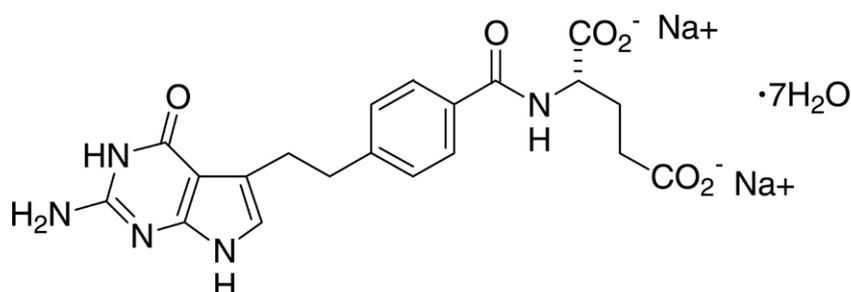


**ALIMTA<sup>®</sup>**  
**pemetrexed**  
**for injection**

**DESCRIPTION**

ALIMTA<sup>®</sup>, pemetrexed for injection, is an antifolate antineoplastic agent that exerts its action by disrupting folate-dependent metabolic processes essential for cell replication. Pemetrexed disodium heptahydrate has the chemical name L-Glutamic acid, *N*-[4-[2-(2-amino-4,7-dihydro-4-oxo-1*H*-pyrrolo[2,3-*d*]pyrimidin-5-yl)ethyl]benzoyl]-, disodium salt, heptahydrate. It is a white to almost-white solid with a molecular formula of C<sub>20</sub>H<sub>19</sub>N<sub>5</sub>Na<sub>2</sub>O<sub>6</sub>•7H<sub>2</sub>O and a molecular weight of 597.49. The structural formula is as follows:



ALIMTA is supplied as a sterile lyophilized powder for intravenous infusion available in single-dose vials. The product is a white to either light yellow or green-yellow lyophilized solid. Each 100 mg or 500 mg vial of ALIMTA contains pemetrexed disodium equivalent to 100 mg pemetrexed and 106 mg mannitol or 500 mg pemetrexed and 500 mg mannitol, respectively. Hydrochloric acid and/or sodium hydroxide may have been added to adjust pH.

**CLINICAL PHARMACOLOGY**

**Pharmacodynamics**

Pemetrexed is an antifolate containing the pyrrolopyrimidine-based nucleus that exerts its antineoplastic activity by disrupting folate-dependent metabolic processes essential for cell replication. In vitro studies have shown that pemetrexed inhibits thymidylate synthase (TS), dihydrofolate reductase (DHFR), and glycinamide ribonucleotide formyltransferase (GARFT), all folate-dependent enzymes involved in the de novo biosynthesis of thymidine and purine nucleotides. Pemetrexed is transported into cells by both the reduced folate carrier and membrane folate binding protein transport systems. Once in the cell, pemetrexed is converted to polyglutamate forms by the enzyme folylpolyglutamate synthetase. The polyglutamate forms are retained in cells and are inhibitors of TS and GARFT. Polyglutamation is a time- and concentration-dependent process that occurs in tumor cells and, to a lesser extent, in normal tissues. Polyglutamated metabolites have an increased intracellular half-life resulting in prolonged drug action in malignant cells.

Preclinical studies have shown that pemetrexed inhibits the in vitro growth of mesothelioma cell lines (MSTO-211H, NCI-H2052). Studies with the MSTO-211H mesothelioma cell line showed synergistic effects when pemetrexed was combined concurrently with cisplatin.

Absolute neutrophil counts (ANC) following single-agent administration of pemetrexed to patients not receiving folic acid and vitamin B<sub>12</sub> supplementation were characterized using

38 population pharmacodynamic analyses. Severity of hematologic toxicity, as measured by the  
39 depth of the ANC nadir, correlates with the systemic exposure of pemetrexed. It was also  
40 observed that lower ANC nadirs occurred in patients with elevated baseline cystathionine or  
41 homocysteine concentrations. The levels of these substances can be reduced by folic acid and  
42 vitamin B<sub>12</sub> supplementation. There is no cumulative effect of pemetrexed exposure on ANC  
43 nadir over multiple treatment cycles.

44 Time to ANC nadir with pemetrexed systemic exposure (AUC), varied between 8 to 9.6 days  
45 over a range of exposures from 38.3 to 316.8 μg•hr/mL. Return to baseline ANC occurred 4.2 to  
46 7.5 days after the nadir over the same range of exposures.

### 47 **Pharmacokinetics**

48 The pharmacokinetics of pemetrexed administered as a single agent in doses ranging from  
49 0.2 to 838 mg/m<sup>2</sup> infused over a 10-minute period have been evaluated in 426 cancer patients  
50 with a variety of solid tumors. Pemetrexed is not metabolized to an appreciable extent and is  
51 primarily eliminated in the urine, with 70% to 90% of the dose recovered unchanged within the  
52 first 24 hours following administration. The total systemic clearance of pemetrexed is  
53 91.8 mL/min and the elimination half-life of pemetrexed is 3.5 hours in patients with normal  
54 renal function (creatinine clearance of 90 mL/min). The clearance decreases, and  
55 exposure (AUC) increases, as renal function decreases. Pemetrexed total systemic  
56 exposure (AUC) and maximum plasma concentration (C<sub>max</sub>) increase proportionally with dose.  
57 The pharmacokinetics of pemetrexed do not change over multiple treatment cycles. Pemetrexed  
58 has a steady-state volume of distribution of 16.1 liters. In vitro studies indicate that pemetrexed  
59 is approximately 81% bound to plasma proteins. Binding is not affected by degree of renal  
60 impairment.

### 61 **Drug Interactions**

62 *Chemotherapeutic Agents* — Cisplatin does not affect the pharmacokinetics of pemetrexed and  
63 the pharmacokinetics of total platinum are unaltered by pemetrexed.

64 *Vitamins* — Coadministration of oral folic acid or intramuscular vitamin B<sub>12</sub> does not affect the  
65 pharmacokinetics of pemetrexed.

66 *Drugs Metabolized by Cytochrome P450 Enzymes* — Results from in vitro studies with human  
67 liver microsomes predict that pemetrexed would not cause clinically significant inhibition of  
68 metabolic clearance of drugs metabolized by CYP3A, CYP2D6, CYP2C9, and CYP1A2. No  
69 studies were conducted to determine the cytochrome P450 isozyme induction potential of  
70 pemetrexed, because ALIMTA used as recommended (once every 21 days) would not be  
71 expected to cause any significant enzyme induction.

72 *Aspirin* — Aspirin, administered in low to moderate doses (325 mg every 6 hours), does not  
73 affect the pharmacokinetics of pemetrexed. The effect of greater doses of aspirin on pemetrexed  
74 pharmacokinetics is unknown.

75 *Ibuprofen* — Daily ibuprofen doses of 400 mg qid reduce pemetrexed's clearance by about  
76 20% (and increase AUC by 20%) in patients with normal renal function. The effect of greater  
77 doses of ibuprofen on pemetrexed pharmacokinetics is unknown (*see Drug Interactions under*  
78 **PRECAUTIONS**).

### 79 **Special Populations**

80 The pharmacokinetics of pemetrexed in special populations were examined in about  
81 400 patients in controlled and single arm studies.

82 *Geriatric* — No effect of age on the pharmacokinetics of pemetrexed was observed over a  
83 range of 26 to 80 years.

84 *Pediatric* — Pediatric patients were not included in clinical trials.

85 *Gender* — The pharmacokinetics of pemetrexed were not different in male and female  
86 patients.

87 *Race* — The pharmacokinetics of pemetrexed were similar in Caucasians and patients of  
88 African descent. Insufficient data are available to compare pharmacokinetics for other ethnic  
89 groups.

90 *Hepatic Insufficiency* — There was no effect of elevated AST (SGOT), ALT (SGPT), or total  
91 bilirubin on the pharmacokinetics of pemetrexed. However, studies of hepatically impaired  
92 patients have not been conducted (*see* **PRECAUTIONS**).

93 *Renal Insufficiency* — Pharmacokinetic analyses of pemetrexed included 127 patients with  
94 reduced renal function. Plasma clearance of pemetrexed decreases as renal function decreases,  
95 with a resultant increase in systemic exposure. Patients with creatinine clearances of 45, 50, and  
96 80 mL/min had 65%, 54%, and 13% increases, respectively in pemetrexed total systemic  
97 exposure (AUC) compared to patients with creatinine clearance of 100 mL/min (*see*  
98 **WARNINGS and DOSAGE AND ADMINISTRATION**).

### 99 **CLINICAL STUDIES**

100 *Malignant Pleural Mesothelioma* — The safety and efficacy of ALIMTA have been evaluated  
101 in chemo-naïve patients with malignant pleural mesothelioma (MPM) in combination with  
102 cisplatin.

103 Randomized Trial: A multi-center, randomized, single-blind study in 448 chemo-naïve patients  
104 with MPM compared survival in patients treated with ALIMTA in combination with cisplatin to  
105 survival in patients receiving cisplatin alone. ALIMTA was administered intravenously over  
106 10 minutes at a dose of 500 mg/m<sup>2</sup> and cisplatin was administered intravenously over 2 hours at  
107 a dose of 75 mg/m<sup>2</sup> beginning approximately 30 minutes after the end of administration of  
108 ALIMTA. Both drugs were given on Day 1 of each 21-day cycle. After 117 patients were  
109 treated, white cell and GI toxicity led to a change in protocol whereby all patients were given  
110 folic acid and vitamin B<sub>12</sub> supplementation.

111 The primary analysis of this study was performed on the population of all patients randomly  
112 assigned to treatment who received study drug (randomized and treated). An analysis was also  
113 performed on patients who received folic acid and vitamin B<sub>12</sub> supplementation during the entire  
114 course of study therapy (fully supplemented), as supplementation is recommended (*see*  
115 **DOSAGE AND ADMINISTRATION**). Results in all patients and those fully supplemented  
116 were similar. Patient demographics are shown in Table 1.

117  
118 **Table 1: Summary of Patient Characteristics in MPM Study**

Patient characteristic	Randomized and Treated Patients		Fully Supplemented Patients	
	ALIMTA/cis (N=226)	Cisplatin (N=222)	ALIMTA/cis (N=168)	Cisplatin (N=163)
<b>Age (yrs)</b>				
Median (range)	61 (29-85)	60 (19-84)	60 (29-85)	60 (19-82)
<b>Gender (%)</b>				
Male	184 (81.4)	181 (81.5)	136 (81.0)	134 (82.2)
Female	42 (18.6)	41 (18.5)	32 (19.0)	29 (17.8)

<b>Origin (%)</b>				
Caucasian	204 (90.3)	206 (92.8)	150 (89.3)	153 (93.9)
Hispanic	11 (4.9)	12 (5.4)	10 (6.0)	7 (4.3)
Asian	10 (4.4)	4 (1.9)	7 (4.2)	3 (1.8)
African descent	1 (0.4)	0	1 (0.6)	0
<b>Stage at Entry (%)</b>				
I	16 (7.1)	14 (6.3)	15 (8.9)	12 (7.4)
II	35 (15.6)	33 (15.0)	27 (16.2)	27 (16.8)
III	73 (32.4)	68 (30.6)	51 (30.5)	49 (30.4)
IV	101 (44.9)	105 (47.2)	74 (44.3)	73 (45.3)
Unspecified	1 (0.4)	2 (0.9)	1 (0.6)	2 (1.2)
<b>Diagnosis/Histology<sup>a</sup> (%)</b>				
Epithelial	154 (68.1)	152 (68.5)	117 (69.6)	113 (69.3)
Mixed	37 (16.4)	36 (16.2)	25 (14.9)	25 (15.3)
Sarcomatoid	18 (8.0)	25 (11.3)	14 (8.3)	17 (10.4)
Other	17 (7.5)	9 (4.1)	12 (7.1)	8 (4.9)
<b>Baseline KPS<sup>b</sup> (%)</b>				
70-80	109 (48.2)	97 (43.7)	83 (49.4)	69 (42.3)
90-100	117 (51.8)	125 (56.3)	85 (50.6)	94 (57.7)

<sup>a</sup> Only 67% of the patients had the histologic diagnosis of malignant mesothelioma confirmed by independent review.

<sup>b</sup> Karnofsky Performance Scale.

Table 2 summarizes the survival results for all randomized and treated patients regardless of vitamin supplementation status and those patients receiving vitamin supplementation from the time of enrollment in the trial.

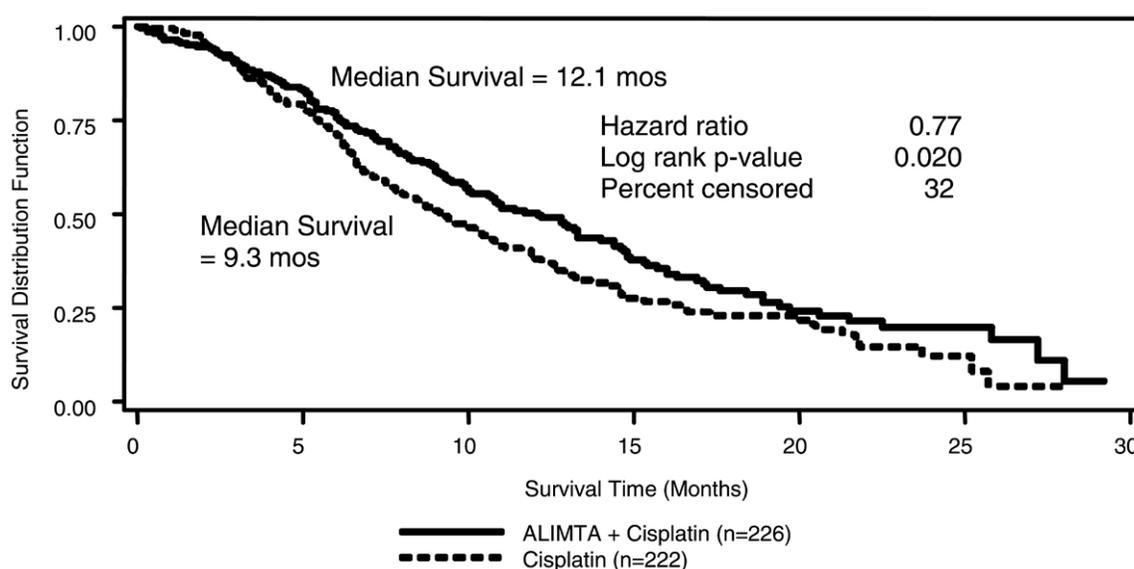
**Table 2: Efficacy of ALIMTA plus Cisplatin vs. Cisplatin in Malignant Pleural Mesothelioma**

Efficacy Parameter	Randomized and Treated Patients		Fully Supplemented Patients	
	ALIMTA/cis (N=226)	Cisplatin (N=222)	ALIMTA/cis (N=168)	Cisplatin (N=163)
Median overall survival (95% CI)	12.1 mos (10.0-14.4)	9.3 mos (7.8-10.7)	13.3 mos (11.4-14.9)	10.0 mos (8.4-11.9)
Hazard ratio	0.77		0.75	
Log rank p-value*	0.020		0.051	

\* p-value refers to comparison between arms.

Similar results were seen in the analysis of patients (N=303) with confirmed histologic diagnosis of malignant pleural mesothelioma. Exploratory demographic analyses showed no apparent differences in patients over or under 65. There were too few non-white patients to assess possible ethnic differences. The effect in women (median survival 15.7 months with the combination vs. 7.5 months on cisplatin alone), however, was larger than the effect in males (median survival 11 vs. 9.4 respectively). As with any exploratory analysis, it is not clear whether this difference is real or is a chance finding.

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**Figure 1: Kaplan-Meier Estimates of Survival Time for ALIMTA plus Cisplatin and Cisplatin Alone in all Randomized and Treated Patients.**

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Objective tumor response for malignant pleural mesothelioma is difficult to measure and response criteria are not universally agreed upon. However, based upon prospectively defined criteria, the objective tumor response rate for ALIMTA plus cisplatin was greater than the objective tumor response rate for cisplatin alone. There was also improvement in lung function (forced vital capacity) in the ALIMTA plus cisplatin arm compared to the control arm.

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Patients who received full supplementation with folic acid and vitamin B<sub>12</sub> during study therapy received a median of 6 and 4 cycles in the ALIMTA/cisplatin (N=168) and cisplatin (N=163) arms, respectively. Patients who never received folic acid and vitamin B<sub>12</sub> during study therapy received a median of 2 cycles in both treatment arms (N=32 and N=38 for the ALIMTA/cisplatin and cisplatin arm, respectively). Patients receiving ALIMTA in the fully supplemented group received a relative dose intensity of 93% of the protocol specified ALIMTA dose intensity; patients treated with cisplatin in the same group received 94% of the projected dose intensity. Patients treated with cisplatin alone had a dose intensity of 96%.

*Non-Small Cell Lung Cancer (NSCLC)* — The safety and efficacy of ALIMTA as a single-agent have been evaluated in patients with locally advanced or metastatic (Stage III or IV) non-small cell lung cancer after prior chemotherapy.

**Randomized Trial:** A multi-center, randomized, open label Phase 3 study was conducted to compare the overall survival following treatment with ALIMTA versus docetaxel. ALIMTA was administered intravenously over 10 minutes at a dose of 500 mg/m<sup>2</sup> and docetaxel was administered at 75 mg/m<sup>2</sup> as a 1-hour intravenous infusion. Both drugs were given on Day 1 of each 21-day cycle. All patients treated with ALIMTA received vitamin supplementation with folic acid and vitamin B<sub>12</sub>. The study was intended to show either an overall survival superiority or non-inferiority of ALIMTA to docetaxel. Patient demographics of the intent to treat (ITT) population are shown in Table 3.

**Table 3: Summary of Patient Characteristics in NSCLC Study**

	ALIMTA	Docetaxel
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Patient characteristic	(N=283)	(N=288)
<b>Age (yrs)</b>		
Median (range)	59 (22-81)	57 (28-87)
<b>Gender (%)</b>		
Male/Female	68.6/31.4	75.3/24.7
<b>Stage at Entry (%)</b>		
III/IV	25.1/74.9	25.3/74.7
<b>Diagnosis/Histology (%)</b>		
Adenocarcinoma	154 (54.4)	142 (49.3)
Squamous	78 (27.6)	93 (32.3)
Bronchoalveolar	4 (1.4)	1 (0.3)
Other	51 (18.1)	53 (18.5)
<b>Performance Status (%)</b>		
0-1	234 (88.6)	240 (87.6)
2	30 (11.4)	34 (12.4)

169  
170 The primary endpoint in this study was overall survival. The median survival time was  
171 8.3 months in the ALIMTA treatment arm and 7.9 months in the docetaxel arm, with a hazard  
172 ratio of 0.99 (*see* Table 4). The study did not show an overall survival superiority of ALIMTA.  
173 Non-inferiority of ALIMTA to docetaxel could not be demonstrated, because a reliable and  
174 consistent survival effect of docetaxel required for a non-inferiority analysis could not be  
175 estimated from historical trials. In addition, significant treatment crossover at the time of disease  
176 progression may have confounded the survival interpretation. The demonstrated surrogate  
177 endpoint, response rate allowed the conclusion that an effect of ALIMTA on survival is  
178 reasonably likely.

179 Exploratory demographic analyses on survival showed no significant differences between  
180 ALIMTA and docetaxel in patients over or under 65 years of age. There were too few non-white  
181 patients to assess possible ethnic differences. Regarding gender, females lived longer than males  
182 in both treatment groups. There was no difference in survival between ALIMTA and docetaxel  
183 with respect to gender after adjusting for prognostic factors.

184 Secondary endpoints evaluated in the trial include objective response rate, progression free  
185 survival (PFS) and time to progressive disease (TTPD). There was no statistically significant  
186 difference between ALIMTA and docetaxel with respect to objective response rate, progression  
187 free survival (PFS) and time to progressive disease (TTPD).  
188

189 **Table 4: Efficacy of ALIMTA vs. Docetaxel in Non-Small Cell Lung Cancer - ITT**  
190 **Population**

	ALIMTA (N=283)	Docetaxel (N=288)
Median overall survival (95% CI)	8.3 mos (7.0-9.4)	7.9 mos (6.3-9.2)
Hazard ratio (HR) (95% CI)	0.99 <sup>a</sup> (0.82-1.20)	
Log rank p-value	0.93	
1-year survival (95% CI)	29.7% (23.7-35.6)	29.7% (23.9-35.5)
Median progression free survival	2.9 mos	2.9 mos
Hazard ratio (HR) (95% CI)	0.97 <sup>a</sup> (0.82-1.16)	
Time to Progressive Disease	3.4 mos	3.5 mos

Hazard ratio (HR) (95% CI)	0.97 <sup>a</sup> (0.80-1.17)	
Overall response rate <sup>a,b</sup> (95% CI)	9.1% (5.9-13.2)	8.8% (5.7-12.8)

<sup>a</sup> Not statistically significant.

<sup>b</sup> Number of qualified patients on the ALIMTA arm (N=264) and docetaxel arm (N=274).

## INDICATIONS AND USAGE

**Mesothelioma:** ALIMTA in combination with cisplatin is indicated for the treatment of patients with malignant pleural mesothelioma whose disease is unresectable or who are otherwise not candidates for curative surgery.

**Non-Small Cell Lung Cancer:** ALIMTA as a single-agent is indicated for the treatment of patients with locally advanced or metastatic non-small cell lung cancer after prior chemotherapy.

The effectiveness of ALIMTA in second-line NSCLC was based on the surrogate endpoint, response rate. There are no controlled trials demonstrating a clinical benefit, such as a favorable survival effect or improvement of disease-related symptoms.

## CONTRAINDICATIONS

ALIMTA is contraindicated in patients who have a history of severe hypersensitivity reaction to pemetrexed or to any other ingredient used in the formulation.

## WARNINGS

### Decreased Renal Function

ALIMTA is primarily eliminated unchanged by renal excretion. No dosage adjustment is needed in patients with creatinine clearance  $\geq 45$  mL/min. Insufficient numbers of patients have been studied with creatinine clearance  $< 45$  mL/min to give a dose recommendation. Therefore, ALIMTA should not be administered to patients whose creatinine clearance is  $< 45$  mL/min (*see Dose Reduction Recommendations under DOSAGE AND ADMINISTRATION*).

One patient with severe renal impairment (creatinine clearance 19 mL/min) who did not receive folic acid and vitamin B<sub>12</sub> died of drug-related toxicity following administration of ALIMTA alone.

### Bone Marrow Suppression

ALIMTA can suppress bone marrow function, as manifested by neutropenia, thrombocytopenia, and anemia (or pancytopenia) (*see ADVERSE REACTIONS*); myelosuppression is usually the dose-limiting toxicity. Dose reductions for subsequent cycles are based on nadir ANC, platelet count, and maximum nonhematologic toxicity seen in the previous cycle (*see Dose Reduction Recommendations under DOSAGE AND ADMINISTRATION*).

### Need for Folate and Vitamin B<sub>12</sub> Supplementation

Patients treated with ALIMTA must be instructed to take folic acid and vitamin B<sub>12</sub> as a prophylactic measure to reduce treatment-related hematologic and GI toxicity (*see DOSAGE AND ADMINISTRATION*). In clinical studies, less overall toxicity and reductions in Grade 3/4 hematologic and nonhematologic toxicities such as neutropenia, febrile neutropenia, and infection with Grade 3/4 neutropenia were reported when pretreatment with folic acid and vitamin B<sub>12</sub> was administered.

### Pregnancy Category D

ALIMTA may cause fetal harm when administered to a pregnant woman. Pemetrexed was fetotoxic and teratogenic in mice at i.p. doses of 0.2 mg/kg (0.6 mg/m<sup>2</sup>) or 5 mg/kg (15 mg/m<sup>2</sup>) when given on gestation days 6 through 15. Pemetrexed caused fetal malformations (incomplete

233 ossification of talus and skull bone) at 0.2 mg/kg (about 1/833 the recommended i.v. human dose  
234 on a mg/m<sup>2</sup> basis), and cleft palate at 5 mg/kg (about 1/33 the recommended i.v. human dose on  
235 a mg/m<sup>2</sup> basis). Embryotoxicity was characterized by increased embryo-fetal deaths and reduced  
236 litter sizes. There are no studies of ALIMTA in pregnant women. Patients should be advised to  
237 avoid becoming pregnant. If ALIMTA is used during pregnancy, or if the patient becomes  
238 pregnant while taking ALIMTA, the patient should be apprised of the potential hazard to the  
239 fetus.

## 240 PRECAUTIONS

### 241 General

242 ALIMTA should be administered under the supervision of a qualified physician experienced in  
243 the use of antineoplastic agents. Appropriate management of complications is possible only  
244 when adequate diagnostic and treatment facilities are readily available. Treatment-related  
245 adverse events of ALIMTA seen in clinical trials have been reversible. Skin rash has been  
246 reported more frequently in patients not pretreated with a corticosteroid in clinical trials.  
247 Pretreatment with dexamethasone (or equivalent) reduces the incidence and severity of  
248 cutaneous reaction (*see* **DOSAGE AND ADMINISTRATION**).

249 The effect of third space fluid, such as pleural effusion and ascites, on ALIMTA is unknown.  
250 In patients with clinically significant third space fluid, consideration should be given to draining  
251 the effusion prior to ALIMTA administration.

### 252 Laboratory Tests

253 Complete blood cell counts, including platelet counts and periodic chemistry tests, should be  
254 performed on all patients receiving ALIMTA. Patients should be monitored for nadir and  
255 recovery, which were tested in the clinical study before each dose and on days 8 and 15 of each  
256 cycle. Patients should not begin a new cycle of treatment unless the ANC is  $\geq 1500$  cells/mm<sup>3</sup>,  
257 the platelet count is  $\geq 100,000$  cells/mm<sup>3</sup>, and creatinine clearance is  $\geq 45$  mL/min.

### 258 Drug Interactions

259 ALIMTA is primarily eliminated unchanged renally as a result of glomerular filtration and  
260 tubular secretion. Concomitant administration of nephrotoxic drugs could result in delayed  
261 clearance of ALIMTA. Concomitant administration of substances that are also tubularly secreted  
262 (e.g., probenecid) could potentially result in delayed clearance of ALIMTA.

263 Although ibuprofen (400 mg qid) can be administered with ALIMTA in patients with normal  
264 renal function (creatinine clearance  $\geq 80$  mL/min), caution should be used when administering  
265 ibuprofen concurrently with ALIMTA to patients with mild to moderate renal insufficiency  
266 (creatinine clearance from 45 to 79 mL/min). Patients with mild to moderate renal insufficiency  
267 should avoid taking NSAIDs with short elimination half-lives for a period of 2 days before, the  
268 day of, and 2 days following administration of ALIMTA.

269 In the absence of data regarding potential interaction between ALIMTA and NSAIDs with  
270 longer half-lives, all patients taking these NSAIDs should interrupt dosing for at least 5 days  
271 before, the day of, and 2 days following ALIMTA administration. If concomitant administration  
272 of an NSAID is necessary, patients should be monitored closely for toxicity, especially  
273 myelosuppression, renal, and gastrointestinal toxicity.

### 274 Drug/Laboratory Test Interactions

275 None known.

### 276 **Carcinogenesis, Mutagenesis, Impairment of Fertility**

277 No carcinogenicity studies have been conducted with pemetrexed. Pemetrexed was clastogenic  
278 in the in vivo micronucleus assay in mouse bone marrow but was not mutagenic in multiple  
279 in vitro tests (Ames assay, CHO cell assay). Pemetrexed administered at i.v. doses of  
280 0.1 mg/kg/day or greater to male mice (about 1/1666 the recommended human dose on a mg/m<sup>2</sup>  
281 basis) resulted in reduced fertility, hypospermia, and testicular atrophy.

### 282 **Pregnancy**

283 Pregnancy Category D (*see* **WARNINGS**).

### 284 **Nursing Mothers**

285 It is not known whether ALIMTA or its metabolites are excreted in human milk. Because  
286 many drugs are excreted in human milk, and because of the potential for serious adverse  
287 reactions in nursing infants from ALIMTA, it is recommended that nursing be discontinued if the  
288 mother is treated with ALIMTA.

### 289 **Pediatric Use**

290 The safety and effectiveness of ALIMTA in pediatric patients have not been established.

### 291 **Geriatric Use**

292 Dose adjustments based on age other than those recommended for all patients have not been  
293 necessary (*see* **Special Populations under CLINICAL PHARMACOLOGY and DOSAGE**  
294 **AND ADMINISTRATION**).

### 295 **Gender**

296 Dose adjustments based on gender other than those recommended for all patients have not been  
297 necessary (*see* **Special Populations under CLINICAL PHARMACOLOGY and DOSAGE**  
298 **AND ADMINISTRATION**).

### 299 **Patients with Hepatic Impairment**

300 Patients with bilirubin >1.5 times the upper limit of normal were excluded from clinical trials  
301 of ALIMTA. Patients with transaminase >3.0 times the upper limit of normal were routinely  
302 excluded from clinical trials if they had no evidence of hepatic metastases. Patients with  
303 transaminase from 3 to 5 times the upper limit of normal were included in the clinical trial of  
304 ALIMTA if they had hepatic metastases.

305 Dose adjustments based on hepatic impairment experienced during treatment with ALIMTA  
306 are provided in Table 9 (*see* **Special Populations under CLINICAL PHARMACOLOGY and**  
307 **DOSAGE AND ADMINISTRATION**).

### 308 **Patients with Renal Impairment**

309 ALIMTA is known to be primarily excreted by the kidney. Decreased renal function will result  
310 in reduced clearance and greater exposure (AUC) to ALIMTA compared with patients with  
311 normal renal function. Cisplatin coadministration with ALIMTA has not been studied in patients  
312 with moderate renal impairment (*see* **Special Populations under CLINICAL**  
313 **PHARMACOLOGY**).

## 314 **ADVERSE REACTIONS**

315 *Malignant Pleural Mesothelioma* — In Table 5 adverse events occurring in at least 5% of  
316 patients are shown along with important effects (renal failure, infection) occurring at lower rates.  
317 Adverse events equally or more common in the cisplatin group are not included. The adverse

318 effects more common in the ALIMTA group were primarily hematologic effects, fever and  
 319 infection, stomatitis/pharyngitis, and rash/desquamation.

320

321 **Table 5: Adverse Events\* in Fully Supplemented Patients Receiving ALIMTA plus**  
 322 **Cisplatin in MPM**

323

**CTC Grades (% incidence)**

	<b>All Reported Adverse Events Regardless of Causality</b>					
	ALIMTA/cis (N=168)			Cisplatin (N=163)		
	All Grades	Grade 3	Grade 4	All Grades	Grade 3	Grade 4
<b>Laboratory</b>						
<b>Hematologic</b>						
Neutropenia	58	19	5	16	3	1
Leukopenia	55	14	2	20	1	0
Anemia	33	5	1	14	0	0
Thrombocytopenia	27	4	1	10	0	0
<b>Renal</b>						
Creatinine elevation	16	1	0	12	1	0
Renal failure	2	0	1	1	0	0
<b>Clinical</b>						
<b>Constitutional Symptoms</b>						
Fatigue	80	17	0	74	12	1
Fever	17	0	0	9	0	0
Other constitutional symptoms	11	2	1	8	1	1
<b>Cardiovascular General</b>						
Thrombosis/embolism	7	4	2	4	3	1
<b>Gastrointestinal</b>						
Nausea	84	11	1	79	6	0
Vomiting	58	10	1	52	4	1
Constipation	44	2	1	39	1	0
Anorexia	35	2	0	25	1	0
Stomatitis/pharyngitis	28	2	1	9	0	0
Diarrhea without colostomy	26	4	0	16	1	0
Dehydration	7	3	1	1	1	0
Dysphagia/esophagitis/odynophagia	6	1	0	6	0	0
<b>Pulmonary</b>						
Dyspnea	66	10	1	62	5	2
<b>Pain</b>						
Chest pain	40	8	1	30	5	1
<b>Neurology</b>						
Neuropathy/sensory	17	0	0	15	1	0
Mood alteration/depression	14	1	0	9	1	0
<b>Infection/Febrile Neutropenia</b>						

Infection without neutropenia	11	1	1	4	0	0
Infection with Grade 3 or Grade 4 neutropenia	6	1	0	4	0	0
Infection/febrile neutropenia-other	3	1	0	2	0	0
Febrile neutropenia	1	1	0	1	0	0
<b>Immune</b>						
Allergic reaction/hypersensitivity	2	0	0	1	0	0
<b>Dermatology/Skin</b>						
Rash/desquamation	22	1	0	9	0	0

\* Refer to NCI CTC Version 2.0.

Table 6 compares the incidence (percentage of patients) of CTC Grade 3/4 toxicities in patients who received vitamin supplementation with daily folic acid and vitamin B<sub>12</sub> from the time of enrollment in the study (fully supplemented) with the incidence in patients who never received vitamin supplementation (never supplemented) during the study in the ALIMTA plus cisplatin arm.

**Table 6: Selected Grade 3/4 Adverse Events Comparing Fully Supplemented versus Never Supplemented Patients in the ALIMTA plus Cisplatin arm in MPM (% incidence)**

Adverse Event Regardless of Causality <sup>a</sup> (%)	Fully Supplemented Patients (N=168)	Never Supplemented Patients (N=32)
Neutropenia	24	38
Thrombocytopenia	5	9
Nausea	12	31
Vomiting	11	34
Anorexia	2	9
Diarrhea without colostomy	4	9
Dehydration	4	9
Fever	0	6
Febrile neutropenia	1	9
Infection with Grade 3/4 neutropenia	1	6
Fatigue	17	25

<sup>a</sup> Refer to NCI CTC criteria for lab and non-laboratory values for each grade of toxicity (Version 2.0).

The following adverse events were greater in the fully supplemented group compared to the never supplemented group: hypertension (11%, 3%), chest pain (8%, 6%), and thrombosis/embolism (6%, 3%).

For fully supplemented patients treated with ALIMTA plus cisplatin, the incidence of CTC Grade 3/4 fatigue, leukopenia, neutropenia, and thrombocytopenia were greater in patients 65 years or older as compared to patients younger than 65. No relevant effect for ALIMTA safety due to gender or race was identified, except an increased incidence of rash in men (24%) compared to women (16%).

*Non-Small Cell Lung Cancer (NSCLC)* — Table 7 provides the clinically relevant undesirable effects that have been reported in 265 patients randomly assigned to receive single-agent ALIMTA with folic acid and vitamin B<sub>12</sub> supplementation and 276 patients randomly assigned to

347 receive single-agent docetaxel. All patients were diagnosed with locally advanced or metastatic  
 348 NSCLC and had received prior chemotherapy.

349

350 **Table 7: Adverse Events\* in Patients Receiving ALIMTA vs. Docetaxel in NSCLC**  
 351 **CTC Grades (% incidence)**

	<b>All Reported Adverse Events Regardless of Causality</b>					
	<b>ALIMTA (N=265)</b>			<b>Docetaxel (N=276)</b>		
	<b>All Grades</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>All Grades</b>	<b>Grade 3</b>	<b>Grade 4</b>
<b>Laboratory</b>						
<b>Hematologic</b>						
Anemia	33	6	2	33	6	<1
Leukopenia	13	4	<1	34	17	11
Neutropenia	11	3	2	45	8	32
Thrombocytopenia	9	2	0	1	1	0
<b>Hepatic/Renal</b>						
ALT elevation	10	2	1	2	<1	0
AST elevation	8	<1	1	1	<1	0
Decreased creatinine clearance	5	1	0	1	0	0
Creatinine elevation	3	0	0	1	0	0
Renal failure	<1	0	0	<1	0	0
<b>Clinical</b>						
<b>Constitutional Symptoms</b>						
Fatigue	87	14	2	81	16	1
Fever	26	1	<1	19	<1	0
Edema	19	<1	0	24	<1	0
Myalgia	13	2	0	20	3	0
Alopecia	11	NA	NA	42	NA	NA
Arthralgia	8	<1	0	13	3	0
Other constitutional symptoms	8	1	1	6	1	<1
<b>Cardiovascular General</b>						
Thrombosis/embolism	4	2	1	3	2	1
Cardiac ischemia	3	2	1	2	<1	0
<b>Gastrointestinal</b>						
Anorexia	62	4	1	58	7	<1
Nausea	39	4	0	25	3	0
Constipation	30	0	0	23	1	0
Vomiting	25	2	0	19	1	0
Diarrhea without colostomy	21	<1	0	34	4	0
Stomatitis/pharyngitis	20	1	0	23	1	0
Dysphagia/esophagitis/odynophagia	5	1	<1	7	1	0
Dehydration	3	1	0	4	1	0
<b>Pulmonary</b>						

Dyspnea	72	14	4	74	17	9
<b>Pain</b>						
Chest pain	38	6	<1	32	7	<1
<b>Neurology</b>						
Neuropathy/sensory	29	2	0	32	1	0
Mood alteration/depression	11	0	<1	10	1	0
<b>Infection/Febrile Neutropenia</b>						
Infection without neutropenia	23	5	<1	17	3	1
Infection/febrile neutropenia-other	6	2	0	2	<1	0
Febrile neutropenia	2	1	1	14	10	3
Infection with Grade 3 or Grade 4 neutropenia	<1	0	0	6	4	1
<b>Immune</b>						
Allergic reaction/hypersensitivity	8	0	0	8	1	<1
<b>Dermatology/Skin</b>						
Rash/desquamation	17	0	0	9	0	0

\* Refer to NCI CTC Criteria for lab values for each Grade of toxicity (version 2.0).

352  
353

354 Clinically relevant Grade 3 and Grade 4 laboratory toxicities were similar between integrated  
355 Phase 2 results from three single-agent ALIMTA studies (N=164) and the Phase 3 single-agent  
356 ALIMTA study described above, with the exception of neutropenia (12.8% versus 5.3%,  
357 respectively) and alanine transaminase elevation (15.2% versus 1.9%, respectively). These  
358 differences were likely due to differences in the patient population, since the Phase 2 studies  
359 included chemo-naïve and heavily pretreated breast cancer patients with pre-existing liver  
360 metastases and/or abnormal baseline liver function tests.

361 The incidence of CTC Grade 3/4 hypertension was the only finding demonstrating an age  
362 difference in patients treated with ALIMTA and was greater in patients 65 years or older as  
363 compared to younger patients. There are insufficient numbers of non-white patients to assess  
364 ethnic differences. The incidence of CTC Grade 3/4 dyspnea was higher in males for both  
365 treatment arms.

366 **Post-marketing experience:** The following adverse events have been identified during  
367 post-approval use of ALIMTA. These events have occurred with ALIMTA when used as a  
368 single-agent and in combination therapies. Decisions to include these events are based on the  
369 seriousness of the event, frequency of reporting, or potential causal connection to ALIMTA.

370 *Gastrointestinal* — Rare cases of colitis have been reported in patients treated with ALIMTA.

371

### OVERDOSAGE

372 There have been few cases of ALIMTA overdose. Reported toxicities included neutropenia,  
373 anemia, thrombocytopenia, mucositis, and rash. Anticipated complications of overdose include  
374 bone marrow suppression as manifested by neutropenia, thrombocytopenia, and anemia. In  
375 addition, infection with or without fever, diarrhea, and mucositis may be seen. If an overdose  
376 occurs, general supportive measures should be instituted as deemed necessary by the treating  
377 physician.

378 In clinical trials, leucovorin was permitted for CTC Grade 4 leukopenia lasting  $\geq 3$  days,  
379 CTC Grade 4 neutropenia lasting  $\geq 3$  days, and immediately for CTC Grade 4 thrombocytopenia,  
380 bleeding associated with Grade 3 thrombocytopenia, or Grade 3 or 4 mucositis. The following  
381 intravenous doses and schedules of leucovorin were recommended for intravenous use:

382 100 mg/m<sup>2</sup>, intravenously once, followed by leucovorin, 50 mg/m<sup>2</sup>, intravenously every 6 hours  
383 for 8 days.

384 The ability of ALIMTA to be dialyzed is unknown.

## 385 **DOSAGE AND ADMINISTRATION**

### 386 **ALIMTA is for Intravenous Infusion Only**

#### 387 **Combination Use With Cisplatin**

388 *Malignant Pleural Mesothelioma* — The recommended dose of ALIMTA is 500 mg/m<sup>2</sup>  
389 administered as an intravenous infusion over 10 minutes on Day 1 of each 21-day cycle. The  
390 recommended dose of cisplatin is 75 mg/m<sup>2</sup> infused over 2 hours beginning approximately  
391 30 minutes after the end of ALIMTA administration. Patients should receive hydration consistent  
392 with local practice prior to and/or after receiving cisplatin. See cisplatin package insert for more  
393 information.

#### 394 **Single-Agent Use**

395 *Non-Small Cell Lung Cancer* — The recommended dose of ALIMTA is 500 mg/m<sup>2</sup>  
396 administered as an intravenous infusion over 10 minutes on Day 1 of each 21-day cycle.

#### 397 **Premedication Regimen**

398 *Corticosteroid* — Skin rash has been reported more frequently in patients not pretreated with a  
399 corticosteroid. Pretreatment with dexamethasone (or equivalent) reduces the incidence and  
400 severity of cutaneous reaction. In clinical trials, dexamethasone 4 mg was given by mouth  
401 twice daily the day before, the day of, and the day after ALIMTA administration.

402 *Vitamin Supplementation* — To reduce toxicity, patients treated with ALIMTA must be  
403 instructed to take a low-dose oral folic acid preparation or multivitamin with folic acid on a daily  
404 basis. At least 5 daily doses of folic acid must be taken during the 7-day period preceding the  
405 first dose of ALIMTA; and dosing should continue during the full course of therapy and for  
406 21 days after the last dose of ALIMTA. Patients must also receive one (1) intramuscular  
407 injection of vitamin B<sub>12</sub> during the week preceding the first dose of ALIMTA and every 3 cycles  
408 thereafter. Subsequent vitamin B<sub>12</sub> injections may be given the same day as ALIMTA. In clinical  
409 trials, the dose of folic acid studied ranged from 350 to 1000 µg, and the dose of vitamin B<sub>12</sub> was  
410 1000 µg. The most commonly used dose of oral folic acid in clinical trials was 400 µg (*see*  
411 **WARNINGS**).

#### 412 **Laboratory Monitoring and Dose Reduction Recommendations**

413 *Monitoring* — Complete blood cell counts, including platelet counts, should be performed on  
414 all patients receiving ALIMTA. Patients should be monitored for nadir and recovery, which were  
415 tested in the clinical study before each dose and on days 8 and 15 of each cycle. Patients should  
416 not begin a new cycle of treatment unless the ANC is ≥1500 cells/mm<sup>3</sup>, the platelet count is  
417 ≥100,000 cells/mm<sup>3</sup>, and creatinine clearance is ≥45 mL/min. Periodic chemistry tests should be  
418 performed to evaluate renal and hepatic function.

419 *Dose Reduction Recommendations* — Dose adjustments at the start of a subsequent cycle  
420 should be based on nadir hematologic counts or maximum nonhematologic toxicity from the  
421 preceding cycle of therapy. Treatment may be delayed to allow sufficient time for recovery.  
422 Upon recovery, patients should be retreated using the guidelines in Tables 8-10, which are  
423 suitable for using ALIMTA as a single agent or in combination with cisplatin.

**Table 8: Dose Reduction for ALIMTA (single-agent or in combination) and Cisplatin - Hematologic Toxicities**

Nadir ANC <500/mm <sup>3</sup> and nadir platelets ≥50,000/mm <sup>3</sup> .	75% of previous dose (both drugs).
Nadir platelets <50,000/mm <sup>3</sup> regardless of nadir ANC.	50% of previous dose (both drugs).

If patients develop nonhematologic toxicities (excluding neurotoxicity) ≥Grade 3 (except Grade 3 transaminase elevations), ALIMTA should be withheld until resolution to less than or equal to the patient's pre-therapy value. Treatment should be resumed according to guidelines in Table 9.

**Table 9: Dose Reduction for ALIMTA (single-agent or in combination) and Cisplatin - Nonhematologic Toxicities<sup>a,b</sup>**

	Dose of ALIMTA (mg/m <sup>2</sup> )	Dose of Cisplatin (mg/m <sup>2</sup> )
Any Grade 3 <sup>c</sup> or 4 toxicities except mucositis	75% of previous dose	75% of previous dose
Any diarrhea requiring hospitalization (irrespective of Grade) or Grade 3 or 4 diarrhea	75% of previous dose	75% of previous dose
Grade 3 or 4 mucositis	50% of previous dose	100% of previous dose

<sup>a</sup> NCI Common Toxicity Criteria (CTC).

<sup>b</sup> Excluding neurotoxicity.

<sup>c</sup> Except Grade 3 transaminase elevation.

In the event of neurotoxicity, the recommended dose adjustments for ALIMTA and cisplatin are described in Table 10. Patients should discontinue therapy if Grade 3 or 4 neurotoxicity is experienced.

**Table 10: Dose Reduction for ALIMTA (single-agent or in combination) and Cisplatin - Neurotoxicity**

CTC Grade	Dose of ALIMTA (mg/m <sup>2</sup> )	Dose of Cisplatin (mg/m <sup>2</sup> )
0-1	100% of previous dose	100% of previous dose
2	100% of previous dose	50% of previous dose

ALIMTA therapy should be discontinued if a patient experiences any hematologic or nonhematologic Grade 3 or 4 toxicity after 2 dose reductions (except Grade 3 transaminase elevations) or immediately if Grade 3 or 4 neurotoxicity is observed.

*Elderly Patients* — No dose reductions other than those recommended for all patients are necessary for patients ≥65 years of age.

*Children* — ALIMTA is not recommended for use in children, as safety and efficacy have not been established in children.

*Renally Impaired Patients* — In clinical studies, patients with creatinine clearance ≥45 mL/min required no dose adjustments other than those recommended for all patients. Insufficient numbers of patients with creatinine clearance below 45 mL/min have been treated to make dosage recommendations for this group of patients. Therefore, ALIMTA should not be

457 administered to patients whose creatinine clearance is <45 mL/min using the standard Cockcroft  
 458 and Gault formula (below) or GFR measured by Tc99m-DPTA serum clearance method:  
 459

$$\begin{aligned} \text{Males: } & \frac{[140 - \text{Age in years}] \times \text{Actual Body Weight (kg)}}{72 \times \text{Serum Creatinine (mg/dL)}} = \text{mL/min} \\ \text{Females: } & \text{Estimated creatinine clearance for males} \times 0.85 \end{aligned}$$

460  
 461 Caution should be exercised when administering ALIMTA concurrently with NSAIDs to  
 462 patients whose creatinine clearance is <80 mL/min (*see Drug Interactions under*  
 463 **PRECAUTIONS**).

464 *Hepatically Impaired Patients* — ALIMTA is not extensively metabolized by the liver. Dose  
 465 adjustments based on hepatic impairment experienced during treatment with ALIMTA are  
 466 provided in Table 9 (*see Patients with Hepatic Impairment under PRECAUTIONS*).

### 467 **Preparation and Administration Precautions**

468 As with other potentially toxic anticancer agents, care should be exercised in the handling and  
 469 preparation of infusion solutions of ALIMTA. The use of gloves is recommended. If a solution  
 470 of ALIMTA contacts the skin, wash the skin immediately and thoroughly with soap and water. If  
 471 ALIMTA contacts the mucous membranes, flush thoroughly with water. Several published  
 472 guidelines for handling and disposal of anticancer agents are available.<sup>1-4</sup> ALIMTA is not a  
 473 vesicant. There is no specific antidote for extravasation of ALIMTA. To date, there have been  
 474 few reported cases of ALIMTA extravasation, which were not assessed as serious by the  
 475 investigator. ALIMTA extravasation should be managed with local standard practice for  
 476 extravasation as with other non-vesicants.

### 477 **Preparation for Intravenous Infusion Administration**

- 478 1. Use aseptic technique during the reconstitution and further dilution of ALIMTA for  
 479 intravenous infusion administration.
- 480 2. Calculate the dose of ALIMTA and determine the number of vials needed. Vials contain  
 481 either 100 mg or 500 mg of ALIMTA. The vials contain an excess of ALIMTA to  
 482 facilitate delivery of label amount.
- 483 3. Reconstitute each 100-mg vial with 4.2 mL of 0.9% Sodium Chloride  
 484 Injection (preservative free). Reconstitute 500-mg vial with 20 mL of 0.9% Sodium  
 485 Chloride Injection (preservative free). Reconstitution of either size vial gives a solution  
 486 containing 25 mg/mL ALIMTA. Gently swirl each vial until the powder is completely  
 487 dissolved. The resulting solution is clear and ranges in color from colorless to yellow or  
 488 green-yellow without adversely affecting product quality. The pH of the reconstituted  
 489 ALIMTA solution is between 6.6 and 7.8. **FURTHER DILUTION IS REQUIRED.**
- 490 4. Parenteral drug products should be inspected visually for particulate matter and  
 491 discoloration prior to administration. If particulate matter is observed, do not administer.
- 492 5. An appropriate quantity of the reconstituted ALIMTA solution must be further diluted  
 493 into a solution of 0.9% Sodium Chloride Injection (preservative free), so that the total  
 494 volume of solution is 100 mL. ALIMTA is administered as an intravenous infusion over  
 495 10 minutes.
- 496 6. Chemical and physical stability of reconstituted and infusion solutions of ALIMTA were  
 497 demonstrated for up to 24 hours following initial reconstitution, when stored at  
 498 refrigerated or ambient room temperature [see USP Controlled Room Temperature] and  
 499 lighting. When prepared as directed, reconstitution and infusion solutions of ALIMTA  
 500 contain no antimicrobial preservatives. Discard any unused portion.

501 Reconstitution and further dilution prior to intravenous infusion is only recommended with  
502 0.9% Sodium Chloride Injection (preservative free). ALIMTA is physically incompatible with  
503 diluents containing calcium, including Lactated Ringer's Injection, USP and Ringer's  
504 Injection, USP and therefore these should not be used. Coadministration of ALIMTA with other  
505 drugs and diluents has not been studied, and therefore is not recommended.

#### 506 HOW SUPPLIED

##### 507 ALIMTA® vials:

508 100 mg lyophilized powder in a 10-mL size sterile single-use vial with flip-off cap individually  
509 packaged in a carton. NDC 0002-7640-01 (VL7640)

510 500 mg lyophilized powder in a 50-mL size sterile single use vial with flip off cap individually  
511 packaged in a carton. NDC 0002-7623-01 (VL7623)

#### 512 Storage

513 ALIMTA, pemetrexed for injection, should be stored at 25°C (77°F); excursions permitted to  
514 15-30°C (59-86°F) [see USP Controlled Room Temperature].

515 Chemical and physical stability of reconstituted and infusion solutions of ALIMTA were  
516 demonstrated for up to 24 hours following initial reconstitution, when stored refrigerated,  
517 2-8°C (36-46°F), or at 25°C (77°F), excursions permitted to 15-30°C (59-86°F) [see USP  
518 Controlled Room Temperature]. When prepared as directed, reconstituted and infusion solutions  
519 of ALIMTA contain no antimicrobial preservatives. Discard unused portion.

520 ALIMTA is not light sensitive.

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533  
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536 Literature revised September 2007

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539 **Indianapolis, IN 46285, USA**

540 **www.ALIMTA.com**

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543 **INFORMATION FOR PATIENTS AND CAREGIVERS**  
 544 **ALIMTA<sup>®</sup> (uh-LIM-tuh)**  
 545 **(pemetrexed for injection)**

546 Read the Patient Information that comes with ALIMTA before you start treatment and each  
 547 time you get treated with ALIMTA. There may be new information. This leaflet does not take  
 548 the place of talking to your doctor about your medical condition or treatment. Talk to your doctor  
 549 if you have any questions about ALIMTA.

550 **What is ALIMTA?**

551 ALIMTA is a treatment for:

- 552 • **Malignant pleural mesothelioma.** This cancer affects the inside lining of the chest cavity.  
 553 ALIMTA is given with cisplatin, another anti-cancer medicine (chemotherapy).
- 554 • **Non-small cell lung cancer.** This cancer is a disease in which malignant (cancer) cells form  
 555 in the tissues of the lung.

556 **To lower your chances of side effects of ALIMTA, you must also take folic acid and**  
 557 **vitamin B<sub>12</sub> prior to and during your treatment with ALIMTA.** Your doctor will prescribe a  
 558 medicine called a “corticosteroid” to take for 3 days during your treatment with ALIMTA.

559 Corticosteroid medicines lower your chances of getting skin reactions with ALIMTA.

560 ALIMTA has not been studied in children.

561 **What should I tell my doctor before taking ALIMTA?**

562 Tell your doctor about all of your medical conditions, including if you:

- 563 • **are pregnant or planning to become pregnant.** ALIMTA may harm your unborn baby.
- 564 • **are breastfeeding.** It is not known if ALIMTA passes into breast milk. You should stop  
 565 breastfeeding once you start treatment with ALIMTA.
- 566 • **are taking other medicines,** including prescription and nonprescription medicines,  
 567 vitamins, and herbal supplements. ALIMTA and other medicines may affect each other  
 568 causing serious side effects. Especially, tell your doctor if you are taking medicines called  
 569 “nonsteroidal anti-inflammatory drugs” (NSAIDs) for pain or swelling. There are many  
 570 NSAID medicines. If you are not sure, ask your doctor or pharmacist if any of your  
 571 medicines are NSAIDs.

572 **How is ALIMTA given?**

- 573 • ALIMTA is slowly infused (injected) into a vein. The injection or infusion will last about  
 574 10 minutes. You will usually receive ALIMTA once every 21 days (3 weeks).
- 575 • If you are being treated for malignant pleural mesothelioma, ALIMTA is given in  
 576 combination with cisplatin (another anti-cancer drug). Cisplatin is infused in your vein for  
 577 about 2 hours starting about 30 minutes after your treatment with ALIMTA.
- 578 • Your doctor will prescribe a medicine called a “corticosteroid” to take for 3 days during your  
 579 treatment with ALIMTA. Corticosteroid medicines lower your chances for getting skin  
 580 reactions with ALIMTA.
- 581 • **It is very important to take folic acid and vitamin B<sub>12</sub> during your treatment with**  
 582 **ALIMTA to lower your chances of harmful side effects.** You must start taking  
 583 350-1000 micrograms of folic acid every day for at least 5 days out of the 7 days before your  
 584 first dose of ALIMTA. You must keep taking folic acid every day during the time you are  
 585 getting treatment with ALIMTA, and for 21 days after your last treatment. You can get folic  
 586 acid vitamins over-the-counter. Folic acid is also found in many multivitamin pills. Ask your  
 587 doctor or pharmacist for help if you are not sure how to choose a folic acid product. Your  
 588 doctor will give you vitamin B<sub>12</sub> injections while you are getting treatment with ALIMTA.

589 You will get your first vitamin B<sub>12</sub> injection during the week before your first dose of  
590 ALIMTA, and then about every 9 weeks during treatment.

591 • You will have regular blood tests before and during your treatment with ALIMTA. Your  
592 doctor may adjust your dose of ALIMTA or delay treatment based on the results of your  
593 blood tests and on your general condition.

#### 594 **What should I avoid while taking ALIMTA?**

595 • **Women who can become pregnant should not become pregnant during treatment with**  
596 **ALIMTA.** ALIMTA may harm the unborn baby.  
597 • **Ask your doctor before taking medicines called NSAIDs.** There are many NSAID  
598 medicines. If you are not sure, ask your doctor or pharmacist if any of your medicines are  
599 NSAIDs.

#### 600 **What are the possible side effects of ALIMTA?**

601 Most patients taking ALIMTA will have side effects. Sometimes it is not always possible to  
602 tell whether ALIMTA, another medicine, or the cancer itself is causing these side effects. **Call**  
603 **your doctor right away if you have a fever, chills, diarrhea, or mouth sores.** These  
604 symptoms could mean you have an infection.

605 The most common side effects of ALIMTA when given alone or in combination with cisplatin  
606 are:

- 607 • **Stomach upset, including nausea, vomiting, and diarrhea.** You can obtain medicines to  
608 help control some of these symptoms. Call your doctor if you get any of these symptoms.
- 609 • **Low blood cell counts:**
  - 610 • **Low red blood cells.** Low red blood cells may make you feel tired, get tired easily,  
611 appear pale, and become short of breath.
  - 612 • **Low white blood cells.** Low white blood cells may give you a greater chance for  
613 infection. If you have a fever (temperature above 100.4°F) or other signs of infection,  
614 call your doctor right away.
  - 615 • **Low platelets.** Low platelets give you a greater chance for bleeding. Your doctor will  
616 do blood tests to check your blood counts before and during treatment with ALIMTA.
- 617 • **Tiredness.** You may feel tired or weak for a few days after your ALIMTA treatments. If you  
618 have severe weakness or tiredness, call your doctor.
- 619 • **Mouth, throat, or lip sores** (stomatitis, pharyngitis). You may get redness or sores in your  
620 mouth, throat, or on your lips. These symptoms may happen a few days after ALIMTA  
621 treatment. Talk with your doctor about proper mouth and throat care.
- 622 • **Loss of appetite.** You may lose your appetite and lose weight during your treatment. Talk to  
623 your doctor if this is a problem for you.
- 624 • **Rash.** You may get a rash or itching during treatment. These usually appear between  
625 treatments with ALIMTA and usually go away before the next treatment. Call your doctor if  
626 you get a severe rash or itching.

627 Talk with your doctor, nurse or pharmacist about any side effect that bothers you or that  
628 doesn't go away.

629 These are not all the side effects of ALIMTA. For more information, ask your doctor, nurse or  
630 pharmacist.

#### 631 **General information about ALIMTA**

632 Medicines are sometimes prescribed for conditions other than those listed in patient  
633 information leaflets. ALIMTA was prescribed for your medical condition.

634 This leaflet summarizes the most important information about ALIMTA. If you would like  
635 more information, talk with your doctor. You can ask your doctor or pharmacist for information

636 about ALIMTA that is written for health professionals. You can also call 1-800-LILLY-RX  
637 (1-800-545-5979) or visit [www.ALIMTA.com](http://www.ALIMTA.com).

638 Literature revised Month dd, yyyy

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640 **Indianapolis, IN 46285, USA**

641 **[www.ALIMTA.com](http://www.ALIMTA.com)**  
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	0485 RED NL 5780 AMS
	0144 GOLD NL 5780 AMS
COATING	C-1055-LE06

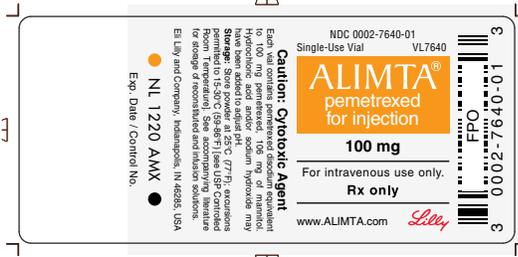
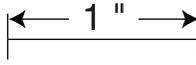
ENGINEER'S APPROVAL	C-1055-LE06
	Finishing Line No.: 113
	Approved by: T.J. ESHLEMAN
	Date: 4-26-05
INDICATES NON-VARNISH AREA COPY LIVE MATTER AREA, 1/16" FROM DIE	

DIE ID	Carton No.: 1055
	KC Drawing No: 390213
	View: Printed Side Up

LILLY APPROVALS	Graphics Operator:	Date:
	Proofreader:	Date:
	Label Editor or Label Editor Asst:	Date:
	Printing Quality Control:	Date:

BKGD ID	C-1055-LB0
	Approved by:
	Date:

VENDOR APPROVALS	Production Order Number:	Scanner Code:
	Item Number:	Client Services Date:
	<b>OK FOR PRODUCTION</b> (copy only)	
	<b>FINAL OK</b>	Production Engineering Date:



<b>DIE ID</b>	<p>Die No.: D-0190          KC Drawing No: N/A          View: Printed Side Up</p>
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<b>LILLY APPROVALS</b>	Graphics Operator:	Date:
	Proofreader:	Date:
	Label Editor or Label Editor Asst:	Date:
	Printing Quality Control:	Date:

<b>VENDOR APPROVALS</b>	Production Order Number:	
	Item Number:	Scanner Code:
	<b>OK FOR PRODUCTION</b> (copy only)	Client Services: Date:
	<b>FINAL OK</b>	Production Engineering: Date:

<b>COLOR ID</b>	Item Code: NL 1220 AMX								
	Colors:								
	<table style="width: 100%;"> <tr> <td><b>BLACK</b></td> <td>NL 1220 AMX</td> </tr> <tr> <td><b>0485 RED</b></td> <td>NL 1220 AMX</td> </tr> <tr> <td><b>0144 GOLD</b></td> <td>NL 1220 AMX</td> </tr> <tr> <td><b>COATING</b></td> <td>D-0190-LE04</td> </tr> </table>	<b>BLACK</b>	NL 1220 AMX	<b>0485 RED</b>	NL 1220 AMX	<b>0144 GOLD</b>	NL 1220 AMX	<b>COATING</b>	D-0190-LE04
	<b>BLACK</b>	NL 1220 AMX							
<b>0485 RED</b>	NL 1220 AMX								
<b>0144 GOLD</b>	NL 1220 AMX								
<b>COATING</b>	D-0190-LE04								

<b>ENGINEER'S APPROVAL</b>	D-0190-LE04
	Finishing Line No.: IC229 14
	Approved by: Judy Obenchain
	Date: 6-15-99