



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

## Xeloda

Procedural steps taken and scientific information after the authorisation

Application number	Scope	Opinion/ Notification <sup>1</sup> issued on	Commission Decision Issued <sup>2</sup> / amended on	Product Information affected <sup>3</sup>	Summary
PSUSA/531/2-02404	Periodic Safety Update EU Single assessment - capecitabine	30/01/2025	28/03/2025	SmPC	Refer to Scientific conclusions and grounds recommending the variation to terms of the Marketing Authorisation(s) for PSUSA/531/202404.
IB/0101	B.I.b.2.e - Change in test procedure for AS or starting material/reagent/intermediate - Other changes to a test procedure (including replacement	24/04/2024	n/a		

<sup>1</sup> 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.

<sup>2</sup> 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.

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



	or addition) for the AS or a starting material/intermediate				
IA/0100	B.I.b.2.a - Change in test procedure for AS or starting material/reagent/intermediate - Minor changes to an approved test procedure	07/03/2024	n/a		
IAIN/0099/G	<p>This was an application for a group of variations.</p> <p>B.II.b.2.c.1 - Change to importer, batch release arrangements and quality control testing of the FP - Replacement or addition of a manufacturer responsible for importation and/or batch release - Not including batch control/testing</p> <p>B.II.b.2.c.1 - Change to importer, batch release arrangements and quality control testing of the FP - Replacement or addition of a manufacturer responsible for importation and/or batch release - Not including batch control/testing</p>	25/10/2022	12/10/2023	Annex II and PL	
T/0098	Transfer of Marketing Authorisation	24/06/2022	08/07/2022	SmPC, Labelling and PL	
PSUSA/531/202104	Periodic Safety Update EU Single assessment - capecitabine	02/12/2021	n/a		PRAC Recommendation - maintenance
IB/0096	B.I.a.1.z - Change in the manufacturer of AS or of a starting material/reagent/intermediate for AS - Other variation	27/10/2021	n/a		
IA/0097	A.7 - Administrative change - Deletion of	27/09/2021	n/a		

	manufacturing sites				
N/0094	Minor change in labelling or package leaflet not connected with the SPC (Art. 61.3 Notification)	09/08/2021	08/07/2022	PL	
IB/0092	C.I.3.z - 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 - Other variation	05/07/2021	08/07/2022	SmPC and PL	
IA/0093	B.II.b.3.a - Change in the manufacturing process of the finished or intermediate product - Minor change in the manufacturing process	03/05/2021	n/a		
IAIN/0091	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	26/02/2021	27/05/2021	SmPC, Annex II, Labelling and PL	
IA/0090	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)	28/07/2020	n/a		
A31/0085	Pursuant to Article 31 of Directive 2001/83/EC, France requested on 13 March 2019 the opinion of the European Medicines Agency to assess the need to take action at EU level regarding the detection of DPD deficient patients (especially through genotyping and/or phenotyping) in patients treated with fluorouracil and related substances (capecitabine, tegafur and flucytosine). The Agency was requested to assess the impact thereof on the	30/04/2020	03/07/2020	SmPC and PL	Please refer to the assessment report: Xeloda EMEA/H/A-31/1481/C/000316/0085

	benefit-risk balance of fluorouracil and related substances containing products and to give its opinion on whether the marketing authorisation of these products should be maintained, varied, suspended or revoked.				
IB/0089	B.II.f.1.d - Stability of FP - Change in storage conditions of the finished product or the diluted/reconstituted product	03/06/2020	27/05/2021	SmPC, Labelling and PL	
IB/0088	B.I.a.1.z - Change in the manufacturer of AS or of a starting material/reagent/intermediate for AS - Other variation	27/09/2019	n/a		
IA/0087	A.7 - Administrative change - Deletion of manufacturing sites	22/07/2019	n/a		
II/0083	Update of section 4.6 of the SmPC in order to add advice on post treatment female and male contraception period and wash out period before initiation of breastfeeding. 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	27/06/2019	03/07/2020	SmPC and PL	An effective method of contraception should be used during treatment and for 6 months after the last dose of capecitabine. Based on genetic toxicity findings, male patients with female partners of reproductive potential should use effective contraception during treatment and for 3 months following the last dose of capecitabine. No studies have been conducted to assess the impact of capecitabine on milk production or its presence in human breast milk. As the potential for harm to the nursing infant is unknown, breast-feeding should be discontinued while receiving treatment with capecitabine and for 2 weeks after the final dose.

II/0081	<p>Update of sections 4.2, 4.4, 4.8 and 6.6 of the SmPC in relation to cutting or crushing of Xeloda tablets. The Package Leaflet is updated accordingly. In addition, the MAH is taking the opportunity to make some editorial changes to the Product Information.</p> <p>C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data</p>	26/04/2019	27/05/2019	SmPC and PL	Xeloda tablets should be swallowed whole with water within 30 minutes after a meal. Xeloda tablets should not be crushed or cut. In case of exposure of either patient or caregiver to crushed or cut Xeloda tablets adverse drug reactions could occur as follows: eye irritation, eye swelling, skin rash, headache, paresthesia, diarrhoea, nausea, gastric irritation and vomiting.
IA/0086	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)	10/04/2019	n/a		
PSUSA/531/201804	Periodic Safety Update EU Single assessment - capecitabine	31/01/2019	28/03/2019	SmPC and PL	Refer to Scientific conclusions and grounds recommending the variation to terms of the Marketing Authorisation(s)' for PSUSA/531/201804.
IAIN/0084/G	<p>This was an application for a group of variations.</p> <p>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</p> <p>A.7 - Administrative change - Deletion of manufacturing sites</p> <p>B.II.b.1.a - Replacement or addition of a manufacturing site for the FP - Secondary packaging site</p> <p>B.II.b.1.b - Replacement or addition of a</p>	21/03/2019	n/a		

	<p>manufacturing site for the FP - Primary packaging site</p> <p>B.II.d.2.b - Change in test procedure for the finished product - Deletion of a test procedure if an alternative method is already authorised</p>				
IB/0082/G	<p>This was an application for a group of variations.</p> <p>B.I.a.1.z - Change in the manufacturer of AS or of a starting material/reagent/intermediate for AS - Other variation</p> <p>B.I.a.1.z - Change in the manufacturer of AS or of a starting material/reagent/intermediate for AS - Other variation</p>	22/02/2019	n/a		
II/0077	C.I.11.b - Introduction of, or change(s) to, the obligations and conditions of a marketing 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	06/09/2018	n/a		
N/0079	Minor change in labelling or package leaflet not connected with the SPC (Art. 61.3 Notification)	09/08/2018	28/03/2019	PL	
IA/0078/G	<p>This was an application for a group of variations.</p> <p>B.I.a.2.a - Changes in the manufacturing process of the AS - Minor change in the manufacturing process of the AS</p> <p>B.I.a.2.a - Changes in the manufacturing process of the AS - Minor change in the manufacturing process</p>	03/08/2018	n/a		

	<p>of the AS</p> <p>B.I.a.3.a - Change in batch size (including batch size ranges) of AS or intermediate - Up to 10-fold increase compared to the originally approved batch size</p> <p>B.I.a.4.b - Change to in-process tests or limits applied during the manufacture of the AS - Addition of a new in-process test and limits</p> <p>B.I.a.4.z - Change to in-process tests or limits applied during the manufacture of the AS - Other variation</p> <p>B.I.b.2.a - Change in test procedure for AS or starting material/reagent/intermediate - Minor changes to an approved test procedure</p> <p>B.I.b.2.a - Change in test procedure for AS or starting material/reagent/intermediate - Minor changes to an approved test procedure</p>				
II/0074	<p>Update of section 4.4 of the SmPC with regards to DPYD genotyping, following a request from the PRAC after assessment of LEG 033.1.</p> <p>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</p>	22/03/2018	28/03/2019	SmPC	<p>Patients with certain heterozygous DPYD variants (including DPYD*2A, c.1679T&gt;G, c.2846A&gt;T and c.1236G&gt;A/HapB3 variant) have been shown to have increased risk of severe toxicity when treated with capecitabine.</p> <p>The frequency of the heterozygous DPYD*2A genotype in the DYPD gene in Caucasian patients is around 1%, 1.1% for c.2846A&gt;T, 2.6-6.3% for c.1236G&gt;A/HapB3 variants and 0.07 to 0.1% for c.1679T&gt;G Genotyping for these alleles is recommended to identify patients at increased risk for severe toxicity. Data on the frequency of these DPYD variants in other populations than Caucasian is limited. It cannot be excluded that other rare variants may also be associated with an increased risk of severe toxicity.</p> <p>For patients with partial DPD deficiency (such as those with</p>

					<p>heterozygous mutations in the DPYD gene) and where the benefits of Xeloda are considered to outweigh the risks (taking into account the suitability of an alternative non-fluoropyrimidine chemotherapeutic regimen), these patients must be treated with extreme caution and frequent monitoring with dose adjustment according to toxicity. A reduction of the starting dose in these patients may be considered to avoid serious toxicity. There is insufficient data to recommend a specific dose in patients with partial DPD activity as measured by specific test. It has been reported that the DPYD*2A, c.1679T&gt;G variants lead to a greater reduction in enzymatic activity than the other variants with a higher risk of side effects. The consequences of a reduced dose for efficacy are currently uncertain. Therefore, in the absence of serious toxicity the dose could be increased while carefully monitoring the patient.</p> <p>The patients who are tested negative for the above-mentioned alleles may still have a risk of severe adverse events.</p>
T/0076	Transfer of Marketing Authorisation	20/02/2018	16/03/2018	SmPC, Labelling and PL	
IA/0075	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	11/01/2018	n/a		
IB/0072/G	This was an application for a group of variations.	05/10/2017	n/a		



	<p>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</p> <p>B.II.b.2.a - Change to importer, batch release arrangements and quality control testing of the FP - Replacement/addition of a site where batch control/testing takes place</p> <p>B.II.b.4.b - Change in the batch size (including batch size ranges) of the finished product - Downscaling down to 10-fold</p> <p>B.II.b.5.z - Change to in-process tests or limits applied during the manufacture of the finished product - Other variation</p>				
IB/0073/G	<p>This was an application for a group of variations.</p> <p>B.II.d.2.a - Change in test procedure for the finished product - Minor changes to an approved test procedure</p> <p>B.II.d.2.z - Change in test procedure for the finished product - Other variation</p>	20/07/2017	n/a		
IA/0071	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	26/04/2017	n/a		
II/0070	Update of sections 4.4 and 4.8 of the SmPC in order to include a warning on fingerprint loss. The Package	23/06/2016	10/07/2017	SmPC, Annex II, Labelling	

	<p>Leaflet is updated accordingly. The RMP version 9.0 is also agreed. In addition, the Marketing authorisation holder (MAH) took the opportunity to bring the PI in line with the QRD template version 10.</p> <p>C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data</p>			and PL	
PSUSA/531/201504	Periodic Safety Update EU Single assessment - capecitabine	03/12/2015	n/a		PRAC Recommendation - maintenance
II/0067	<p>Update of sections 4.3 and 4.4 of the SmPC in order to modify the wording of the contraindication regarding patients with known dihydropyrimidine dehydrogenase (DPD) deficiency and to add information about warnings and precautions regarding patients with DPD deficiency. The Package Leaflet is updated accordingly. In addition the MAH is deleting one of the conditions related to the submission of the RMP in Annex II.</p> <p>The requested variation proposed amendments to the Summary of Product Characteristics, Package Leaflet, Annex II and the Risk Management Plan (RMP).</p> <p>C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data</p>	24/09/2015	14/01/2016	SmPC, Annex II and PL	Update of sections 4.3 and 4.4 of the SmPC in order to modify the wording of the contraindication regarding patients with known dihydropyrimidine dehydrogenase (DPD) deficiency and to add information about warnings and precautions regarding patients with DPD deficiency. The Package Leaflet is updated accordingly. In addition the MAH is deleting one of the conditions related to the submission of the RMP, as a result Annex II is also being updated.

IG/0573	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	01/07/2015	n/a		
IB/0066/G	<p>This was an application for a group of variations.</p> <p>B.III.2.a.1 - Change of specification(s) of a former non EU Pharmacopoeial substance to fully comply with the Ph. Eur. or with a national pharmacopoeia of a Member State - AS</p> <p>B.I.b.2.a - Change in test procedure for AS or starting material/reagent/intermediate - Minor changes to an approved test procedure</p> <p>B.I.b.2.e - Change in test procedure for AS or starting material/reagent/intermediate - Other changes to a test procedure (including replacement or addition) for the AS or a starting material/intermediate</p> <p>B.I.b.1.z - Change in the specification parameters and/or limits of an AS, starting material/intermediate/reagent - Other variation</p>	13/02/2015	n/a		
II/0064	Update of section of section 4.8 of the SmPC to add the adverse reaction toxic leukoencephalopathy reported in the post-marketing experience with "Very Rare" frequency. Adverse reactions listed from the post-marketing experience have also been integrated into the relevant tables reporting adverse reactions when used in monotherapy or combination therapy in line with a request from the CHMP. The MAH also took the opportunity to make editorial corrections.	22/01/2015	14/01/2016	SmPC	Cases of toxic leukoencephalopathy have been reported in the post-marketing experience with capecitabine; in particular, in 10 of 40 cases of leukoencephalopathy the role of capecitabine can be considered as possible in causing this adverse event as all of these 10 cases demonstrated positive rechallenge. Therefore toxic leukoencephalopathy (not virus associated) is considered a very rare adverse drug reaction.

	C.I.4 - Change(s) in the SPC, Labelling or PL due to new quality, preclinical, clinical or pharmacovigilance data				
PSUSA/531/201404	Periodic Safety Update EU Single assessment - capecitabine	04/12/2014	n/a		PRAC Recommendation - maintenance
IG/0497	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	18/11/2014	n/a		
II/0060	C.I.11.b - Introduction of, or change(s) to, the obligations and conditions of a marketing 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	25/09/2014	n/a		
IB/0062	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	05/08/2014	n/a		
IA/0061	B.I.a.3.b - Change in batch size (including batch size ranges) of AS or intermediate - Downscaling down to 10-fold	16/06/2014	n/a		
N/0059	Minor change in labelling or package leaflet not connected with the SPC (Art. 61.3 Notification)	04/03/2014	15/12/2014	PL	

II/0058	<p>Submission under article 46 of paediatric regulation (EC) no 1901/2006 of the NO21125 final study report on capecitabine and concomitant radiation therapy in children with newly diagnosed brainstem gliomas.</p> <p>C.I.13 - Other variations not specifically covered elsewhere in this Annex which involve the submission of studies to the competent authority</p>	23/01/2014	n/a		Please refer to the Scientific Discussion Xeloda-H-C-316-II-58
II/0057/G	<p>This was an application for a group of variations.</p> <p>Update of section 4.4 of the SmPC with regard to prophylactic treatment of hand-foot syndrome, as recommended in conclusion to the assessment of the latest PSUR 10 (PSU 027). In addition, section 4.5 of the SmPC is updated with regard to interaction with folinic/folic acid upon switching from 5 fluorouracil to capecitabine, as recommended in conclusion to the assessment of PSUR 8. The Package Leaflet is updated accordingly. In addition, minor amendments are made to the SmPC and to the Package Leaflet.</p> <p>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</p> <p>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</p>	23/01/2014	15/12/2014	SmPC and PL	<p>Hand-foot syndrome, also known as hand-foot skin reaction or palmar-plantar erythrodysaesthesia or chemotherapy induced acral erythema is a known adverse drug reaction of Xeloda treatment. There is some evidence that dextranthenol is effective for hand-foot syndrome prophylaxis in patients treated with Xeloda.</p> <p>Folinic acid, and folic acid due to the similarity between the two, have an effect on the pharmacodynamics of capecitabine and the toxicity of capecitabine may be enhanced by folinic/folic acid. The enhanced toxicity may be relevant when switching from 5-FU/LV to a capecitabine regimen. This may also be relevant with folic acid supplementation for folate deficiency.</p>

	assessment done under A 45/46 - Change(s) with new additional data submitted by the MAH				
II/0055	<p>Update of section 4.4 of the SmPC to include acute renal failure as complication of dehydration due to Xeloda treatment and of section 4.8 of the SmPC to include acute renal failure secondary to dehydration as an Adverse Drug Reaction (ADR) of Xeloda therapy in follow-up to the assessment of a relevant Eudravigilance signal. The Package Leaflet is updated accordingly. In addition, minor changes are made to section 5.1 of the SmPC.</p> <p>C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation</p>	18/12/2013	15/12/2014	SmPC and PL	Based on a review of the safety database performed by the MAH, which revealed a number of cases of acute renal failure secondary to dehydration developing in the course of Xeloda treatment, the CHMP considered that an association between acute renal failure secondary to dehydration and capecitabine use was likely. Dehydration developing during Xeloda treatment may cause acute renal failure, especially in patients with pre-existing compromised renal function or when capecitabine is given concomitantly with known nephrotoxic drugs. Acute renal failure secondary to dehydration might be potentially fatal.
II/0054	<p>Update of section 5.1 of the SmPC with updated efficacy and safety information for XELIRI (CAPIRI) and new efficacy and safety information specifically for XELIRI (CAPIRI) +/- bevacizumab and of sections 4.4 and 4.8 in order to include a warning and information on severe skin reactions as adverse drug reactions of Xeloda, respectively, following PRAC recommendations further to the assessment of PSUR 10 (PSU 027). In addition, section 4.2 of the SmPC is updated in order to include additional dose recommendations on the combination with irinotecan. The Package Leaflet is updated accordingly.</p> <p>C.I.3.b - Change(s) in the SPC, Labelling or PL intended to implement the outcome of a procedure</p>	21/11/2013	18/12/2013	SmPC and PL	In metastatic colorectal cancer, the efficacy of XELIRI (capecitabine+irinotecan) regimens is similar to that of FOLFIRI (5 fluorouracil+irinotecan) regimens and modified XELIRI regimens (employing lower doses of capecitabine and irinotecan) are not associated with loss of efficacy. Although studies which have included XELIRI +/- bevacizumab have shown variable results with respect to efficacy and toxicity, tolerance to treatment may be improved by modifying (dose reduction) the capecitabine and irinotecan doses used. Although the regimen using capecitabine 1000mg/m <sup>2</sup> bid + irinotecan 250mg/m <sup>2</sup> is the most frequently used one, the optimal dose combination has not been established. For combination with irinotecan, the recommended starting dose of Xeloda is 800 mg/m <sup>2</sup> when administered twice daily for 14 days followed by a 7-day rest period combined with irinotecan 200 mg/m <sup>2</sup> on

	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				day 1. In addition, severe skin reactions such as Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported as very rare adverse reactions during Xeloda treatment. Xeloda should be permanently discontinued in patients who experience a severe skin reaction.
IA/0056	A.7 - Administrative change - Deletion of manufacturing sites	14/10/2013	n/a		
II/0053	<p>Update of sections 4.4 and 4.8 of the SmPC in order to add a warning regarding ophthalmologic complications and to include corneal disorders, keratitis, punctate keratitis and cutaneous lupus erythematosus as adverse drug reactions during Xeloda treatment as requested by CHMP following the assessment of PS2 024.1. The Package Leaflet is updated accordingly. Minor editorial amendments are made to the SmPC and Package Leaflet. In addition, the MAH took the opportunity to update the list of local representatives in the Package Leaflet with the addition of the Croatian representative. Furthermore, the PI is being brought in line with the latest QRD template version 9.0.</p> <p>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</p>	30/05/2013	29/11/2013	SmPC, Annex II and PL	Following relevant rare cases reported in the post-marketing setting, ophthalmologic complications (corneal disorders, keratitis, punctate keratitis) and cutaneous lupus erythematosus were included in the list of adverse drug reactions of Xeloda in section 4.8 of the SmPC. In addition, a warning has been included in section 4.4 of the SmPC highlighting that patients should be carefully monitored for ophthalmological complications such as keratitis and corneal disorders, especially if they have a prior history of eye disorders. Treatment of eye disorders should be initiated as clinically appropriate. The package leaflet was updated accordingly.

IA/0052/G	<p>This was an application for a group of variations.</p> <p>B.II.b.2.a - Change to batch release arrangements and quality control testing of the FP - Replacement or addition of a site where batch control/testing takes place</p> <p>B.II.b.2.a - Change to batch release arrangements and quality control testing of the FP - Replacement or addition of a site where batch control/testing takes place</p>	13/12/2012	n/a		
IG/0228	C.I.z - Changes (Safety/Efficacy) of Human and Veterinary Medicinal Products - Other variation	23/11/2012	n/a		
II/0049	<p>Update of sections 4.2 and 4.4 of the SmPC in order to include wording related to DPD deficiency in follow up to the assessment of PSUR 9. Moreover, section 4.5 of the SmPC is updated with regard to interaction with cytochrome P450 substrates and radiation recall syndrome is added as a new Adverse Drug Reaction in section 4.8 of the SmPC. Minor changes are made to the SmPC and Package Leaflet (PL) including changes to sections 4.2, 4.6 and 5.1 in line with the SmPC Guideline. The PL is updated accordingly and it is extensively revised to reflect information in the SmPC. In addition, the MAH took the opportunity to update the list of local representatives in the Package Leaflet. Furthermore, the PI is being brought in line with the QRD template version 8.1 (July 2011).</p> <p>C.I.3.b - Implementation of change(s) requested</p>	15/11/2012	29/11/2013	SmPC, Annex II, Labelling and PL	<p>Severe toxicities have rarely been reported in patients treated with 5-FU, which have been attributed to a deficiency of dihydropyrimidine dehydrogenase (DPD). Patients with known DPD deficiency should not be treated with capecitabine (Xeloda), a pro-drug of 5-FU. Careful monitoring during the first cycle of treatment is recommended for all patients. In patients with unrecognised DPD deficiency treated with Xeloda, life-threatening toxicities manifesting as acute overdose may occur. In the event of grade 2-4 acute toxicity, treatment must be discontinued immediately until toxicity resolves and permanent discontinuation should be considered. Other than warfarin, no formal drug-drug interaction studies between capecitabine and other CYP2C9 substrates have been conducted. Care should be exercised when capecitabine is co-administered with 2C9 substrates (e.g., phenytoin).</p> <p>Finally, radiation recall syndrome has uncommonly been</p>



	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				reported with capecitabine in the scientific literature.
A20/0048	Pursuant to Article 20 of Regulation (EC) No 726/2004, the European Commission requested on 15 December 2011, the opinion of the CHMP on measures necessary to ensure the quality and the safe use of the above mentioned medicinal product further to the inspection findings at the manufacturing site Roche Carolina Inc. (RCI), Florence, in the United States of America (USA), to assess the impact thereof on the risk-benefit balance of Xeloda and to give its opinion whether the marketing authorisation of this product should be maintained, varied, suspended or withdrawn.	19/07/2012	20/09/2012		Please refer to the assessment report : EMEA/H/C/316/A-20/0048
N/0050	Update the contact telephone number for Roche, France in the Package leaflet.  Minor change in labelling or package leaflet not connected with the SPC (Art. 61.3 Notification)	11/09/2012	29/11/2013	PL	
II/0047	Update of sections 4.4 and 4.8 of the Summary of Product Characteristics (SmPC) in order to revise the wording related to cardiotoxicity as requested by the CHMP further to the assessment of cardiac safety signals identified in the Eudravigilance database.	19/05/2011	17/06/2011	SmPC, Annex II and PL	Following cases of QT prolongation, torsades de point, ventricular fibrillation and bradycardia reported with Xeloda in Eudravigilance and a relevant review in the Marketing Authorisation Holder's safety database, these terms were added in the list of Adverse Drug Reactions of Xeloda in

	<p>In addition, the MAH took the opportunity to update section 4.6 of the SmPC and Annex II to bring them in line with the current QRD template and to make editorial changes to the Package Leaflet.</p> <p>C.I.4 - Variations related to significant modifications of the SPC due in particular to new quality, pre-clinical, clinical or pharmacovigilance data</p>				<p>section 4.8 of the SmPC with a reported frequency very rare. The relevant wording on cardiototoxicity in section 4.4 of the SmPC was also amended to include these terms as examples of electrocardiographic changes/arrhythmias.</p>
II/0043	<p>Addition of an alternative manufacturing site.</p> <p>Quality changes</p>	22/07/2010	04/08/2010		
IA/0046	A.5.b - Administrative change - Change in the name and/or address of a manufacturer of the finished product, including quality control sites (excluding manufacturer for batch release)	21/07/2010	n/a		
IB/0045/G	<p>This was an application for a group of variations.</p> <p>A.4 - Administrative change - Change in the name and/or address of a manufacturer or supplier of the AS, starting material, reagent or intermediate used in the manufacture of the AS</p> <p>B.I.a.1.z - Change in the manufacturer of AS or of a starting material/reagent/intermediate for AS - Other variation</p> <p>B.I.a.3.z - Change in batch size (including batch size ranges) of AS or intermediate - Other variation</p> <p>B.I.b.1.b - Change in the specification parameters and/or limits of an AS, starting material/intermediate/reagent - Tightening of</p>	09/06/2010	n/a		

	<p>specification limits</p> <p>B.I.b.1.z - Change in the specification parameters and/or limits of an AS, starting material/intermediate/reagent - Other variation</p> <p>B.I.b.2.e - Change in test procedure for AS or starting material/reagent/intermediate - Other changes to a test procedure (including replacement or addition) for the AS or a starting material/intermediate</p> <p>B.I.b.2.c - Change in test procedure for AS or starting material/reagent/intermediate - Other changes to a test procedure for a reagent, which does not have a significant effect on the overall quality of the AS</p>				
II/0044	<p>Update of sections 4.2, 4.8 and 5.1 of the SPC to include the safety and efficacy results from the pivotal study NO16968 and the final results of the meta-analysis requested at the time of the extension of indication in advanced gastric cancer. The MAH also took the opportunity to perform minor editorial amendments and update the list of local representatives in the Package Leaflet, as well as to revise Annex II with information on the Risk Management Plan according to the latest QRD template.</p> <p>Update of Summary of Product Characteristics and Package Leaflet</p>	18/02/2010	23/03/2010	SmPC, Annex II and PL	The MAH submitted an additional clinical study (NO16968) on the combination of capecitabine with oxaliplatin in the adjuvant treatment of colon cancer. The MAH further fulfilled all post authorisation commitments undertaken at the time of the extension of indication in advanced gastric cancer including meta-analyses involving all submitted gastrointestinal cancer studies. Section 4.2 of the SPC has been updated to include recommendations regarding combination therapy in the adjuvant treatment of colon cancer and recommendations specific to the combination with oxaliplatin. Section 5.1 has been updated with efficacy data from the combination trial in the adjuvant treatment of colon cancer. Sections 4.8 and 5.1 have also been updated to reflect the results of study NO 16968 and of the updated meta-analyses.
IB/0041	IB_10_Minor change in the manufacturing process of	23/07/2009	n/a		

	the active substance				
IB/0040	IB_38_c_Change in test procedure of finished product - other changes	16/06/2009	n/a		
IA/0039	IA_38_a_Change in test procedure of finished product - minor change to approved test procedure	02/06/2009	n/a		
IB/0036	IB_07_c_Replacement/add. of manufacturing site: All other manufacturing operations ex. batch release	14/04/2009	n/a		
II/0035	Changes in the synthetic process of the active substance.  Update of or change(s) to the pharmaceutical documentation	19/03/2009	03/04/2009		
IA/0038	IA_38_a_Change in test procedure of finished product - minor change to approved test procedure	26/03/2009	n/a		
IA/0037	IA_07_a_Replacement/add. of manufacturing site: Secondary packaging site IA_07_b_01_Replacement/add. of manufacturing site: Primary packaging site - Solid forms	26/03/2009	n/a		
II/0034	Update of sections 4.2, 4.3, 4.4, 4.5, 4.8 and 5.1 of the SPC to fulfil the Clinical Follow Up Measure to provide the results of the safety meta-analysis, including studies NO16966 and NO16967. The Package Leaflet has been amended accordingly.  Update of Summary of Product Characteristics and	25/09/2008	31/10/2008	SmPC and PL	This variation has resulted in a condensed and easier to reproduce display of the relevant information (specifically as regards to sec. 4.8) of the SPC of Xeloda 150 and 500 mg Film-coated tablets.  The requested and performed meta-analysis did clarify several issues and question of the past, or provided further

	Package Leaflet				<p>insights into phenomena observed. The information relevant for the prescriber deriving from this analysis are contained in the revised SPC, section 4.5.</p> <p>The concerns also ultimately confirmed in the multi-factorial Cox regression analysis (submitted with the responses), is that starting dose is seemingly more relevant than e.g. cumulative dose for the outcome of the patient. This is, however, the result of a meta-analysis. Concerning dose recommendations/recommendations for dose adjustments, these are derived from the results of single trials in a pre-specified population (i.e., on the "history" of the currently licensed posology as of section 4.2).</p>
II/0033	<p>The MAH applied to update section 5.1 of the SPC to include the long-term efficacy data based on the 5 year results for disease-free survival (DFS) and overall survival (OS) from study M66001 (X-ACT) following the completion of a clinical FUM.</p> <p>Update of Summary of Product Characteristics</p>	21/02/2008	27/03/2008	SmPC	<p>The positive benefit-risk assessment as concluded when Xeloda was assessed for the adjuvant indication in colon cancer stage III is now reconfirmed by the data after patients had been followed up for 5 years as part of the commitments of the Marketing Authorisation Holder. In addition, these new data confirm that 3 year DFS in colon cancer stage III treated with surgery and adjuvant chemotherapy predicts 5 year OS as already postulated in several preceding publications.</p> <p>Xeloda was shown to be superior to bolus 5-FU/LV in a pre-planned multivariate Cox analysis therefore, the data for disease free survival (HR = 0.849 [95% CI: 0.739 - 0.976], p = 0.0212), as well as for overall survival (HR = 0.828 [95% CI: 0.705 - 0.971], p = 0.0203) were added in section 5.1.</p> <p>Furthermore, in the light of the increasing role of FOLFOX in the adjuvant treatment of colon cancer stage II-III, it</p>

					was suggested to further improve the SPC by clearly giving the information in sec. 5.1 that experience with adjuvant Xeloda combination therapy in colon cancer stage (II-) III is currently lacking.
II/0028	Widening of the current indication to: "Xeloda is indicated for the treatment of metastatic colorectal cancer". The MAH took the opportunity to update the contact details of the local representations of Estonia and Finland in the Package Leaflet.  Extension of Indication	13/12/2007	31/01/2008	SmPC, Annex II, Labelling and PL	Please refer to the Scientific Discussion for further information.
IA/0032	IA_29_b_Change in qual./quant. composition of immediate packaging - all other pharm. forms	13/12/2007	n/a	SmPC	
IB/0029	IB_07_c_Replacement/add. of manufacturing site: All other manufacturing operations ex. batch release	19/09/2007	n/a		
IA/0030	IA_08_a_Change in BR/QC testing - repl./add. of batch control/testing site	20/07/2007	n/a		
IB/0026	IB_10_Minor change in the manufacturing process of the active substance	02/04/2007	n/a		
IB/0025	IB_10_Minor change in the manufacturing process of the active substance	02/04/2007	n/a		
II/0018	The MAH applied to extend the indication to include "Xeloda is indicated for first-line treatment of advanced gastric cancer in combination with a platinum-based regimen". The MAH has also applied	22/02/2007	28/03/2007	SmPC, Annex II, Labelling and PL	Please refer to Scientific Discussion for further information.

	to revise section 4.8 of the SPC regarding Post-Marketing Experience, to update the Labelling section 16. "Information in Braille" and to update the Package Leaflet according to the latest QRD template.  Extension of Indication				
IA/0027	IA_13_a_Change in test proc. for active substance - minor change	23/01/2007	n/a		
IB/0019	IB_14_b_Change in manuf. of active substance without Ph. Eur. certificate - new manufacturer	14/12/2006	n/a		
IA/0024	IA_32_a_Change in batch size of the finished product - up to 10-fold	14/12/2006	n/a		
IB/0021	Modules 1, 2 and 3  IB_07_c_Replacement/add. of manufacturing site: All other manufacturing operations ex. batch release	14/11/2006	n/a		
IA/0023	IA_38_a_Change in test procedure of finished product - minor change to approved test procedure	20/10/2006	n/a		
IA/0022	IA_08_a_Change in BR/QC testing - repl./add. of batch control/testing site	20/10/2006	n/a		
IA/0020	IA_05_Change in the name and/or address of a manufacturer of the finished product	16/10/2006	n/a	Annex II and PL	

II/0017	Update of Summary of Product Characteristics and Package Leaflet	27/04/2006	31/05/2006	SmPC and PL	The MAH applied for revisions of section 4.8 "Undesirable effects" of the SPC to minimize redundancies in the section "uncommon adverse events" and section 4.2 "Posology and Method of Administration" in order to specify the posology for each of the indications of Xeloda. Amendments of the contact details for the local representative in Latvia were also implemented in the Package Leaflet.
R/0015	Renewal of the marketing authorisation.	14/12/2005	09/02/2006	SmPC, Annex II, Labelling and PL	
IA/0016	IA_23_b_Change in source of excip./reagent to veg./synthetic material - other cases	13/01/2006	n/a		
II/0012	Update of or change(s) to the pharmaceutical documentation	13/10/2005	20/10/2005		
IA/0014	IA_01_Change in the name and/or address of the marketing authorisation holder	03/10/2005	n/a	SmPC, Labelling and PL	
IA/0013	IA_11_a_Change in batch size of active substance or intermediate - up to 10-fold	08/08/2005	n/a		
II/0009	Extension of Indication	17/02/2005	30/03/2005	SmPC and PL	To extend the indication for the adjuvant treatment of patients following surgery of stage III (Dukes' stage C) colon cancer.
IA/0011	IA_07_b_01_Replacement/add. of manufacturing site: Primary packaging site - Solid forms	04/03/2005	n/a		
IA/0010	IA_09_Deletion of manufacturing site	04/03/2005	n/a		



II/0008	Update of Summary of Product Characteristics and Package Leaflet	26/02/2004	25/03/2004	SmPC, Annex II and PL	
I/0007	12_Minor change of manufacturing process of the active substance	26/02/2003	11/03/2003		
I/0006	16_Change in the batch size of finished product	26/02/2003	11/03/2003		
I/0005	15_Minor changes in manufacture of the medicinal product	26/02/2003	11/03/2003		
I/0004	13_Batch size of active substance	26/02/2003	11/03/2003		
I/0003	24_Change in test procedure of active substance	26/02/2003	11/03/2003		
II/0001	Extension of Indication	18/10/2001	21/03/2002	SmPC and PL	
I/0002	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	04/07/2001	n/a		