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Trial record **1 of 1** for: CRAD001ADE02

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Comparison of CNI-based Regimen Versus CNI-free Regimen in Kidney Transplant Recipients.

This study has been terminated.

(The trial was terminated early due to slow enrollment. It was determined that the planned sample size of 300 could not be achieved.)

Sponsor:
Novartis Pharmaceuticals

Information provided by (Responsible Party):
Novartis (Novartis Pharmaceuticals)

ClinicalTrials.gov Identifier:
NCT00332839

First received: May 31, 2006
Last updated: August 15, 2014
Last verified: August 2014
History of Changes

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Results First Received: March 14, 2014

Study Type:	Interventional
Study Design:	Allocation: Randomized; Endpoint Classification: Safety/Efficacy Study; Intervention Model: Parallel Assignment; Masking: Open Label; Primary Purpose: Prevention
Condition:	Renal Transplantation
Interventions:	Drug: Everolimus Drug: Cyclosporin A (CsA) Drug: Tacrolimus Drug: Enteric Coated - Mycophenolate Sodium (EC-MPS) Drug: Corticosteroids

Participant Flow

Hide Participant Flow

Recruitment Details

Key information relevant to the recruitment process for the overall study, such as dates of the recruitment period and locations
Renal transplant recipients at least 6 months post transplantation were randomized to the CNI group or Certican group. Post 12 months, participants entered a follow-up phase for an additional 48 months. Thirty-three participants in the CNI group and 34 participants in the Certican group had a month 60 follow-up status.

Pre-Assignment Details

Significant events and approaches for the overall study following participant enrollment, but prior to group assignment
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Participant Flow for 2 periods

Period 1: Core (Months 0 - 12)

	Calcineurin Inhibitor (CNI) Group	Certican Group
STARTED	47	46
Safety Set	47	46
COMPLETED	37	28
NOT COMPLETED	10	18
Administrative problems	1	1
Withdrawal by Subject	3	1
Protocol deviation	1	1
Adverse Event	5	15

Period 2: Follow-up (Months 12 - 60)

	Calcineurin Inhibitor (CNI) Group	Certican Group
STARTED	33 [1]	34 [1]
COMPLETED	29	31
NOT COMPLETED	4	3
Withdrawal by Subject	1	1
Lost to Follow-up	2	1
Death	1	1

[1] Follow-up included core participants (completed or discontinued) who wished to be followed.

Baseline Characteristics

Hide Baseline Characteristics

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).
Total	Total of all reporting groups

Baseline Measures

	Calcineurin Inhibitor (CNI) Group	Certican Group	Total
Number of Participants [units: participants]	47	46	93
Age [units: Years]	49.8 (11.1)	51.0 (10.3)	50.4 (10.7)

Mean (Standard Deviation)			
Gender [units: Participants]			
Female	**12**	**17**	**29**
Male	**35**	**29**	**64**

Outcome Measures

Hide All Outcome Measures

1. Primary: Renal Function [Time Frame: 12 months]

Measure Type	Primary
Measure Title	Renal Function
Measure Description	The analysis for this outcome measure was not perfomed because the analyses could not be powered for efficacy due to low recruitment.
Time Frame	12 months
Safety Issue	No

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Measured Values

	Calcineurin Inhibitor (CNI) Group	**Certican Group**
Number of Participants Analyzed [units: participants]	**0**	**0**
Renal Function		

No statistical analysis provided for Renal Function

2. Secondary: Biopsy Proven Acute Rejection, Graft Loss, and Death [Time Frame: 12 months]

Measure Type	Secondary
Measure Title	Biopsy Proven Acute Rejection, Graft Loss, and Death
Measure Description	The analysis for this outcome measure was not perfomed because the analyses could not be powered for efficacy due to low recruitment.
Time Frame	12 months
Safety Issue	No

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Measured Values

	Calcineurin Inhibitor (CNI) Group	**Certican Group**
Number of Participants Analyzed [units: participants]	**0**	**0**
Biopsy Proven Acute Rejection, Graft Loss, and Death		

No statistical analysis provided for Biopsy Proven Acute Rejection, Graft Loss, and Death

3. Secondary: Occurrence of Treatment Failures [Time Frame: 12 months]

Measure Type	Secondary
Measure Title	Occurrence of Treatment Failures
Measure Description	The analysis for this outcome measure was not perfomed because the analyses could not be powered for efficacy due to low recruitment.
Time Frame	12 months
Safety Issue	No

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Measured Values

	Calcineurin Inhibitor (CNI) Group	**Certican Group**
Number of Participants Analyzed [units: participants]	**0**	**0**
Occurrence of Treatment Failures		

No statistical analysis provided for Occurrence of Treatment Failures

4. Secondary: Evolution of Renal Function [Time Frame: Baseline, 12 months]

Measure Type	Secondary
Measure Title	Evolution of Renal Function
Measure Description	The analysis for this outcome measure was not perfomed because the analyses could not be powered for efficacy due to low recruitment.
Time Frame	Baseline, 12 months
Safety Issue	No

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Measured Values

	Calcineurin Inhibitor (CNI) Group	**Certican Group**
Number of Participants Analyzed [units: participants]	**0**	**0**
Evolution of Renal Function		

No statistical analysis provided for Evolution of Renal Function

5. Secondary: Number of Participants Who Experienced Adverse Events and Death [Time Frame: 12 months]

Measure Type	Secondary
Measure Title	Number of Participants Who Experienced Adverse Events and Death
Measure Description	Participants were monitored for adverse events, serious adverse events and deaths thorughout the prospective and follow-up phases of the study.
Time Frame	12 months
Safety Issue	Yes

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
The safety set, which included all randomized participants, comprised the analysis population.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Measured Values

	Calcineurin Inhibitor (CNI) Group	Certican Group
Number of Participants Analyzed [units: participants]	**47**	**46**
Number of Participants Who Experienced Adverse Events and Death [units: Participants]		
Adverse events (serious and non-serious)	**44**	**44**
Serious adverse events	**11**	**12**
Deaths	**1**	**1**

No statistical analysis provided for Number of Participants Who Experienced Adverse Events and Death

6. Secondary: Changes in Cardiovascular Risk [Time Frame: Baseline, 12 months]

Measure Type	Secondary
Measure Title	Changes in Cardiovascular Risk
Measure Description	The analysis for this outcome measure was not perfomed because the analyses could not be powered for efficacy due to low recruitment.
Time Frame	Baseline, 12 months
Safety Issue	Yes

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Measured Values

	Calcineurin Inhibitor (CNI) Group	Certican Group
Number of Participants Analyzed [units: participants]	**0**	**0**
Changes in Cardiovascular Risk		

No statistical analysis provided for Changes in Cardiovascular Risk

7. Secondary: Changes in Proteinuria [Time Frame: Baseline, 12 months]

Measure Type	Secondary
Measure Title	Changes in Proteinuria
Measure Description	The analysis for this outcome measure was not perfomed because the analyses could not be powered for efficacy due to low recruitment.
Time Frame	Baseline, 12 months
Safety Issue	Yes

Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.
No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Measured Values

	Calcineurin Inhibitor (CNI) Group	**Certican Group**
Number of Participants Analyzed [units: participants]	**0**	**0**
Changes in Proteinuria		

No statistical analysis provided for Changes in Proteinuria

Serious Adverse Events

Hide Serious Adverse Events

Time Frame	No text entered.
Additional Description	No text entered.

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Serious Adverse Events

	Calcineurin Inhibitor (CNI) Group	**Certican Group**
Total, serious adverse events		
# participants affected / at risk	**11/47 (23.40%)**	**12/46 (26.09%)**

Blood and lymphatic system disorders		
Anaemia † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Bone marrow failure † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Thrombocytopenia † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Cardiac disorders		
Atrial fibrillation † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Cardiac arrest † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Coronary artery disease † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Gastrointestinal disorders		
Anal haemorrhage † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Diarrhoea † 1		
# participants affected / at risk	**2/47 (4.26%)**	**1/46 (2.17%)**
Dyspepsia † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Enterocolitis † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Inguinal hernia † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Retroperitoneal haematoma † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Umbilical hernia † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
General disorders		
Multi-organ failure † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Nodule † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Pyrexia † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Infections and infestations		
Abscess † 1		
# participants affected / at risk	**1/47 (2.13%)**	**0/46 (0.00%)**
Cystitis klebsiella † 1		
# participants affected / at risk	**0/47 (0.00%)**	**1/46 (2.17%)**
Cytomegalovirus colitis † 1		
# participants affected / at risk	**1/47 (2.13%)**	**1/46 (2.17%)**
Cytomegalovirus gastroenteritis † 1		

# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Erysipelas † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Gastroenteritis † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Herpes simplex † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Infection † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Pneumonia † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Pneumonia staphylococcal † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Proteus infection † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Respiratory tract infection † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Sepsis † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Urinary tract infection † 1		
# participants affected / at risk	1/47 (2.13%)	3/46 (6.52%)
Wound infection † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Wound infection staphylococcal † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Injury, poisoning and procedural complications		
Graft dysfunction † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Incisional hernia † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Radius fracture † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Transplant failure † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Investigations		
Blood creatinine increased † 1		
# participants affected / at risk	2/47 (4.26%)	0/46 (0.00%)
Blood human chorionic gonadotropin increased † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Weight decreased † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Metabolism and nutrition disorders		
Acidosis † 1		

# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Dehydration † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)		
Basal cell carcinoma † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Bowen's disease † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Cervix carcinoma † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Nervous system disorders		
Guillain-Barre syndrome † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Migraine without aura † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)
Renal and urinary disorders		
Albuminuria † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Calculus bladder † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Renal failure † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Reproductive system and breast disorders		
Testicular disorder † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Respiratory, thoracic and mediastinal disorders		
Dyspnoea † 1		
# participants affected / at risk	0/47 (0.00%)	1/46 (2.17%)
Vascular disorders		
Hypertensive crisis † 1		
# participants affected / at risk	1/47 (2.13%)	0/46 (0.00%)

† Events were collected by systematic assessment
1 Term from vocabulary, 10.1

Other Adverse Events

Hide Other Adverse Events

Time Frame	No text entered.
Additional Description	No text entered.

Frequency Threshold

Threshold above which other adverse events are reported	5%

Reporting Groups

	Description
Calcineurin Inhibitor (CNI) Group	Participants received Cyclosporine A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids, or Tacrolimus A (CsA) plus Enteric Coated Mycophenolate Sodium (EC-MPS) plus corticosteroids.
Certican Group	Participants were switched in a step-wise fashion from the CNI based regimen to Everolimus (RAD001).

Other Adverse Events

	Calcineurin Inhibitor (CNI) Group	Certican Group
Total, other (not including serious) adverse events		
# participants affected / at risk	**31/47 (65.96%)**	**41/46 (89.13%)**
Blood and lymphatic system disorders		
Anaemia † 1		
# participants affected / at risk	**3/47 (6.38%)**	**8/46 (17.39%)**
Leukopenia † 1		
# participants affected / at risk	**2/47 (4.26%)**	**6/46 (13.04%)**
Gastrointestinal disorders		
Abdominal pain † 1		
# participants affected / at risk	**5/47 (10.64%)**	**1/46 (2.17%)**
Aphthous stomatitis † 1		
# participants affected / at risk	**0/47 (0.00%)**	**12/46 (26.09%)**
Diarrhoea † 1		
# participants affected / at risk	**10/47 (21.28%)**	**7/46 (15.22%)**
General disorders		
Oedema peripheral † 1		
# participants affected / at risk	**3/47 (6.38%)**	**11/46 (23.91%)**
Infections and infestations		
Nasopharyngitis † 1		
# participants affected / at risk	**11/47 (23.40%)**	**11/46 (23.91%)**
Urinary tract infection † 1		
# participants affected / at risk	**1/47 (2.13%)**	**5/46 (10.87%)**
Investigations		
Blood creatine phosphokinase increased † 1		
# participants affected / at risk	**1/47 (2.13%)**	**6/46 (13.04%)**
Blood creatinine increased † 1		
# participants affected / at risk	**8/47 (17.02%)**	**0/46 (0.00%)**
Metabolism and nutrition disorders		
Hypercholesterolaemia † 1		
# participants affected / at risk	**0/47 (0.00%)**	**5/46 (10.87%)**
Hyperlipidaemia † 1		
# participants affected / at risk	**0/47 (0.00%)**	**6/46 (13.04%)**
Musculoskeletal and connective tissue disorders		
Arthralgia † 1		
# participants affected / at risk	**3/47 (6.38%)**	**6/46 (13.04%)**
Renal and urinary disorders		

Proteinuria † 1		
# participants affected / at risk	**3/47 (6.38%)**	**15/46 (32.61%)**
Respiratory, thoracic and mediastinal disorders		
Cough † 1		
# participants affected / at risk	**9/47 (19.15%)**	**8/46 (17.39%)**
Skin and subcutaneous tissue disorders		
Acne † 1		
# participants affected / at risk	**1/47 (2.13%)**	**6/46 (13.04%)**
Pruritus † 1		
# participants affected / at risk	**0/47 (0.00%)**	**5/46 (10.87%)**

† Events were collected by systematic assessment
1 Term from vocabulary, 10.1

Limitations and Caveats

Hide Limitations and Caveats

Limitations of the study, such as early termination leading to small numbers of participants analyzed and technical problems with measurement leading to unreliable or uninterpretable data
Adverse Events data were not collected during the Follow-up period.

More Information

Hide More Information

Certain Agreements:

Principal Investigators are **NOT** employed by the organization sponsoring the study.

There **IS** an agreement between Principal Investigators and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

The agreement is:

☐ The only disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is **less than or equal to 60 days**. The sponsor cannot require changes to the communication and cannot extend the embargo.

☐ The only disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is **more than 60 days but less than or equal to 180 days**. The sponsor cannot require changes to the communication and cannot extend the embargo.

Other disclosure agreement that restricts the right of the PI to discuss or publish trial results after the trial is completed.

☑ **Restriction Description:** The terms and conditions of Novartis' agreements with its investigators may vary. However, Novartis does not prohibit any investigator from publishing. Any publications from a single-site are postponed until the publication of the pooled data (i.e., data from all sites) in the clinical trial or disclosure of trial results in their entirety.

Results Point of Contact:

Name/Title: Study Director
Organization: Novartis Pharmaceuticals
phone: +1 (862) 778-8300

No publications provided

Responsible Party: Novartis (Novartis Pharmaceuticals)
ClinicalTrials.gov Identifier: NCT00332839 History of Changes

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Study First Received:	May 31, 2006
Results First Received:	March 14, 2014
Last Updated:	August 15, 2014
Health Authority:	United States: Food and Drug Administration Germany: Federal Institute for Drugs and Medical Devices