

# Clinical Studies of Aspirin and Cancer Prevention Signals

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**NCI Board of Scientific Advisors  
National Cancer Advisory Board**

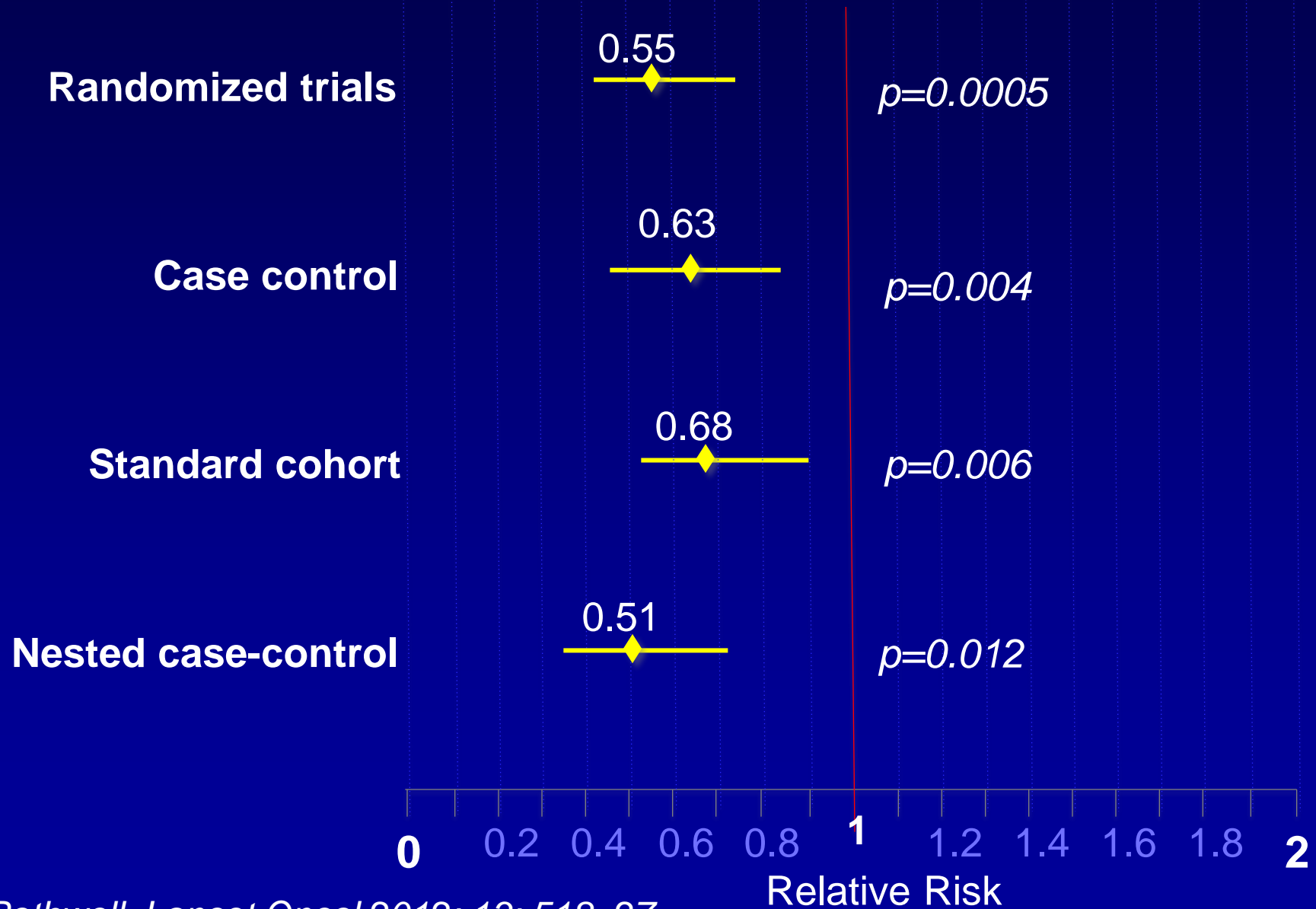
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**Barry Kramer, M.D., M.P.H.  
Division of Cancer Prevention  
National Cancer Institute**

# Caveats

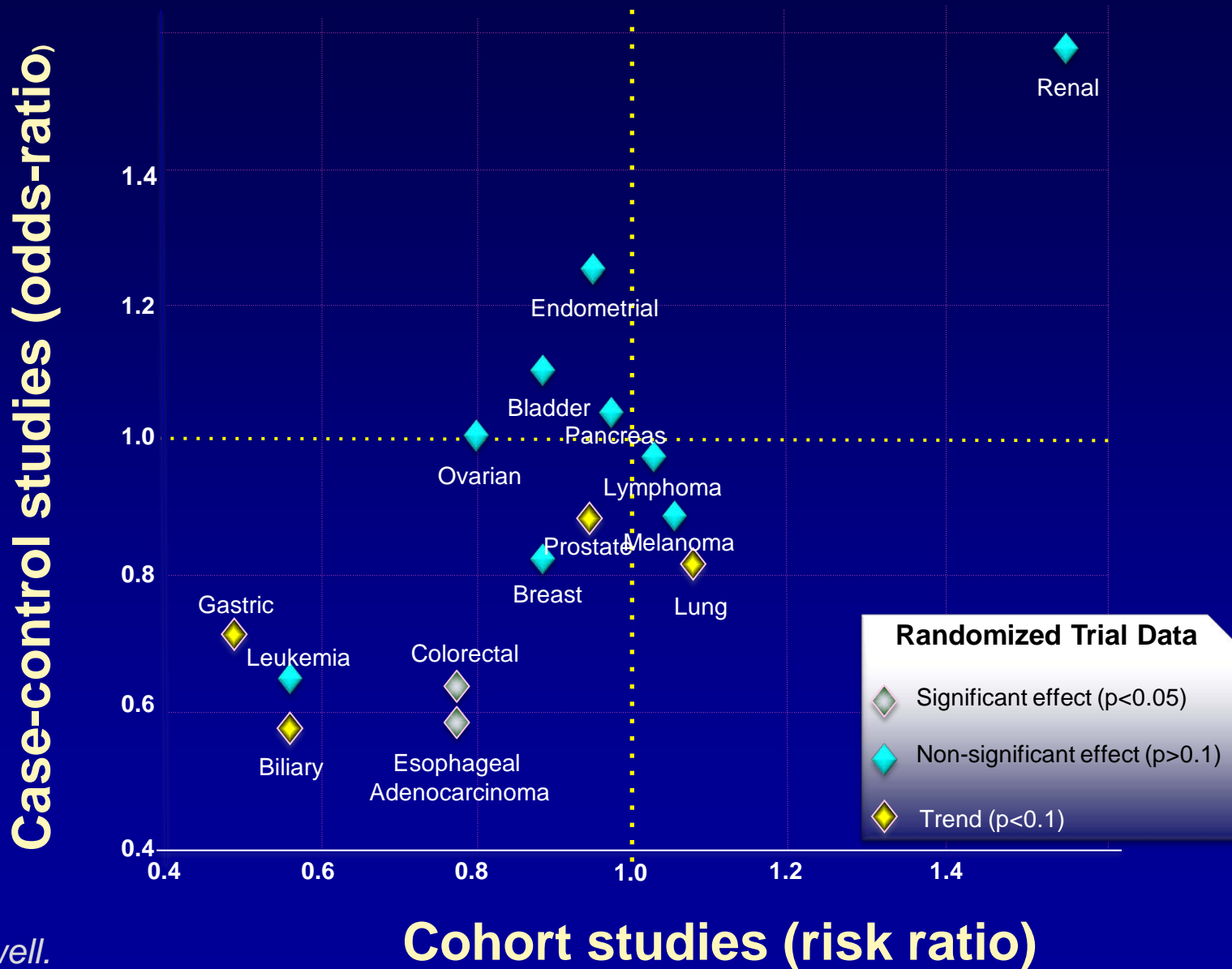
- Will only present the potential benefits
  - Not harms
- Most benefits are expressed as relative rates
  - Not in terms of absolute rate reduction
- The evidence presented is insufficient to make public policy or guidelines
- The U.S. Preventive Services Task Force is currently performing a systematic review of benefits and harms for cancer prevention

# Daily Aspirin ( $\geq 5$ yrs) Use and Colorectal Cancer Risk



# Aspirin Use and Risk of Cancer

(maximum reported use of aspirin)



Algra & Rothwell.

Lancet Oncol 2012; 13: 518–27

# Effect of Low-dose (75-300mg) Aspirin Vs Control on Colorectal Cancer Incidence & Mortality

## All patients

Aspirin  $\geq 2.5$  years

Aspirin  $\geq 5$  years

## All patients

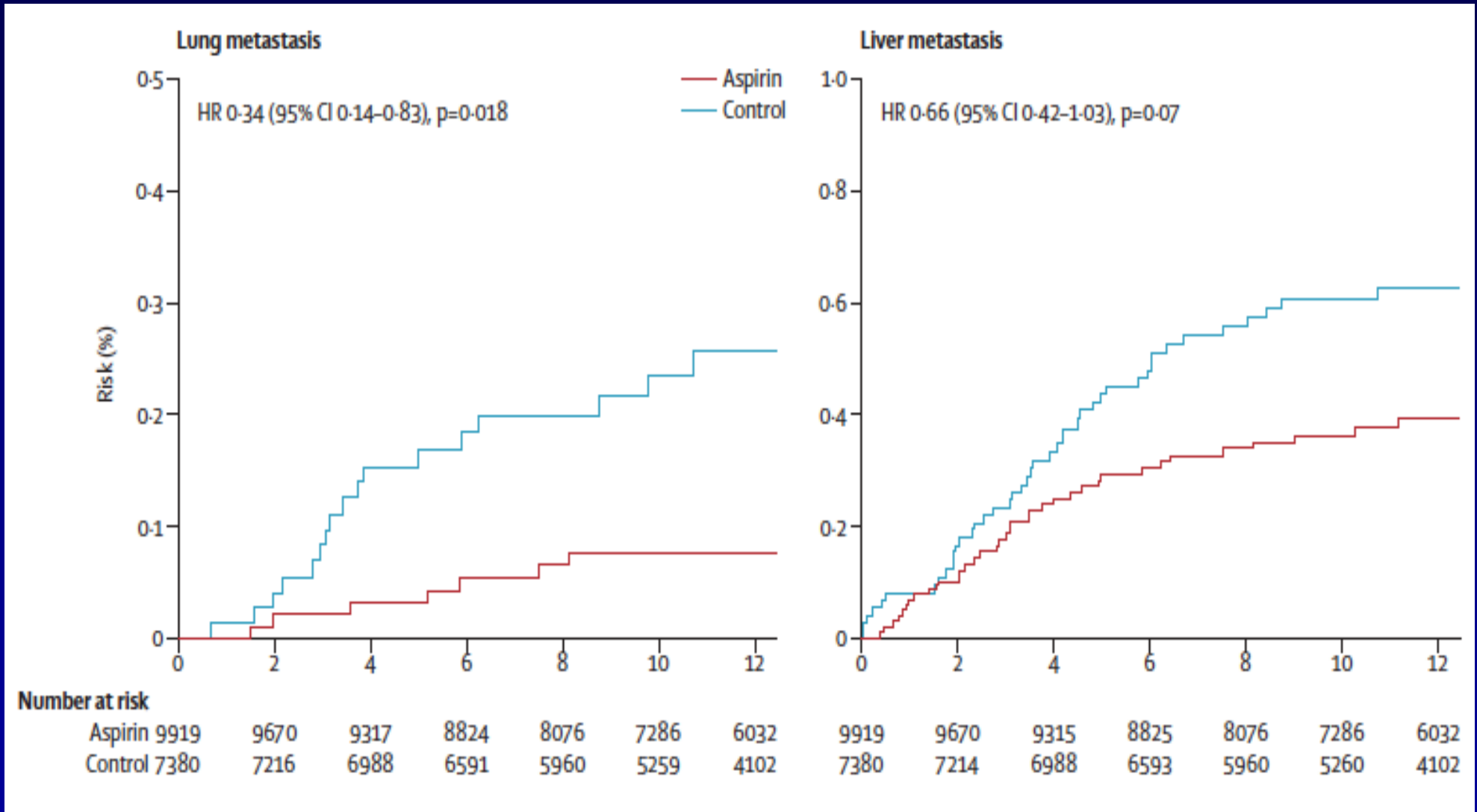
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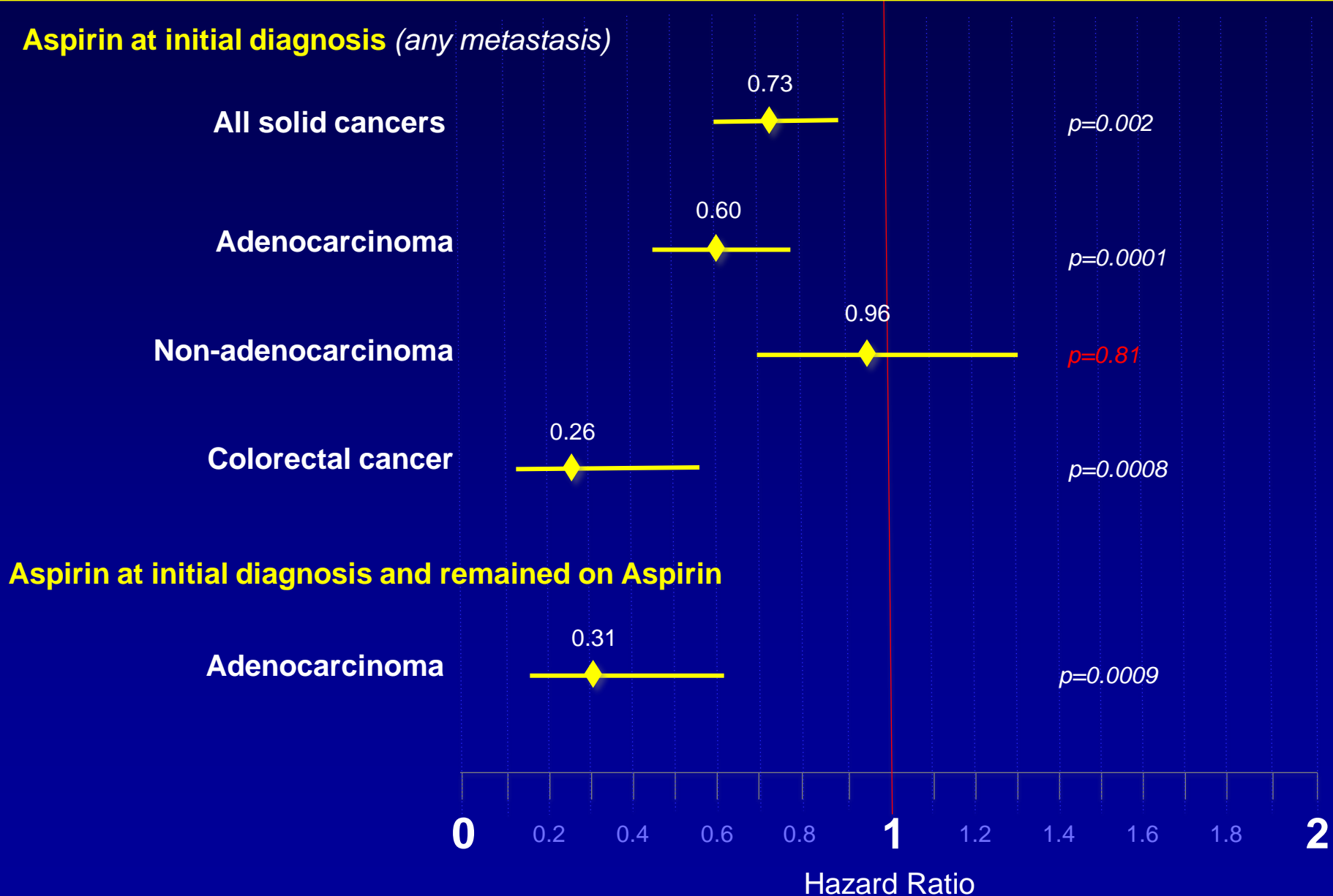


Data from 4 randomized trials of aspirin vs. control

# Aspirin Use and Cancer Metastasis

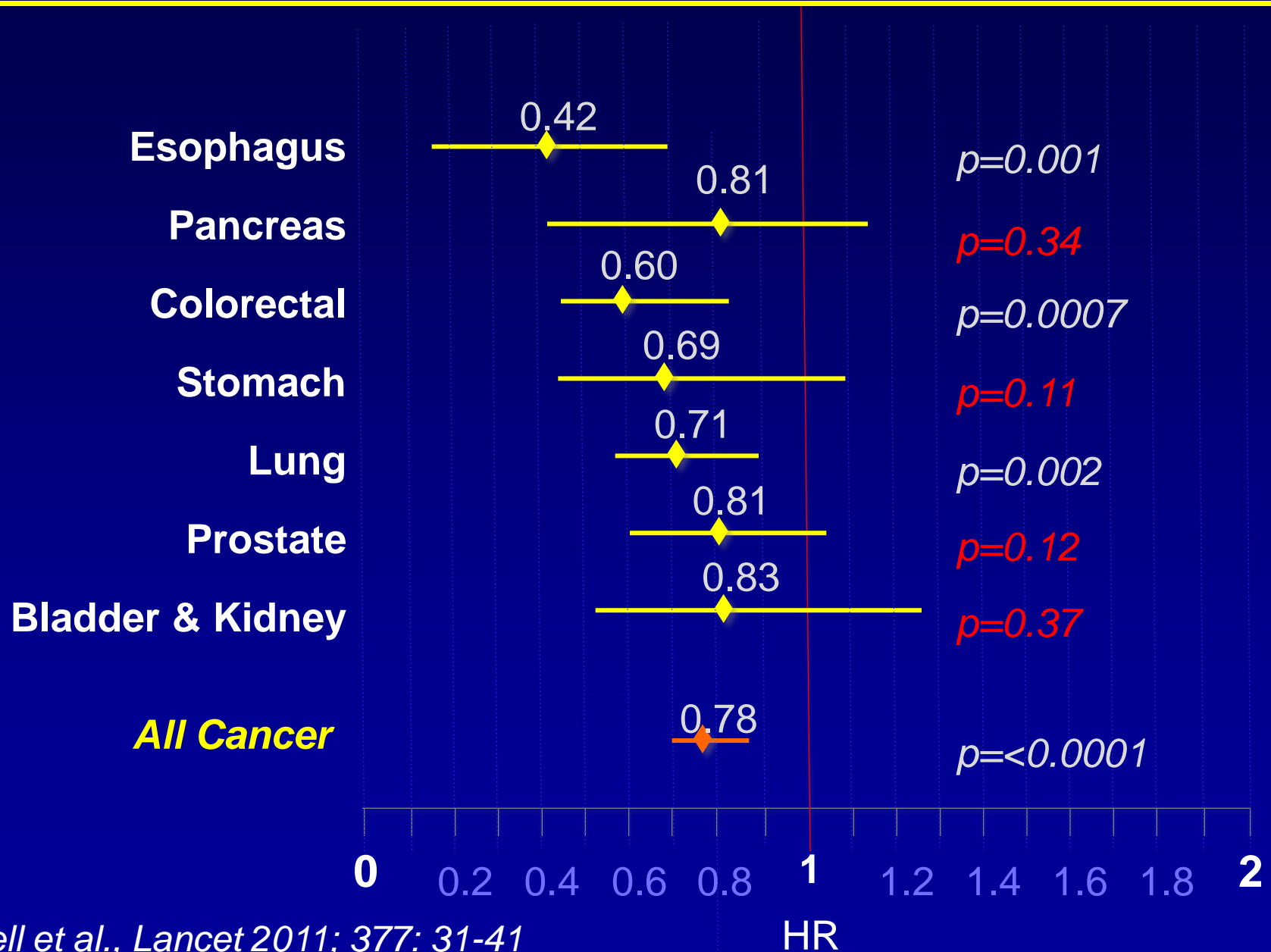


# Daily Aspirin Use and Cancer Metastasis: (5 RCTs)



# Aspirin ( $\geq 20$ yrs) on Death Due to Cancer

(pooled 2° analysis from 3 RCT, n=10,502)





# Key Points: Aspirin for Cancer Prevention

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- Regular aspirin use is associated with reduction in the long-term risk of developing a variety of cancers [cohort, case-control & randomized clinical trials]
- Evidence strongest for GI cancers
- May reduce metastasis in patients taking aspirin prior to diagnosis of cancer [randomized trials]
- Need mechanistic studies of aspirin effects across the spectrum of pathogenesis, progression, and metastasis

# Extra Slides

# Maximum Opportunity to Interrupt Cancer Progression

