

**Clinical trial results:****A Randomized, Multicenter, Adaptive Phase II/III Study to Evaluate The Efficacy And Safety of Trastuzumab Emtansine (T-DM1) Versus Taxane (Docetaxel or Paclitaxel) In Patients With Previously Treated Locally Advanced or Metastatic Her2-Positive Gastric Cancer, Including Adenocarcinoma of the Gastroesophageal Junction****Summary**

| | |
|--------------------------|----------------------------|
| EudraCT number | 2012-000660-22 |
| Trial protocol | BE CZ DE HU GB ES FI PL IT |
| Global end of trial date | 30 April 2016 |

Results information

| | |
|--------------------------------|---------------|
| Result version number | v2 (current) |
| This version publication date | 14 April 2017 |
| First version publication date | 16 July 2016 |
| Version creation reason | |

Trial information**Trial identification**

| | |
|-----------------------|---------|
| Sponsor protocol code | BO27952 |
|-----------------------|---------|

Additional study identifiers

| | |
|------------------------------------|-------------|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT01641939 |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | F. Hoffmann-La Roche AG |
| Sponsor organisation address | Grenzacherstrasse 124, Basel, Switzerland, CH-4070 |
| Public contact | Roche Trial Information Hotline, F. Hoffmann-La Roche AG, 41 616878333, global.trial_information@roche.com |
| Scientific contact | Roche Trial Information Hotline, F. Hoffmann-La Roche AG, 41 616878333, global.trial_information@roche.com |

Notes:

Paediatric regulatory details

| | |
|--|----|
| Is trial part of an agreed paediatric investigation plan (PIP) | No |
| Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial? | No |
| Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial? | No |

Notes:

Results analysis stage

| | |
|--|---------------|
| Analysis stage | Final |
| Date of interim/final analysis | 30 April 2016 |
| Is this the analysis of the primary completion data? | No |
| Global end of trial reached? | Yes |
| Global end of trial date | 30 April 2016 |
| Was the trial ended prematurely? | Yes |

Notes:

General information about the trial

Main objective of the trial:

The primary objective for this study was to compare the Overall Survival (OS) of subjects treated with the selected trastuzumab emtansine arm to the OS of subjects treated with physician's choice of taxane (docetaxel or paclitaxel) in subjects with human epidermal growth factor receptor 2 (HER2)-positive advanced gastric cancer (AGC), defined as unresectable and locally advanced or metastatic gastric cancer, including adenocarcinoma of the gastroesophageal junction (GEJ).

Protection of trial subjects:

This study was conducted in full conformance with the International Conference of Harmonization (ICH) E6 guideline for Good Clinical Practice and the principles of the Declaration of Helsinki or the laws and regulations of the country in which the research is conducted, whichever affords the greater protection to the individual. The study will comply with the requirements of the ICH E2A guideline (Clinical Safety Data Management: Definitions and Standards for Expedited Reporting).

Background therapy: -

Evidence for comparator: -

| | |
|---|-------------------|
| Actual start date of recruitment | 03 September 2012 |
| Long term follow-up planned | No |
| Independent data monitoring committee (IDMC) involvement? | Yes |

Notes:

Population of trial subjects

Subjects enrolled per country

| | |
|--------------------------------------|--|
| Country: Number of subjects enrolled | Poland: 4 |
| Country: Number of subjects enrolled | Hungary: 12 |
| Country: Number of subjects enrolled | China: 11 |
| Country: Number of subjects enrolled | Japan: 82 |
| Country: Number of subjects enrolled | Korea, Democratic People's Republic of: 83 |
| Country: Number of subjects enrolled | Malaysia: 3 |
| Country: Number of subjects enrolled | Philippines: 1 |
| Country: Number of subjects enrolled | Singapore: 4 |
| Country: Number of subjects enrolled | Taiwan: 7 |
| Country: Number of subjects enrolled | Argentina: 1 |
| Country: Number of subjects enrolled | Brazil: 3 |
| Country: Number of subjects enrolled | Czech Republic: 7 |
| Country: Number of subjects enrolled | Guatemala: 4 |
| Country: Number of subjects enrolled | Mexico: 3 |
| Country: Number of subjects enrolled | Panama: 1 |
| Country: Number of subjects enrolled | Peru: 1 |
| Country: Number of subjects enrolled | Romania: 9 |

| | |
|--------------------------------------|-----------------------|
| Country: Number of subjects enrolled | Russian Federation: 7 |
| Country: Number of subjects enrolled | Turkey: 9 |
| Country: Number of subjects enrolled | Belgium: 4 |
| Country: Number of subjects enrolled | Canada: 9 |
| Country: Number of subjects enrolled | Germany: 26 |
| Country: Number of subjects enrolled | Spain: 35 |
| Country: Number of subjects enrolled | Finland: 3 |
| Country: Number of subjects enrolled | France: 6 |
| Country: Number of subjects enrolled | United Kingdom: 34 |
| Country: Number of subjects enrolled | Italy: 22 |
| Country: Number of subjects enrolled | United States: 24 |
| Worldwide total number of subjects | 415 |
| EEA total number of subjects | 162 |

Notes:

Subjects enrolled per age group

| | |
|---|-----|
| In utero | 0 |
| Preterm newborn - gestational age < 37 wk | 0 |
| Newborns (0-27 days) | 0 |
| Infants and toddlers (28 days-23 months) | 0 |
| Children (2-11 years) | 0 |
| Adolescents (12-17 years) | 0 |
| Adults (18-64 years) | 246 |
| From 65 to 84 years | 169 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

A total of 415 subjects were randomized, of these 117 subjects in taxane arm, 228 subjects in 2.4 milligram per kilogram (mg/kg) trastuzumab emtansine arm (across both phase 2 and 3), and 70 subjects (phase-dose selection portion of the study) in 3.6 mg/kg trastuzumab emtansine arm received at least one dose of the treatment.

Period 1

| | |
|------------------------------|--------------------------------|
| Period 1 title | Overall Study (overall period) |
| Is this the baseline period? | Yes |
| Allocation method | Randomised - controlled |
| Blinding used | Not blinded |

Arms

| | |
|------------------------------|-----|
| Are arms mutually exclusive? | Yes |
|------------------------------|-----|

| | |
|------------------|-------------------------|
| Arm title | Standard Taxane Therapy |
|------------------|-------------------------|

Arm description:

Docetaxel was administered at 75 milligram per meter square (mg/m²) intravenously (IV) on Day 1 of a 21-day cycle, or paclitaxel was administered at 80 mg/m² IV weekly (Days 1, 8, and 15 of a 21 day cycle) as per investigator's choice, until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

| | |
|--|---|
| Arm type | Active comparator |
| Investigational medicinal product name | Docetaxel |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Concentrate and solvent for solution for infusion |
| Routes of administration | Intravenous use |

Dosage and administration details:

Docetaxel 75 mg/m² IV every 3 weeks.

| | |
|--|---------------------------------------|
| Investigational medicinal product name | Paclitaxel |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Concentrate for solution for infusion |
| Routes of administration | Intravenous use |

Dosage and administration details:

Paclitaxel 80 mg/m² weekly IV.

| | |
|------------------|------------------------------|
| Arm title | Trastuzumab Emtansine 2.4 mg |
|------------------|------------------------------|

Arm description:

Trastuzumab emtansine was administered on Days 1, 8, and 15 of a 21-day cycle at 2.4 milligram per kilogram (mg/kg) IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

| | |
|--|-----------------------|
| Arm type | Experimental |
| Investigational medicinal product name | Trastuzumab emtansine |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Injection |
| Routes of administration | Intravenous use |

Dosage and administration details:

Trastuzumab emtansine 2.4 mg/kg IV once a week.

| | |
|---|------------------------------|
| Arm title | Trastuzumab Emtansine 3.6 mg |
| Arm description: Trastuzumab emtansine was administered on Days 1 of a 21-day cycle at 3.6 mg/kg IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue. | |
| Arm type | Experimental |
| Investigational medicinal product name | Trastuzumab emtansine |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Injection |
| Routes of administration | Intravenous use |

Dosage and administration details:

Trastuzumab emtansine 3.6 mg/kg IV every 3 weeks.

| Number of subjects in period 1 | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg |
|---------------------------------------|-------------------------|------------------------------|------------------------------|
| Started | 117 | 228 | 70 |
| Stage 1 | 37 | 75 | 70 |
| Stage 2 | 80 | 153 | 0 |
| Completed | 0 | 0 | 0 |
| Not completed | 117 | 228 | 70 |
| Consent withdrawn by subject | 14 | 11 | 5 |
| Study terminated by Sponsor | 10 | 28 | 3 |
| Death | 90 | 187 | 61 |
| Lost to follow-up | 3 | 2 | 1 |

Baseline characteristics

Reporting groups

| | |
|-----------------------|-------------------------|
| Reporting group title | Standard Taxane Therapy |
|-----------------------|-------------------------|

Reporting group description:

Docetaxel was administered at 75 milligram per meter square (mg/m²) intravenously (IV) on Day 1 of a 21-day cycle, or paclitaxel was administered at 80 mg/m² IV weekly (Days 1, 8, and 15 of a 21 day cycle) as per investigator's choice, until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

| | |
|-----------------------|------------------------------|
| Reporting group title | Trastuzumab Emtansine 2.4 mg |
|-----------------------|------------------------------|

Reporting group description:

Trastuzumab emtansine was administered on Days 1, 8, and 15 of a 21-day cycle at 2.4 milligram per kilogram (mg/kg) IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

| | |
|-----------------------|------------------------------|
| Reporting group title | Trastuzumab Emtansine 3.6 mg |
|-----------------------|------------------------------|

Reporting group description:

Trastuzumab emtansine was administered on Days 1 of a 21-day cycle at 3.6 mg/kg IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

| Reporting group values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg |
|------------------------------------|-------------------------|------------------------------|------------------------------|
| Number of subjects | 117 | 228 | 70 |
| Age categorical Units: Subjects | | | |

| | | | |
|---|----------------|----------------|----------------|
| Age continuous Units: years arithmetic mean standard deviation | 62.1 ± 10.3 | 60.5 ± 10.9 | 61.2 ± 11.4 |
| Gender categorical Units: Subjects | | | |
| Female | 22 | 51 | 17 |
| Male | 95 | 177 | 53 |

| Reporting group values | Total | | |
|------------------------------------|-------|--|--|
| Number of subjects | 415 | | |
| Age categorical Units: Subjects | | | |

| | | | |
|---|-----|--|--|
| Age continuous Units: years arithmetic mean standard deviation | - | | |
| Gender categorical Units: Subjects | | | |
| Female | 90 | | |
| Male | 325 | | |

End points

End points reporting groups

| | |
|-----------------------|-------------------------|
| Reporting group title | Standard Taxane Therapy |
|-----------------------|-------------------------|

Reporting group description:

Docetaxel was administered at 75 milligram per meter square (mg/m²) intravenously (IV) on Day 1 of a 21-day cycle, or paclitaxel was administered at 80 mg/m² IV weekly (Days 1, 8, and 15 of a 21 day cycle) as per investigator's choice, until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

| | |
|-----------------------|------------------------------|
| Reporting group title | Trastuzumab Emtansine 2.4 mg |
|-----------------------|------------------------------|

Reporting group description:

Trastuzumab emtansine was administered on Days 1, 8, and 15 of a 21-day cycle at 2.4 milligram per kilogram (mg/kg) IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

| | |
|-----------------------|------------------------------|
| Reporting group title | Trastuzumab Emtansine 3.6 mg |
|-----------------------|------------------------------|

Reporting group description:

Trastuzumab emtansine was administered on Days 1 of a 21-day cycle at 3.6 mg/kg IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subjects and/or physician decision to discontinue.

Primary: Overall Survival (OS) - Phase 3

| | |
|-----------------|--|
| End point title | Overall Survival (OS) - Phase 3 ^[1] |
|-----------------|--|

End point description:

Overall survival was defined as the time between the date of randomisation and date of death due to any cause. Kaplan-Meier estimates were used for analysis. Subjects for whom no death was reported prior to an analysis cutoff (30 June 2015) was censored at the latest date before the cutoff in which they were known to be alive. All data from the standard taxane therapy and trastuzumab emtansine 2.4 mg (selected treatment arm) from phase 2 and phase 3 (Stage 2) are combined into phase 3 data, and thus cumulative data are provided within the results presented for phase 3. The confirmatory analyses are restricted to comparisons between the taxane arm and the selected trastuzumab emtansine arm (2.4 mg). ITT population.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Date of randomisation until death (up to 2 years 3 months)

Notes:

[1] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|----------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 117 | 228 | | |
| Units: months | | | | |
| median (confidence interval 95%) | 8.6 (7.1 to 11.2) | 7.9 (6.7 to 9.5) | | |

Statistical analyses

| | |
|---|--|
| Statistical analysis title | Statistical Analysis 1 |
| Statistical analysis description: | |
| The unstratified Cox proportional hazards model was used to estimate the hazard ratio. The 95% Confidence Interval (CI) for median was computed using the method of Brookmeyer and Crowley. Reference group: Standard Taxane Therapy. | |
| Comparison groups | Standard Taxane Therapy v Trastuzumab Emtansine 2.4 mg |
| Number of subjects included in analysis | 345 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| P-value | = 0.8589 [2] |
| Method | Logrank |
| Parameter estimate | Hazard ratio (HR) |
| Point estimate | 1.15 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 0.87 |
| upper limit | 1.6 |

Notes:

[2] - One sided p-value with correction for interim treatment selection due to adaptive seamless phase design.

Primary: Overall Survival (OS) - Phase 2

| | |
|--|---------------------------------|
| End point title | Overall Survival (OS) - Phase 2 |
| End point description: | |
| Overall survival was defined as the time between the date of randomisation and date of death due to any cause. Kaplan-Meier estimates were used for analysis. Subjects for whom no death was reported prior to an analysis cutoff (10 August 2013) was censored at the latest date before the cutoff in which they were known to be alive. Analysis population included all subjects that had been enrolled in phase 2 (stage 1) up to a clinical cut-off date of 10 August 2013; subjects grouped according to the therapy they were randomized to receive. Here, N (number of subjects analyzed)=number of evaluable subjects during phase 2 up to 10 August 2013. The value "99999" represents non evaluable (NE) data, the upper limit of the 95% CI could not be calculated due to the large number of censored events. | |
| End point type | Primary |
| End point timeframe: | |
| Date of randomisation until death (up to 1 year) | |

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg | |
|----------------------------------|-------------------------|------------------------------|------------------------------|--|
| Subject group type | Reporting group | Reporting group | Reporting group | |
| Number of subjects analysed | 30 | 64 | 58 | |
| Units: months | | | | |
| median (confidence interval 95%) | 28 (24 to 99999) | 36.3 (23 to 99999) | 23 (18 to 99999) | |

Statistical analyses

| | |
|-----------------------------------|------------------------|
| Statistical analysis title | Statistical Analysis 1 |
|-----------------------------------|------------------------|

Statistical analysis description:

The unstratified Cox proportional hazards model was used to estimate the hazard ratio. The 95% CI for median was computed using the method of Brookmeyer and Crowley. Reference group: Trastuzumab Emtansine 3.6 mg

| | |
|---|--|
| Comparison groups | Standard Taxane Therapy v Trastuzumab Emtansine 2.4 mg |
| Number of subjects included in analysis | 94 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| Parameter estimate | Hazard ratio (HR) |
| Point estimate | 0.81 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 0.32 |
| upper limit | 2.03 |

Statistical analysis title | Statistical Analysis 3**Statistical analysis description:**

The unstratified Cox proportional hazards model was used to estimate the hazard ratio. The 95% CI for median was computed using the method of Brookmeyer and Crowley. Reference group: Standard Taxane Therapy.

| | |
|---|---|
| Comparison groups | Trastuzumab Emtansine 3.6 mg v Trastuzumab Emtansine 2.4 mg |
| Number of subjects included in analysis | 122 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| Parameter estimate | Hazard ratio (HR) |
| Point estimate | 0.47 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 0.23 |
| upper limit | 0.96 |

Statistical analysis title | Statistical Analysis 2**Statistical analysis description:**

The unstratified Cox proportional hazards model was used to estimate the hazard ratio. The 95% CI for median was computed using the method of Brookmeyer and Crowley. Reference group: Standard Taxane Therapy.

| | |
|---|--|
| Comparison groups | Standard Taxane Therapy v Trastuzumab Emtansine 3.6 mg |
| Number of subjects included in analysis | 88 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| Parameter estimate | Hazard ratio (HR) |
| Point estimate | 2.01 |

| | |
|---------------------|---------|
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 0.82 |
| upper limit | 4.92 |

Secondary: Percentage of Subjects with Disease Progression According to Modified Response Evaluation Criteria in Solid Tumors (mRECIST v1.1) - Phase 3

| | |
|-----------------|--|
| End point title | Percentage of Subjects with Disease Progression According to Modified Response Evaluation Criteria in Solid Tumors (mRECIST v1.1) - Phase 3 ^[3] |
|-----------------|--|

End point description:

Progressive disease could base on symptom deterioration or was defined as at least a 20 percent (%) increase in the sum of the longest diameter of target lesions, taking as reference the smallest sum longest diameter recorded since treatment started or the appearance of one or more new lesions and/or the unequivocal progression of existing non-target lesions. Tumor assessment was performed using modified RECIST v1.1. Cumulative data (up to primary analysis cut-off date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. ITT population.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Date of randomisation until disease progression or death, whichever occurred first (assessed at baseline, every 6 weeks up to 2 years 3 months)

Notes:

[3] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|-------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 117 | 228 | | |
| Units: percentage of subjects | | | | |
| number (not applicable) | 88.9 | 93 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Progression Free Survival (PFS) According to Modified Response Evaluation Criteria in Solid Tumors (mRECIST v1.1) - Phase 3

| | |
|-----------------|--|
| End point title | Progression Free Survival (PFS) According to Modified Response Evaluation Criteria in Solid Tumors (mRECIST v1.1) - Phase 3 ^[4] |
|-----------------|--|

End point description:

Progression-free survival was defined as the time between the date of randomisation and the first date of documented progression or date of death due to any cause, whichever occurred first. Tumor assessment was performed using modified RECIST v1.1. Progressive disease could base on symptom deterioration or was defined as at least a 20% increase in the sum of the longest diameter of target lesions, taking as reference the smallest sum longest diameter recorded since treatment started or the appearance of one or more new lesions and/or the unequivocal progression of existing non-target lesions. Kaplan-Meier estimates were used for analysis. Cumulative data (up to primary analysis cut-off

date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. The confirmatory analyses are restricted to comparisons between the taxane arm and the selected trastuzumab emtansine arm (2.4 mg). ITT population.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Date of randomisation until disease progression or death, whichever occurred first (assessed at baseline, every 6 weeks up to 2 years 3 months)

Notes:

[4] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|----------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 117 | 228 | | |
| Units: months | | | | |
| median (confidence interval 95%) | 2.89 (2.76 to 4.01) | 2.66 (1.61 to 2.79) | | |

Statistical analyses

| | |
|----------------------------|------------------------|
| Statistical analysis title | Statistical Analysis 1 |
|----------------------------|------------------------|

Statistical analysis description:

The unstratified Cox proportional hazards model was used to estimate the hazard ratio. The 95% CI for median was computed using the method of Brookmeyer and Crowley. Reference group: Standard Taxane Therapy.

| | |
|---|--|
| Comparison groups | Standard Taxane Therapy v Trastuzumab Emtansine 2.4 mg |
| Number of subjects included in analysis | 345 |
| Analysis specification | Pre-specified |
| Analysis type | other |
| P-value | = 0.308 |
| Method | Logrank |
| Parameter estimate | Hazard ratio (HR) |
| Point estimate | 1.13 |
| Confidence interval | |
| level | 95 % |
| sides | 2-sided |
| lower limit | 0.89 |
| upper limit | 1.43 |

Secondary: Percentage of Subjects With Objective Response According to mRECIST v1.1 - Phase 3

| | |
|-----------------|---|
| End point title | Percentage of Subjects With Objective Response According to mRECIST v1.1 - Phase 3 ^[5] |
|-----------------|---|

End point description:

Objective response referred to subjects with complete response (CR) or partial response (PR). CR: disappearance of all target lesions, non-target lesions, and normalization of tumor marker level. PR: greater than or equal to (>=) 30% decrease in sum of the longest diameter (LD) of all target lesions

taking as reference the screening sum LD. To be assigned a status of PR or CR, changes in tumor measurements had to be confirmed by repeat assessments that should have been performed no less than 4 weeks after the criteria for response were first met. Longer intervals as determined by the study protocol were also appropriate. Cumulative data (up to primary analysis cut-off date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. ITT population. Here, N=number of subjects with measurable disease were included in analysis of this outcome measure.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Date of randomisation until disease progression or death, whichever occurred first (assessed at baseline, every 6 weeks up to 2 years 3 months)

Notes:

[5] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|----------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 102 | 204 | | |
| Units: percentage of subjects | | | | |
| number (confidence interval 95%) | 19.6 (12.56 to 28.07) | 20.6 (15.26 to 26.45) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Duration of Objective Response - Phase 3

| | |
|-----------------|---|
| End point title | Duration of Objective Response - Phase 3 ^[6] |
|-----------------|---|

End point description:

DOR: time from the date when a clinical response [CR or PR] was first documented to the date of first documented progressive disease (PD) or death. CR: disappearance of all target lesions, non-target lesions, normalization of tumor marker level. PR: $\geq 30\%$ decrease in sum of the LD of all target lesions taking as reference the screening sum LD. PD: could base on symptom deterioration or at least a 20% increase in the sum of diameters of target or non-target lesions and new lesions, taking as reference the smallest sum on study (nadir), including baseline. To be assigned a status of PR or CR, changes in tumor measurements had to be confirmed by repeat assessments that should have been performed no less than 4 weeks after the criteria for response were first met. Cumulative data (up to primary analysis cut-off date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. ITT population. N=number of subjects evaluable for this outcome measure.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Date of randomisation until disease progression or death, whichever occurred first (assessed at baseline, every 6 weeks up to 2 years 3 months)

Notes:

[6] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|----------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 102 | 204 | | |
| Units: months | | | | |
| median (confidence interval 95%) | 3.65 (2.76 to 5.55) | 4.27 (3.02 to 6.83) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With European Organisation for Research and Treatment of Cancer Quality of Life Core Module 30 (EORTC QLQ-C30) Score - Phase 3

| | |
|-----------------|--|
| End point title | Percentage of Subjects With European Organisation for Research and Treatment of Cancer Quality of Life Core Module 30 (EORTC QLQ-C30) Score - Phase 3 ^[7] |
|-----------------|--|

End point description:

EORTC QLQ-C30: a validated, cancer-specific 30-item patient-reported measure, contains 14 domains to assess the impact of cancer treatment on 5 aspects of subjects functioning (physical,role,cognitive,emotional,social), 9 aspects of disease/treatment-related symptoms (fatigue,nausea and vomiting,pain,dyspnea,insomnia,loss of appetite,constipation,diarrhea) and a global QoL/overall health status scale. Questions used 4 point scale (1 'Not at all' - 4 'Very much'; with exception of QoL/health status scale which uses 7-point scale (1 'very poor' - 7 'Excellent'). Each scale is transformed on a scale of 0-100; higher score=better level of functioning or greater degree of symptoms. Change of ≥ 10 -points has been found to be clinically significant. Cumulative data (up to primary analysis cut-off date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. ITT population. N=number of subject with baseline at least 1 post-baseline valid

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1 of each treatment cycle and at the study drug completion visit, and thereafter at survival follow-up (up to 2 years 3 months)

Notes:

[7] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|----------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 91 | 189 | | |
| Units: percentage of subjects | | | | |
| number (confidence interval 95%) | | | | |
| Appetite loss | 39.6 (29.57 to 50) | 30.2 (23.97 to 37.23) | | |
| Cognitive Functioning | 31.9 (22.49 to 42) | 28 (21.76 to 34.68) | | |
| Constipation | 40.7 (30.48 to 51.47) | 25.9 (19.84 to 32.66) | | |
| Diarrhoea | 23.1 (14.89 to 32.53) | 21.7 (16.23 to 28.15) | | |
| Dyspnea | 19.8 (12.16 to 29.19) | 21.7 (16.23 to 28.15) | | |

| | | | | |
|--------------------------|-----------------------|-----------------------|--|--|
| Emotional Functioning | 24.2 (15.98 to 33.56) | 29.1 (22.74 to 35.78) | | |
| Fatigue | 46.2 (36.17 to 56.92) | 40.7 (33.67 to 47.81) | | |
| Nausea/Vomiting | 33 (24.04 to 43.08) | 28 (21.76 to 34.68) | | |
| Pain | 49.5 (38.8 to 60.14) | 33.9 (27.36 to 40.84) | | |
| Physical Functioning | 17.6 (10.4 to 26.44) | 25.9 (19.84 to 32.66) | | |
| Role Functioning | 29.7 (20.55 to 39.86) | 30.7 (24.2 to 37.75) | | |
| Social Functioning | 34.1 (24.45 to 44.16) | 37.6 (30.8 to 44.48) | | |
| Insomnia | 33 (24.04 to 43.08) | 33.3 (26.83 to 40.32) | | |
| Global Health Status/QoL | 44 (33.56 to 54.75) | 34.4 (27.65 to 41.36) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With Quality of Life Questionnaire Stomach Cancer Module 22 (QLQ-STO22) Score - Phase 3

| | |
|-----------------|---|
| End point title | Percentage of Subjects With Quality of Life Questionnaire Stomach Cancer Module 22 (QLQ-STO22) Score - Phase 3 ^[8] |
|-----------------|---|

End point description:

The Quality of Life Questionnaire Stomach Cancer Module 22 (QLQ-STO22) supplements the EORTC QLQ-C30 to assess symptoms and treatment-related side effects commonly reported in subjects. There are 22 questions which comprise 5 scales (dysphagia, pain, reflux symptom, dietary restrictions, and anxiety) and 4 single items (dry mouth, hair loss, taste, body image). Most questions use 4-point scale (1 'Not at all' to 4 'Very much'; 1 question was a yes or no answer). A linear transformation was used to standardize all scores and single-items to a scale of 0 to 100; higher score=better level of functioning or greater degree of symptoms. Change of ≥ 10 points has been found to be clinically significant. Cumulative data (up to primary analysis cut-off date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. ITT population. Here, N=number of subjects with baseline and at least one post-baseline valid score.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1 of each treatment cycle, at the study drug completion visit, and thereafter at survival follow-up (up to 2 years 3 months)

Notes:

[8] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|----------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 90 | 185 | | |
| Units: percentage of subjects | | | | |
| median (confidence interval 95%) | | | | |
| Overall | 88.9 (81.15 to 94.54) | 88.1 (82.64 to 92.4) | | |

| | | | | |
|---------------------------------|-----------------------|-----------------------|--|--|
| Body image | 20 (12.31 to 29.33) | 29.7 (23.25 to 36.52) | | |
| Dry Mouth | 30 (20.79 to 40.35) | 21.1 (15.44 to 27.28) | | |
| Dietary Restrictions | 41.1 (30.84 to 51.98) | 32.4 (25.75 to 39.66) | | |
| Dysphagia | 35.6 (25.74 to 45.8) | 23.8 (17.84 to 30.31) | | |
| Hair Loss | 11.1 (5.46 to 18.85) | 22.7 (17.07 to 29.29) | | |
| Pain/discomfort | 52.2 (41.43 to 62.45) | 45.4 (38.28 to 52.87) | | |
| Specific Emotional Problems | 63.3 (53.09 to 73.25) | 57.8 (50.71 to 65.05) | | |
| Upper Gastrointestinal Symptoms | 46.7 (36.52 to 57.49) | 42.7 (35.47 to 50) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Percentage of Subjects With Advanced Gastric Cancer (AGC) Symptom Progression - Phase 3

| | |
|-----------------|--|
| End point title | Percentage of Subjects With Advanced Gastric Cancer (AGC) Symptom Progression - Phase 3 ^[9] |
|-----------------|--|

End point description:

AGC symptomatic progression: a worsening of ≥ 10 -points in any 1 of the abdominal discomfort, loss of appetite, weakness and fatigue, upper abdominal pain, change in bowel movement, and/or weight loss scales of the EORTC QLQ-C30 and QLQ-STO22 (supplements EORTC QLQ-C30 to assess symptoms and commonly reported treatment-related side effects). There are 22 questions comprise 5 scales (dysphagia, pain, reflux symptom, diet restrictions, anxiety), 4 single items (dry mouth, hair loss, taste, body image), which are related to the symptoms of the disease. Most questions used 4-point scale (1 'Not at all' - 4 'Very much'). All scores and single-items transformed to a scale of 0-100; higher score=better level of functioning or greater degree of symptoms. Cumulative data (up to primary analysis cut-off date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. ITT population. Here, N=number of subjects evaluable for this measure.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1 of each treatment cycle, at the study drug completion visit, and thereafter at survival follow-up (up to 2 years 3 months)

Notes:

[9] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period. Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|-------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 117 | 228 | | |
| Units: percentage of subjects | | | | |
| number (not applicable) | 90.6 | 93 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Time to Advanced Gastric Cancer (AGC) Symptom Progression - Phase 3

| | |
|-----------------|---|
| End point title | Time to Advanced Gastric Cancer (AGC) Symptom Progression - Phase 3 ^[10] |
|-----------------|---|

End point description:

Time to AGC symptom were defined as the time from randomization to the first documentation of an increase in at least one of the pre-specified abdominal discomfort, loss of appetite, weakness and fatigue, upper abdominal pain, change in bowel movement, and weight loss subscales of the QLQ STO22 and EORTC QLQ-C30. Cumulative data (up to primary analysis cut-off date of 30-June-2015) are provided for both phase 2 and phase 3 within the results of this measure. ITT population. Here, N=number of subjects evaluable for this measure.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1 of each treatment cycle, at the study drug completion visit, and thereafter at survival follow-up (up to 2 years 3 months)

Notes:

[10] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Standard Taxane Therapy and Trastuzumab Emtansine 2.4 mg" were planned to be reported for the endpoint.

| End point values | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | | |
|----------------------------------|-------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 117 | 228 | | |
| Units: months | | | | |
| median (confidence interval 95%) | 1.61 (1.41 to 2.17) | 1.51 (1.41 to 1.64) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Maximum Observed Plasma Concentration (Cmax) of Trastuzumab Emtansine (T-DM1) and Total Trastuzumab - Stage 1

| | |
|-----------------|---|
| End point title | Maximum Observed Plasma Concentration (Cmax) of Trastuzumab Emtansine (T-DM1) and Total Trastuzumab - Stage 1 ^[11] |
|-----------------|---|

End point description:

Maximum observed plasma concentration of Trastuzumab Emtansine (T-DM1) and total trastuzumab were reported. Stage 1 consists of all subjects recruited before the regimen selection decision, which was carried out after 12 weeks of randomization. Subjects who had at least one PK parameter estimated were included for analysis. Here, n=number of subjects evaluable at specified timepoint.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Day 1 (D1) of Cycle 1 (C1) and C4, C1D2, C1D3, C1D4/C1D5, C1D8, C1D15, C2D1 (up to 12 weeks)

Notes:

[11] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Trastuzumab Emtansine 2.4 mg and Trastuzumab

Emtansine 3.6 mg" were planned to be reported for the endpoint.

| End point values | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg | | |
|---|------------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 41 | 37 | | |
| Units: microgram per milliliter (mcg/mL) | | | | |
| arithmetic mean (standard deviation) | | | | |
| T-DM1 Cycle 1 First Dose (n=41, 37) | 43 (± 11.8) | 58.6 (± 12.9) | | |
| T-DM1 Cycle 4 First Dose (n=25, 10) | 52.6 (± 19.4) | 61.6 (± 14.5) | | |
| Total trastuzumab Cycle 1 First Dose (n=41, 37) | 46.8 (± 12.3) | 61.2 (± 14.6) | | |
| Total trastuzumab Cycle 4 First Dose (n=25, 10) | 71.2 (± 23.2) | 66.3 (± 14.7) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Maximum Observed Plasma Concentration (Cmax) of Trastuzumab Emtansine (T-DM1) and Total Trastuzumab - Stage 2

| | |
|------------------------|--|
| End point title | Maximum Observed Plasma Concentration (Cmax) of Trastuzumab Emtansine (T-DM1) and Total Trastuzumab - Stage 2 ^[12] |
| End point description: | Stage 2 consists of all subjects recruited after the regimen selection decision. Subjects who had at least one PK parameter estimated were included for analysis. Here, n=number of subjects evaluable at specified timepoint. |
| End point type | Secondary |
| End point timeframe: | C1D1; C4D1 |

Notes:

[12] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting group "Trastuzumab Emtansine 2.4 mg" was planned to be reported for the endpoint.

| End point values | Trastuzumab Emtansine 2.4 mg | | | |
|--------------------------------------|------------------------------|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 57 | | | |
| Units: mcg/mL | | | | |
| arithmetic mean (standard deviation) | | | | |
| T-DM1 Cycle 1 First Dose | 34.1 (± 15.2) | | | |
| T-DM1 Cycle 4 First Dose | 38 (± 13.4) | | | |
| Total trastuzumab Cycle 1 First Dose | 44.5 (± 15.4) | | | |
| Total trastuzumab Cycle 4 First Dose | 69.7 (± 21.3) | | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Area Under the Curve From Time Zero to Extrapolated Infinite Time [AUCinf] - Stage 1

| | |
|-----------------|--|
| End point title | Area Under the Curve From Time Zero to Extrapolated Infinite Time [AUCinf] - Stage 1 ^[13] |
|-----------------|--|

End point description:

AUCinf= Area under the plasma concentration versus time curve (AUC) from time zero (pre-dose) to extrapolated infinite time (0 - inf). It is obtained from AUC (0 - t) plus AUC (t - inf). Stage 1 consists of all subjects recruited before the regimen selection decision. Regimen selection analysis was carried out after 12 weeks of randomisation. Subjects who had at least one PK parameter estimated were included for analysis.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

D1C1 and D1C4, C1D2, C1D3, C1D4/C1D5, C1D8, C1D15, C2D1 (up to 12 weeks)

Notes:

[13] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Trastuzumab Emtansine 2.4 mg and Trastuzumab Emtansine 3.6 mg" were planned to be reported for the endpoint.

| End point values | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg | | |
|--------------------------------------|------------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 41 | 37 | | |
| Units: day*µg/mL | | | | |
| arithmetic mean (standard deviation) | | | | |
| T-DM1 | 179 (± 51) | 262 (± 90.3) | | |
| Total trastuzumab | 289 (± 129) | 403 (± 237) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Plasma Decay Half-Life (t1/2) - Stage 1

| | |
|-----------------|---|
| End point title | Plasma Decay Half-Life (t1/2) - Stage 1 ^[14] |
|-----------------|---|

End point description:

Plasma decay half-life is the time measured for the plasma concentration to decrease by one half. Stage 1 consists of all subjects recruited before the regimen selection decision. Regimen selection analysis was carried out after 12 weeks of randomisation. Subjects who had at least one PK parameter estimated were included for analysis.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

D1C1 and D1C4, C1D2, C1D3, C1D4/C1D5, C1D8, C1D15, C2D1 (up to 12 weeks)

Notes:

[14] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Trastuzumab Emtansine 2.4 mg and Trastuzumab Emtansine 3.6 mg" were planned to be reported for the endpoint.

| End point values | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg | | |
|--------------------------------------|------------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 41 | 37 | | |
| Units: days | | | | |
| arithmetic mean (standard deviation) | | | | |
| T-DM1 | 3.48 (± 0.747) | 3.33 (± 1.21) | | |
| Total trastuzumab | 5.22 (± 1.53) | 5.4 (± 2.15) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Volume of Distribution at Steady State (Vss) - Stage 1

End point title | Volume of Distribution at Steady State (Vss) - Stage 1^[15]

End point description:

Volume of distribution is defined as the theoretical volume in which the total amount of drug would need to be uniformly distributed to produce the desired blood concentration of a drug. Steady state volume of distribution (Vss) is the apparent volume of distribution at steady-state. Stage 1 consists of all subjects recruited before the regimen selection decision. Regimen selection analysis was carried out after 12 weeks of randomisation. Subjects who had at least one PK parameter estimated were included for analysis.

End point type | Secondary

End point timeframe:

D1C1 and D1C4, C1D2, C1D3, C1D4/C1D5, C1D8, C1D15, C2D1 (up to 12 weeks)

Notes:

[15] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Trastuzumab Emtansine 2.4 mg and Trastuzumab Emtansine 3.6 mg" were planned to be reported for the endpoint.

| End point values | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg | | |
|--|------------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 41 | 37 | | |
| Units: millilitre per kilogram (mL/kg) | | | | |
| arithmetic mean (standard deviation) | | | | |
| T-DM1 | 66.2 (± 19.2) | 67.7 (± 14) | | |
| Total trastuzumab | 65.9 (± 21.9) | 72.1 (± 16.1) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Systemic Clearance (CL) - Stage 1

End point title Systemic Clearance (CL) - Stage 1^[16]

End point description:

CL is a quantitative measure of the rate at which a drug substance is removed from the body. Stage 1 consists of all subjects recruited before the regimen selection decision. Regimen selection analysis was carried out after 12 weeks of randomisation. Subjects who had at least one PK parameter estimated were included for analysis.

End point type Secondary

End point timeframe:

D1C1 and D1C4, C1D2, C1D3, C1D4/C1D5, C1D8, C1D15, C2D1 (up to 12 weeks)

Notes:

[16] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Trastuzumab Emtansine 2.4 mg and Trastuzumab Emtansine 3.6 mg" were planned to be reported for the endpoint.

| End point values | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg | | |
|--------------------------------------|------------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 41 | 37 | | |
| Units: mL/day/kg | | | | |
| arithmetic mean (standard deviation) | | | | |
| T-DM1 | 14.6 (± 4.64) | 15.4 (± 5.61) | | |
| Total trastuzumab | 10.2 (± 4.87) | 11.3 (± 5.46) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Maximum Observed Plasma Concentration (C_{max}) of N2'-Deacetyl-N2'-(3-mercapto-1-oxopropyl)-Maytansine (DM1) - Stage 1

End point title Maximum Observed Plasma Concentration (C_{max}) of N2'-Deacetyl-N2'-(3-mercapto-1-oxopropyl)-Maytansine (DM1) - Stage 1^[17]

End point description:

Maximum observed plasma concentration of DM1 were reported. Stage 1 consists of all subjects recruited before the regimen selection decision. Regimen selection analysis was carried out after 12 weeks of randomisation. Subjects who had at least one PK parameter estimated were included for analysis. Here, n=number of subjects evaluable at specified timepoint.

End point type Secondary

End point timeframe:

C1D1 and C1C4, C1D2, C1D3, C1D4/C1D5, C1D8, C1D15, C2D1 (up to 12 weeks)

Notes:

[17] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.

Justification: The data for reporting groups "Trastuzumab Emtansine 2.4 mg and Trastuzumab Emtansine 3.6 mg" were planned to be reported for the endpoint.

| End point values | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg | | |
|---|------------------------------|------------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 40 | 35 | | |
| Units: nanogram per milliliter (mcg/mL) | | | | |
| arithmetic mean (standard deviation) | | | | |
| DM1 Cycle 1 First Dose (n=40, 35) | 2.47 (± 1.05) | 4.61 (± 6.26) | | |
| DM1 Cycle 4 First Dose (n=22, 9) | 3.41 (± 1.61) | 3.86 (± 0.83) | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Baseline up to data cut-off date 30-April-2016 (up to 3 years 8 months)

Adverse event reporting additional description:

Safety Analysis Population included all subjects who received at least one dose of study medication. The safety parameters were analyzed and presented according to the therapy subjects received. Cumulative data (up to primary analysis cut-off date of 30-April-2016) are provided for both phase 2 and phase 3.

| | |
|-----------------|----------------|
| Assessment type | Non-systematic |
|-----------------|----------------|

Dictionary used

| | |
|-----------------|--------|
| Dictionary name | MedDRA |
|-----------------|--------|

| | |
|--------------------|------|
| Dictionary version | 19.0 |
|--------------------|------|

Reporting groups

| | |
|-----------------------|-------------------------|
| Reporting group title | Standard Taxane Therapy |
|-----------------------|-------------------------|

Reporting group description:

Docetaxel was administered at 75 milligram per meter square (mg/m²) intravenously (IV) on Day 1 of a 21-day cycle, or paclitaxel was administered at 80 mg/m² IV weekly (Days 1, 8, and 15 of a 21 day cycle).

| | |
|-----------------------|------------------------------|
| Reporting group title | Trastuzumab Emtansine 2.4 mg |
|-----------------------|------------------------------|

Reporting group description:

Trastuzumab emtansine was administered on Days 1, 8, and 15 of a 21-day cycle at 2.4 milligram per kilogram (mg/kg) IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subject and/or physician decision to discontinue.

| | |
|-----------------------|------------------------------|
| Reporting group title | Trastuzumab Emtansine 3.6 mg |
|-----------------------|------------------------------|

Reporting group description:

Trastuzumab emtansine was administered on Days 1 of a 21-day cycle at 3.6 mg/kg IV infusion until progression of disease, intolerable toxicity, initiation of another anticancer therapy, or subject and/or physician decision to discontinue.

| Serious adverse events | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg |
|---|-------------------------|------------------------------|------------------------------|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 31 / 111 (27.93%) | 65 / 224 (29.02%) | 23 / 69 (33.33%) |
| number of deaths (all causes) | 87 | 185 | 61 |
| number of deaths resulting from adverse events | 4 | 8 | 5 |
| Neoplasms benign, malignant and unspecified (incl cysts and polyps) | | | |
| Bladder transitional cell carcinoma | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Myelodysplastic syndrome | | | |

| | | | |
|---|-----------------|-----------------|----------------|
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| Tumour haemorrhage | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| General disorders and administration site conditions | | | |
| Death | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| Fatigue | | | |
| subjects affected / exposed | 2 / 111 (1.80%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 1 / 3 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| General physical health deterioration | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pyrexia | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 2 / 224 (0.89%) | 3 / 69 (4.35%) |
| occurrences causally related to treatment / all | 1 / 1 | 0 / 2 | 1 / 4 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Immune system disorders | | | |
| Anaphylactic reaction | | | |
| subjects affected / exposed | 2 / 111 (1.80%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 2 / 2 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Hypersensitivity | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |

| | | | |
|---|-----------------|-----------------|----------------|
| Respiratory, thoracic and mediastinal disorders | | | |
| Interstitial lung disease | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pleural effusion | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pneumonia aspiration | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| Pneumonitis | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 2 / 224 (0.89%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 2 / 2 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pulmonary alveolar haemorrhage | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| Pulmonary embolism | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pulmonary oedema | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Respiratory failure | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |

| | | | |
|---|-----------------|-----------------|----------------|
| Aspiration | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Psychiatric disorders | | | |
| Confusional state | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Investigations | | | |
| Blood bilirubin increased | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 4 / 224 (1.79%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 4 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Blood creatinine increased | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 2 / 224 (0.89%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 2 / 2 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Hepatic enzyme increased | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Liver function test abnormal | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Injury, poisoning and procedural complications | | | |
| Facial bones fracture | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Fall | | | |

| | | | |
|---|-----------------|-----------------|----------------|
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Overdose | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Cardiac disorders | | | |
| Atrial fibrillation | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Cardiac failure | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| Supraventricular tachycardia | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Nervous system disorders | | | |
| Encephalopathy | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Hepatic encephalopathy | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 2 / 224 (0.89%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 2 / 2 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Metabolic encephalopathy | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Subarachnoid haemorrhage | | | |

| | | | |
|---|-----------------|-----------------|----------------|
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| Syncope | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Blood and lymphatic system disorders | | | |
| Anaemia | | | |
| subjects affected / exposed | 3 / 111 (2.70%) | 8 / 224 (3.57%) | 2 / 69 (2.90%) |
| occurrences causally related to treatment / all | 2 / 3 | 3 / 9 | 0 / 2 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Coagulopathy | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Disseminated intravascular coagulation | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Febrile neutropenia | | | |
| subjects affected / exposed | 4 / 111 (3.60%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 4 / 4 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Neutropenia | | | |
| subjects affected / exposed | 3 / 111 (2.70%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 4 / 4 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Thrombocytopenia | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 3 / 224 (1.34%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 3 / 3 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastrointestinal disorders | | | |

| | | | |
|---|-----------------|-----------------|----------------|
| Abdominal pain | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Diarrhoea | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Dysphagia | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 2 / 224 (0.89%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 2 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastric haemorrhage | | | |
| subjects affected / exposed | 2 / 111 (1.80%) | 6 / 224 (2.68%) | 4 / 69 (5.80%) |
| occurrences causally related to treatment / all | 1 / 2 | 0 / 8 | 2 / 5 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 1 | 1 / 1 |
| Gastric ulcer haemorrhage | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastrointestinal haemorrhage | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 5 / 224 (2.23%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 1 / 10 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastrointestinal ulcer | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Haematemesis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Ileus | | | |

| | | | |
|---|-----------------|-----------------|----------------|
| subjects affected / exposed | 0 / 111 (0.00%) | 2 / 224 (0.89%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 3 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Intestinal obstruction | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Jejunal perforation | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Lower gastrointestinal haemorrhage | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Nausea | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Oesophageal haemorrhage | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 3 / 224 (1.34%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 3 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Oesophageal stenosis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pancreatitis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Regurgitation | | | |

| | | | |
|--|-----------------|-----------------|----------------|
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Small intestinal haemorrhage | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Upper gastrointestinal haemorrhage | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 8 / 224 (3.57%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 4 / 10 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| Vomiting | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 1 / 224 (0.45%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 1 | 1 / 2 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Hepatobiliary disorders | | | |
| Bile duct stenosis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Cholangitis acute | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Renal and urinary disorders | | | |
| Acute kidney injury | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| Musculoskeletal and connective tissue disorders | | | |
| Back pain | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |

| | | | |
|---|-----------------|-----------------|----------------|
| Myalgia | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Infections and infestations | | | |
| Atypical pneumonia | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| Cellulitis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Device related infection | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Escherichia infection | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastrointestinal infection | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Infection | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 2 / 224 (0.89%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 2 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Lower respiratory tract infection | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 1 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Lung abscess | | | |

| | | | |
|---|-----------------|-----------------|----------------|
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Lung infection | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Meningitis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Pneumonia | | | |
| subjects affected / exposed | 5 / 111 (4.50%) | 7 / 224 (3.13%) | 2 / 69 (2.90%) |
| occurrences causally related to treatment / all | 2 / 5 | 1 / 7 | 0 / 2 |
| deaths causally related to treatment / all | 1 / 2 | 0 / 2 | 0 / 0 |
| Respiratory tract infection | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Sepsis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Septic shock | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 2 / 224 (0.89%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 2 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| Staphylococcal sepsis | | | |
| subjects affected / exposed | 1 / 111 (0.90%) | 0 / 224 (0.00%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Urinary tract infection | | | |

| | | | |
|---|-----------------|-----------------|----------------|
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Intervertebral Discitis | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Metabolism and nutrition disorders | | | |
| Decreased appetite | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Dehydration | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Diabetes mellitus | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Hyperglycaemia | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 1 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Hypophagia | | | |
| subjects affected / exposed | 0 / 111 (0.00%) | 0 / 224 (0.00%) | 1 / 69 (1.45%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |

Frequency threshold for reporting non-serious adverse events: 5 %

| Non-serious adverse events | Standard Taxane Therapy | Trastuzumab Emtansine 2.4 mg | Trastuzumab Emtansine 3.6 mg |
|--|-------------------------|------------------------------|------------------------------|
| Total subjects affected by non-serious adverse events subjects affected / exposed | 105 / 111 (94.59%) | 211 / 224 (94.20%) | 62 / 69 (89.86%) |
| Investigations | | | |
| Alanine aminotransferase increased subjects affected / exposed | 4 / 111 (3.60%) | 21 / 224 (9.38%) | 5 / 69 (7.25%) |
| occurrences (all) | 8 | 34 | 8 |
| Aspartate aminotransferase increased subjects affected / exposed | 5 / 111 (4.50%) | 36 / 224 (16.07%) | 10 / 69 (14.49%) |
| occurrences (all) | 6 | 49 | 15 |
| Blood alkaline phosphatase increased subjects affected / exposed | 3 / 111 (2.70%) | 8 / 224 (3.57%) | 5 / 69 (7.25%) |
| occurrences (all) | 4 | 12 | 6 |
| Blood bilirubin increased subjects affected / exposed | 3 / 111 (2.70%) | 13 / 224 (5.80%) | 1 / 69 (1.45%) |
| occurrences (all) | 4 | 18 | 2 |
| Weight decreased subjects affected / exposed | 8 / 111 (7.21%) | 13 / 224 (5.80%) | 3 / 69 (4.35%) |
| occurrences (all) | 9 | 13 | 3 |
| Nervous system disorders | | | |
| Dizziness subjects affected / exposed | 5 / 111 (4.50%) | 14 / 224 (6.25%) | 5 / 69 (7.25%) |
| occurrences (all) | 5 | 17 | 6 |
| Headache subjects affected / exposed | 6 / 111 (5.41%) | 24 / 224 (10.71%) | 2 / 69 (2.90%) |
| occurrences (all) | 6 | 31 | 3 |
| Dysgeusia subjects affected / exposed | 11 / 111 (9.91%) | 18 / 224 (8.04%) | 5 / 69 (7.25%) |
| occurrences (all) | 11 | 18 | 5 |
| Neuropathy peripheral subjects affected / exposed | 11 / 111 (9.91%) | 22 / 224 (9.82%) | 2 / 69 (2.90%) |
| occurrences (all) | 14 | 24 | 2 |
| Peripheral sensory neuropathy subjects affected / exposed | 22 / 111 (19.82%) | 21 / 224 (9.38%) | 4 / 69 (5.80%) |
| occurrences (all) | 22 | 23 | 4 |
| Blood and lymphatic system disorders | | | |

| | | | |
|--|-------------------|-------------------|------------------|
| Anaemia | | | |
| subjects affected / exposed | 35 / 111 (31.53%) | 75 / 224 (33.48%) | 15 / 69 (21.74%) |
| occurrences (all) | 47 | 98 | 17 |
| Leukopenia | | | |
| subjects affected / exposed | 10 / 111 (9.01%) | 2 / 224 (0.89%) | 1 / 69 (1.45%) |
| occurrences (all) | 23 | 7 | 2 |
| Febrile neutropenia | | | |
| subjects affected / exposed | 7 / 111 (6.31%) | 1 / 224 (0.45%) | 0 / 69 (0.00%) |
| occurrences (all) | 7 | 1 | 0 |
| Neutropenia | | | |
| subjects affected / exposed | 55 / 111 (49.55%) | 24 / 224 (10.71%) | 7 / 69 (10.14%) |
| occurrences (all) | 108 | 55 | 9 |
| Thrombocytopenia | | | |
| subjects affected / exposed | 3 / 111 (2.70%) | 60 / 224 (26.79%) | 18 / 69 (26.09%) |
| occurrences (all) | 3 | 110 | 26 |
| General disorders and administration site conditions | | | |
| Asthenia | | | |
| subjects affected / exposed | 9 / 111 (8.11%) | 39 / 224 (17.41%) | 9 / 69 (13.04%) |
| occurrences (all) | 18 | 49 | 11 |
| Chills | | | |
| subjects affected / exposed | 2 / 111 (1.80%) | 12 / 224 (5.36%) | 4 / 69 (5.80%) |
| occurrences (all) | 2 | 17 | 4 |
| Malaise | | | |
| subjects affected / exposed | 5 / 111 (4.50%) | 12 / 224 (5.36%) | 1 / 69 (1.45%) |
| occurrences (all) | 8 | 13 | 1 |
| Fatigue | | | |
| subjects affected / exposed | 51 / 111 (45.95%) | 68 / 224 (30.36%) | 24 / 69 (34.78%) |
| occurrences (all) | 71 | 87 | 37 |
| Oedema peripheral | | | |
| subjects affected / exposed | 16 / 111 (14.41%) | 14 / 224 (6.25%) | 5 / 69 (7.25%) |
| occurrences (all) | 19 | 18 | 5 |
| Mucosal inflammation | | | |
| subjects affected / exposed | 7 / 111 (6.31%) | 8 / 224 (3.57%) | 1 / 69 (1.45%) |
| occurrences (all) | 8 | 8 | 1 |
| Pain | | | |

| | | | |
|--|-------------------------|-------------------------|------------------------|
| subjects affected / exposed occurrences (all) | 11 / 111 (9.91%) 14 | 6 / 224 (2.68%) 6 | 3 / 69 (4.35%) 3 |
| Pyrexia subjects affected / exposed occurrences (all) | 17 / 111 (15.32%) 19 | 44 / 224 (19.64%) 61 | 11 / 69 (15.94%) 14 |
| Gastrointestinal disorders | | | |
| Abdominal distension subjects affected / exposed occurrences (all) | 4 / 111 (3.60%) 4 | 10 / 224 (4.46%) 10 | 6 / 69 (8.70%) 6 |
| Abdominal pain subjects affected / exposed occurrences (all) | 12 / 111 (10.81%) 12 | 42 / 224 (18.75%) 46 | 10 / 69 (14.49%) 13 |
| Abdominal pain upper subjects affected / exposed occurrences (all) | 8 / 111 (7.21%) 10 | 19 / 224 (8.48%) 23 | 6 / 69 (8.70%) 6 |
| Constipation subjects affected / exposed occurrences (all) | 22 / 111 (19.82%) 25 | 47 / 224 (20.98%) 59 | 10 / 69 (14.49%) 11 |
| Diarrhoea subjects affected / exposed occurrences (all) | 27 / 111 (24.32%) 42 | 33 / 224 (14.73%) 47 | 10 / 69 (14.49%) 11 |
| Dry mouth subjects affected / exposed occurrences (all) | 2 / 111 (1.80%) 3 | 20 / 224 (8.93%) 20 | 4 / 69 (5.80%) 4 |
| Dyspepsia subjects affected / exposed occurrences (all) | 11 / 111 (9.91%) 11 | 17 / 224 (7.59%) 18 | 6 / 69 (8.70%) 6 |
| Dysphagia subjects affected / exposed occurrences (all) | 4 / 111 (3.60%) 4 | 9 / 224 (4.02%) 9 | 4 / 69 (5.80%) 4 |
| Nausea subjects affected / exposed occurrences (all) | 30 / 111 (27.03%) 42 | 57 / 224 (25.45%) 73 | 15 / 69 (21.74%) 19 |
| Stomatitis subjects affected / exposed occurrences (all) | 21 / 111 (18.92%) 23 | 14 / 224 (6.25%) 16 | 3 / 69 (4.35%) 5 |

| | | | |
|---|-------------------------|-------------------------|------------------------|
| Vomiting subjects affected / exposed occurrences (all) | 15 / 111 (13.51%) 24 | 41 / 224 (18.30%) 59 | 17 / 69 (24.64%) 24 |
| Respiratory, thoracic and mediastinal disorders | | | |
| Cough subjects affected / exposed occurrences (all) | 12 / 111 (10.81%) 16 | 13 / 224 (5.80%) 13 | 7 / 69 (10.14%) 9 |
| Epistaxis subjects affected / exposed occurrences (all) | 6 / 111 (5.41%) 6 | 26 / 224 (11.61%) 37 | 7 / 69 (10.14%) 10 |
| Dyspnoea subjects affected / exposed occurrences (all) | 9 / 111 (8.11%) 9 | 21 / 224 (9.38%) 23 | 10 / 69 (14.49%) 12 |
| Hiccups subjects affected / exposed occurrences (all) | 8 / 111 (7.21%) 10 | 5 / 224 (2.23%) 5 | 6 / 69 (8.70%) 9 |
| Skin and subcutaneous tissue disorders | | | |
| Alopecia subjects affected / exposed occurrences (all) | 57 / 111 (51.35%) 60 | 7 / 224 (3.13%) 7 | 1 / 69 (1.45%) 1 |
| Nail disorder subjects affected / exposed occurrences (all) | 7 / 111 (6.31%) 7 | 4 / 224 (1.79%) 4 | 0 / 69 (0.00%) 0 |
| Palmar–plantar erythrodysaesthesia syndrome subjects affected / exposed occurrences (all) | 8 / 111 (7.21%) 10 | 8 / 224 (3.57%) 8 | 2 / 69 (2.90%) 2 |
| Rash subjects affected / exposed occurrences (all) | 12 / 111 (10.81%) 16 | 15 / 224 (6.70%) 16 | 3 / 69 (4.35%) 3 |
| Pruritus subjects affected / exposed occurrences (all) | 11 / 111 (9.91%) 13 | 7 / 224 (3.13%) 7 | 4 / 69 (5.80%) 4 |
| Psychiatric disorders | | | |
| Insomnia subjects affected / exposed occurrences (all) | 10 / 111 (9.01%) 14 | 18 / 224 (8.04%) 21 | 5 / 69 (7.25%) 5 |

| | | | |
|--|-------------------------|-------------------------|------------------------|
| Depression subjects affected / exposed occurrences (all) | 0 / 111 (0.00%) 0 | 5 / 224 (2.23%) 5 | 4 / 69 (5.80%) 4 |
| Musculoskeletal and connective tissue disorders | | | |
| Arthralgia subjects affected / exposed occurrences (all) | 13 / 111 (11.71%) 16 | 13 / 224 (5.80%) 17 | 6 / 69 (8.70%) 6 |
| Back pain subjects affected / exposed occurrences (all) | 6 / 111 (5.41%) 7 | 13 / 224 (5.80%) 13 | 6 / 69 (8.70%) 6 |
| Myalgia subjects affected / exposed occurrences (all) | 18 / 111 (16.22%) 21 | 13 / 224 (5.80%) 16 | 6 / 69 (8.70%) 6 |
| Metabolism and nutrition disorders | | | |
| Decreased appetite subjects affected / exposed occurrences (all) | 32 / 111 (28.83%) 37 | 57 / 224 (25.45%) 60 | 22 / 69 (31.88%) 26 |
| Hypoalbuminaemia subjects affected / exposed occurrences (all) | 5 / 111 (4.50%) 5 | 13 / 224 (5.80%) 14 | 3 / 69 (4.35%) 3 |
| Hypokalaemia subjects affected / exposed occurrences (all) | 1 / 111 (0.90%) 1 | 22 / 224 (9.82%) 29 | 3 / 69 (4.35%) 4 |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|-------------------|---|
| 12 September 2012 | The distinctions between "Stage 1" and "Stage 2" were clarified; methods for study conduct (taxane selection, concomitant therapies, cycle length, PK and pharmacodynamic sampling, and dosing instructions) were clarified; the dose modification guidance was aligned with the most current, harmonized standards across the trastuzumab emtansine clinical program; the description of the futility analysis was updated; the eligibility criteria were revised. |
| 13 January 2014 | The IDMC regimen selection recommendation from 14 October 2013, to continue with the 2.4mg/kg qw regimen was added; important safety language updates for severe bleeding events, severe hepatotoxicity, and risk of left ventricular ejection fraction (LVEF), as well as dose modification guideline updates were included; the allowed use of HER2 testing from other studies for eligibility was been clarified. |
| 19 June 2014 | Option to open an extension cohort to enroll in China after the last patient in (LPI) had been enrolled into the main study (this option has not been implemented). The study exclusion criteria were also modified to disallow prior enrollment in Study BO25114 (NCT01774786 and EudraCT 2012-003554-83). |
| 21 April 2015 | This version was released to clearly spell out the study end rules for the main study, and the China extension cohort in the event this was initiated. |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

| |
|--|
| The study was terminated by the Sponsor as the primary analysis results did not meet the primary endpoint. |
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Notes: