

## Beyond First-Line Therapy in NSCLC: Timing and Choices

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## Disclosures

- Sanofi-aventis
- Genentech/OSIP
- BMS/Imclone
- Eli Lilly
- AstraZeneca

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## Current NSCLC Treatment

### First-Line

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|---|---|--|---|---|
| <ul style="list-style-type: none"><li>• Pick 1<ul style="list-style-type: none"><li>• Cisplatin</li><li>• Carboplatin</li></ul></li></ul> | + | <ul style="list-style-type: none"><li>• Pick 1<ul style="list-style-type: none"><li>• Vinorelbine</li><li>• Paclitaxel</li><li>• Gemcitabine</li><li>• Docetaxel</li><li>• *Pemetrexed</li></ul></li></ul> | + | <ul style="list-style-type: none"><li>• Pick 1<ul style="list-style-type: none"><li>• *Bevacizumab</li><li>• *Cetuximab</li></ul></li></ul> |
|   |   |  |   | <ul style="list-style-type: none"><li>• Gefitinib</li><li>• EGFR Mutation +</li></ul>   |

### Maintenance

- Pick 1
  - \*Pemetrexed
  - \*Bevacizumab + Erlotinib
  - Erlotinib
  - Docetaxel

### Second-Line

- Pick 1
  - Docetaxel
  - \*Pemetrexed
  - Erlotinib

\*Histology or epidermal growth factor receptor (EGFR) immunohistochemistry specific

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## Second-Line NSCLC: Pivotal Trials

- TAX 317: (104 patients)
  - Docetaxel 75 mg/m<sup>2</sup> vs. best supportive care
- TAX 320: (373 patients)
  - Docetaxel 75 mg/m<sup>2</sup> or 100 mg/m<sup>2</sup> vs. vinorelbine or ifosfamide
- Pemetrexed vs. Docetaxel: (571 patients)
- Br. 21: (731 patients)
  - Erlotinib vs. placebo
- INTEREST: (1466 patients)
  - Gefitinib vs. docetaxel

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## Potential Candidates

- BIBW 2992
- Sorafenib
- Cetuximab + chemotherapy

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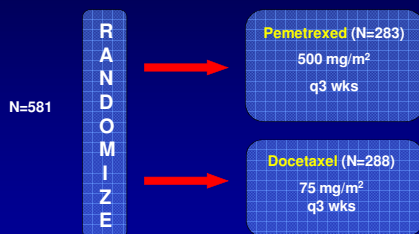
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## Phase III: Pemetrexed Versus Docetaxel in Previously-Treated Patients With NSCLC



Peterson P, Eur J Cancer Suppl 2007; 5(4): 363. Abstract P#6521.

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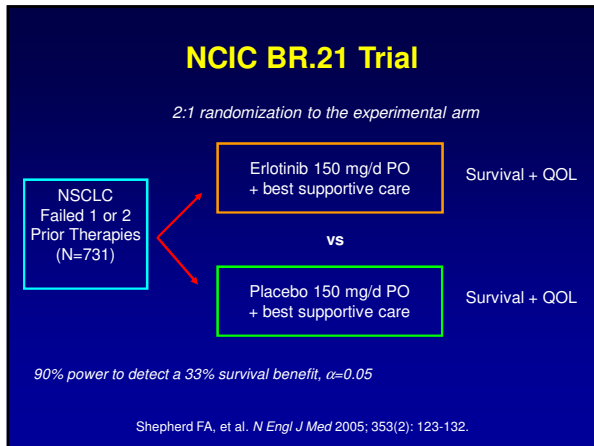
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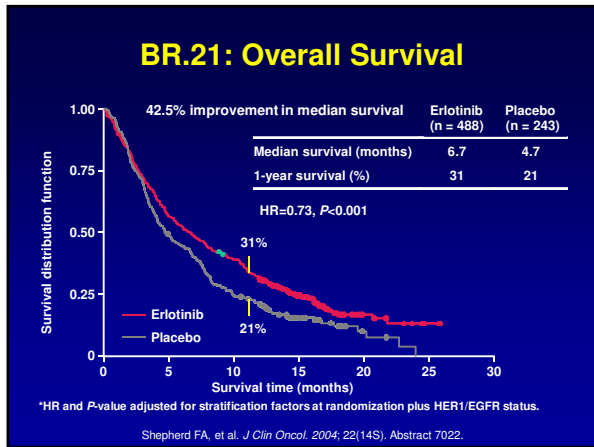
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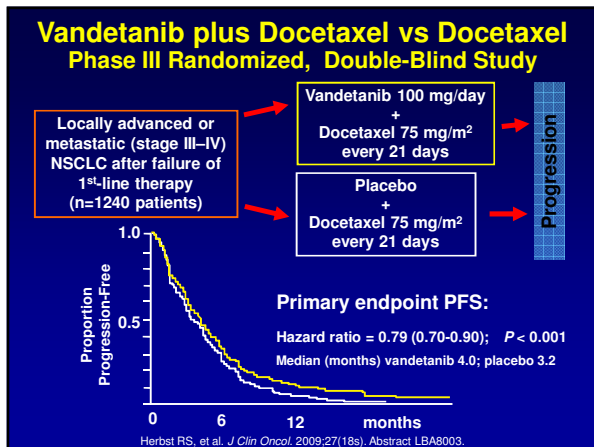
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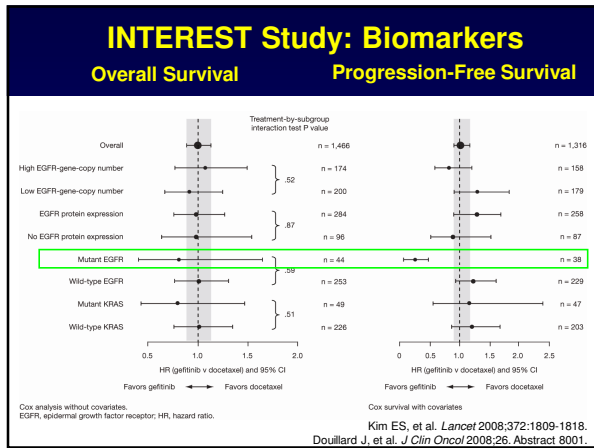













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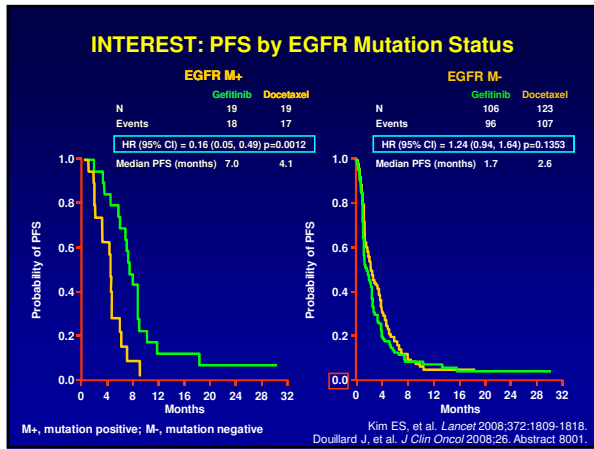
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## Second-Line Treatment Options: How do we decide?

- Docetaxel
- Pemetrexed
- Erlotinib
- Combinations

• Do we utilize biomarkers?

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**A phase II study of biomarker-directed treatment for advanced non-small cell lung cancer: The BATTLE (Biomarker-integrated Approaches of Targeted Therapy for Lung Cancer Elimination) clinical trial program**

**Edward S. Kim, M.D.**

**R.S. Herbst, J.J. Lee, G. Blumenschein, A. Tsao, I. Wistuba, C. Alden, M. Hicks, J. Erasmus, D. Stewart, S.M. Lippman, W.K. Hong**

Thoracic/Head and Neck Medical Oncology  
M. D. Anderson Cancer Center, Houston, TX

Kim ES, et al. *J Clin Oncol* 2009; 27(15s). Abstract 8024.

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**What is BATTLE?**

- “Biomarker-integrated Approaches of Targeted Therapy for Lung Cancer Elimination”
- Clinical trials program
- Biopsy-mandated (unique to NSCLC)
- Chemotherapy refractory patients
- Test novel molecularly targeted drugs
- Platform for the future
  - Clinical trials
  - Biomarker discovery

Kim ES, et al. *J Clin Oncol* 2009; 27(15s). Abstract 8024.

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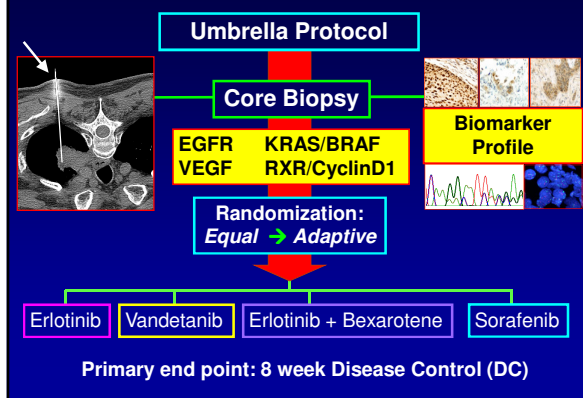
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**BATTLE Schema**




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**BATTLE Accrual:  
Completed Ahead of Schedule  
(Nov 27, 2006 - Oct 26, 2009)**

Patients enrolled	341
Patients randomized	255
Fully evaluable with biomarkers	227

Kim ES, et al. *J Clin Oncol* 2009; 27(15s). Abstract 8024.

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**Patient Characteristics**

Age (Range)	62 yrs (26-84)
Male / Female	53% / 47%
Caucasian	82%
Never / Current Smokers	22% / 9%
ECOG PS 0 / 1	9% / 72%
Adenocarcinoma / Squamous	63% / 18%
Prior Brain Mets	34%
Prior EGFR-TKI	46%
Prior Docetaxel / Pemetrexed	40% / 40%
Prior Therapy	2 (1-9)

Kim ES, et al. *J Clin Oncol* 2009; 27(15s). Abstract 8024.

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**Sites for Biopsies**

Liver/Adrenal	19%
Pleural Mass	3%
Lymph nodes	14%
Soft tissue	5%
Lung	53%
Bone	2%

Kim ES, et al. *J Clin Oncol* 2009; 27(15s). Abstract 8024.

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### **BATTLE: Future Directions**

- Comparison of baseline untreated tissue specimen with chemotherapy-treated BATTLE-1 biopsy specimen
- Comparison of plasma/blood markers with real-time tissue biomarkers
- Successful BATTLE-1 platform allows for future “battles” against lung cancer: BATTLE-2 and BATTLE-3 clinical trials

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### **Conclusions**

- Many more drugs in lung cancer
- Considerations of choosing the appropriate drug for the type of patient
- Endpoints will require clarification in future studies
- Tissue/Biomarker based decisions are the future

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