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Update

Investor Update



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Basel, 6 June 2006

New study suggests combining breakthrough therapies Tarceva and Avastin may provide more hope for lung cancer patients

A new study¹ suggests that treatment with the combination of the innovative cancer drugs Avastin (bevacizumab) and Tarceva (erlotinib) or Avastin with chemotherapy, improves progression-free survival in patients with recurrent or refractory non-small cell lung cancer (NSCLC), the most common form of lung cancer, when compared with standard chemotherapy alone. Progression-free survival is the time patients live without their cancer advancing. These data were presented today at the 42nd Annual Meeting of the American Society of Clinical Oncology (ASCO), Atlanta.

“These findings signal the potential for combining novel therapies that target different cancer growth pathways, to achieve better overall patient outcomes, with a low incidence of serious side effects,” said Willem Verhoofstad, Global Business Director for Roche Oncology. “We are continuing to invest and explore the safety and efficacy of the Avastin and Tarceva combination and are currently conducting Phase III trials with both products in first-line and relapsed NSCLC settings.”

The randomised, Phase II exploratory study evaluated three treatment regimens in patients with recurrent or refractory NSCLC:

- Avastin in addition to Tarceva
- Avastin in addition to chemotherapy (either pemetrexed or docetaxel)
- Chemotherapy alone (either pemetrexed or docetaxel) as control arm

The study suggests that Avastin in combination with Tarceva or chemotherapy improves progression-free survival, the primary study endpoint, compared to chemotherapy alone. Median progression-free survival in the Avastin plus chemotherapy arm was 4.8 months, and was 4.4 months in the Avastin plus Tarceva arm, compared to just 3.0 months in the chemotherapy alone arm. The study results also showed that the toxicity profile of the Avastin plus Tarceva combination was favourable, resulting in fewer serious adverse events, when compared to either chemotherapy-containing arm. Due to the exploratory nature of this randomised Phase II study, these data do not provide definitive conclusions with respect to differences between the three treatment arms.

About the Phase II Exploratory Study

120 patients with recurrent or refractory NSCLC, who had not received previous treatment with Avastin or Tarceva, were enrolled into this study. Patients in the study had histologically or cytologically confirmed non-squamous NSCLC and had experienced clinical or radiographic disease progression during or following one platinum-based chemotherapy regimen for advanced stage disease (IIIb or IV).

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The key study results showed:

- Treatment with Avastin plus Tarceva reduced the risk of cancer progression or death by 28 percent compared to chemotherapy alone (based on a hazard ratio of 0.72).
- Treatment with Avastin plus chemotherapy reduced the risk of cancer progression or death by 34 percent compared to chemotherapy alone (based on a hazard ratio of 0.66),
- Treatment with Avastin plus Tarceva saw 78% of patients alive at six months (median progression-free survival 4.4 months)
- Treatment with Avastin plus chemotherapy saw 72% of patients alive at six months (median progression-free survival 4.8 months)
- Treatment with chemotherapy alone saw 62% of patients alive at six months (median progression-free survival 3.0 months)
- The toxicity profile of the Avastin plus Tarceva combination was favourable, resulting in fewer serious adverse events, when compared to either chemotherapy-containing arm
- Adverse events in the Avastin plus Tarceva arm were similar to those observed in previous clinical trials of Avastin in combination with Tarceva, and included diarrhoea and rash
- Adverse events in the Avastin plus chemotherapy arm were similar to those observed in previous clinical trials of Avastin in combination with chemotherapy, and included hypertension and bleeding

About Tarceva

Tarceva is an investigational small molecule that targets the human epidermal growth factor receptor (HER1) pathway. HER1, also known as EGFR, is a key component of this signalling pathway, which plays a role in the formation and growth of numerous cancers. Tarceva blocks tumour cell growth by inhibiting the tyrosine kinase activity of the HER1 signalling pathway inside the cell.

Taken as an oral, once-daily therapy, Tarceva is the only EGFR-inhibitor to have demonstrated a survival benefit in lung cancer. Currently most lung cancer patients are treated with chemotherapy which can be very debilitating due to its toxic nature. Tarceva works differently to chemotherapy by specifically targeting tumour cells, and avoids the typical side-effects of chemotherapy.

Tarceva is approved in the US and across the European Union for patients with locally advanced or metastatic non small cell lung cancer (NSCLC) after failure of at least one prior chemotherapy regimen. Tarceva is approved in the US in combination with gemcitabine chemotherapy for the treatment of patients with locally advanced, inoperable or metastatic pancreatic cancer. A Marketing Authorisation Application was submitted to the European health authorities in November 2005.

Tarceva is currently being evaluated in an extensive clinical development programme by a global alliance among OSI Pharmaceuticals, Genentech, and Roche, focussing on earlier stages of NSCLC. Additionally, Tarceva is being studied in combination with Avastin in NSCLC. Trials are also being conducted with Tarceva in other solid tumours, such as ovarian, bronchioloalveolar (BAC), colorectal, pancreatic, head and neck and glioma (brain).

About Avastin

Avastin is the first treatment that inhibits angiogenesis – the growth of a network of blood vessels that supplies nutrients and oxygen to cancerous tissues. Avastin targets a naturally occurring protein called VEGF (Vascular Endothelial Growth Factor), a key mediator of angiogenesis, thus choking off the blood supply that is essential for the growth of the tumour and its spread throughout the body (metastasis).

Avastin is the first and only anti-angiogenic agent to have demonstrated improved overall and/or progression-free survival in the three major types of cancer leading to death: colorectal cancer, non-small cell lung cancer and breast cancer. In Europe, Avastin was approved in early 2005 for first-line treatment of patients with metastatic carcinoma of the colon or rectum in combination with the chemotherapy regimens of intravenous 5-fluorouracil/folinic acid or intravenous 5-fluorouracil/folinic acid/irinotecan. Avastin received approval by the US Food and Drug Administration (FDA) in February 2004. In addition, filing occurred in the US on April 10, 2006, for use of Avastin in previously untreated advanced non-squamous, non-small cell lung cancer, on May 26 for treatment of women with advanced breast cancer and in Japan on April 21, 2006 for use of Avastin in patients with advanced or recurrent colorectal cancer.

Roche and Genentech are pursuing a comprehensive clinical programme investigating the use of Avastin in various tumour types (including colorectal, breast, lung, pancreatic cancer, ovarian cancer, renal cell carcinoma and others) and different settings (advanced and adjuvant i.e. post-operative). The total development programme is expected to include over 25,000 patients worldwide.

Roche in Oncology

The Roche Group, including its members Genentech in the United States and Chugai in Japan, is the world's leading provider of cancer care products, including anti-cancer treatments, supportive care products and diagnostics. Its oncology business includes an unprecedented five products proven to provide survival benefit in different major tumour indications: Avastin, Herceptin, and Xeloda in advanced-stage breast cancer, Herceptin in early-stage HER2-positive breast cancer, MabThera in non-Hodgkin's lymphoma, Avastin and Xeloda in colorectal cancer, Avastin and Tarceva in non-small cell lung cancer and Tarceva in pancreatic cancer.

In addition to these anti-cancer agents, the Roche oncology portfolio includes a comprehensive collection of medicines that can help improve the quality of life of cancer patients: Bondronat (for prevention of skeletal events in patients with breast cancer and bone metastases, hypercalcaemia of malignancy), Kytril (for chemotherapy and radiotherapy-induced nausea and vomiting), Neupogen (for cancer-related neutropenia), and NeoRecormon (for anaemia in various cancer settings). CERA is the most recent demonstration of Roche's commitment to anaemia management. Other oncology products include Furtulon (for colorectal cancer) and Roferon-A (for hairy cell and chronic myeloid leukaemia, Kaposi's sarcoma, malignant melanoma, renal cell carcinoma).

In addition to the medicines, Roche is developing new diagnostic tests that will have a significant impact on disease management for cancer patients in the future.

With a broad portfolio of tumour markers for prostate, colorectal, liver, ovarian, breast, stomach, pancreas and lung cancer, as well as a range of molecular oncology tests, Roche will continue to be the leader in providing cancer-focused treatments and diagnostics.

The unmatched Roche oncology portfolio as well as an extensive external innovation base through collaborations with companies and academia is what makes it possible for Roche to provide more effective cancer therapies.

In the United States Herceptin, MabThera (Rituxan), Avastin and Tarceva are marketed either by Genentech alone or together with its partners Biogen Idec Inc. (MabThera) and OSI (Tarceva). Outside of the United States, Roche and its Japanese partner Chugai are responsible for the marketing of these medicines.

About Roche

Headquartered in Basel, Switzerland, Roche is one of the world's leading research-focused healthcare groups in the fields of pharmaceuticals and diagnostics. As a supplier of innovative products and services for the early detection, prevention, diagnosis and treatment of disease, the Group contributes on a broad range of fronts to improve people's health and quality of life. Roche is a world leader in diagnostics, the leading supplier of medicines for cancer and transplantation and a market leader in virology. In 2005 sales by the Pharmaceuticals Division totalled 27.3 billion Swiss francs, and the Diagnostics Division posted sales of 8.2 billion Swiss francs. Roche employs roughly 70,000 people in 150 countries and has R&D agreements and strategic alliances with numerous partners, including majority ownership interests in Genentech and Chugai. Additional information about the Roche Group is available on the Internet (www.roche.com).

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Roche - Investor Update

Investor Update

Basel, 6 June 2006



New Xeloda combination allows patients with stomach cancer to live significantly longer

In addition, oral chemotherapy Xeloda reduces treatment time for patients

Results of two phase III studies of Xeloda in gastric cancer, REAL 2 in advanced oesophagogastric cancer and ML17032 in advanced stomach cancer, were unveiled as late-breaking abstracts at the American Society of Clinical Oncology (ASCO) Annual Meeting in Atlanta.

REAL 2

Results of the largest-ever phase III study in advanced oesophagogastric cancer, the REAL 2 study, reveal that Xeloda can replace 5-fluorouracil (5-FU), and that oxaliplatin can replace cisplatin for the first-line treatment of patients with advanced oesophagogastric (oesophagus and stomach) cancer. In addition, the trial showed that patients treated with the combination of Xeloda plus oxaliplatin and epirubicin (known as EOX) live significantly longer, compared to patients treated with standard epirubicin, cisplatin and 5-FU (ECF) chemotherapy. The standard treatment for this disease in the UK and much of Europe is the combination of epirubicin, cisplatin and 5-FU administered to patients via an infusion pump connected to their arm – lasting all day and night, every day of the week, for the entire duration of their treatment. Oral Xeloda frees the patient from this schedule, is more convenient and provides greater patient autonomy.

ML17032

A second study, a large international phase III trial, presented by lead investigator Prof. Y K Kang of the Asan Medical Center, Seoul, South Korea, confirms that Xeloda can also effectively replace the old standard intravenous 5-FU, in combination with cisplatin, as first-line therapy for stomach cancer.

Xeloda in combination with other chemotherapy drugs is therefore an effective, safe, simpler and more convenient treatment option for stomach and oesophageal cancer patients compared to standard treatments. Roche is filing for an indication in advanced stomach cancer with worldwide regulatory authorities, based on the results of the study presented by Prof. Y K Kang.

Stomach cancer is the fourth most commonly diagnosed cancer and the second leading cause of cancer-related deaths worldwide.¹ In Europe alone, nearly 140,000 people die from stomach cancer each year.² Stomach cancer affects twice as many men as women and occurs more frequently in people aged over 55 years.³ Amongst tumours of the upper GI tract, oesophagogastric cancer is more common in the West, whilst stomach cancer is predominant in the East.⁴

Professor David Cunningham from the Royal Marsden Hospital, London, and lead investigator of the REAL 2 study, comments "Xeloda can now be considered as a treatment option for oesophagogastric cancer, replacing 5-FU, as it provides

the optimal balance between efficacy, safety and convenience for patients”.

About the Studies

REAL 2

‘Randomised multicentre phase III study comparing capecitabine with fluorouracil and oxaliplatin with cisplatin in patients with advanced oesophagogastric (OG) cancer: The REAL 2 trial’ Cunningham D
(Presented at ASCO 2006, 05/06/2006, 11:30a.m.)

- This study was conducted in 1002 advanced oesophagogastric cancer patients from 61 centres mainly in the UK.
- The chemotherapy regimen ECF (epirubicin, cisplatin and 5-FU) is considered a standard treatment option for patients with oesophagogastric cancer in the UK and much of Europe.
- The study aimed to establish the potential use of Xeloda (X) and oxaliplatin (O) in untreated patients, with the primary endpoint of overall survival.
- Patients were randomised to one of four regimens: ECF, EOF, ECX or EOX. The primary comparison was overall survival between the Xeloda and 5-FU containing arms (ECX + EOX versus ECF + EOF) and the oxaliplatin and cisplatin containing arms (EOF + EOX versus ECF + ECX). A further comparison was survival between all four regimens.
- *Results:*
 - Xeloda was found to be as effective as 5-FU for the primary endpoint of overall survival. Patients who were on the Xeloda-containing arms lived at least as long as those on the 5-FU arms (HR for non-inferiority =0.86, 95% CI; 0.9-0.99 which was highly significant).
 - Oxaliplatin was shown to be as effective as cisplatin for the primary endpoint of overall survival. Patients on the oxaliplatin containing arms lived at least as long as those on the cisplatin arms (HR for non-inferiority =0.92, 95% CI; 0.8-1.1 which was highly significant).
 - Patients who were treated first-line with Xeloda plus oxaliplatin and epirubicin (EOX) had a longer overall survival which was significant when compared to standard ECF (median overall survival of 11.2 months on EOX versus 9.3 months on EOF, and 9.9 months on ECF and ECX).
 - The toxicity profile for the Xeloda and oxaliplatin-containing arms appeared acceptable.
- Xeloda and oxaliplatin can now replace 5-FU and cisplatin in triplet regimens used for the first-line treatment of advanced oesophagogastric cancer.

ML17032

‘Randomised phase III trial of capecitabine/cisplatin vs. continuous infusion of 5-FU/cisplatin as first-line therapy in patients with advanced gastric cancer: efficacy and safety results’ Kang Y.K.
(Presented at ASCO 2006, 05/06/2006, 11:45a.m.)

- This phase III study was conducted in 316 advanced gastric cancer patients who were enrolled in 46 centres across 13 countries.
- The study compared the efficacy and safety of Xeloda and cisplatin (XP) with intravenous 5-FU and cisplatin (FP); FP is also a standard treatment of gastric cancer, and accepted by regulatory agencies as the reference regimen against which all other regimens should be compared.

- The primary endpoint was non-inferiority in progression-free survival
- *Results:*
 - Patients receiving the XP combination therapy lived at least as long without the cancer progressing as those treated with FP (median progression-free survival 5.6 vs. 5 months, HR= 0.81, $p < 0.001$ showing strong evidence of non-inferiority), with acceptable and similar levels of toxicity.
 - XP patients also lived at least as long overall (median survival 10.5 vs. 9.3 months, HR=0.85, $p=0.008$ showing strong evidence of non-inferiority).
 - XP response rate was superior to FP – this is the first time that Xeloda has shown superiority to infusional 5-FU rather than bolus 5-FU (overall response rate 41 vs. 29%, $p=0.030$).
 - XP reduces the amount of time a patient needs to visit the clinic by 80% compared to FP (1 day vs. 5 days per 3 weeks).

About Xeloda (capecitabine)

Xeloda is licensed in more than 90 countries worldwide including the EU, USA, Japan, Australia and Canada and has been shown to be effective, safe, simple and convenient oral chemotherapy in treating over 1 million patients to date.

Roche received marketing authorisation for Xeloda as a first-line monotherapy (by itself) in the treatment of metastatic colorectal cancer (colorectal cancer that has spread to other parts of the body) in most countries (including the EU and USA) in 2001. Xeloda has also been approved by the European Medicines Agency (EMA) and U.S. Food and Drug Administration (FDA) for adjuvant (post-surgery) treatment of colon cancer in March and June 2005, respectively.

Xeloda is licensed in combination with Taxotere® (docetaxel) in women with metastatic breast cancer (breast cancer that has spread to other parts of the body) and whose disease has progressed following intravenous (i.v.) chemotherapy with anthracyclines. Xeloda monotherapy is also indicated for treatment of patients with metastatic breast cancer that is resistant to other chemotherapy drugs such as paclitaxel and anthracyclines. Xeloda is licensed for the first-line treatment of stomach cancer that has spread, in South Korea.

The most commonly reported adverse events with Xeloda include diarrhoea, abdominal pain, nausea, stomatitis and hand-foot syndrome (palmar-plantar erythrodysesthesia).

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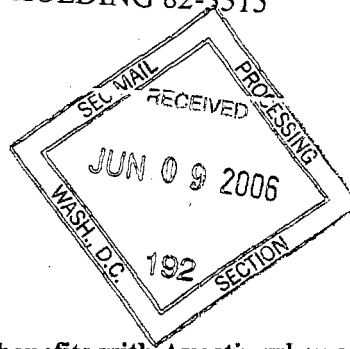
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Roche - Investor Update

Investor Update

Basel, 6 June 2006



Largest ever data set shows consistent benefits with Avastin when used in combination with different chemotherapy treatments

Real world practice confirms Avastin's efficacy and safety in advanced colorectal cancer

New data from 4,000 patients show that Avastin (bevacizumab rhuMAb-VEGF) enables patients with advanced colorectal cancer (CRC) to live longer without progression of their disease.¹ The results also confirm that Avastin is well tolerated.² The data, taken from two early access programmes using Avastin in combination with a wide range of chemotherapies, support findings of previous pivotal trials, which demonstrated superior overall survival for Avastin when added to chemotherapy.

These data, which represent the largest data set on Avastin available to date, were presented on June 3rd at the 2006 American Society of Clinical Oncology (ASCO) Annual Meeting in Atlanta, Georgia.

The BEAT study, conducted in 41 countries across the world, and the BRiTE registry, its US counterpart, are investigating the use of Avastin in advanced CRC in combination with standard chemotherapies including oxaliplatin, irinotecan or 5-FU and/or Xeloda (capecitabine). Outstanding progression-free survival (length of time without the cancer growing) is seen in BRiTE with a median at 10.2 months, independent of the chemotherapy used.¹ This real life experience compares favourably with the data previously seen in pivotal studies of Avastin in CRC in which the addition of Avastin to standard chemotherapies improved survival as well as progression free survival, compared to chemotherapy alone.

"In multiple large, well controlled studies, Avastin has consistently demonstrated significant survival benefits in colorectal cancer," said Dr Mark Kozloff, Clinical Associate, Department of Hematology/ Oncology, University of Chicago. "These new data are very important as they confirm that the results shown in earlier randomized trials hold true in the real world setting. Moreover, they demonstrate that Avastin can be used in combination with a wide range of chemotherapy treatments. This is a real advance as it widens treatment options for physicians and patients and bolsters their hope of overcoming the disease."

The BEAT and BRiTE studies also evaluate the safety of Avastin with different chemotherapies in a broad patient population. Results from the studies show that Avastin's safety profile/tolerability is consistent with the safety observations from other studies

In 2002, colorectal cancer was the third most commonly reported cancer with approximately one million new cases worldwide. It is estimated that over 50 percent of people diagnosed with colorectal cancer will die of the disease³. In the European Union colorectal cancer is the second most common cause of death

from any cancer in both men and women⁴.

Avastin is the first and only anti-angiogenic agent to have demonstrated improved survival in the three major causes of cancer death: colorectal cancer, NSCLC and breast cancer. In Europe, Avastin was approved in early 2005 for the first-line treatment of patients with metastatic carcinoma of the colon or rectum in combination with intravenous 5-fluorouracil/folinic acid or intravenous 5-fluorouracil/folinic acid/irinotecan. Avastin received approval by the US Food and Drug Administration (FDA) and was launched in the US in February 2004. In addition, filing occurred in the US on April 10, 2006, for use of Avastin in previously untreated advanced non-squamous, non-small cell lung cancer and in Japan on April 21, 2006 for use of Avastin in patients with advanced or recurrent colorectal cancer

About BEAT and BRiTE

BEAT and BRiTE are two phase IV, open label, multi-centre studies of patients with advanced CRC receiving Avastin in addition to first-line chemotherapy.

- BEAT is a phase IV trial which has enrolled 1927 patients from 41 countries worldwide. Patients are receiving Avastin with chemotherapy; the most common regimens are FOLFOX, CAPOX, FOLFIRI and Xeloda (capecitabine). Efficacy data from the BEAT trial are continuing to be evaluated. Safety data have shown that Avastin related serious adverse events were reported in 9 percent of patients. Gastrointestinal perforation occurred in 1.2 percent and bleeding in 1.3 percent.
- BRiTE is a large, community based observational registry which has enrolled 1968 patients across the US. Patients are receiving Avastin with chemotherapy, the most common regimens are FOLFOX, FOLFIRI and IFL. Current efficacy data from the BRiTE study show a median progression free survival of 10.2 months. Safety data have reported that serious adverse events were seen in 12 percent of patients. Postoperative bleeding/wound healing complications in 1.2 percent, gastrointestinal perforation occurred in 1.7 percent, bleeding in 1.9 percent and arterial thromboembolic events in 2.1 percent.

About Avastin

Avastin is the first treatment that inhibits angiogenesis – the growth of a network of blood vessels that supply nutrients and oxygen to cancerous tissues. Avastin targets a naturally occurring protein called VEGF (Vascular Endothelial Growth Factor), a key mediator of angiogenesis, thus choking off the blood supply that is essential for the growth of the tumour and its spread throughout the body (metastasis).

Roche and Genentech are pursuing a comprehensive clinical programme investigating the use of Avastin in various tumour types (including colorectal, breast, lung, pancreatic cancer, ovarian cancer, renal cell carcinoma and others) and different settings (advanced and adjuvant ie post-operation). The total development programme is expected to include over 25,000 patients worldwide.

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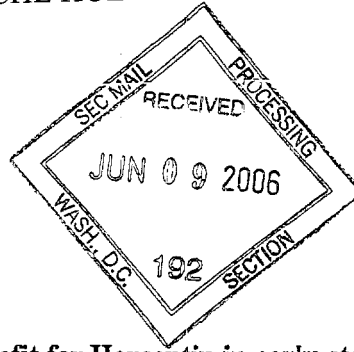
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Roche - Investor Update

Investor Update

Basel, 6 June 2006



New data show impressive survival benefit for Herceptin in early-stage HER2-positive breast cancer

Follow-up from the international HERA trial continues to demonstrate significant patient benefits from Herceptin

New 23-month follow-up data from HERA, one of the largest breast cancer trials ever carried out, show that Herceptin (trastuzumab) following standard chemotherapy significantly reduced the risk of death by 34% for women with early-stage HER2-positive breast cancer.¹ The data also show that Herceptin continues to provide patients with a reduced risk of their cancer coming back. HER2-positive breast cancer, which affects approximately 20% – 30% of women with breast cancer, demands special and immediate attention because the tumours are fast-growing and there is a higher likelihood of relapse.

The data from the international HERA (HERceptin Adjuvant) study were presented today at the American Society of Clinical Oncology (ASCO) annual meeting in Atlanta, the biggest conference for oncologists worldwide. These follow-up data showed that Herceptin taken for 12 months increases the chance of long-term survival by preventing the development of advanced (metastatic) disease. Similar disease-free and overall survival benefits from Herceptin in this setting have also been seen in two large US trials,³ but the HERA study allowed for the use of a wide range of standard chemotherapy regimens before treatment with Herceptin, making these results highly meaningful to many parts of the world.

Professor Ian Smith, Head of the Breast Unit at Royal Marsden Hospital, London, UK, and investigator of the HERA study, commented, "These significant survival results for Herceptin in the early breast cancer are very important. Last year's HERA results showed that Herceptin could reduce the risk of recurrence; now we have confirmation for the first time that this means a better chance of staying alive. HER2-positive breast cancer is a more aggressive form of the disease, and it is very important that women diagnosed with early breast cancer have a HER2 test to see if they would benefit from Herceptin."

Roche filed for an indication of Herceptin in early-stage HER2-positive breast cancer in February 2006 based on the interim analysis of the 12-month arm of the HERA data. The European Commission granted approval for this indication on May 22, 2006.

About the HERA study

The HERA study is a randomised, phase III trial, which evaluated the use of Herceptin versus observation following a wide range of primary chemotherapy (chemotherapy given before or after surgery) and radiotherapy (if applicable) for 12 or 24 months in women with early-stage HER2-positive breast cancer. The 23-month follow-up data show that patients who received Herceptin in the 12-month

arm had statistically significant reductions in the risk of death (hazard ratio = 0.66), as well as the risk of cancer coming back (hazard ratio = 0.64).

The HERA study has an external Independent Data Monitoring Committee (IDMC) that regularly reviews safety data. No safety concerns were raised by the IDMC, and the incidence of severe congestive heart failure was very low (0.6% in the Herceptin arm vs. 0% in the observation arm). Patients in this study continue to be followed for any side effects.

HERA, conducted by the Roche and the Breast International Group (BIG)⁴ is one of the largest adjuvant studies ever carried out among breast cancer patients; enrolment to the trial began in December 2001, and nearly 5,100 HER2-positive patients were enrolled at 480 sites in 39 countries across the world. The HERA study allowed for the use of a wide range of chemotherapy regimens, and both lymph node-positive and lymph node-negative patients were eligible for entry into the trial.

The analysis of the 23-month follow-up compared Herceptin versus observation and did not include a comparison of 12 months versus 24 months treatment duration. The trial will continue to assess this comparison and data will become available in due time as the study matures.

About breast cancer and Herceptin

Eight to nine percent of women will develop breast cancer during their lifetime, making it one of the most common types of cancer in women.⁵ Each year more than one million new cases of breast cancer are diagnosed worldwide, with a death rate of nearly 400,000 people per year.

In HER2-positive breast cancer, increased quantities of the HER2 protein are present on the surface of the tumour cells. This is known as 'HER2 positivity.' High levels of HER2 are present in a particularly aggressive form of the disease which responds poorly to chemotherapy. Research shows that HER2-positivity affects approximately 20-30% of women with breast cancer.

Herceptin is a humanised antibody, designed to target and block the function of HER2, a protein produced by a specific gene with cancer-causing potential. In addition to its efficacy in the early-stage breast cancer setting, Herceptin also has demonstrated improved survival in the advanced (metastatic) setting, where its addition to chemotherapy allows patients to live up to one-third longer than chemotherapy alone.⁶

Herceptin received approval in the European Union in 2000 for use in patients with metastatic (advanced) breast cancer, whose tumours overexpress the HER2 protein. It is indicated for use as first-line therapy in combination with docetaxel in patients who have not received chemotherapy for their metastatic disease, first-line therapy in combination with paclitaxel where anthracyclines are unsuitable, and third-line therapy as a single agent. As of May 2006, Herceptin is also approved in the European Union as adjuvant therapy following standard chemotherapy for early-stage HER2-positive breast cancer.

Herceptin is marketed in the United States by Genentech, in Japan by Chugai and internationally by Roche. Since 1998, Herceptin has been used to treat over 230,000 HER2-positive breast cancer patients worldwide.

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