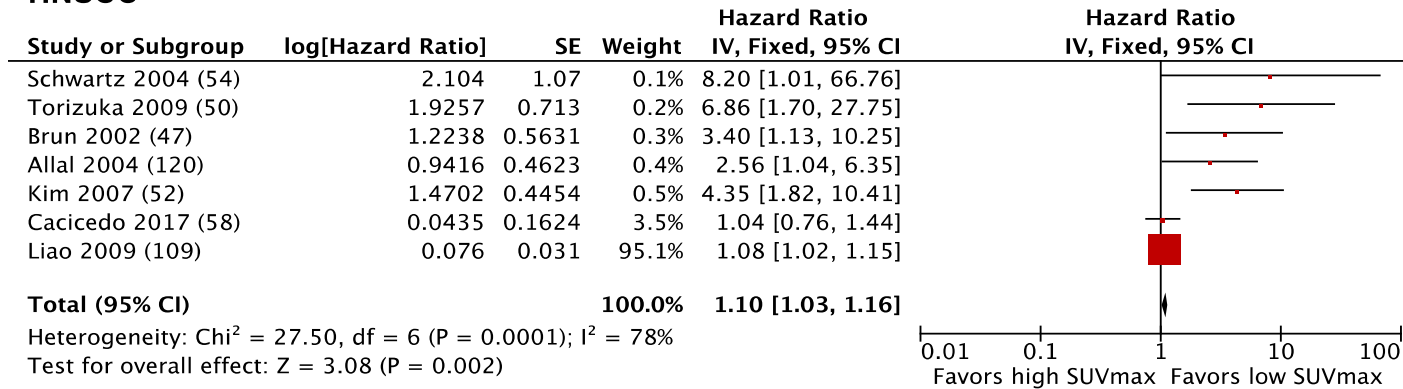


Figure S1: Forest plots for LC in HNSCC and NSCLC

A HNSCC



B NSCLC

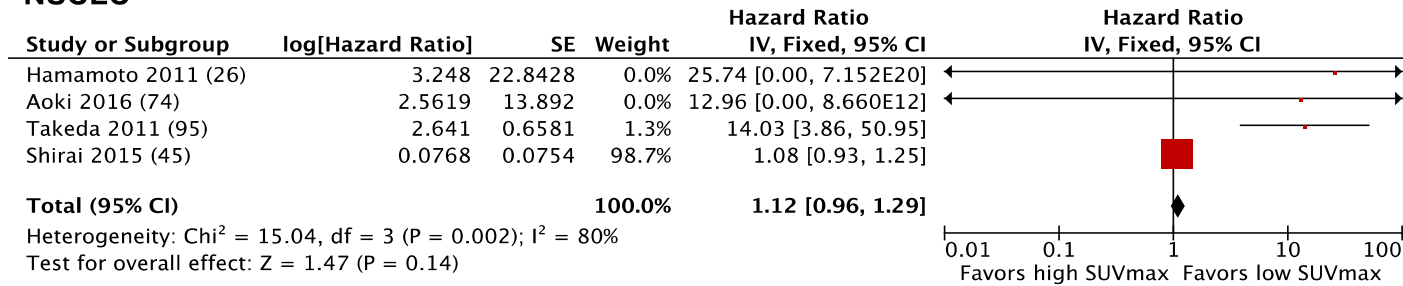


Figure S2: Eggers regression versus meta-analysis

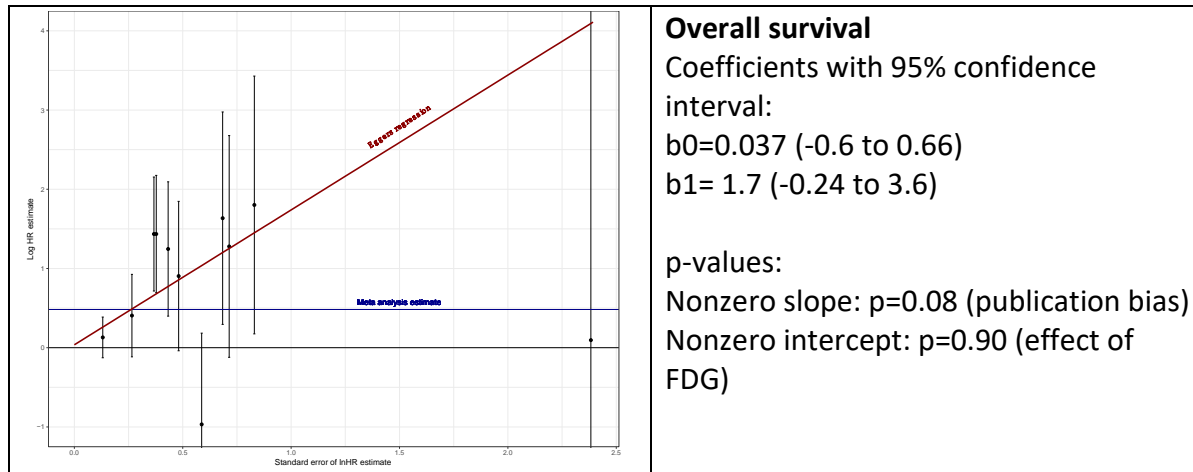
Linear regression of log hazard ratio versus standard error of log HR. Should have slope zero in the absence of publication bias. Intercept can be interpreted as “publication bias adjusted” estimate of the effect of FDG uptake in the limit of a large study

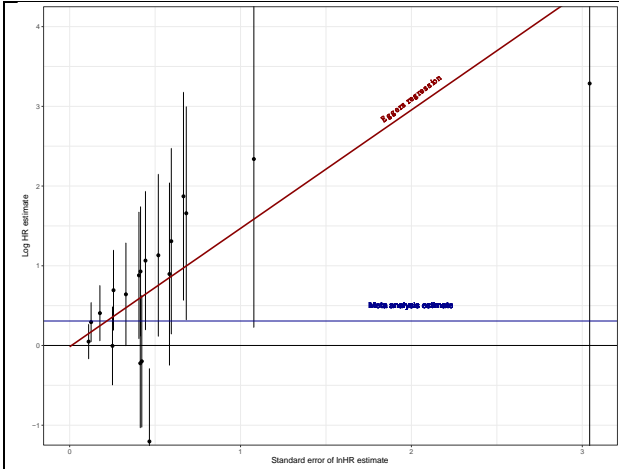
The regression has the type:

Regression: $\ln(\text{HR}) \sim b_0 + b_1 * \text{Std. Error}(\ln \text{HR}) + \text{error}$

Full R code for this analysis available at <https://rpubs.com/IvanVogelius/Eggers>

Head and Neck Cancer





Disease free survival

Coefficients with 95% confidence interval:

$b_0 = -0.016$ (-0.34 to 0.31)

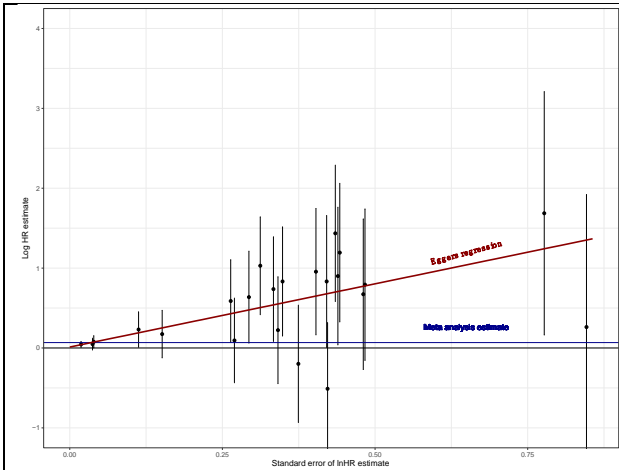
$b_1 = 1.48$ (0.28 to 2.69)

p-values:

Nonzero slope: **p=0.02** (publication bias)

Nonzero intercept: p=0.92 (effect of FDG)

Non-small cell lung cancer



Overall survival

Coefficients with 95% confidence interval:

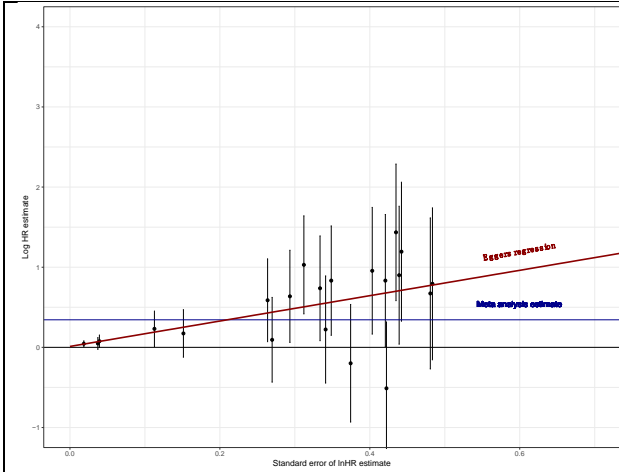
$b_0 = 0.012$ (-0.03 to 0.05)

$b_1 = 1.6$ (1.0 to 2.2)

p-values:

Nonzero slope: **p<0.001** (publication bias)

Nonzero intercept: p=0.56 (effect of FDG)



Disease free survival

Coefficients with 95% confidence interval:

$b_0=0.015$ (-0.28 to 0.31)

$b_1= 1.67$ (0.42 to 2.9)

p-values:

Nonzero slope: **p=0.014** (publication bias)

Nonzero intercept: p=0.91 (effect of FDG)

Table S1: Data extracted from the included studies.

HNSCC	DFS		OS	
	Univariate	Multivariate	Univariate	Multivariate
Akagunduz 2015	HR 1.49 (p=0.017)*		HR 1.5 (p=0.022)*	
Allal 2004	HR=2.5 (p=0.005)*	HR=1.9 (1.0-3.70, p=0.051)		
Baschnagel 2015		HR=0.82 (0.36-1.87, p=0.64)		
Cacicedo 2017			HR=1.1 (p=0.972)*	
Chan 2017	HR=0.995 (0.507-1.952, p=0.987)			
Chung 2009	HR=1.1 (0.42-2.69, p=0.88)	HR=0.8 (0.28-2.07, p=0.59)		
Halfpenny 2002			HR=4.4 (1.652-11.558, p=0.003)	HR=4.2 (1.146-8.496, p=0.002)
Higgins 2012	HR=3.1 (p=0.029)*			
Kim 2007		HR=3.7 (1.06-14.63, p=0.043)		
Kitajima 2014	HR=1.05 (p=0.66)*			
Komar 2014			HR=1.14 (p=0.317)*	
Koyasu 2014	HR=2.45 (p=0.025)			
Kunkel 2003				HR=5.13 (1.34-19.65, p=0.017)
Machtay 2009	HR=2.9 (p=0.007)*	HR=2.41 (1.1-5.32, p=0.03)	HR=2.4 (p=0.016)*	HR=2.47 (0.98-6.26, p=0.06)
Minn 1997			HR=4.2 (1.6-11.0, p=0.002)	
Moon 2015	HR=26.754 (p=0.278)			
Ng 2016		HR=2.532 (1.121-5.715, p=0.025)		HR=3.477 (1.505-8.031, p=0.004)
Preda 2016		HR=10.37 (1.22-87.95, p=0.03)		
Roh 2007	HR=2.0 (p=0.007)*			
Schwartz 2004	HR=1.34 (p=0.02)*			
Schwartz 2014	HR=0.30 (p=0.01)			
Suzuki 2014				HR=6.06 (p<0.03)
Suzuki-Shibata 2017		HR=5.25 (1.39-19.89, p=0.015)		HR=3.59 (0.89-14.45, p=0.073)
Torizuka 2009	HR=6.5 (p=0.0051)*			
Xie 2010	HR=2.9 (p=0.0163)*			
NSCLC				
Ahuja 1998			HR=1.9 (p=0.0049)*	HR=1.8 (p=0.026)

Borst 2005			HR=4.2 (p<0.001)*	
Carvalho 2013			HR=1.19 (p=0.25)*	
Cerfolio 2005			HR=2.5 (p<0.001)*	HR=2.8 (2.1-6.4)
Chen 2012	HR=1.0 (0.59-1.54)	HR=1.2 (0.54-2.45)		
Clarke 2012	HR=2.4 (p=0.04)*			
Hofheinz 2016	HR=1.85 (p=0.099)*			
Horne 2014	HR=2.79 (p=0.03)		HR=2.09 (p=0.027)	
Hyun 2015	HR=1.71 (1.08-2.68, p=0.02)	HR=1.14 (0.67-1.92, p=0.618)	HR=1.79 (0.98-3.25, p=0.058)	HR=0.82 (0.39-1.70, p=0.596)
Imamura 2011	HR=1.1 (p=0.609)*		HR=2.3 (p=0.017)*	
Jiang 2018				HR=1.08 (0.75-1.57, p<0.05)
Kohutek 2015			HR=2.53 (p=0.0007)	HR=1.89 (p=0.03)
Lee 2012			HR=1.8 (1.09-2.86)	HR=2.6 (1.67-4.17)
Nair 2013	HR=1.35 (p=0.0096)*		HR=1.05 (p=0.1906)*	
Nawara 2012			HR=1.3 (p=0.757)*	
Pyka 2015			HR 1.96 (p=0.161)*	
Sasaki 2005	HR=5.1 (p<0.0001)	HR=4.3 (p=0.001)	HR=5.6 (p=0.02)	HR=5.4 (p=0.03)
Shirai 2017	HR=1.32 (p=0.02)*		HR=1.26 (p=0.04)*	
Sugawara 1999			HR=0.6 (p=0.2256)*	
Takeda 2014	HR=6.25 (p<0.01)	HR=5.94 (p<0.01)	HR=4.18 (p<0.01)	HR=2.46 (p=0.04)
Takeda 2017	HR=2.12 (p=0.03)*			
Ulger 2014				HR=1.046 (p=0.015)
Vansteenkiste 1999			HR=3.9 (p=0.001)*	HR=3.3 (1.39-7.94, p=0.007)
Vesselle 2007			HR=2.0 (1.15-3.5)	HR=1.3 (0.64-2.44)
Vu 2013	HR=2.21 (p=0.1)			
Xiang 2012	HR=3.3 (1.529-6.992)	HR=2.6 (1.115-6.158)	HR=2.7 (1.251-5.699)	HR=2.3 (1.006-5.474)
Yilmaz 2018	HR=1.058 (0.635-1.763, p=0.828)	HR=1.022 (0.578-1.805, p=0.941)	HR=1.071 (0.641-1.791, p=0.792)	HR=1.099 (0.649-1.860, p=0.726)

Data highlighted with bold were entered in RevMan. HR estimated from univariate log-rank test was only entered in RevMan if MVA was not performed. *HR estimated from Kaplan-Meier plot.