

MERCK RESEARCH LABORATORIES

Division of Merck & Co., Inc.
West Point, Pennsylvania 19486

05-JAN-2009

Re: MK-0683/blinded therapy

Dear Doctor:

This letter is to provide follow-up information on an adverse experience concerning MK-0683/blinded therapy which has been reported to you previously.

U.S. Food and Drug Regulations require sponsors of clinical studies conducted under an IND to notify the FDA of any serious and unexpected adverse experiences occurring in a clinical study filed under that IND when either the investigator or the sponsor believes that there is a reasonable possibility that the experience may have been drug related or if the drug relationship is unknown. The sponsor is also required to inform all investigators working with the particular drug under the IND.

In compliance with these requirements, the enclosed report has been submitted to the FDA and, because you are an investigator in a clinical study under this IND, a copy is enclosed for your information.

Please append this report to the Confidential Investigator's Brochure for the appropriate investigational product or to the Product Circular for the appropriate marketed product and retain in your files.

Please submit a copy of this report promptly (within less than 30 days of receipt) to your Institutional Review Board(s) even though the report may not involve a patient in your study.

This report does not necessarily reflect a conclusion by Merck or the FDA that the drug caused or contributed to the adverse experience. If you have any questions about this report, please contact the Merck monitor for your study.

Enclosure(s): WAES # 0805USA01319, GENSTUDY # 056-0039, AN # 61535

Merck Human Health Division

For use by user-facilities,
distributors and manufacturers for
MANDATORY reporting

Merck Facsimile of FDA Form 3500A
Approved by FDA (10/21/1993)

MedWatch

The FDA Medical Products Reporting Program

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| | |
|------------------|-------------------|
| Mfr report # | WAES 0805USA01319 |
| UF/Dist report # | |
| FDA Use Only | |

| A. Patient information | | | |
|---|---|---|--------------------------|
| 1. Patient identifier Unk AN 61535 in confidence | 2. Age at time of event: or 66 years Date of Birth: 03/10/1942 | 3. Sex <input type="checkbox"/> Female <input checked="" type="checkbox"/> Male | 4. Weight 211 lbs |

| B. Adverse event or product problem | |
|---|---|
| 1. <input checked="" type="checkbox"/> Adverse event and/or <input type="checkbox"/> Product problem (e.g., defects/malfunctions) | |
| 2. Outcomes attributed to adverse event (check all that apply) | |
| <input type="checkbox"/> Death (mm/dd/yyyy) | <input type="checkbox"/> Disability or Permanent Damage |
| <input type="checkbox"/> Life-threatening | <input type="checkbox"/> Congenital Anomaly/Birth Defect |
| <input checked="" type="checkbox"/> Hospitalization-initial or prolonged | <input checked="" type="checkbox"/> Other Serious(Important Medical Events) |
| <input type="checkbox"/> Required Intervention to Prevent Permanent Impairment/Damage (Devices) | |
| 3. Date of event (mm/dd/yyyy) 05/05/2008 | 4. Date of this report (mm/dd/yyyy) 01/05/2009 |

5. Describe event or problem
This is in follow-up to report(s) previously submitted on 5/12/2008; 5/28/2008; 6/6/2008; 6/16/2008; 7/31/2008; 8/5/2008; 8/13/2008; 9/2/2008; 10/8/2008; 10/13/2008; 12/29/2008

A Phase II/III Randomized, Double-Blind Study of Paclitaxel plus Carboplatin in Combination with Vorinostat (MK-0683) or Placebo in Patients with Stage IIIB (with pleural effusion) or Stage IV Non-Small-Cell Lung Cancer (NSCLC)

Initial and follow up information has been received from an investigator concerning a 66 year old white male with benign prostatic hyperplasia, anorexia (grade 1), allergic reaction to cephalosprins, chronic sinusitis, intervertebral disc degeneration, diverticulitis, dyspnea on exertion (grade 2), elevated lactate dehydrogenase, elevated partial thromboplastin time (grade 2), erectile dysfunction, fatigue (grade 1), general osteoarthritis, vascular disease, genito urinary weak stream (grade 1), hemoglobinemia (grade 1) hemorrhoids, hypertension,

(Continued on Additional Page)

6. Relevant tests/laboratory data, including dates
Refer to Additional Page

7. Other relevant history, including preexisting medical conditions (e.g., allergies, race, pregnancy, smoking and alcohol use, hepatic/renal dysfunction, etc)
MEDICAL HISTORY: Necrotising fasciitis; Penicillin allergy; Rotator cuff repair; Benign neoplasm; Rotator cuff tear; Epistaxis; Left inguinal hernia; Carotid bruit; Dermatitis; Gout
CONCURRENT CONDITIONS: Benign prostatic hyperplasia; Allergic reaction to antibiotics; Intervertebral disc degeneration;

(Continued on Additional Page)

| C. Suspect medication(s) | |
|---|--|
| 1. Name (Give labeled strength & mfr/labeler) | |
| # 1 CAP 0683-blinded therapy Unk | |
| # 2 | |
| (Continued on Additional Page) | |

| | | | |
|--|--|--|--|
| 2. Dose, frequency & route used | | 3. Therapy dates (if unknown, give duration from/to (or best estimate)) | |
| # 1 Unk/Unk/PO | | # 1 04/24/2008 - 05/06/2008 | |
| # 2 | | # 2 | |
| 4. Diagnosis for use (indication) | | 5. Event abated after use stopped or dose reduced. | |
| # 1 Non-small cell lung cancer | | yes no N/A unk | |
| # 2 | | # 1 <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 6. Lot # | | 7. Exp. Date | |
| # 1 | | # 1 | |
| # 2 | | # 2 | |
| 8. Event reappeared after reintroduction. | | yes no N/A unk | |
| # 1 <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | # 2 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 9. NDC # or Unique ID | | Unknown | |
| 10. Concomitant medical products and therapy dates (excluded treatment of event) | | | |
| ACCURETIC | | 03/12/2008 - 05/11/2008 | |
| COMPAZINE | | 04/09/2008 - Cont | |
| (Continued on Additional Page) | | | |

| G. All manufacturers | |
|---|--|
| 1. Contact office - name/address | |
| Merck Human Health Division Merck & Co., Inc. P.O. Box 4 West Point, Pa. 19486-0004 Attn: World Wide Product Safety | |
| 2. Phone Number (215) 652-8071 | |
| 3. Report source. (check all that apply) | |
| <input type="checkbox"/> foreign | |
| <input checked="" type="checkbox"/> study | |
| <input type="checkbox"/> literature | |
| <input type="checkbox"/> consumer | |
| <input checked="" type="checkbox"/> health professional | |
| <input type="checkbox"/> user facility | |
| <input type="checkbox"/> company representative | |
| <input type="checkbox"/> distributor | |
| <input type="checkbox"/> other : | |
| 4. Date received by manufacturer (mm/dd/yyyy) 12/23/2008 | |
| 5. (A)NDA # IND # 58915 | |
| 6. If IND, protocol # 0560039 | |
| 7. Type of report | |
| <input type="checkbox"/> 5-day <input type="checkbox"/> 30-day | |
| <input type="checkbox"/> 7-day <input type="checkbox"/> Periodic | |
| <input type="checkbox"/> 10-day <input type="checkbox"/> Initial | |
| <input checked="" type="checkbox"/> 15-day <input checked="" type="checkbox"/> Follow-up# 11 | |
| 8. Mfr. report number WAES 0805USA01319 | |
| 9. Adverse event term(s) THROMBOSIS; THROMBOSIS; EMBOLISM; PERIPHERAL ISCHAEMIA | |

| E. Initial reporter | | | |
|---|--|--|--|
| 1. Name, address & phone # | | | |
| 2. Health professional? | | | |
| <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| 3. Occupation | | 4. Initial reporter also sent report to FDA. | |
| | | <input type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> unk | |

FDA Submission of a report does not constitute an admission that medical personnel, user facility, distributor, manufacturer or product caused or contributed to the event.

B. Adverse event or product problem

5. Describe event or problem

hyperlipidemia, intermittent hemoptysis (grade 1), intermittent insomnia (grade 1) lacunar infarction, low absolute lymphocyte count (grade 1), lower extremity neuropathy, metabolic syndrome, productive cough (grade 1) ceftriaxone sodium (ROCEPHIN) allergy, sensory neuropathy (grade 1) and tinnitus and a history of a benign neoplasm (large bowel), necrotising fasciitis, anemia, aortic valve disorder, carotid bruit (rt ear), epistaxis, dermatitis, gout, inguinal hernia (left groin), penicillin reaction, rotator cuff tear and rotator cuff repair who entered a study, title as stated above. On 24-APR-2008 the patient was randomized into study and placed on cycle 1 therapy with blinded therapy, (either vorinostat, 400 mg capsule, PO or placebo) administered on day(s) -4 through 10 of cycle 1 (cycle equivalent to 25 days) (or days 1 through 14 for each subsequent cycle) for the treatment of non-small cell lung cancer (original diagnosis 25-MAR-2008; stage IV adenocarcinoma ;current staging 09-APR-2008: (T2, N3, M1)). Concomitant study therapy included carboplatin (999 mg) and paclitaxel, 200 mg/m², (443 mg), both administered intravenous (IV) on 28-APR-2008 (day 1 of each treatment cycle). Other premedications included ondansetron hydrochloride (ZOFTRAN), dexamethasone sodium phosphate (manufacturer unknown), diphenhydramine hydrochloride and famotidine (manufacturer unknown). Concomitant medication included alfuzosin hydrochloride, albuterol, atenolol, atorvastatin, multivitamins (unspecified) and calcium antacids. On 05-MAY-2008, cycle 1, day 12, the patient developed thrombosis (grade 3) and peripheral artery ischemia (grade 3) and was hospitalized. It was reported that the patient had a progressively cyanotic right foot with elevation. The patient had complained of intermittent numbness and cyanosis since 30-APR-2008 and intermittent leg cramps since 28-APR-2008 after receiving chemotherapy treatment. Examination revealed weak pedal pulses bilaterally. Bilateral ultrasound of lower extremities on 05-MAY-2008 showed bilateral deep vein thrombosis BTK. The patient was anticoagulated with heparin infusion in D5W- 100 units/ml, enoxaparin sodium (LOVENOX) 100 mg, subcutaneous injection once a day and warfarin sodium (COUMADIN) alternating 5 mg/7.5 mg (discontinued on 22-MAY-2008). On 06-MAY-2008, acetaminophen (+) oxycodone hydrochloride, 5 mg, PO, PRN, was started for pain. Diagnostic test on 07-MAY-2008 showed mild-moderate disease in both legs and stent was placed on the same day. Therapy with enoxaparin was started on 07-MAY-2008, 100 mg, BID, SC for treatment of thrombosis and metoclopramide, 10 mg, PRN, was started on the same day for treatment of nausea. Furosemide was administered as diuretic on 08-MAY-2008. Therapy with enoxaparin continued with marked improvement in his plasminogen activator inhibitor (PAI). Factor Xa levels were not evaluated while the patient was on low molecular weight heparin (LMWH). Hydrochlorothiazide (+) quinapril hydrochloride (ACCURETIC) was also administered from 12-MAY-2008 to 27-MAY-2008 for the treatment of the patient's thrombosis/pulmonary embolism. The patient was discharged from the hospital recovered with sequelae on 14-MAY-2008. Discharge diagnoses were right lower extremity showed peripheral vascular disease; bilateral lower extremity deep vein thrombosis. Other discharge diagnoses included right lung adenocarcinoma; hyperlipidemia; coronary artery disease; hypertension; degenerative disc disease. International normalized ratio on 19-MAY-2008 was 1.6. On 19-MAY-2008, the patient was treated with cycle 2 at dose level -1 for paclitaxel, carboplatin, blinded therapy, per protocol. Therapy with vorinostat 300 mg or placebo was reduced on 19-MAY-2008 due to thrombosis. On 22-MAY-2008, the patient's international normalized ratio was 4.2 (target was 2). Acetaminophen (TYLENOL) was administered starting on 27-May-2008 for pain (continuing). On 05-JUN-2008, the patient called the site to report left arm swelling, redness, warmth and pain, which started on 04-JUN-2008 (day3 after last study medication). The patient was on anticoagulation therapy with warfarin (started again on 23-MAY-2008) for previous clot to right leg. INR was 2.2 (grade 2, non-serious) on 04-JUN-2008. The patient was brought in for evaluation and ultrasound of upper extremities. Ultrasound of left arm showed clots in axillary vein. There was no access device, venous or otherwise in the affected limb. The physician discontinued warfarin (05-JUN-2008) and started patient on enoxaparin, 150 mg SQ, daily, starting 05-JUN-2008. The patient was given injection teaching on 06-JUN-2008. It was reported that the patient's swelling, redness, warmth and pain decreased in intensity from 05-JUN-2008 to 06-JUN-2008. The patient continued on enoxaparin on an outpatient basis and was considered recovered with sequelae from thrombosis (grade 3). On 09-JUN-2008, the patient reported for cycle 3 day 1 treatment (day 8 after last study medication) complaining of worsening dyspnea on exertion and worsening fatigue starting 07-JUN-2008. Pulse oximetry in RA was 97% and 97-100% with walking test. Patient was sent for CT of chest with PE protocol which revealed bilateral segmental and subsegmental pulmonary emboli. The patient was admitted for heparin therapy and vascular consult. Therapy with heparin infusion D5W-100 units/ml was started on 09-JUN-2008 and was discontinued on 10-JUN-2008. The patient was also given oxycodone for pain management starting on 09-JUN-2008 (PRN; continuing). Therapy with enoxaparin (LOVENOX) 100 mg, subcutaneously daily was started on 10-JUN-2008 and was reported to be continued without further embolic or thrombotic events. The patient was discontinued from study medications due to lack of efficacy and was considered recovered with sequelae. The patient was discharged on 11-JUN-2008. Discharge diagnosis was pulmonary embolism and deep vein thrombosis. No action with study therapy was taken. The patient had multiple thrombotic episodes and continued with anticoagulation until his demise (no details provided). The patient's peripheral artery disease (PAD) did not cause any problems since the placement of the stents.

The patient was given psyllium husk (METAMUCIL) for constipation from 01-NOV-2007 and aspirin was given as antiplatelet and prophylaxis from 01-NOV-2007, both are reported to be continued.

The patient experienced the following events and received treatment medications as follows: (OCEAN

NASAL SPRAY) inhalant for hemoptysis, non-serious) on 27-MAY-2008 and continues; folic acid as a supplement on 09-JUN-2008 and continues; docusate sodium for constipation, 09-MAY-2008 to 15-MAY-2008; senna for constipation, 09-MAY-2008 to 15-MAY-2008; on 09-JUN-2008, 1000 mcg of vitamin B-12 as a subcutaneous injection as a supplement; and a (MEDROL DOSE-PAK) as an anti-inflammatory from 10-JUN-2008 until 16-JUN-2008.

The reporting investigator felt that thromboses (grade 3) (14-MAY-2008 and 04-JUN-2008), emboli (grade 3) and peripheral artery ischemia (grade 3) were related to blinded study therapy. The investigator also considered that the patient's thrombosis (grade 3) (04-JUN-2008) and emboli (grade 3) were related to warfarin sodium (COUMADIN) therapy.

The following non-serious adverse events were also reported: intermittent hemoptysis (12-MAY-2008; not recovered; not related), hemoptysis, R/T O2 (12-MAY-2008), hypertension r/t + meds (12-MAY-2008; recovered; not related), thrombocytopenia (27-MAY-2008; recovered 02-JUN-2008; related), hypotension (27-MAY-2008; recovered 02-JUN-2008; not related), "r/t overmed" (27-MAY-2008), leukocytopenia (02-JUN-2008; recovered 09-JUN-2008; related), hemoglobinemia (02-JUN-2008), INR, inc r/t anticoagulant w/ coumadin (02-JUN-2008; not recovered; not related), harsh wheezing, bilaterally (02-JUN-2008; not recovered; not related), shortness of breath, inc (09-JUN-2008; not recovered; not related), lymphopenia (09-JUN-2008; not recovered; related).

The reporting investigator felt that the patient's thrombosis (grade 3) (04-JUN-2008) was an other important medical event.

No additional information is expected.

6. Relevant tests/laboratory data, including dates

DIAGNOSTIC TEST

| <u>Tests</u> | <u>Date</u> | <u>Value</u> <u>Unit</u> | <u>Normal Range</u> |
|---|-------------|--------------------------|---------------------|
| venous ultrasound Comment: bilateral DVT's in lower extremities | 05/05/2008 | | |
| physical examination Comment: weak pedal pulses bilaterally | 05/05?/2008 | | |
| diagnostic pathological examination Comment: revealed weak pedal pulses bilaterally | 05/05/2008 | | |
| angioplasty Comment: --no residual stenosis with vigorous filling of the distal vasculature | 05/07/2008 | | |
| diagnostic laboratory test Comment: PVR showed mild-moderate disease in both legs | 05/07/2008 | | |
| diagnostic laboratory test Comment: ankle pressure/waveform, bilateral:mild disease at rest bilat. in legs | 05/09/2008 | | |
| venous ultrasound Comment: left arm showed clots in axillary vein. | 06/05/2008 | | |
| arterial ultrasound Comment: bilateral U/S: positive for DVT Left arm | 06/05/2008 | | |
| chest computed axial tomography Comment: bilateral segmental and subsegmental PE's | 06/09/2008 | | |

LABORATORY RESULTS

| <u>Tests</u> | <u>Date</u> | <u>Value</u> <u>Unit</u> | <u>Normal Range</u> |
|---|-------------|--------------------------|---------------------|
| INR | 05/19/2008 | 1.6 | |
| INR | 06/04/2008 | 2.2 | |
| pulse oximetry | 06/09/2008 | 97 % | |
| pulse oximetry Comment: 97 to 100 with walking | 06/09/2008 | % | |

7. Other relevant history including preexisting medical conditions

Diverticulitis; Erectile dysfunction; Haemorrhoids; Hypertension; Hyperlipidaemia; Lacunar infarction; Neuropathy; Drug hypersensitivity; Tinnitus; Dyspnoea; Anaemia; Aortic valve disease; Vascular disorder; Productive cough; Metabolic syndrome; Absolute lymphocyte count decreased; Insomnia; Haemoptysis; Haemoglobinaemia; Poor urinary stream; Osteoarthritis generalised; Fatigue; Partial thromboplastin time prolonged; Lactate dehydrogenase increased; Chronic sinusitis; Anorexia; Nausea; Breath shortness; Constipation; Antiplatelet therapy; Pain; Diuresis

C. Suspect medication(s)

1. Name (Give labeled strength & mfr/labeler)

#1 CAP 0683-blinded therapy Unk
 #2 infusion (form) carboplatin Unk
 #2 infusion (form) carboplatin Unk
 #3 infusion (form) paclitaxel 200 mg
 #3 infusion (form) paclitaxel 200 mg
 #4 warfarin Unk
 #4 warfarin Unk

2. Dose, frequency & route used

#1 Unk/Unk/PO
 #2 999 mg/1X/IV
 #2 817 mg/1X/IV
 #3 443 mg/1X/IV
 #3 379 mg/1X/IV
 #4 5 mg/DAILY/PO
 #4 5 mg/DAILY/PO

3. Therapy dates (if unknown, give duration) from/to (or best estimate)

#1 05/19/2008 - 06/01/2008
 #2 04/28/2008 - 04/28/2008
 #2 05/19/2008 - 05/19/2008
 #3 04/28/2008 - 04/28/2008
 #3 05/19/2008 - 05/19/2008
 #4 05/05/2008 - 05/22/2008
 #4 05/23/2008 - 06/05/2008

4. Diagnosis for use (indication)

#1 Non-small cell lung cancer
 #2 Non-small cell lung cancer
 #2 Non-small cell lung cancer
 #3 Non-small cell lung cancer
 #3 Non-small cell lung cancer
 #4 Thrombosis
 #4 Thrombosis

5. Event abated after use stopped or dose reduced

| | YES | NO | N/A | UNK |
|----|-----|----|-----|-----|
| #1 | X | | | |
| #2 | | | | X |
| #2 | | | | X |
| #3 | | | | X |
| #3 | | | | X |
| #4 | | | | X |
| #4 | | | | X |

6. Lot # (if known)

#1
 #2
 #2
 #3
 #3
 #4
 #4

7. Exp date (if known)

#1
 #2
 #2
 #3
 #3
 #4
 #4

8. Event reappeared after reintroduction

| | YES | NO | N/A | UNK |
|----|-----|----|-----|-----|
| #1 | X | | | |
| #2 | | | | X |
| #2 | | | | X |
| #3 | | | | X |
| #3 | | | | X |
| #4 | | | | X |
| #4 | | | | X |

C. Suspect medication(s)

10. Concomitant medical products and therapy dates (exclude treatment of event)

| | |
|----------------------------------|-------------------------|
| METAMUCIL | 01/01/2007 - Cont |
| ZOFTRAN | 04/09/2007 - Cont |
| ZOFTRAN | 04/28/2008 - 04/28/2008 |
| ZOFTRAN | 05/19/2008 - 05/19/2008 |
| albuterol | 03/08/2008 - Cont |
| alfuzosin hydrochloride | 01/10/2008 - 04/21/2008 |
| aspirin | 01/01/2007 - Cont |
| atenolol | 03/12/2008 - 05/12/2008 |
| atorvastatin | 05/12/2008 - Cont |
| dexamethasone sodium phosphate | 04/28/2008 - 04/28/2008 |
| dexamethasone sodium phosphate | 05/19/2008 - 05/19/2008 |
| diphenhydramine hydrochloride | 04/28/2008 - 04/28/2008 |
| diphenhydramine hydrochloride | 05/19/2008 - 05/19/2008 |
| famotidine | 04/28/2008 - 04/28/2008 |
| famotidine | 05/19/2008 - 05/19/2008 |
| fluticasone propionate (+) salme | 04/24/2008 - Cont |
| gastrointestinal preparations (u | 08/24/2007 - Cont |
| vitamins (unspecified) | 08/24/2007 - Cont |