Table 6. Pulmonary Toxicity Associated with Biologic Response Modifiers

Biologic Response Modifier	Clinical syndromes	Potential risk factors
Epidermal growth factor receptortyrosine kinase inhibitors	Interstitial pneumonitis	 pre-existing interstitial lungdisease concurrent cardiac disease older age poor performance status, smoking
All-trans retinoic acid	Retinoic acid syndrome	
Vascular endothelial growth factor inhibitors	 Hemoptysis, pulmonary hemorrhage 	 Pre-existing hemoptysis Squamous cell lung cancer histology
Rituximab	Infusion reactionInterstitial pneumonitis	
Interleukin-2	 Noncardiogenic pulmonary edema, hemodynamic instability,renal insufficiency, cardiac arrhythmias 	