



EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Stocrin

Procedural steps taken and scientific information after the authorisation

Application number	Scope	Opinion / Notification ¹ issued on	Commission Decision Issued ² / amended on	Product Information affected ³	Summary
II/0130	Submission of an updated RMP version 9.1 in accordance with the new template and thereby to remove safety concerns. C.I.11.b - Introduction of, or change(s) to, the obligations and conditions of a marketing	14/04/2023	n/a		

¹ Notifications are issued for type I variations and Article 61(3) notifications (unless part of a group including a type II variation or extension application or a worksharing application). Opinions are issued for all other procedures.

² A Commission decision (CD) is issued for procedures that affect the terms of the marketing authorisation (e.g. summary of product characteristics, annex II, labelling, package leaflet). The CD is issued within two months of the opinion for variations falling under the scope of Article 23.1a(a) of Regulation (EU) No. 712/2012, or within one year for other procedures.

³ SmPC (Summary of Product Characteristics), Annex II, Labelling, PL (Package Leaflet).



	authorisation, including the RMP - Implementation of change(s) which require to be further substantiated by new additional data to be submitted by the MAH where significant assessment is required				
IB/0131	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	20/02/2023		SmPC and PL	
PSUSA/1200/202204	Periodic Safety Update EU Single assessment - efavirenz	01/12/2022	n/a		PRAC Recommendation - maintenance
IAIN/0129	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	04/10/2022	09/11/2022	SmPC and PL	To update sections 4.4 and 4.6 of the SmPC and section 2 of the PL to implement the recommendation of the CHMP to remove the disease information relating to sexual transmission of HIV and to amend the sections related to breast-feeding.
IB/0127	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	07/10/2021	09/11/2022	SmPC and PL	
IA/0126	A.5.b - Administrative change - Change in the name and/or address of a manufacturer/importer of the finished product, including quality control sites (excluding manufacturer for batch release)	11/02/2021	n/a		
N/0125	Minor change in labelling or package leaflet not connected with the SPC (Art. 61.3 Notification)	19/01/2021	09/11/2022	Labelling	
IB/0124	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	13/10/2020	21/04/2021	SmPC, Annex II, Labelling and PL	

II/0123	Update of sections 4.4 and 4.8 of the SmPC in order to add new warnings regarding late-onset neurotoxicity, including ataxia and encephalopathy, based on reviews of the published literature and MAH safety database; the Package Leaflet is updated accordingly. In addition, the MAH took the opportunity to make minor editorial amendments. C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data	03/09/2020	21/04/2021	SmPC and PL	Late-onset neurotoxicity, including ataxia and encephalopathy (impaired consciousness, confusion, psychomotor slowing, psychosis, delirium), may occur months to years after beginning efavirenz therapy. Some events of late-onset neurotoxicity have occurred in patients with CYP2B6 genetic polymorphisms, which are associated with increased efavirenz levels despite standard dosing of Stocrin. Patients presenting with signs and symptoms of serious neurologic adverse experiences should be evaluated promptly to assess the possibility that these events may be related to efavirenz use, and whether discontinuation of Stocrin is warranted
IAIN/0122	C.I.3.a - Change(s) in the SPC, Labelling or PL intended to implement the outcome of a procedure concerning PSUR or PASS or the outcome of the assessment done under A 45/46 - Implementation of wording agreed by the competent authority	13/12/2019	21/04/2021	SmPC and PL	
PSUSA/1200/201904	Periodic Safety Update EU Single assessment - efavirenz	28/11/2019	n/a		PRAC Recommendation - maintenance
N/0120	Minor change in labelling or package leaflet not connected with the SPC (Art. 61.3 Notification)	07/06/2019	14/11/2019	PL	
IAIN/0119	B.IV.1.a.1- Change of a measuring or administration device - Addition or replacement of a device which is not an integrated part of the primary packaging - Device with CE marking	29/03/2019	n/a		
II/0116/G	This was an application for a group of variations.	17/01/2019	n/a		

	B.I.z - Quality change - Active substance - Other variation B.I.a.1.z - Change in the manufacturer of AS or of a starting material/reagent/intermediate for AS - Other variation B.I.a.2.a - Changes in the manufacturing process of the AS - Minor change in the manufacturing process of the AS B.I.a.2.b - Changes in the manufacturing process of the AS - Substantial change to the manufacturing process of the AS which may have a significant impact on the quality, safety or efficacy of the medicinal product				
IB/0118	C.I.7.a - Deletion of - a pharmaceutical form	07/01/2019	14/11/2019	SmPC, Labelling and PL	
PSUSA/1200/201804	Periodic Safety Update EU Single assessment - efavirenz	13/12/2018	13/12/2018	SmPC	Refer to Scientific conclusions and grounds recommending the variation to terms of the Marketing Authorisation(s)' for PSUSA/1200/201804.
IG/0994	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	24/10/2018	14/11/2019	SmPC	
II/0114	Update of sections 4.3 and 4.5 of the SmPC in order to add contraindication with elbasvir/grazoprevir and to update information on interactions between efavirenz and elbasvir/grazoprevir, sofosbuvir/velpatasvir, sofosbuvir/velpatasvir/voxilaprevir, and etonogestrel implant; based on the post-approval and literature	28/06/2018	30/07/2018	SmPC, Labelling and PL	The SmPC section 4.3 has been updated as follows: Coadministration of Efavirenz is contraindicated with elbasvir/grazoprevir containing products, due to an induction of CYP3A4 or P-gp by efavirenz and decrease in elbasvir and grazoprevir plasma concentrations which could lead to the loss of virologic response of elbasvir/grazoprevir.

	data. The Package Leaflet is updated accordingly. C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data				The SmPC section 4.5 has been updated to include drug-drug interactions between efavirenz and Elbasvir/grazoprevir, sofosbuvir/velpatasvir and sofosbuvir/velpatasvir/voxilaprevir. Coadministration of efavirenz/emtricitabine/tenofovir disoproxil with sofosbuvir/velpatasvir has been shown to significantly decrease plasma concentrations of velpatasvir due to CYP3A induction by efavirenz, which may result in loss of therapeutic effect of velpatasvir. Therefore, the coadministration of efavirenz with products including velpatasvir is not recommended. Please see SmPC for details. The PL has been updated accordingly.
T/0113	Transfer of Marketing Authorisation	20/04/2018	04/06/2018	SmPC, Labelling and PL	
WS/1117/G	This was an application for a group of variations following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. C.I.4 (Type II) - Update of sections 4.3, 4.4, 4.5 and 5.1 of the SmPC in order to add a warning and update the safety information on QTc prolongation based on the final results from study AI266959; this is an interventional study to determine the concentration-electrocardiographic effects of efavirenz in healthy subjects enriched for cyp2b6 polymorphisms; the Package Leaflet is updated accordingly. The RMP version 8 has also been	09/11/2017	15/12/2017	SmPC and PL	The new contraindication has been included in section 4.3 of SmPC for patients with: - family history of sudden death or of congenital prolongation of the QTc interval on electrocardiograms, or with any other clinical condition known to prolong the QTc interval. - a history of symptomatic cardiac arrhythmias or with clinically relevant bradycardia or with congestive cardiac failure accompanied by reduced left ventricle ejection fraction. - severe disturbances of electrolyte balance e.g. hypokalemia or hypomagnesaemia. The contraindication is also included for the patients taking drugs that are known to prolong the QTc interval.

	submitted. C.I.4 (Type II) – Update of sections 4.4 and 4.8 to add catatonia as a Psychiatric symptom following an assessment of catatonia cases reported in the literature and via the United States (US) Food and Drug Administration Adverse Event Reporting System (FAERS). C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data				SmPC sections 4.4, 4.5 and 5.1 have been updated in order to add a warning and update the safety information on QTc prolongation. SmPC sections 4.4 and 4.8 have been updated to add catatonia as a Psychiatric symptom, with frequency uncommon. The Package leaflet has been updated accordingly.
PSUSA/1200/201704	Periodic Safety Update EU Single assessment - efavirenz	30/11/2017	n/a		PRAC Recommendation - maintenance
IB/0112/G	This was an application for a group of variations. B.II.b.1.b - Replacement or addition of a manufacturing site for the FP - Primary packaging site B.II.b.1.e - Replacement or addition of a manufacturing site for the FP - Site where any manufacturing operation(s) take place, except batch-release, batch control, primary and secondary packaging, for non-sterile medicinal products B.II.b.2.a - Change to importer, batch release arrangements and quality control testing of the FP -	18/10/2017	n/a		

	Replacement/addition of a site where batch control/testing takes place				
IA/0109/G	This was an application for a group of variations. A.4 - Administrative change - Change in the name and/or address of a manufacturer or an ASMF holder or supplier of the AS, starting material, reagent or intermediate used in the manufacture of the AS or manufacturer of a novel excipient A.7 - Administrative change - Deletion of manufacturing sites	22/11/2016	n/a		
PSUSA/1200/201604	Periodic Safety Update EU Single assessment - efavirenz	27/10/2016	n/a		PRAC Recommendation - maintenance
WS/0893	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	28/01/2016	16/02/2017	SmPC and PL	
PSUSA/1200/201504	Periodic Safety Update EU Single assessment - efavirenz	03/12/2015	n/a		PRAC Recommendation - maintenance
IA/0106/G	This was an application for a group of variations. B.II.e.7.b - Change in supplier of packaging components or devices (when mentioned in the dossier) - Replacement or addition of a supplier	24/09/2015	n/a		

	B.II.e.7.b - Change in supplier of packaging components or devices (when mentioned in the dossier) - Replacement or addition of a supplier				
WS/0604	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of section 4.5 of the SmPC to include information about the potential interaction between simeprevir with efavirenz, likely due to CYP3A induction by efavirenz. The Package Leaflet has been updated accordingly. C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data	20/11/2014	23/03/2015	SmPC and PL	The MAH presented in this variation drug interaction data on concomitant administration of simeprevir (Olysio) with efavirenz, likely due to CYP3A induction by efavirenz. Concomitant administration of simeprevir with efavirenz resulted in significantly decreased plasma concentrations of simeprevir due to CYP3A induction by efavirenz, which may result in loss of therapeutic effect of simeprevir. Co-administration of simeprevir with efavirenz is not recommended.
IB/0103	B.I.b.1.h - Change in the specification parameters and/or limits of an AS, starting material/intermediate/reagent - Addition or replacement (excl. Biol. or immunol. substance) of a specification parameter as a result of a safety or quality issue	15/10/2014	n/a		
R/0096	Renewal of the marketing authorisation.	20/02/2014	23/04/2014	SmPC, Labelling and PL	Based on the review of the available information and on the basis of a re-evaluation of the benefit risk balance, the CHMP is of the opinion that the quality, safety and efficacy of this medicinal product continues to be adequately and sufficiently demonstrated and therefore considered that the benefit risk profile of Sustiva continues to be favourable.

					The CHMP is of the opinion that the renewal can be granted with unlimited validity.
WS/0475	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of section 4.6 of the SmPC on the number of pregnancies and on the number of Neural Tube Defects (NTD) cases reported in subjects exposed to efavirenz-based products to reflect the Antiretroviral Pregnancy Registry (APR) reports. Section 2 of the PL was updated accordingly. This submission addresses the CHMP request following additional questions coming from the assessment of the last submitted PSUR. C.I.3.b - Change(s) in the SPC, Labelling or PL intended to implement the outcome of a procedure concerning PSUR or PASS or the outcome of the assessment done under A 45/46 - Change(s) with new additional data submitted by the MAH	20/03/2014	23/03/2015	SmPC and PL	As of July 2013, the Antiretroviral Pregnancy Registry (APR) has received prospective reports of 904 pregnancies with first trimester exposure to efavirenz-containing regimens, resulting in 766 live births. The total number of retrospective reports consistent with neural tube defects identified in the children or fetuses of mothers exposed to efavirenz during the first trimester of pregnancy were updated to add an identified neural tube defect in a fetus that reached a gestational age of 22 weeks. The number of identified retrospective neural tube defects changed from 6 to a total of 7 for mothers exposed to efavirenz containing regimens in the first trimester (excluding any efavirenz-containing fixed-dose combination tablets). Furthermore two cases (1 prospective and 1 retrospective) including events consistent with neural tube defects associated with fixed-dose combination tablet containing efavirenz, emtricitabine, and tenofovir disoproxil fumarate (Atripla) have been added to the SmPC.
WS/0486	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of sections 4.4 and 4.5 of the SmPC to include information that concomitant use with Ginkgo biloba extracts is not recommended, as requested in the PRAC recommendation, dated 3 October 2013. The PL is updated accordingly.	23/01/2014	23/04/2014	SmPC and PL	Two published cases suggested an interaction between efavirenz and Ginkgo biloba extracts with a negative impact on efavirenz concentration and/or on viral load. A deleterious pharmacokinetic interaction between efavirenz and Ginkgo biloba extracts is plausible. Ginkgo biloba extracts can induce enzymes that may give rise to decreased plasma concentrations of efavirenz. This information was reflected in the product information of efavirenz-containing medicinal products by stating that

	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation				concomitant use of Gingko biloba extracts is not recommended.
WS/0434	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of sections 4.5 and 4.8 of the SmPC concerning information on false positive results in screening tests for cannabinoid metabolites. The PL is updated to include minor amendments for clarity. C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data	23/01/2014	23/04/2014	SmPC and PL	A literature review indicated that efavirenz may interfere with the results of a number of commercially available tests used for routine screening of cannabinoid use, and not just one test as had been previously included in the SmPC. The CHMP agreed to move the information on false positive results in screening tests for cannabinoid metabolites from section 4.8 to section 4.5 of the SmPC. Section 4.5 was updated with a more general statement (mention of specific assays was removed) and with a recommendation for confirmation of positive screening tests by a more specific method, such as GC/MS.
IG/0366	C.I.8.a - Introduction of or changes to a summary of Pharmacovigilance system - Changes in QPPV (including contact details) and/or changes in the PSMF location	08/11/2013	n/a		
WS/0435	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of section 4.5 of the SmPC with information on the drug-drug interaction with artemether/lumefantrine. Additionally, section 4.4. was updated to clarify that, while co-administration of efavirenz with the fixed combination tablet	24/10/2013	23/04/2014	SmPC, Annex II and PL	In a drug-drug interaction study in healthy volunteers coadministration of efavirenz with the antimalarial artemisinin-based combination therapy artemether/lumefantrine resulted in reduced exposure (AUC) to artemether, its metabolite dihydroartemisinin, and lumefantrine. Since reduced drug concentrations may result in decreased antimalarial efficacy, caution is recommended when efavirenz and artemether/ lumefantrine are coadministered.

	containing efavirenz, emtricitabine, and tenofovir disoproxil fumarate is not recommended, it can be considered if needed for dose adjustment. The Package Leaflet was updated accordingly. In addition, the PI was brought in line with the latest QRD template version 9.0, and the list of local representatives in the PL was updated to include contact details for the representative of Croatia. C.1.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data				In addition, the MAH clarified that efavirenz can be exceptionally coadministered with the fixed-dose combination of efavirenz, emtricitabine and tenofovir disoproxil fumarate, if needed for dose adjustment (for example with rifampicin).
WS/0433	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of section 4.6 of the SmPC in order to include information on the excretion of efavirenz into human breast milk. C.1.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data	24/10/2013	23/04/2014	SmPC	Routine pharmacovigilance activities of the MAH identified a published study analysing the levels of efavirenz in plasma and breast milk of 13 breast-feeding mothers and in the plasma of their non-antiretroviral-treated infants. Results from this study demonstrated that efavirenz passes easily into human milk, with a strong correlation between the levels in maternal plasma and breast milk, as well as between the levels in milk and plasma levels in breast-feeding infants. There is insufficient information on the effects of efavirenz in newborns/infants. Importantly, HIV-infected mothers should not breast-feed under any circumstances to avoid HIV transmission to the infant.
WS/0388	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of sections 4.4 and 4.8 of the SmPC in order to update the safety information regarding	30/05/2013	01/07/2013	SmPC and PL	Upon review of safety data and literature on immune disorders in association with antiretrovirals for the treatment of HIV, the CHMP considered that there is sufficient evidence to conclude that immune reconstitution syndrome (IRS) after antiretroviral therapy may be associated with autoimmune disease/disorders even if the

	autoimmune disorders in relation to Immune Reactivation Syndrome, following a class labelling for antiretrovirals as requested by the CHMP. The PL was updated accordingly. In addition, the MAH took the opportunity to update the list of local representatives in the PL. C.1.3.a - Implementation of change(s) requested following the assessment of an USR, class labelling, a PSUR, RMP, FUM/SO, data submitted under A 45/46, or amendments to reflect a Core SPC - Changes with NO new additional data are submitted by the MAH				number of case reports is limited. Therefore, the CHMP had requested the inclusion of information on immune disorders under immune reconstitution as a class labelling for all antiretrovirals for the treatment of HIV.
WS/0357	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. To update section 4.5 of the SmPC to include the interaction with rifabutin and the new HCV protease inhibitors telaprevir and boceprevir. The Package Leaflet was updated accordingly. In addition, one of the MAH took the opportunity to update the list of local representatives in the Package Leaflet. Furthermore, the WSA proposed this opportunity to bring the PI in line with the QRD template version 8.2. The requested variation work-sharing procedure proposed amendments to the Summary of Product Characteristics, Annex II and Package Leaflet. C.1.3.b - Implementation of change(s) requested	21/03/2013	29/04/2013	SmPC, Annex II and PL	This procedure aimed to update section 4.5 of the SmPC to include information on the interaction with rifabutin and the new HCV NS3 protease inhibitors telaprevir and boceprevir. The Package Leaflet was updated accordingly. In the assessment of the last PSURs the CHMP requested these changes from Sustiva and Stocrin MAHs. Within this procedure, the drug-drug interaction information on concomitant use of efavirenz with either boceprevir or telaprevir was updated consistently with their respective SmPCs. Additionally, the SmPC was updated to inform prescribers that the recommended dose adjustments for rifabutin when coadministered with efavirenz have not been clinically evaluated. The requested variation work-sharing procedure proposed amendments to the Summary of Product Characteristics, Annex II and Package Leaflet.

	following the assessment of an USR, class labelling, a PSUR, RMP, FUM/SO, data submitted under Article 45/46, or amendments to reflect a Core SPC - Change(s) with new additional data submitted by the MAH				
IG/0182	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	20/08/2012	n/a		
WS/0210	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of sections 4.5 and 5.2 of the SmPC on mechanism of interactions and in particular on interactions with darunavir, bupropion, rifampicin, atovaquone/proguanil and acenocoumarol. Update of section 4.8 to add to the list of adverse reactions the increase in lipids and liver enzymes. This variation was requested by the CHMP following evaluation of the PSUR covering the period from 17 April 2010 to 16 April 2011. The Package leaflet was updated accordingly. In addition, the MAH updated the Product Information in line with the latest QRD template (version 8) and the list of local representatives in the PL. C.I.3.b - Implementation of change(s) requested following the assessment of an USR, class labelling, a PSUR, RMP, FUM/SO, data submitted under Article	24/05/2012	27/06/2012	SmPC, Annex II, Labelling and PL	The interaction with darunavir was updated in line with Prezista (darunavir) SmPC. Efavirenz in combination with darunavir/ritonavir 800/100 mg once daily may result in suboptimal darunavir C_{min}. If efavirenz is to be used in combination with darunavir/ritonavir, the darunavir/ritonavir 600/100 mg twice daily regimen should be used. A dose adjustment for efavirenz to 800 mg for patients with body weights $\geq$ 50 kg when co-administered with rifampicin is recommended. Results on the interaction with atovaquone/proguanil were introduced in the interactions table. Concomitant administration of atovaquone/proguanil with efavirenz reduces the concentrations of atovaquone/proguanil and should be avoided whenever possible. The interaction of efavirenz with acenocoumarol was included in the interactions table. A dose adjustment of acenocoumarol may be required. Results on the interaction with Bupropion were introduced in the interactions table. Increases in bupropion dosage should be guided by clinical response, but the maximum recommended dose of bupropion should not be exceeded.

	45/46, or amendments to reflect a Core SPC - Change(s) with new additional data submitted by the MAH				No dose adjustment is necessary for efavirenz.
IA/0089/G	This was an application for a group of variations. A.7 - Administrative change - Deletion of manufacturing sites A.7 - Administrative change - Deletion of manufacturing sites	22/02/2012	n/a		
IG/0112	C.I.9.h - Changes to an existing pharmacovigilance system as described in the DDPS - Other change(s) to the DDPS that does not impact on the operation of the pharmacovigilance system	11/10/2011	n/a		
WS/0116	This was an application for a variation following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of SmPC and PL following a worksharing procedure according to Article 20 of Commission Regulation (EC) No 1234/2008. Update of section 4.6 of the SmPC on the use of efavirenz during pregnancy (as requested by the CHMP following evaluation of FUM 70 for Sustiva and FUM 61 for Stocrin). The contact details of the PL were updated. Translations errors in the Bulgarian product information were corrected within this variation.	19/05/2011	13/07/2011	SmPC and PL	As of July 2010, the Antiretroviral Pregnancy Registry has received prospective reports of 718 pregnancies with first trimester exposure to efavirenz-containing regimens, resulting in 604 live births. One child was reported to have a neural tube defect, and the frequency and pattern of other birth defects were similar to those seen in children exposed to non efavirenz containing regimens, as well as those in HIV negative controls. The incidence of neural tube defects in the general population ranges from 0.5 1 case per 1,000 live births. All together there have been six retrospective reports of findings consistent with neural tube defects, including meningomyelocele, all in mothers exposed to efavirenz containing regimens in the first trimester. A causal relationship of these events to the use of efavirenz has not been established, and the denominator

	C.I.3.b - Implementation of change(s) requested following the assessment of an USR, class labelling, a PSUR, RMP, FUM/SO, data submitted under Article 45/46, or amendments to reflect a Core SPC - Change(s) with new additional data submitted by the MAH				is unknown. As neural tube defects occur within the first 4 weeks of foetal development (at which time neural tubes are sealed), this potential risk would concern women exposed to efavirenz during the first trimester of pregnancy. The SmPC was updated to reflect these data and the restriction for women with childbearing potential for efavirenz was revised as follows: Efavirenz should not be used during pregnancy, unless the patient's clinical condition requires such treatment. Additionally, women of childbearing potential should undergo pregnancy testing before initiation of efavirenz. Prescribers are referred to section 5.3 to relevant preclinical safety data.
IA/0085	B.II.b.1.a - Replacement or addition of a manufacturing site for the FP - Secondary packaging site	07/06/2011	n/a		
IA/0084	B.II.e.5.b - Change in pack size of the finished product - Deletion of a pack size(s)	18/05/2011	n/a	SmPC, Labelling and PL	
IB/0083	B.II.f.1.b.1 - Stability of FP - Extension of the shelf life of the finished product - As packaged for sale (supported by real time data)	21/03/2011	n/a	SmPC and Annex II	
IB/0081/G	This was an application for a group of variations. B.II.b.1.e - Replacement or addition of a manufacturing site for the FP - Site where any manufacturing operation(s) take place, except batch-release, batch control, primary and secondary	01/02/2011	n/a		

	packaging, for non-sterile medicinal products B.II.b.1.b - Replacement or addition of a manufacturing site for the FP - Primary packaging site B.II.b.3.a - Change in the manufacturing process of the finished product - Minor change in the manufacturing process of an immediate release solid oral dosage form or oral solutions B.II.b.4.a - Change in the batch size (including batch size ranges) of the finished product - Up to 10-fold compared to the currently approved batch size				
IA/0082	B.II.d.1.c - Change in the specification parameters and/or limits of the finished product - Addition of a new specification parameter to the specification with its corresponding test method	07/01/2011	n/a		
IG/0027/G	This was an application for a group of variations. C.I.9.g - Changes to an existing pharmacovigilance system as described in the DDPS - Change of the site undertaking pharmacovigilance activities C.I.9.h - Changes to an existing pharmacovigilance system as described in the DDPS - Other change(s) to the DDPS that does not impact on the operation of the pharmacovigilance system	10/11/2010	n/a	Annex II	
II/0080	Update of sections 4.2, 4.4, 4.8 and 5.2 of the SmPC based on a PK study in HIV-infected patients with or without hepatic impairment, as well as on a cumulative review of severe hepatic events in	23/09/2010	03/11/2010	SmPC and PL	Update of sections 4.2, 4.4, 4.8 and 5.2 of the SmPC based on a PK study in HIV-infected patients with or without hepatic impairment, as well as on a cumulative review of severe hepatic events in patients with no known history of

	patients with no known history of hepatic disease or impairment as requested by the CHMP following the assessment of follow-up measure 066. In addition, the MAH took this opportunity to update section 4.8 of the SmPC in line with Rev. 2 of the Guideline of SmPC. Finally, the SmPC was updated in light of the latest (7.3) QRD template. Therefore the frequencies now for cerebellar coordination and balance disturbances and flushing is 'common', 'uncommon' for psychosis, tremor, and tinnitus, and 'rare' for delusion, neurosis, completed suicide, hepatic failure, and photoallergic dermatitis. The PL was updated accordingly. Furthermore the local representatives of Belgium/Luxembourg, Malta, Denmark, Netherlands, Austria, Cyprus and Latvia have been updated. Update of Summary of Product Characteristics and Package Leaflet				hepatic disease or impairment as requested by the CHMP following the assessment of follow-up measure 066. In addition, the MAH took this opportunity to update section 4.8 of the SmPC in line with Rev. 2 of the Guideline of SmPC. Finally, the SmPC was updated in light of the latest (7.3) QRD template. Therefore the frequencies now for cerebellar coordination and balance disturbances and flushing is 'common', 'uncommon' for psychosis, tremor, and tinnitus, and 'rare' for delusion, neurosis, completed suicide, hepatic failure, and photoallergic dermatitis. The PL was updated accordingly. Furthermore the local representatives of Belgium/Luxembourg, Malta, Denmark, Netherlands, Austria, Cyprus and Latvia have been updated.
II/0079	Update of section 4.5 of the SmPC to add interaction information on warfarin with efavirenz following the CHMP conclusion on PSUR 12. The MAH also took the opportunity to update section 4.8 of the SmPC to include 3 adverse drug reactions: flushing, tinnitus and tremor to bring the SPC in line with the company core data sheet. The PL was updated accordingly. In section 4.8, the MAH also reordered the MedDRA system organ class listing of events from clinical trials according to the most recent version (Version 12.0, February 2009). Minor typographical	22/10/2009	09/12/2009	SmPC and PL	Following the assessment of PSUR 12, the CHMP recommended to amend the SmPC of efavirenz in order to include interaction information with the anticoagulant warfarin. No interaction study has been performed. Warfarin is administered as a racemate; the S-enantiomer provides most of the anticoagulation effect and is metabolised by CYP2C9 while the R-enantiomer is metabolised by CYP3A4. Efavirenz is an inducer of CYP3A4 and in vitro data have indicated that it is also an inhibitor of CYP2C9. Due to these dual properties of efavirenz, the following information was added: an increase or decrease

	amendments have been made to SmPC and PL. Update of Summary of Product Characteristics and Package Leaflet				in warfarin exposures and effects could be observed if co administered with efavirenz. Dose adjustment of warfarin may be required. The PL was updated accordingly. In addition, a review of the MAH safety database has shown the following additional adverse reactions to occur in association with efavirenz-containing antiretroviral treatment regimens: flushing, tinnitus, and tremor. These were therefore added to the SmPC. The PL was updated accordingly. The MAH took the opportunity to also reorder the MedDRA system organ class listing of events from clinical trials according to the most recent version (Version 12.0, February 2009).
II/0078	Update of the Detailed Description of the Pharmacovigilance System (DDPS). Annex II has been updated to reflect the version number of the DDPS. Update of DDPS (Pharmacovigilance)	25/06/2009	17/07/2009	Annex II	The MAH updated its DDPS and submitted therefore this type II variation. The CHMP considers that the Pharmacovigilance System as described by the MAH fulfils the requirements and is considered acceptable.
II/0075	Update of Summary of Product Characteristics Update of section 4.5 "Interaction with other medicinal products and other forms of interaction" of the Summary of Product Characteristics (SPC) with information on the use of efavirenz with hormonal contraceptives based on results from clinical studies AI266145, ACTG5093, published literature and on data from pharmacovigilance reports. The update also includes amendment of section 4.6 "Pregnancy and lactation" of the SPC further to the update of the Antiretroviral Pregnancy Registry. The Package leaflet was updated accordingly.	23/04/2009	02/06/2009	SmPC and PL	In Study AI266145, the coadministration of efavirenz (600 mg once daily) with an orally administered hormonal contraceptive containing ethinylloestradiol (EE) and norgestimate (NGM) did not have a significant impact on EE exposures; however, significantly reduced exposures to norelgestromin (NGMN) and levonorgestrel (LNG), the active metabolites of NGM, were observed. The exact mechanism of this interaction is not elucidated, but is possibly due to inhibition and induction of multiple metabolic pathways. The reduced exposures raise concern as to the potential negative impact on the efficacy of the hormonal combination. Consequently it is recommended

	Update of Summary of Product Characteristics and Package Leaflet				that for patients taking EFV 600 mg once daily a reliable method of barrier contraception must be used in addition to oral hormonal contraceptives. In a study reported in the published literature, no significant differences in depo-medroxyprogesterone acetate (DMPA) pharmacokinetic parameters were found between subjects receiving EFV-containing antiretroviral therapy and subjects receiving no antiretroviral therapy. Similar results were found in study ACTG 5093 (although the DMPA plasma levels were found to be more variable). In these studies, plasma progesterone levels for subjects receiving EFV and DMPA remained low consistent with suppression of ovulation. However due to the global limited information available, a reliable method of barrier contraception must be used in addition to injectable hormonal contraceptives containing DMPA. The interaction between EFV and the implantable hormonal contraceptive, etonogestrel, has not been studied; however, there have been reports of unplanned pregnancies in women taking both, possibly due to induction of metabolic enzymes such as CYP3A4 by EFV. Thus, a reliable method of barrier contraception must be used in addition to implantable hormonal contraceptives when taking EFV.
R/0076	Renewal of the marketing authorisation.	19/02/2009	22/04/2009	SmPC, Annex II, Labelling and PL	Based on the CHMP review of the available information , the CHMP is of the opinion that the quality, safety and efficacy of this medicinal product continues to be adequately and sufficiently demonstrated and therefore considered that the benefit risk profile of Stocrin continues to be favourable. The CHMP recommends the renewal of the Marketing Authorisation for Stocrin but requires an

					additional five-year renewal on the basis of pharmacovigilance grounds. The hepatic toxicity is a known risk but is a remaining concern. The number of spontaneous reports on hepatic toxicity and acute or sub-acute chronic hepatitis potentially serious and fatal presented in subject without other known risk factors is a matter of concern in particular in view of the evolving therapeutic management of HIV infected patients. As newer therapeutic options for the treatment of HIV infection become available, the benefit/risk balance should be continuously reassessed in light of the introduction of these new options into treatment regimens.
IA/0077	IA_37_a_Change in the specification of the finished product - tightening of specification limits	16/03/2009	n/a		
II/0073	Update of section 4.2, 4.4, 4.5, 4.6, 4.8, 5.1 and 5.2 of the SPC to align the product information with Atripla. The PL is updated accordingly. Furthermore the contact details of the Czech, Danish, Maltese, and Icelandic local representatives in the PL are updated. The MAH also takes the opportunity to make some linguistic changes to the Slovakian Product Information Update of Summary of Product Characteristics and Package Leaflet	23/10/2008	28/11/2008	SmPC and PL	The Efavirenz SPC has been harmonised to be in line with the SPC of Atripla (a triple fixed-combination medicinal product containing efavirenz, emtricitabine and tenofovir disoproxil fumarate). Of note, the use of adequate contraceptive measures is recommended for 12 weeks after discontinuation of EFV to provide adequate protection against exposure of a fetus to EFV. Furthermore, changes were made focusing on drug elimination and gender differences based on updated EFV pharmacokinetics data. Taking into account the potential differences in exposure to EFV related to gender/ethnic/gene polymorphism, an increase in frequency/severity of AEs cannot be strictly ruled out, but this is unlikely to have a significant clinical impact.

IA/0074	IA_09_Deletion of manufacturing site	02/09/2008	n/a		
II/0072	Update of Summary of Product Characteristics and Package Leaflet Update of section 4.8 of the SPC to include the adverse reaction "cerebellar coordination and balance disturbances". The package leaflet is updated accordingly. Furthermore the Detailed Description of the Pharmacovigilance system is updated in Module 1.8.1. Update of Summary of Product Characteristics and Package Leaflet	30/05/2008	11/07/2008	SmPC and PL	A review of cases relating to cerebellar function, including all spontaneous, literature and clinical trial (regardless of causality) reports up until March 2007 in which efavirenz was considered a suspect or interacting medicinal product was carried out. Based on the review and taking into account the distribution and heterogeneity of terms for the reported events, the High Level Term "cerebellar coordination and balance disturbances" has been included in the SPC. The package leaflet is updated accordingly.
II/0066	Quality changes	18/10/2007	09/11/2007		
IA/0069	IA_22_a_Submission of TSE Ph. Eur. certificate for exc. - Approved/new manufacturer	08/10/2007	n/a		
II/0067	Update section 5.2 of the SPC as requested by the CHMP further to the assesment of an integrated pharmacogenomic/pharmacokinetic report for efavirenz, in February 2007. Section 4.8 of the SPC and section 4 of the PL are updated in line with the MedDRA version 8.2. Furthermore, the Danish, Dutch, Hungarian and Spanish version of the annexes were amended in line with the QRD/EMA template version 7.2 Update of Summary of Product Characteristics and	19/07/2007	23/08/2007	SmPC and PL	Following the assessment of an integrate report from three efavirenz studies (AI266919, AI266926 and AI266928) concerning associations between genetic polymorphism of CYP2B6, CYP 3A4/5 and MDR-1 genes and the pharmacokinetics of efavirenz it was agreed that a reference to the possibility of increased efavirenz exposure (with possible increased incidence and severity of specific adverse events, namely pertaining to the central nervous system) in patients carrying the CYP2B6 516 TT homozygosity should be reflected in the efavirenz product information. This observation, supported by the current

	Package Leaflet				published data could not be disregarded as potentially affecting clinical practice and therefore it is now reflected in the efavirenz product information.
II/0065	Update of sections 4.2, 4.3 and 4.5 of the SPC to include a recommendation on dose adjustment for efavirenz and voriconazole when co-administration is deemed necessary, as requested by the CHMP. Section 2 of the PL is updated accordingly. Section 6 was updated for the local representatives in Spain and Malta. The labelling is updated under section 16 with Braille information. Update of Summary of Product Characteristics, Labelling and Package Leaflet	24/05/2007	02/07/2007	SmPC, Labelling and PL	Based on the results of a pharmacokinetic study conducted in 16 healthy volunteers a dose adjustment recommendation can be made to both efavirenz and voriconazole when the co-administration is necessary. Efavirenz and voriconazole can only be used in combination if the voriconazole maintenance dose is increased to 400 mg twice daily and the efavirenz dose is reduced to 300 mg once daily. Once the treatment with voriconazole is stopped, the initial dosage of efavirenz should be restored. This information is included in section 4.2 and 4.5 of the SPC. The PL is updated to reflect this information.
II/0064	Update of section 4.8 of the SPC and section 4 of the PL by adding "gynaecomastia" to the list of uncommon adverse reactions to efavirenz, as agreed by the CHMP in December 2006. Update of Summary of Product Characteristics and Package Leaflet	22/03/2007	02/05/2007	SmPC and PL	Based on the safety data provided in the Periodic Safety Update Report (PSUR) for efavirenz covering the period 17.09.04 - 16.09.05 and on data from an integrated safety summary, a total of 9 gynaecomastia cases was identified among the 840 male patients. Five of the 9 cases were classified as at least possibly related with efavirenz. Gynaecomastia, under the System Organ Class heading "Reproductive System and Breast Disorders" is now included in section 4.8 of the SPC with a MedDRA frequency convention "uncommon".
II/0062	Update of sections 4.4 and 4.8 of the SPC and section 2 of the PL to implement the class labelling text on osteonecrosis, agreed by the CHMP in September 2006. Section 6 of the PL was updated with the local	14/12/2006	15/01/2007	SmPC and PL	Cases of osteonecrosis (death of the bone tissue resulting from an insufficient blood supply) have been reported in HIV-infected patients since the end of the 80's. Although the cause of this disease could be due to multi factors (including the use of corticosteroids, alcohol consumption,

	representatives in Bulgaria and Romania and in Norway. Update of Summary of Product Characteristics and Package Leaflet				severe immunosuppression, higher body mass index) it has occurred specially in patients with HIV advanced disease and/or in patients with long term use of combination antiretroviral therapy (CART). Further to the review of all available data the CHMP agreed that this information should now be included in the SPC and PL of all antiretroviral medicinal products. Patients should be warned to seek medical advice in case they experience joint stiffness, aches and pain especially of the hip, knee and shoulder or if they experienced any difficulty in movement.
IA/0063	IA_07_b_01_Replacement/add. of manufacturing site: Primary packaging site - Solid forms	18/12/2006	n/a		
X/0058	Annex I_2.(c) Change or addition of a new strength/potency	21/09/2006	24/11/2006	SmPC, Labelling and PL	
X/0057	Annex I_2.(c) Change or addition of a new strength/potency	21/09/2006	24/11/2006	SmPC, Labelling and PL	
II/0061	Update of section 4.5 of the SPC and section 2 of the PL to include information on the interaction between efavirenz and itraconazole. The MAH has also taken this opportunity to amend the SPC, Annex II, labelling and the PL in line with the latest QRD templates. Update of Summary of Product Characteristics, Labelling and Package Leaflet	21/09/2006	26/10/2006	SmPC, Annex II, Labelling and PL	Efavirenz decreases itraconazole plasma levels when given in combination for the treatment of HIV and fungal co-infection. Itraconazole levels are decreased by 39%, 37%, and 44% respectively, and the hydroxyitraconazole (the active metabolite of itraconazole) by 37%, 35%, and 43% % for AUC, Cmax and Cmin respectively, when compared to itraconazole administered alone. The pharmacokinetics of efavirenz were considered not affected by itraconazole. Since no dose adjustment for itraconazole can be recommended at this stage, alternative antifungal treatment should be considered. Section 4.5 of the SPC

					under subheading "Antifungal agents" reflects this information. The PL was consequently updated in section 2.
II/0060	Update of section 4.5 of the SPC and section 2 of the PL to include information on the interaction between efavirenz and diltiazem. The list of the local representatives in the PL was updated. Update of Summary of Product Characteristics and Package Leaflet	27/07/2006	01/09/2006	SmPC and PL	The plasma levels of efavirenz are slightly increased by 11%, 16%, and 13% with respect to AUC, Cmax and Cmin, respectively, when efavirenz is co-administered with diltiazem. This increase is considered not clinically relevant. Diltiazem levels decreased by 69%, 60%, and 63% when co-administered with efavirenz than when administered alone with respect to AUC, Cmax and Cmin, respectively. Diltiazem dose adjustment following co-administration with efavirenz should be guided by clinical response. Section 4.5 of the SPC under subheading "calcium channel blockers" reflects this information. The PL was consequently updated in section 2.
IB/0059	IB_14_a_Change in manuf. of active substance without Ph. Eur. certificate - change in manuf. site	09/02/2006	n/a		
II/0051	The MAH applied to amend section 4.5 of the SmPC and point 2 of the PL to include data on the interaction between efavirenz and atazanavir. Additionally, the MAH proposes to update section 4.5 of the SmPC to comply with QRD guidelines. Finally, linguistic corrections are made throughout SmPC and PL for the Danish, German, Spanish, Estonian, Icelandic, Italian, Dutch, Norwegian, Polish, Portuguese and Slovak texts. Update of Summary of Product Characteristics and Package Leaflet	17/11/2005	23/12/2005	SmPC and PL	As stated in the product information of atazanavir (Reyataz), the co-administration of efavirenz with atazanavir in combination with low-dose ritonavir decreases the exposure of atazanavir. A dosage adjustment of atazanavir is therefore recommended although no efficacy and safety data are available to support the proposed increased atazanavir dose to 400 mg with ritonavir when co-administrated with efavirenz. Limited data further suggest that using efavirenz in a regimen including low dose ritonavir, may cause an increase in the incidence of efavirenz-associated adverse events. This information has been included in section 4.5 of the SPC and reflected in section 2 of the PL.

II/0054	The MAH applied to amend section 4.5 of the the SmPC and point 2 of the PL to include data on the interaction between efavirenz and statins (atorvastatin, pravastatin and simvastatin). Update of Summary of Product Characteristics and Package Leaflet	15/09/2005	25/10/2005	SmPC and PL	The need to characterise the pharmacokinetics of the concomitant use of statins and efavirenz was addressed in an open-label, phase I, four arm study evaluating the effect of efavirenz and simvastatin, atorvastatin and pravastatin at steady state in uninfected volunteers. The results showed that efavirenz decreased the AUC and Cmax at steady-state by 69% and 76% for simvastatin, 43% and 12% for atorvastatin, 40% and 18% for pravastatin. These significant decreases were accompanied by small but significant changes in LDL cholesterol which may not be clinically relevant however, as the HMG COA-reductase inhibitors are generally titrated, it should be possible to be clinically managed. Further to the assessment of these data the CHMP agreed that the results should be reflected in section 4.5 under a new subheading "Lipid-lowering agents" of the SPC and section 2 of the PL
II/0053	The MAH applied to amend sections 4.4 and 4.8 of the SmPC regarding lipids following a wider review in lipodystrophy. Update of Summary of Product Characteristics	15/09/2005	25/10/2005	SmPC	A wider review on the effect of efavirenz on lipid profiles and fat redistribution from several clinical studies, including data in antiretroviral naive patients, was performed and has been provided to further monitor and characterise lipodystrophy. The results of this review confirmed that the long-term treatment with efavirenz is associated with increases in total and HDL cholesterol (21-31% and 23-34%, respectively) and showed increases in triglycerides (23%) and LDL (18%). Although the clinical significance of this small increase in triglycerides is yet uncertain, this new information is now being reflected in section 4.8 of the SPC. Multivariate analyses evaluating how efavirenz performs

					against other potential risk factors, either treatment-related or disease-related were not performed. Also, demographic variables such as age and gender were not analysed The provided data support findings from previous data that efavirenz-based regimens may be independently associated with the occurrence of the worsening lipodystrophy in a small percentage of patients.
II/0052	The MAH applied to amend section 4.4 and section 4.5 of SmPC and point 2 of the PL to include data on the interaction between efavirenz and carbamazepine. Additionally, the MAH updates section 4.5 of the SmPC to comply with QRD guidelines. Update of Summary of Product Characteristics and Package Leaflet	15/09/2005	25/10/2005	SmPC and PL	The plasma levels of both efavirenz and carbamazepine when co-administrated are decreased remaining however, unchanged for the carbamazepine active metabolite as shown in a study performed in healthy volunteers. On average the decreases of AUC, Cmax and Cmin at steady state were of 36%, 21% and 47% for efavirenz and 27%, 20% and 35% for carbamazepine. The available data does not allow any recommendation for dosage adjustment. However, intensification of therapeutic monitoring considered, when efavirenz is added to a regimen of carbamazepine. Section 4.4 under subheading "seizures" and section 4.5 subheading "anticonvulsivants" of the SPC are amended to reflect this information. Section 2 of the PL is updated in accordance. The majority of the adverse reactions reported were consistent with those for individual medicinal products. The overall incidence of the adverse reactions for each agent alone and for the combination was similar.
II/0047	Update of section 4.6 of the SPC and section 2 of the PL under subheading "Pregnancy" regarding recent information from the Antiretroviral Pregnancy	23/06/2005	09/08/2005	SmPC and PL	In line with the CHMP recommendations further to the assessment of the 9th and 10th efavirenz PSURs and with the long-term data from the antiretroviral pregnancy

	Register and following the CHMP assessment of PSUR 7 covering the period from 17.09.03 to 16.09.04. Update of Summary of Product Characteristics and Package Leaflet				registry (APR) the MAH applied to update the efavirenz's pregnancy information. Pregnancy testing is now recommended before the initiation of therapy with efavirenz. Efavirenz should only be started during pregnancy if there are no other treatment options as, a small number of neural tube defects have been reported although no causality with efavirenz has been established. The existing data in animals is consistent with a reproductive toxicity for efavirenz
II/0046	Update of sections 4.4 and 4.8 of the SmPC for Stocrin hard capsules and film-coated tablets to include information on the food effect and differences with respect to both solid formulations as requested by the CHMP on February 2005. A cross reference to section 4.4 is proposed for inclusion in section 5.2. Section 4 of the PL is being updated in accordance. In addition, the Marketing Authorisation Holder (MAH) has taken this opportunity to amend the SmPC and PL in line with the latest EMEA/QRD templates and to introduce minor linguistic changes in the Finish and Polish SmPC. Update of Summary of Product Characteristics and Package Leaflet	23/06/2005	09/08/2005	SmPC and PL	It was known that the absorption rate of efavirenz was positively affected when the hard capsules were taken in the fed state and also that for the tablets the impact seemed even greater. As a post-renewal commitment a safety comparison between the hard capsules and the film-coated tablets derived from clinical trials, spontaneous and literature reports was submitted. Following the assessment of this data the CHMP concluded that in the presence of food an increase of efavirenz serum concentrations and an increase of the frequency of adverse reactions was observed. As this effect could be more evident for the film-coated tablets than for the hard capsules, the CHMP requested the update of the SPC and PL of both solid formulations to recommend the administration of Stocrin on an empty stomach preferable at bedtime to improve the tolerability of nervous system undesirable effects.
IB/0049	IB_33_Minor change in the manufacture of the finished product	09/08/2005	n/a		
IA/0056	IA_22_a_Submission of TSE Ph. Eur. certificate for exc. - Approved/new manufacturer	28/07/2005	n/a		

IA/0055	IA_22_a_Submission of TSE Ph. Eur. certificate for exc. - Approved/new manufacturer	28/07/2005	n/a		
IA/0050	IA_32_a_Change in batch size of the finished product - up to 10-fold	08/06/2005	n/a		
IA/0048	IA_23_b_Change in source of excip./reagent to veg./synthetic material - other cases	01/06/2005	n/a		
IA/0045	IA_09_Deletion of manufacturing site	11/04/2005	n/a		
II/0038	Update of section 4.3 and 4.5 of the SPC and section 2 of the PL, to include information on the interaction between efavirenz and voriconazol as requested by the CHMP in August 2004. Furthermore, the Marketing Authorisation Holder applied for the update of section 4.5 of the SPC to clarify the safety concerns of the interaction between efavirenz and CYP450 metabolised products. Update of Summary of Product Characteristics, Labelling and Package Leaflet	20/01/2005	07/03/2005	SmPC, Labelling and PL	The contraindication of the concomitant use between efavirenz and voriconazole was first included in the product information of voriconazole (Vfend – centrally authorised product) further to the assessment of a study, sponsored by the MAH of Vfend, investigating the pharmacokinetic interaction of both drugs in uninfected volunteers. Following the CHMP request, the SPC and PL of Stocrin are being updated to contraindicate the use of efavirenz and voriconazol due to the decrease in the plasma concentrations of voriconazol caused by efavirenz and also to the increase of efavirenz plasma concentrations caused by voriconazol. On average, efavirenz (400mg daily) decreased the steady state C_{max} and AUC_{0-∞} of oral voriconazole (400 mg q12h starting dose, then 200 mg q12h) by 61% and 77%, respectively while voriconazole increases the steady state C_{max} and AUC_{0-∞} of efavirenz by 38% and 44%, respectively. The incidence of efavirenz adverse events

					when co-administrated with voriconazol is similar to the observed with efavirenz alone.
IB/0044	IB_42_b_Change in storage conditions of the finished/diluted/reconstituted product	13/01/2005	n/a		
IB/0041	IB_33_Minor change in the manufacture of the finished product	13/01/2005	n/a		
IB/0040	IB_31_b_Change to in-process tests/limits during manufacture - addition of new tests/limits	13/01/2005	n/a		
IB/0039	IB_07_c_Replacement/add. of manufacturing site: All other manufacturing operations ex. batch release	13/01/2005	n/a		
II/0037	update section 4.4 and 4.8 of the SmPC and section 2 of the PL, to implement the class labelling text regarding the Immune Reactivation Syndrome, as adopted by the CHMP in July 2004. Update of Summary of Product Characteristics and Package Leaflet	18/11/2004	05/01/2005	SmPC and PL	In patients treated with any type of combination antiretroviral therapy (CART), an inflammatory response to indolent or residual opportunistic infections may occur, when the immune system responds to treatment. In most cases, the inflammatory reactions towards the opportunistic pathogens in question cannot be foreseen since the opportunistic infection has not yet been detected/diagnosed. If diagnosed prior to institution of CART, the treatment against the opportunistic infection (OI) is usually given priority. In particular, this is true for the complications most feared in this context; CMV-retinitis, generalised mycobacterial infections and Pneumocystis carinii pneumonia. An additional reason for treating the OI and the HIV-infection sequentially is the great risk of adverse events (toxicity or lack of effect) due to drug interactions.

					The clinical consequence of the reactivation of the immune system in patients starting CART cannot be prevented and the early recognition and diagnose of these inflammatory reaction is considering to be important to the clinical handling of the patients. Therefore, the CHMP further to the assessment of MAH's responses and discussions held at the pharmacovigilance working party and CHMP, a class labelling text regarding the reactivation of the immune system of HIV-infected patients treated with any type of combination antiretroviral therapy (CART) was agreed to be implemented in all anti-retroviral product information
IA/0043	IA_39_Change/addition of imprints, bossing or other markings	17/12/2004	n/a	SmPC, Labelling and PL	
IA/0042	IA_36_ b_Change in shape or dimensions of the container/closure - other pharm. forms	17/12/2004	n/a		
II/0034	To update the SmPC in section 4.5 to include information on pharmacokinetic data from the study report 906-01 and of section 4.8 to include percentage data for the occurrence of asymptomatic amylase elevations as requested by the CPMP after the Assessment of Study A1266049 in July 2003. Update of Summary of Product Characteristics	21/10/2004	06/12/2004	SmPC	The long-term pharmacokinetics and safety results of therapeutic regimens based on the combination of efavirenz with indinavir (800 mg twice daily regimen) boosted by ritonavir (100 mg twice daily) were evaluated in two post-marketing studies: one in healthy volunteers, a non-MAH sponsored study conducted by Aarnoutse et al.(Clin Pharmacol Ther 2002) and the other in a sub-set of HIV-infected patients included in the EASIER study (report 906-01). The pharmacokinetic results are not significantly different from the results obtained with a similar combination in

					healthy volunteers. The impact of efavirenz on the pharmacokinetics of this combination is not clinically significant. Although no conclusions in terms of posology and mode of administration could be recommended, the available data is relevant to the clinical practice and therefore is included in section 4.5 of the SPC. As an outcome of the CHMP assessment of study AI266049 the incidence of pancreatitis and amylase increase was further discussed by the MAH. The new-onsets amylase elevations that, with a single exception, were not associated with a clinical diagnosis of pancreatitis were seen in approximately 10% of subjects who received efavirenz. The clinical significance of asymptomatic increases in serum amylase is unknown, however the available figures, compared with others drugs are relevant information for physicians, since amylasaemia is routinely determined for patients in most clinical settings and therefore section 4.8 of the SPC was updated.
IB/0035	IB_07_c_Replacement/add. of manufacturing site All other manufacturing operations ex. batch release	09/11/2004	n/a		
IA/0036	IA_32_a_Change in batch size of the finished product - up to 10-fold	14/10/2004	n/a		
II/0032	Update of sections 4.8 and 5.1 of the SmPC to include the results of the new long-term (168 week) safety and efficacy data from clinical study AI266006. In addition, the MAH has completed the list of local representatives in the PL to include the contacts of the new European Member States.	03/06/2004	13/07/2004	SmPC and PL	This study was an open-label, randomized designed to compare the antiretroviral activity and tolerability of three different combination regimens [efavirenz (EFV)+indinavir (IDV), EFV+Zidovudine (ZDV)+lamivudine (3TC), IDV+ZDV+3TC] in HIV-infected, NNRTI-, 3TC- and Protease Inhibitors (PI)- naïve patients. This study is the

	Update of Summary of Product Characteristics and Package Leaflet				follow-up of the original 006 EFV pivotal study supportive of the initial Marketing Authorisation for Stocrin. The long-term (168 weeks) efficacy results suggest durability of response in terms of proportion of patients with HIV RNA < 400 copies/ml, HIV RNA <50 copies/ml and of mean changes from baseline CD4 cell counts. Section 5.1 was updated to reflect these results. The long-term safety of the EFV+ZDV+3TC treatment regimen was not different from the already defined safety profile of EFV. The incidences of nervous system symptoms and rash beyond the 48 week of treatment were low. The long-term safety profile in patients with HCV and/or HBV co-infection was not different from the previously profile known in this subset of patients. Section 4.8 of the SPC, subheading "nervous system symptoms" and "laboratory test abnormalities" were updated in regard of these observations.
R/0033	Renewal of the marketing authorisation.	26/02/2004	29/04/2004	SmPC, Annex II, Labelling and PL	
II/0030	Update of the section 4.4 (Special warnings and special precautions of use) and 5.2 (Pharmacokinetic properties) of the Summary of Product Characteristics (SPC) to implement the class labelling on liver impairment adopted by the CPMP for all anti-retroviral medicinal products on 25 April 2003. Furthermore, the MAH has taken this opportunity to update section 4.4 of the SPC, by reordering the	20/11/2003	06/02/2004	SmPC and PL	

	wording on lactose (for the 300 and 600 mg tablet formulations only), on cholesterol and on lipodystrophy. The MAH also updated the SPC according to the latest EMEA/QRD templates with regard to the expression of cross references between sections. In addition, the MAH has proposed to update the Package leaflet (PL) in line with the proposed changes of the SPC and to include the wording on lipodystrophy as adopted by the CPMP on 24 March 2003. Update of Summary of Product Characteristics and Package Leaflet				
I/0031	10a_Addition or replacement of measuring device for oral liquid dosage forms and other dosage forms	16/10/2003	23/10/2003		
I/0029	15_Minor changes in manufacture of the medicinal product 01_Change in or addition of manufacturing site(s) for part or all of the manufacturing process	07/07/2003	22/07/2003		
II/0027	Update of Summary of Product Characteristics and Package Leaflet	19/03/2003	09/07/2003	SmPC and PL	
I/0028	20_Extension of shelf-life as foreseen at time of authorisation	08/05/2003	25/06/2003	SmPC	
II/0026	Update of Summary of Product Characteristics and Package Leaflet	20/02/2003	23/05/2003	SmPC and PL	

II/0024	Update of Summary of Product Characteristics and Package Leaflet	27/06/2002	30/09/2002	SmPC and PL	
II/0025	Update of Summary of Product Characteristics	30/05/2002	30/08/2002	SmPC	
X/0018	X-3-iv_Change or addition of a new pharmaceutical form	30/05/2002	22/08/2002	SmPC, Annex II, Labelling and PL	
X/0017	X-3-iv_Change or addition of a new pharmaceutical form	30/05/2002	22/08/2002	SmPC, Annex II, Labelling and PL	
II/0019	Update of Summary of Product Characteristics	13/12/2001	12/04/2002	SmPC	
I/0023	01_Change in the name of a manufacturer of the medicinal product	28/11/2001	06/03/2002		
I/0022	01_Change in or addition of manufacturing site(s) for part or all of the manufacturing process	26/11/2001	06/03/2002		
I/0021	31_Change in container shape	24/10/2001	07/01/2002		
X/0007	X-3-iv_Change or addition of a new pharmaceutical form	27/06/2001	24/10/2001	SmPC, Annex II, Labelling and PL	
I/0020	26_Changes to comply with supplements to pharmacopoeias	21/09/2001	23/10/2001		
II/0014	Update of Summary of Product Characteristics	31/05/2001	20/09/2001	SmPC	

II/0012	Update of Summary of Product Characteristics and Package Leaflet	01/03/2001	14/06/2001	SmPC and PL	
I/0016	26_Changes to comply with supplements to pharmacopoeias	28/03/2001	05/05/2001		
II/0011	Quality changes	01/03/2001	01/04/2001		
I/0010	13_Batch size of active substance	24/11/2000	01/03/2001		
II/0008	Update of Summary of Product Characteristics and Package Leaflet	29/06/2000	13/10/2000	SmPC and PL	
II/0006	Update of Summary of Product Characteristics and Package Leaflet	29/06/2000	13/10/2000	SmPC and PL	
II/0009	Change(s) to the manufacturing process for the active substance	27/07/2000	12/10/2000		
II/0004	Update of Summary of Product Characteristics	19/01/2000	24/05/2000	SmPC	
I/0005	20a_Extension of shelf-life or retest period of the active substance	02/03/2000	11/05/2000		
II/0002	Update of Summary of Product Characteristics and Package Leaflet	23/09/1999	31/01/2000	SmPC and PL	
I/0001	20_Extension of shelf-life as foreseen at time of authorisation	08/07/1999	25/08/1999	SmPC	
I/0003	08_Change in the qualitative composition of	11/08/1999	n/a		

	immediate packaging material				
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Medicinal product no longer authorised