HMG CoA reduction inhibitors</td>
<td>lovastatin, simvastatin</td>
<td>Potential for serious reactions such as myopathy, including rhabdomyolysis.</td>
</tr>
<tr>
<td>Neurontics</td>
<td>phenytoin</td>
<td>Potential for serious and/or life-threatening events such as cardiac arrhythmias.</td>
</tr>
<tr>
<td>PDE-5 inhibitors</td>
<td>sildenafil (when used in the treatment of pulmonary arterial hypertension)</td>
<td>There is increased potential for sildenafil–associated adverse events (including visual disturbances, hypotension, priapism, and syncope).</td>
</tr>
<tr>
<td>Sedative/hypnotics</td>
<td>tranazad, oral midazolam</td>
<td>Tramadol and orally administered midazolam are extensively metabolized by CYP3A4. Co-administration of tramadol and orally administered midazolam with Genvoya® may cause large increases in the concentration of these benzodiazepines. The potential exists for serious and/or life-threatening events such as prolonged or increased sedation or respiratory depression.</td>
</tr>
</tbody>
</table>
Experience from clinical studies in adolescent patients

A single-arm, open-label 48-week study that enrolled 50 HIV-infected treatment-naïve adolescents (aged 12–18 years) has reported pharmacokinetics (PK) data, safety and tolerability outcomes, and antiviral activity for the E/C/F/TAF single-tablet regimen after 24 weeks. In this study, TAF and tenofovir exposures in adolescents were consistent with those in adults. The E/C/F/TAF regimen was well tolerated throughout 24 weeks of treatment, with mild gastrointestinal and CNS AEs, and no discontinuations due to AEs. A slight increase was observed in serum creatinine and there were decreases in renal inflammation. Positive median changes in BMD were observed at week 24 and there was minimal change in height-adjusted Z-scores. E/C/F/TAF had high antiviral activity, with all study participants achieving suppression to <50 copies/mL at week 24; there were no cases of emergent resistance. Outcomes have been reported for 50 treatment-naïve adolescents (aged 12 to <18 years) who received E/C/F/TAF in Study 106, a 48-week open-label trial. At 24 weeks, 90% of study participants achieved HIV-1 RNA <50 copies/mL; most failures were associated with decreased adherence, and there were no cases of emergent resistance. There were no deaths or AEs leading to treatment discontinuation. Most AEs were mild or moderate in intensity and were not related to study treatment. There were no cases of proximal renal tubulopathy or Fanconi syndrome. Only one treatment-related serious AE was reported (intermediate uveitis, visual disorder), which resolved without E/C/F/TAF interruption. At week 24, median creatinine concentration had increased by +0.08 mg/dL, median eGFR was decreased by −15.0 mL/min/1.73 m², and there was a slight decrease in serum Cystatin C (consistent with the known effect of cobicistat in adults). E/C/F/TAF decreased renal biomarkers, similar to that observed in adult patients treated with E/C/F/TAF in Phase 3 studies. Spine BMD was increased by a median +1.3% at week 24.

Tenofovir alafenamide versus tenofovir disoproxil fumarate, coformulated with elvitegravir, cobicistat, and emtricitabine, for initial treatment of HIV-1 infection: two randomised, double-blind, phase 3, non-inferiority trials

Summary: These two Phase 3 clinical trials (Studies 104 and 111) showed that TAF is as effective as TDF for previously untreated HIV-1 infection. Furthermore, the clinical data suggest that E/C/F/TAF is associated with favourable long-term renal and bone safety profiles.

Methods: In both studies, treatment-naïve patients with near-normal kidney function (estimated creatinine clearance ≥50 mL) were administered the once-daily E/C/F/TAF regimen or E/C/F/TDF. The main outcomes were the proportion of patients with plasma HIV-1 RNA <50 copies/mL at week 48 as defined by the US FDA snapshot algorithm (pre-specified non-inferiority margin of 12%) and pre-specified renal and bone endpoints. Results: E/C/F/TAF was non-inferior to E/C/F/TDF, with 92% of the TAF cohort and 99% of the TDF cohort achieving plasma HIV-1 RNA <50 copies/mL (adjusted difference 2.0%; 95% CI: −0.7 to 4.7). Both treatment regimens were generally safe and well tolerated, but TAF had less detrimental effects on the kidneys and bones than TDF. E/C/F/TAF was associated with significantly smaller mean serum creatinine increases than E/C/F/TDF (0.08 vs 0.12 mg/dL; p<0.0001), significantly less proteinuria (median % change −3 vs 20; p<0.0001), and a significantly smaller decrease in BMD at spine (mean % change −1.30 vs −2.86; p<0.0001) and hip (−0.66 vs −2.95; p<0.0001) at 48 weeks.

Expert commentary: These two Phase 3 trials conducted in treatment-naïve individuals, first presented at CROI in 2015, established that the efficacy of E/C/F/TAF is non-inferior to that of E/C/F/TDF. In addition, the effects on kidneys and bone were shown to be substantially less. Given the ageing of our HIV patient cohort and the ongoing concerns about a variety of potentially serious comorbidities, having a safer single tablet regimen gives clinicians more choice. It is easy to imagine that a gradual swap to E/C/F/TAF will occur in those currently on E/C/F/TDF as patients come in to renew their prescriptions. Particularly in those patients who are older and/or at risk of bone and kidney damage, the choice now seems to be clear.
Switching from tenofovir disoproxil fumarate to tenofovir alafenamide in antiretroviral regimens for virologically suppressed adults with HIV-1 infection: a randomised, active-controlled, multicentre, open-label, phase 3, non-inferiority study

Summary: In this study, switching to a TAF-containing regimen from one containing TDF was non-inferior for maintenance of viral suppression, and was well tolerated with significant improvements in bone and renal safety.

Methods: This Phase 3 trial (Study 109) enrolled 1443 patients who were virologically suppressed (HIV-1 RNA <50 copies/mL) with an estimated glomerular filtration rate of ≥50 mL/min, and were taking 1 of 4 TDF-containing regimens (Genvoya®, Atripla®; cobicistat-boosted atazanavir plus Truvada®; or ritonavir-boosted atazanavir plus Truvada®) for at least 96 weeks before enrolment. Patients were randomly assigned to receive a once-a-day single-tablet containing elvitegravir 150 mg, cobicistat 150 mg, emtricitabine 200 mg, and TAF 10 mg (TAF group; n=959) or to continue with their previous TDF-containing regimen (TDF group; n=444) for 96 weeks. The primary endpoint was the proportion of patients who received ≥1 dose of study drug who had undetectable viral load (HIV-1 RNA <50 copies/mL) at week 48. The non-inferiority margin was 12%.

Results: At week 48, viral suppression was achieved by 97% of the TAF group and by 93% of the TDF group (p=0.002); the between-group difference (adjusted by previous treatment regimen) was 4.1% (95% CI 1.6 to 6.7). The mean increase from baseline in CD4+ cell count at week 48 was 35 cells/mm³ in the TAF cohort and 24 cells/mm³ in the TDF cohort. Virological failures were similar between groups (10 in the TAF cohort and 6 in the TDF cohort). The number of AEs was similar between the two groups, but study drug-related AEs were more common with the TAF regimen (204 patients [21%]) than with the TDF regimen (76 patients [16%]). Hip and spine BMD and glomerular filtration were each significantly improved in patients in the TAF group compared with those in the TDF group.

Expert commentary: Studies 104 and 111 were conducted in those who were treatment-naïve. Study 109, however, was conducted in those already virologically suppressed on a TDF-containing regimen. 48 weeks after switching, non-inferiority of the TAF group compared with the TDF group was confirmed. Once again, an improvement in hip and spine bone mineral density and glomerular filtration were observed. Commencing E/C/F/TAF in naïve patients is safe and effective, and switching from a TDF-containing regimen to E/C/F/TAF is also safe and effective.

Switching to tenofovir alafenamide, coformulated with elvitegravir, cobicistat, and emtricitabine, in HIV-infected patients with renal impairment: 48 week results from a single-arm, multi-center, open-label, Phase 3 study

Summary: Switching from ART regimens to the once-daily TAF-containing regimen was associated with minimal change in eGFR and with significant improvements in proteinuria, albuminuria and BMD values, in HIV-1-infected patients with mild or moderate renal impairment.

Methods: Study 112 was an open-label clinical trial that evaluated the efficacy and safety of Genvoya® once daily in 248 patients with HIV-1 infection and renal impairment (eGFR 30–69 mL/min by the Cockcroft-Gault method). Six patients were treatment-naïve and 242 were virologically suppressed (HIV-1 RNA <50 copies/mL) for >6 months before switching to Genvoya®. The mean age was 58 years, including 63 subjects (26%) who were aged ≥65 years. Seventy-nine percent were male, 63% were White, 18% were Black, and 14% were Asian. Thirteen percent of subjects identified as Hispanic/Latino. The primary endpoint was the change from baseline at week 24 in eGFRCG, eGFRCKD-Epi-CysC, based on Cystatin C, and eGFR based on serum creatinine.

Results: Throughout 48 weeks of treatment, no clinically appreciable change from baseline was observed in estimated or actual creatinine clearance, with direction and magnitude varying by filtration marker and equation. Results were similar for patients whether baseline eGFR was <50 mL/min or ≥50 mL/min, or whether they switched from a TDF-based regimen. Significant improvements were observed in total proteinuria, albuminuria, and tubular proteinuria (p<0.001 for all); Hip and spine BMD significantly increased from baseline to week 48 (mean percent change +1.47 and +2.29, respectively; p<0.05). At week 48, 222 patients (92%) maintained HIV-1 RNA <50 copies/mL. E/C/F/TAF was well tolerated; the majority of AEs were mild or moderate in severity. AEs leading to study drug discontinuation occurred in 3% of patients (n=8). Two patients (0.8%) discontinued study drug for decreased GFR by eGFRCKD-Epi, and eGFR based on serum creatinine. One patient (baseline eGFR 49 mL/min) who had uncontrolled hypertension, an episode of vomiting and dehydration, was receiving concomitant ramipril and valsartan, and discontinued study drug after 3 months of therapy, was assessed by the investigator to have worsening renal insufficiency possibly related to the study drug. This patient had significant improvement in the urine protein:creatinine ratio (from 1609 to 178 mg/g) and no glycosuria. Another patient (baseline eGFR 36 mL/min) was considered to have progression of hypertension-related chronic kidney disease unrelated to the study drug. Neither patient, nor any other study participant, had laboratory evidence of proximal renal tubulopathy or Fanconi syndrome. Six fractures were recorded; all were related to mechanical trauma and considered by the investigator to be unrelated to the study drugs. AEs, grade and frequencies were similar in patients with baseline eGFR <50 vs ≥50 mL/min.

Expert commentary: Another switch study but this time in 248 patients with renal impairment. This group of patients is increasing in many clinics as age, comorbidities, and drug-related toxicities take their toll. Throughout 48 weeks of treatment with E/C/F/TAF there was no overall worsening of creatinine clearance, though proteinuria, albuminuria, and tubular proteinuria all improved, as did bone mineral density. Two participants, however, did stop study drug because of a decreased eGFR, and another ceased drug because of worsening renal function, possibly due to study drug. Given the impaired renal function at baseline it remains important to continue monitoring renal function in this group of patients after a switch to E/C/F/TAF.

Strategic simplification: the efficacy and safety of switching to elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide (E/C/F/TAF) plus darunavir (DRV) in treatment-experienced HIV-1 infected adults

Summary: Treatment-experienced patients on complex multi-tablet regimens who switched to E/C/F/TAF plus darunavir (2 pills once daily) maintained viral suppression through 24 weeks of treatment, and the switch to TAF was associated with significant improvement in proximal tubular proteinuria.

Methods: This study enrolled 135 adults with HIV, ~75% were men and the median age was 49 years. All had viral suppression for ≥4 months on the regimen containing the PI darunavir. They had been on ≥2 prior failed regimens and had resistance to ≥2 ART drug classes. They were taking a median of 5 pills; about 40% took ≥6 pills and 65% were on twice-daily regimens. Study participants were randomly assigned to either stay on their baseline regimen or switch to a simpler 2-pill once-daily regimen consisting of E/C/F/TAF plus darunavir.

Results: At week 48, 96.6% of patients who switched to the TAF-containing regimen plus darunavir had undetectable viral load (<50 copies/mL) as compared with 91.3% of those who stayed on their old regimen. In the E/C/F/TAF + darunavir arm, 2 patients had viraemia at week 24 but were suppressed at weeks 36 and 48. There was no emergence of resistance.

There were no between-group differences in the median change in eGFR (2.5 in the E/C/F/TAF + darunavir vs. −0.1 mL/min in the baseline regimen arm; p=0.62) or urine protein:creatinine ratio (~14% in the E/C/F/TAF + darunavir arm vs. −4% in the baseline regimen arm (p=0.21). E/C/F/TAF + darunavir improved specific markers of proximal tubular proteinuria: median urine beta-2MCr decreased 35% (p<0.001) and median urine RBP/Cr decreased 17% (p=0.019), whereas there were increases of 11% and 13%, respectively, in the baseline regimen arm. No drug-related serious AEs occurred and there were no AEs leading to treatment discontinuation.
Expert commentary: The drive to simplify regimens and reduce pill burden continues. This interesting study enrolled 135 adult patients with virologically suppressed HIV and on a regimen containing darunavir. The median number of antiretroviral pills was 5. 96.6% of those participants who were randomly assigned to switch to the 2-pill-a-day regimen of E/C/F/TAF plus darunavir were undetectable at week 48, with no emergence of resistance. There were no adverse events leading to drug discontinuation, either. It is helpful to clinicians to have another option available now to simplify treatment for treatment-experienced patients taking several pills daily.

Concluding remarks and take-home messages (Dr Darren Russell)

The studies presented on pages 3 & 4 show the ability to use E/C/F/TAF safely and effectively in a variety of contexts: in the treatment-naïve, switching in the treatment-experienced, in those with renal impairment; and in order to simplify regimens and reduce pill burden in the treatment-experienced. The introduction of a new treatment option always brings the possibility of improving the lives of our patients, in greater or lesser ways. Continuation of the dialogue with our patients to optimise their antiretroviral treatment regimens remains a core part of the physician’s role, and the need to take into account various comorbidities, including those affecting kidneys and bone, will only increase as our patients age.

References