

## Clinical Study Synopsis

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### Clinical Trial Results Synopsis

Study Design Description		
Study Sponsor:	Bayer HealthCare AG	
Study Number:	11818	NCT01028079
Study Phase:	III	
Official Study Title:	Placebo and active controlled, double dummy phase III study to prove the efficacy of Aspirin® (1000 mg solid dose) in treatment of acute low back pain (IMP 11818).	
Therapeutic Area:	Analgesic	
Test Product		
Name of Test Product:	Acetylsalicylic acid (Aspirin, BAYE4465)	
Name of Active Ingredient:	Acetylsalicylic acid (ASA)	
Dose and Mode of Administration:	Aspirin® caplet 1000 mg ASA, tid (solid dose), by mouth (PO). Ibuprofen matching placebo caplets, tid PO (identical in appearance to the 400 mg Ibuprofen caplets).	
Reference Therapy/Placebo		
Reference Therapy:	1) Placebo (2 Placebo caplets: ASA and ibuprofen) 2) Ibuprofen ASA Matching Placebo	
Dose and Mode of Administration:	1) Placebo was given 3 times daily (tid) (PO) in the same regimen as for ASA and ibuprofen treatments. 2) Ibuprofen caplets, 400 mg tid, PO. ASA matching placebo caplets, PO (Identical in appearance to the 1000 mg Aspirin® caplets)	
Duration of Treatment:	The planned duration of the subjects' exposure to the study treatment was 5 days in total: Aspirin® 1000 mg, Ibuprofen 400 mg or Placebo solid dose tid for 48 h, followed by on demand treatment for 3 days (72 h).	
Studied period:	Date of first subjects' first visit:	08 NOV 2005
	Date of last subjects' last visit:	19 DEC 2006
Premature Study Suspension / Termination:	No	
Substantial Study Protocol Amendments:	None [	
Study Centre(s):	The study was conducted at 13 centers in 2 countries: Germany (10 centers) and the United Kingdom (GB) (3 centers). In one center, no subjects were recruited to participate in the study (Center 1).	
Methodology:	This was a 3 arm, parallel group, randomized, double-blind, flexible dose study. The study comprised of 3 periods: during the first period, subjects received randomized treatment (Aspirin®,	

	<p>Ibuprofen, or Placebo) tid for 48 hours following first dose. The second period covered the time period from 48 h post-dose until end of treatment (Days 3 to 5). During the second period, subjects received on-demand randomized treatment on Days 3 to 5, not exceeding 3 doses in 24 h to allow for a flexible dose regimen. Subjects visited the investigational site on Day 6/7 (control) to undergo study procedures. The follow-up period comprised the third period of the study (Days 6/7 to 14). Subjects returned to the investigational site on Day 14 to complete an overall assessment scale, after which they were discharged from the study.</p>
<p>Indication/ Main Inclusion Criteria:]</p>	<p>Indication: Acute low back pain (LBP)</p> <p>Main Inclusion Criteria:</p> <ul style="list-style-type: none"> <li>• Ambulatory male or female subjects, aged 18 to 70 years.</li> <li>• Body mass index (BMI) in the range of 18 to 30 kilograms per square meter (kg/m<sup>2</sup>).</li> <li>• Normal blood pressure (BP) (or stable if medically controlled).</li> <li>• Subject's written informed consent form obtained prior to inclusion in the study.</li> <li>• Subject suffering from pain with a minimum rating of 4, on an 11-point numerical pain scale.</li> <li>• LBP, localized below the costal margin and above the inferior gluteal folds, either as acute LBP, or as chronic or intermittent LBP.</li> <li>• No specific diseases as of the decision of the Investigator (for example, as defined by red flags).</li> </ul> <p>Subjects with acute LBP were eligible for study participation. Acute LBP was defined as a period of pain in the lower back, localized between the costal margin and above the inferior gluteal folds without sciatica, lasting for more than 24 h.</p> <p>Subjects with leg pain or signs of sciatica or radiculalgia were permitted to take part in the study, as long as there was no evidence of loss of neurological functions. Additionally, pain had to be at least moderate (minimum of 4 points on a numerical 11-point scale). Pain had to be either acute LBP or an acute episode of chronic or recurrent LBP.</p>
<p>Study Objectives:</p>	<p><u>Primary:</u></p> <p>To demonstrate a statistically significant superiority of Aspirin® 1000 mg solid dose tid over Placebo, when comparing the area under the curve of the baseline adjusted pain intensity for the first 48 hours (AUC-PI<sub>0-48hours</sub>) after treatment.</p> <p><u>Secondary:</u></p> <ul style="list-style-type: none"> <li>• Safety</li> <li>• During the entire treatment time, pain scales, pain relief scales, and efficacy evaluations were completed. The sum of pain intensity difference and total pain relief were measured at 1 hour (h), 3 h, 6 h, 9 h, 12 h, Day 2 morning (24 h), Day 2 (30 h), Day 2 (36 h), Day 3 morning (48 h), Day 3 evening, Day 4 morning/evening and Day 5 morning/evening. Overall efficacy (pain relief) was measured</li> </ul>

	<p>at 48, 72, 96, and 120 h after first dose (FD).</p> <ul style="list-style-type: none"> <li>• Overall efficacy at Day 6/7</li> <li>• Overall efficacy during the Follow up period at Day 14</li> <li>• Total dose used over 5 days</li> <li>• Time until use of rescue medication</li> <li>• Time to 50% reduction of the baseline pain intensity</li> </ul>
<p>Evaluation Criteria:</p>	<p><u>Efficacy (Primary):</u>          The primary efficacy variable was AUC-PI<sub>0-48hours</sub>, calculated as area under the curve normalized for time of the baseline adjusted pain intensity plotted vs time over the initial 48 h after FD.</p> <p><u>Efficacy (Secondary):</u></p> <ul style="list-style-type: none"> <li>• Sum of pain intensity differences from baseline (Day 1, 0 h) after 6, 48, 72, 96, and 120 h after FD.</li> <li>• Total pain relief after 6, 48, 72, 96, and 120 h after FD.</li> <li>• Overall assessment of efficacy (pain relief) after 48, 72, 96, and 120 h after FD, on Day 6/7 and on Day 14.</li> <li>• Total dose used over 5 days.</li> <li>• Time to use of rescue medication.</li> <li>• Time to 50% reduction of the baseline pain intensity.</li> </ul> <p>Pain intensity was measured on an 11-point numerical scale from 0 = no pain to 10 = maximum pain. Pain relief was measured on a 5-point categorical scale from 1 = no relief to 5 = complete relief. Overall efficacy was measured on a 5-point categorical scale from 1 = poor to 5 = excellent. These scales were completed by subjects at the given time-points.</p> <p>The primary analysis with regard to the comparison between Aspirin<sup>®</sup> and Placebo (superiority testing) was performed using the intent-to-treat (ITT) analysis set, whereas the primary analysis with regard to the comparison between Aspirin<sup>®</sup> and Ibuprofen (non-inferiority testing) was performed using the per-protocol (PP) analysis set. The ITT analysis set was defined as all randomized subjects who received any study treatment and who had any post-baseline data. The PP analysis set was defined as subjects in the ITT analysis set who did not withdraw from the study for reasons not related to the treatment of pain and who had no relevant (major) protocol deviations.</p> <p><u>Safety:</u></p> <ul style="list-style-type: none"> <li>• Adverse events</li> <li>• Study medication usage</li> <li>• Physical examination (changes from baseline were recorded as adverse events).</li> <li>• Vital signs (BP, heart rate, temperature, body weight and BMI).</li> </ul> <p>Drug safety and tolerability were assessed for each subject by continuous recording of adverse events during the entire time of study participation. Subjects completed diaries on a daily basis,</p>

	<p>and every adverse event was documented with time, date, severity, action taken, and other parameters. The investigator checked and collected the diaries at Visit 2. Visit 3 could be performed by telephone call only.</p>
<p>Statistical Methods:</p>	<p>In general, unless otherwise specified, all tests were performed using 2-sided t-tests at the 5% significance level. The treatment difference between the two groups, its 2-sided 95% confidence interval (CI) and the probability (P) value for the treatment difference were calculated and a significant difference was defined as a 2-sided P value &lt; 0.05.</p> <p><u>Efficacy (Primary):</u></p> <p>In the primary efficacy analysis, AUC-PI<sub>0-48 hours</sub> was compared between Aspirin<sup>®</sup> and Placebo for the ITT analysis set. The analysis was repeated for the PP analysis set.</p> <p>AUC-PI<sub>0-48hours</sub> was compared between Aspirin<sup>®</sup> and Ibuprofen for the PP analysis set as an exploratory analysis. Non-inferiority would be inferred if a difference between Aspirin and Ibuprofen larger than half the difference between Aspirin and Placebo could be ruled out with 2-sided 95% confidence, i.e., the lower 2-sided 95% confidence boundary for the difference Aspirin<sup>®</sup> minus Ibuprofen with regard to AUC-PI<sub>0-48hours</sub> was less than half of the mean difference Aspirin<sup>®</sup> minus Placebo for AUC-PI<sub>0-48hours</sub>. The exploratory analysis was repeated for the ITT analysis set.</p> <p><u>Efficacy (Secondary):</u></p> <p>In the secondary efficacy analyses (performed for ITT as well as PP analysis sets), AUC-PI<sub>0-48hours</sub> was compared between Ibuprofen and Placebo. For all other secondary efficacy analyses, pairwise comparisons between all three treatments were performed. Total pain relief and the sum of the pain intensity difference from baseline (Day 1, 0 h) at 6, 48, 72, 96, and 120 h, and the number of tablets used during the separate study periods and overall were compared using t-tests. The overall assessments of efficacy (pain relief) at 48, 72, 96, 120 h, on Day 6/7 and on Day 14 were compared using chi-squared trend tests. The time to use of rescue medication and time to 50% reduction in pain intensity were analyzed using the Kaplan-Meier method, summarized for each treatment group (median time, upper, and lower quartiles), and compared using the log-rank test.</p> <p><u>Safety:</u></p> <p>Treatment-emergent adverse events, including serious adverse events, were listed. Adverse events were summarized by treatment, body system and preferred term, both overall and also by severity, by relation to study drug, and by severity and relation to study drug. Serious adverse events were also summarized separately by body system and preferred term. The number and percentage of subjects with adverse events and the number of events were also presented. Study medication usage during the separate study periods and overall was calculated and summarized by treatment group. Vital signs were summarized by treatment group and by visit for the Safety analysis set and changes from the</p>

	pre-study/randomization visit to Day 6/7 were also summarized. Body weight and BMI were additionally summarized separately for males and females.
Number of Subjects:	<p>To meet the primary study objective, and allowing for a dropout rate of approximately 10%, it was planned to screen a total of 330 subjects for this study.</p> <p>A total of 338 subjects were randomized to receive study medication: 112 subjects were randomized to receive Aspirin®, 116 subjects to receive Placebo, and 110 subjects to receive Ibuprofen.</p> <p>One subject in the Ibuprofen treatment group did not receive study medication. A total of 337 subjects comprised the Safety analysis set: Aspirin® 112 subjects, Placebo 116 subjects, and Ibuprofen 109 subjects. Out of 338 randomized subjects, one subject in each of the Placebo and Ibuprofen groups had no post-baseline efficacy data. In total, 336 subjects were valid for the evaluation of the primary study objective (ITT analysis set): Aspirin® 112 subjects, Placebo 115 subjects, and Ibuprofen 109 subjects. In total, 303 subjects (89.6%) completed the study and 35 subjects (10.4%) were prematurely withdrawn.</p> <p>Overall, 287 subjects were included in the PP analysis set (defined as subjects in the ITT analysis set who did not withdraw from the study for reasons not related to the treatment of pain and who did not have any relevant [major] protocol deviations): Aspirin® 95 subjects; Placebo 100 subjects; Ibuprofen 92 subjects.</p>
<b>Study Results</b>	
<b>Results Summary — Subject Disposition and Baseline</b>	
<p>Out of 337 subjects, a total of 158 subjects (46.9%) were male and 179 subjects (53.1%) were female. A similar number of male and female subjects were randomized to each group. Slightly more female subjects than male subjects were randomized into the Aspirin® (57.1% vs 42.9%) group compared with Placebo (51.7% vs 48.3%) and Ibuprofen (50.5% vs 49.5%). The majority of subjects were Caucasian (332 subjects, 98.5%). The overall mean age of subjects was 45.56 years (range: 17.92 to 81.92). The mean age of female subjects was 46.56 years (range: 18.35 to 81.92) and the mean age of male subjects was 44.43 years (range: 17.92 to 78.48). Overall, the mean height of subjects was 172.23 (range: 148 to 199). There were no clinically relevant differences between treatment groups with respect to demographic or other baseline characteristics.</p> <p>In total, 35 subjects (10.4%) withdrew from the study prematurely during the treatment period (Aspirin® 16 subjects [14.3%]; Placebo 9 subjects [7.8%]; Ibuprofen 10 subjects [9.1%]). There were no notable differences between groups with respect to the number of subjects who withdrew from the study prematurely.</p>	
<b>Results Summary — Efficacy</b>	
<p>The primary objective of this study was to show statistically significant superiority of Aspirin® 1000 mg solid dose tid over Placebo with respect to AUC-PI<sub>0-48hours</sub>. Mean AUC-PI<sub>0-48hours</sub> was lower in the Aspirin® treatment group relative to the Placebo group, indicating a larger reduction in pain intensity over 48 hours compared to Placebo. However, this difference was not statistically significant and thus superiority could not be concluded. The inferential analysis of the non-inferiority of Aspirin® to Ibuprofen was not eligible for consideration under the primary endpoint, because statistically significant superiority of</p>	

Aspirin<sup>®</sup> over Placebo was not demonstrated. The inferential analysis of Aspirin<sup>®</sup> to Ibuprofen was only to have been considered if Aspirin<sup>®</sup> had been shown to be statistically significantly superior to Placebo in the first of the primary analyses. Mean AUC-PI<sub>0-48hours</sub> was lower in the Ibuprofen treatment group relative to the Placebo group and the difference between the 2 treatments was statistically significant ( $P = 0.025$ ) for the ITT analysis set; however, this statistical significance was not confirmed in the PP analysis set.

In all treatment groups mean pain intensity steadily decreased and mean change in pain intensity from baseline gradually increased from Day 1 to the evening of Day 5. From Day 1 to the evening of Day 5, the proportion of subjects with moderate, good, or excellent pain relief increased in each treatment group, with a corresponding decrease in the proportion of subjects with no or slight relief from pain. At most time points and across all measures, observed efficacy was largest in the Ibuprofen group, followed by the Aspirin<sup>®</sup> and Placebo groups in descending order. Statistically significant superiority of Ibuprofen relative to Placebo in reducing pain intensity and also inducing pain relief over the first 48 to 120 h post-FD was demonstrated ( $P < 0.05$ ) for the ITT analysis set. However, these results were not confirmed in the PP analysis set. There were no statistically significant differences between the Aspirin<sup>®</sup> and Placebo groups, or between the Aspirin<sup>®</sup> and Ibuprofen treatment groups, with regard to the mean sum of pain intensity difference and mean total pain relief scores from 6 to 120 h post-FD.

A shorter median time to 50% reduction of pain intensity (36 h) was seen in the Ibuprofen group, relative to the Aspirin<sup>®</sup> and Placebo groups (60 h in both groups). A smaller proportion of subjects in the Ibuprofen group (28.4%), compared with the Aspirin<sup>®</sup> and Placebo groups (39.3% and 38.3%, respectively), did not achieve a 50% reduction of pain intensity over the duration of their study participation. However, no statistically significant differences between the three treatment groups were observed for the time to 50% reduction of pain intensity.

Overall assessments of efficacy (pain relief) were conducted at 48 h, 72 h (Day 3), 96 h (Day 4), 120 h (Day 5), Day 6/7, and Day 14. At each of these time points, the proportion of subjects who rated pain relief as good, very good, or excellent was highest in the Ibuprofen treatment group ( $\geq 52.3\%$ ) relative to the Aspirin<sup>®</sup> ( $\geq 41.1\%$ ) and Placebo ( $\geq 41.7\%$ ) groups. No statistically significant differences between the three treatment groups were observed in overall pain relief except for one single time-point between Ibuprofen and Placebo ( $P = 0.032$  at 48 h) in the ITT analysis set. However, this finding was not corroborated in the PP analysis.

Subjects in each group took a similar mean number of tablets up to 48 h post-FD; however, from 48 h to 5 days post-FD and overall, subjects in the Placebo and Ibuprofen groups took a higher mean number of tablets relative to subjects in the Aspirin<sup>®</sup> group. Subjects in the Placebo group took a statistically significantly higher mean number of tablets during these treatment periods than subjects in the Aspirin<sup>®</sup> group ( $P < 0.05$ ), a finding that was confirmed in the PP analysis set ( $P < 0.05$ ). In contrast, the differences in study medication consumption by subjects in the Aspirin<sup>®</sup> and Ibuprofen treatment groups were not statistically significant. Rescue medication was not required by a slightly larger proportion of subjects in the Placebo group (93.0%) in comparison with the Aspirin<sup>®</sup> (86.6%) and Ibuprofen (85.3%) groups, but there were no significant differences between groups with respect to the time to first use of rescue medication.

Additional statistical analyses were planned and conducted post-hoc on the basis of pain intensity scores at baseline (Day 1, 0 h). The baseline pain intensity of the subjects in this study was unusual: in the ITT analysis set, approximately 60% of subjects (200 of 336 subjects) had a baseline pain intensity score of  $>7$ . Subjects with a baseline pain intensity

score of  $>7$  were severe sufferers of lower back pain and, in such subjects, multiple factors (including non-drug factors) can contribute to an improvement in lower back pain. This is thought to have been the root cause of the large placebo effect observed in the main efficacy analysis. Therefore, additional post-hoc statistical analyses were planned and conducted to examine the response to treatment in subgroups of subjects with baseline pain intensity scores of  $<7$  (Number of subjects [N] = 136) and  $<6$  (N = 65).

In general, mean pain intensity was broadly similar in each of the 3 groups at Day 1, 0 h, and decreased throughout the study period until the evening of Day 5 for both subgroups of subjects with baseline pain intensities  $<7$  and  $<6$ , respectively. It should be noted, however, that consistent reductions in mean pain intensity scores were not seen from one time-point to the next, as worsening in the scores was also observed. Similarly, the mean baseline adjusted pain intensity difference gradually increased in each group from Day 1, 1 h until the evening of Day 5, but fluctuations were also observed as the mean baseline adjusted pain intensity difference did not consistently increase at each time point from baseline.

In subjects with a baseline pain intensity score of  $<7$ , mean AUC-PI<sub>0-48hours</sub> was lower in the Aspirin<sup>®</sup> and Ibuprofen groups relative to Placebo and the treatment differences were statistically significant in the ITT and PP analysis sets ( $P \leq 0.034$ ; t-tests). Hence, Aspirin<sup>®</sup> and Ibuprofen were statistically significantly superior in reducing pain intensity over the first 48 h of treatment relative to Placebo. In this post-hoc analysis, the non-inferiority of Aspirin<sup>®</sup> to Ibuprofen was also demonstrated.

In subjects with less severe baseline pain intensity (a score of  $<6$ ), mean AUC-PI<sub>0-48hours</sub> was lower in the Aspirin<sup>®</sup> and Ibuprofen groups relative to Placebo. The difference between the Aspirin<sup>®</sup> and Placebo groups was not statistically significant; in contrast, the treatment difference between the Ibuprofen and Placebo groups was statistically significant for both the ITT and PP analysis sets ( $P \leq 0.006$ ; t-tests). Therefore, statistically significant superiority of Ibuprofen, but not Aspirin<sup>®</sup>, was demonstrated relative to Placebo in reducing pain intensity over the first 48 h of treatment in subjects with a baseline pain intensity score of  $<6$ . The inferential analysis of the non-inferiority of Aspirin<sup>®</sup> to Ibuprofen was not eligible for consideration, because statistically significant superiority of Aspirin<sup>®</sup> over Placebo was not demonstrated in subjects with a baseline pain intensity score  $<6$ .

In both subgroups of subjects (baseline pain intensity scores  $<7$  and  $<6$ , respectively) mean sum of pain intensity differences and total pain relief at 6 and 48 hours post-FD were greater in the Aspirin<sup>®</sup> and Ibuprofen groups in relation to Placebo. In subjects with a baseline pain intensity of  $<7$ , statistically significant superiority of Ibuprofen relative to Placebo in reducing pain intensity and inducing pain relief at 6 hours and 48 hours post-FD was demonstrated ( $P \leq 0.008$ ; t-tests; ITT analysis set). Statistically significant superiority of Aspirin<sup>®</sup> vs Placebo in reducing pain intensity at 48 hours was demonstrated ( $P = 0.015$ ; t-tests). However, there were no statistically significant differences between the Aspirin<sup>®</sup> and Placebo groups in reducing pain intensity at 6 and 48 hours, or giving pain relief at 6 hours post-FD.

In subjects with a baseline pain intensity score of  $<6$ , no statistically significant differences were observed between the Aspirin<sup>®</sup> and Placebo groups, or between the Aspirin<sup>®</sup> and Ibuprofen groups, in the sum of pain intensity differences and total pain relief at 6 and 48 hours post-FD. Statistically significant superiority of Ibuprofen relative to Placebo in reducing pain intensity and inducing pain relief at 48 hours post-FD was demonstrated ( $P \leq 0.006$ ; t-tests; ITT analysis set); however, the treatment differences were not statistically significant at 6 hours.

The statistically significant results seen in the additional post-hoc analyses for the subgroup of subjects with a baseline pain intensity score of <7 indicated that Aspirin® was more effective than Placebo at reducing pain intensity and inducing pain relief in sufferers of acute LBP over the first 48 h post-FD, which was not seen in sufferers with more severe LBP (i.e., the whole subject population). Non-inferiority of Aspirin® to Ibuprofen was also demonstrated for this subgroup of subjects. The treatment differences observed for the subgroup of subjects with a pain intensity score of <6 at baseline were on the whole not statistically significant. This was most likely a consequence of the smaller sample size and because this subgroup had a less heterogeneous population of subjects (N = 65).

#### Results Summary — Safety

Study medication usage was similar in all study groups up to 48 h post-FD. Relative to the Aspirin® treatment group, study medication usage was greater in the Placebo and Ibuprofen groups from 48 h to 5 days post-FD and also over the entire study period.

No deaths or other significant adverse events were observed during this study. Overall, 2 subjects (0.6%) in the Aspirin® group experienced a total of 2 serious adverse events that were not suspected to be related to study medication. One subject was diagnosed with a pancreatic carcinoma and died as a consequence of this serious adverse event approximately 9 months after prematurely discontinuing from the study (use of rescue medication within the first 48 h of study treatment). One subject experienced non-cardiac chest pain, which completely resolved. Both of these subjects were in the Aspirin® treatment group, but neither the investigator nor the sponsor suspected that these events were related to the study medication.

Seventy-two subjects (21.4%) experienced a total of 126 adverse events. No notable differences existed between treatments as regards the number of subjects who experienced an adverse event (Aspirin® 23 subjects [20.5%]; Placebo 28 subjects [24.1%]; and Ibuprofen 21 subjects [19.3%]). More subjects in the Aspirin and Placebo groups (19 subjects [17.0%] and 17 subjects [14.7%], respectively) experienced a possibly related adverse event in comparison with Ibuprofen (10 subjects [9.2%]).

The gastrointestinal body system was the most frequently reported category of adverse event (Aspirin® 15 subjects [13.4%]; Placebo 11 subjects [9.5%]; and Ibuprofen 8 subjects [7.3%]). Headache was the most frequently recorded adverse event (Aspirin® 5 subjects [4.5%]; Placebo 11 subjects [9.5%]; and Ibuprofen 5 subjects [4.6%]). Gastrointestinal disorders was the most frequently reported category of possibly related adverse events and these were observed in more subjects in the Aspirin® treatment group (14 subjects [12.5%]) relative to the Placebo and Ibuprofen groups (9 subjects [7.8%] and 6 subjects [5.5%], respectively). Upper abdominal pain was the most frequently recorded adverse event that was possibly related to the study medication and this was recorded in 9 subjects (8.0%) in the Aspirin® group compared with 3 subjects in each of the Placebo (2.6%) and Ibuprofen groups (2.8%).

The majority of adverse events experienced by subjects during the study were mild (93 of 126) or moderate (28 of 126) in severity; however, the majority of reported adverse events were also possibly related to the study medication (78 of 126). Four subjects (1.2%) experienced a total of 5 adverse events that were severe. Of these, 3 subjects (0.9%) each experienced 1 severe adverse event that was possibly related to study medication: 1 subject in each of the Aspirin®, Placebo, and Ibuprofen treatment groups experienced severe possibly related adverse events of upper abdominal pain, fatigue, and headache, respectively. Overall, 11 subjects (3.3%) experienced at least 1 adverse event that subsequently led to their discontinuation from the study. Nine subjects (2.7%)

prematurely discontinued the study because of 1 or more adverse events that were possibly related to the study medication, none of whom were receiving treatment with Ibuprofen (Aspirin<sup>®</sup> 6 subjects; Placebo 3 subjects). There were no further medically relevant differences between treatments with respect to the incidence, severity or possible relatedness of adverse events. No clinically relevant differences were observed between treatment groups (or between male and female subjects) with respect to vital signs and other physical findings (BP, heart rate, body temperature, body weight, and BMI). Treatment with Aspirin<sup>®</sup> and Ibuprofen can be regarded as safe and well tolerated with respect to the low incidence and type of serious adverse events experienced by subjects in this clinical trial.

Conclusion(s)

- In this study no evidence for superior efficacy of Aspirin<sup>®</sup> (1000 mg tid solid dose) over treatment with Placebo in the treatment of acute LBP was provided.
- Non-inferiority of Aspirin<sup>®</sup> to Ibuprofen could not be inferred.
- In the ITT analysis set, there is evidence to suggest that Ibuprofen is statistically significantly superior in reducing pain intensity and inducing pain relief when compared with Placebo. However, these findings were not confirmed in the PP analysis.
- No statistically significant differences between the three treatment groups were observed in the overall assessment of pain relief from Day 3 onwards, in the time to use of rescue medication, and in the time to 50% reduction of baseline pain intensity.
- A lower overall study medication usage by subjects in the Aspirin<sup>®</sup> treatment group was observed relative to the Placebo and Ibuprofen groups. The difference in this regard between the Aspirin<sup>®</sup> and Placebo groups was statistically significant.
- Treatment with Aspirin<sup>®</sup> 1000 mg tid solid dose was safe and well tolerated and no new safety concerns arose.
- The statistically significant results seen in the additional post-hoc analyses for the subgroup of subjects with a baseline pain intensity score of <7 indicated that Aspirin<sup>®</sup> was more effective than Placebo at alleviating acute LBP over the first 48 h post-FD, something that was not seen in the total study population that included sufferers with more severe LBP. Non-inferiority of Aspirin<sup>®</sup> to Ibuprofen was also demonstrated for this subgroup of subjects.
- Statistically non-significant results were observed in the subject subgroup with a baseline pain intensity of <6 for the comparisons of Aspirin<sup>®</sup> vs Placebo, which was most likely a consequence of the small sample size and less heterogeneous population.

Publication(s):	None		
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## Investigational Site List

Marketing Authorization Holder in Germany	
<b>Name</b>	Bayer Vital GmbH
<b>Postal Address</b>	D-51368 Leverkusen, Germany
Sponsor in Germany (if applicable)	
<b>Legal Entity Name</b>	Bayer HealthCare AG
<b>Postal Address</b>	D-51368 Leverkusen, Germany

List of Investigational Sites					
No	Facility Name	Street	ZIP Code	City	Country
1	Rückenzentrum am Michel	Ludwig-Erhard-Str. 18	20459	Hamburg	Germany
2	Klinische Forschung Hannover	Peinerst. 2	30519	Hannover	Germany
3	Praxis Dr. Eva-Maria Bönninghoff	Linnenstr. 2	59269	Beckum	Germany
4	Praxis Dr. Anwar Ansari	Sertürmerstr. 2	37574	Einbeck	Germany
5	Praxisgemeinschaft Dr. I. u. P. Brackmann	Kurparkstr. 1	33175	Bad Lippspringe	Germany
6	Gemeinschaftspraxis Bramfelder Chausée	Bramfelder Chausée 200	22177	Hamburg	Germany
7	Praxis Dr. med. Matthias Soyka	Alte Holstenstr. 2	21031	Hamburg	Germany
8	Praxis Dres.Hans-Joachim Poetsch und Bernd Stolley	Milchstr. 3	20148	Hamburg	Germany
9	Praxis Dr. med. Robert Franz	Straubinger Str. 25	94342	Straßkirchen	Germany
10	Gemeinschaftspraxis Dr. Christiane Klein und Joachim Minnich	Osterhofener Str. 5	94550	Künzing	Germany
11	The Burngreave Surgery	5 Burngreave Road	S3 9DA	Sheffield	UK
12	Saltash Health Centre	Callington Road	PL12 6DL	Saltash	UK
13	The Fowey River Practice	Rawlings Lane	PL23 1DT	Fowey Cornwall	UK