**Week 10 PICO Search Worksheet Name** Markenzie Jean-baptiste

Scenario

1. Your supervising physician has asked you to make a presentation at Grand Rounds regarding the increased risk of esophageal cancer in male smokers over 50 years old. What does the evidence say on this subject?

Define your Search Question:

Does smoking cessation decrease the risk of esophageal cancer in male smokers over 50 years?

Identify the PICO elements:

P🡪 Males smokers over 50 years old

I🡪 Smoking cessation

C🡪

O🡪 Decreased incidence of esophageal cancer, Decreased biomarkers of cancer

**What type of scenario is this?**

□ Therapy/ Prevention □ Diagnosis □ Etiology □ Prognosis □ Screening □ Prevalence

□ Harms

**Type of study best to answer this question:** (think about the level of evidence)

□ Meta-analysis □ Systematic Review □ Randomized Controlled Trial □ Cohort Study

□ Case Control Study □ Case Series/Report

**PICO Search Terms**

|  |  |  |  |
| --- | --- | --- | --- |
| **P** | **I** | **C** | **O** |
| Male smoker over 50 years old | Smoking cessation |  | Decreased Incidence of esophageal cancer |
|  |  |  | Decreased biomarkers of esophageal cancer |
|  |  |  |  |
|  |  |  |  |

**PLEASE CONTINUE ON THE OTHER SIDE OF THE PAGE**

**Any other filters/limits you’d like to apply (gender/age/date/language)?**

Age: 50 years old or older

**List the EBM resources you plan to use:**

**Pub Med, Tripp, Science direct**

**Results found:**

**Number of articles returned once relevant limits are added**

Pub Med Male Smoker Esophageal Cancer /Limits: age, 50 🡪 285

Trip data base Male Smoker Esophageal Cancer: 🡪 1578

**Please identify the 5 articles you think would be most helpful in answering your search question. Cut and paste the search results page entries. For each article, say why you chose to include it**

**1) Worldwide Esophageal Cancer Collaboration: pathologic staging data**[T. W. Rice](https://www.ncbi.nlm.nih.gov/pubmed/?term=Rice%20TW%5BAuthor%5D&cauthor=true&cauthor_uid=27731547),1 [L.-Q. Chen](https://www.ncbi.nlm.nih.gov/pubmed/?term=Chen%20LQ%5BAuthor%5D&cauthor=true&cauthor_uid=27731547),2 [W. L. Hofstetter](https://www.ncbi.nlm.nih.gov/pubmed/?term=Hofstetter%20WL%5BAuthor%5D&cauthor=true&cauthor_uid=27731547),3 [B.M. Smithers](https://www.ncbi.nlm.nih.gov/pubmed/?term=Smithers%20B%5BAuthor%5D&cauthor=true&cauthor_uid=27731547),4 [Dis Esophagus](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5731491/). Author manuscript; available in PMC 2017 Dec 15.Published in final edited form as:[Dis Esophagus. 2016 Oct; 29(7): 724–733.](https://www.ncbi.nlm.nih.gov/entrez/eutils/elink.fcgi?dbfrom=pubmed&retmode=ref&cmd=prlinks&id=27731547" \t "pmc_ext) doi: [10.1111/dote.12520](https://dx.doi.org/10.1111%2Fdote.12520" \t "pmc_ext)PMCID: PMC5731491

[**https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5731491/**](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5731491/)

**Data base: Trip**

I chose this study because it was a systematic review study of data from the Worldwide Esophageal Cancer Collaboration(WECC). The data was simple descriptions of patients with pathologically staged esophageal cancer. Thirty-three institutions from six continents submitted data on a total of 13,300. The patients were older (62 years) men (80%) and many had history of smoking (70%).

2) Tobacco Smoke Biomarkers and Cancer Risk Among Male Smokers in the Shanghai Cohort Study

[Hecht SS](https://www.ncbi.nlm.nih.gov/pubmed/?term=Hecht%20SS%5BAuthor%5D&cauthor=true&cauthor_uid=22824243)1, [Murphy SE](https://www.ncbi.nlm.nih.gov/pubmed/?term=Murphy%20SE%5BAuthor%5D&cauthor=true&cauthor_uid=22824243)2, [Stepanov I](https://www.ncbi.nlm.nih.gov/pubmed/?term=Stepanov%20I%5BAuthor%5D&cauthor=true&cauthor_uid=22824243)2, [Nelson HH](https://www.ncbi.nlm.nih.gov/pubmed/?term=Nelson%20HH%5BAuthor%5D&cauthor=true&cauthor_uid=22824243)2, [Yuan JM](https://www.ncbi.nlm.nih.gov/pubmed/?term=Yuan%20JM%5BAuthor%5D&cauthor=true&cauthor_uid=22824243)3[Cancer Lett.](https://www.ncbi.nlm.nih.gov/pubmed/?term=Tobacco+smoke+biomarkers+and+cancer+risk+among+male+smokers+in+the+Shanghai+cohort+study) 2013 Jun 28;334(1):34-8. doi: 10.1016/j.canlet.2012.07.016. Epub 2012 Jul 20.PMID:22824243

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648613/>

Data Base: Trip

I chose this study because it was a prospective cohort study that enrolled 18,244 males between the age 45-64 and measured urine samples for tobacco smoke carcinogen and toxicant biomarkers. It compared biomarker levels in cancer cases and controls to assess the risk of esophageal cancer. There were urine samples from 74 esophageal cancer cases. The study is current, published in 2013. I thought this study was able to show a link between smoking and esophageal cancer in 50 year old smokers, thus showing the harms of smoking.

# 3) Cigarette smoking and esophageal cancer risk: an evaluation based on a systematic review of epidemiologic evidence among the Japanese population.

[Oze I](https://www.ncbi.nlm.nih.gov/pubmed/?term=Oze%20I%5BAuthor%5D&cauthor=true&cauthor_uid=22131340)1, [Matsuo K](https://www.ncbi.nlm.nih.gov/pubmed/?term=Matsuo%20K%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Ito H](https://www.ncbi.nlm.nih.gov/pubmed/?term=Ito%20H%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Wakai K](https://www.ncbi.nlm.nih.gov/pubmed/?term=Wakai%20K%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Nagata C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Nagata%20C%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Mizoue T](https://www.ncbi.nlm.nih.gov/pubmed/?term=Mizoue%20T%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Tanaka K](https://www.ncbi.nlm.nih.gov/pubmed/?term=Tanaka%20K%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Tsuji I](https://www.ncbi.nlm.nih.gov/pubmed/?term=Tsuji%20I%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Tamakoshi A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Tamakoshi%20A%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Sasazuki S](https://www.ncbi.nlm.nih.gov/pubmed/?term=Sasazuki%20S%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Inoue M](https://www.ncbi.nlm.nih.gov/pubmed/?term=Inoue%20M%5BAuthor%5D&cauthor=true&cauthor_uid=22131340), [Tsugane S](https://www.ncbi.nlm.nih.gov/pubmed/?term=Tsugane%20S%5BAuthor%5D&cauthor=true&cauthor_uid=22131340); [Research Group for the Development and Evaluation of Cancer Prevention Strategies in Japan](https://www.ncbi.nlm.nih.gov/pubmed/?term=Research%20Group%20for%20the%20Development%20and%20Evaluation%20of%20Cancer%20Prevention%20Strategies%20in%20Japan%5BCorporate%20Author%5D).

PMID: 22131340

**Data base: Pub med**

[**https://academic.oup.com/jjco/article/42/1/63/983808**](https://academic.oup.com/jjco/article/42/1/63/983808)

I chose this article because it was a systematic review, of case control studies, recent( 2012) , that was able to provide evidence that cigarette smoking strongly increased the risk of esophageal cancer.

# 4) Smoking and alcohol drinking increased the risk of esophageal cancer among Chinese men but not women in a high-risk population.

[Wu M](https://www.ncbi.nlm.nih.gov/pubmed/?term=Wu%20M%5BAuthor%5D&cauthor=true&cauthor_uid=21321789)1, [Zhao JK](https://www.ncbi.nlm.nih.gov/pubmed/?term=Zhao%20JK%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Zhang ZF](https://www.ncbi.nlm.nih.gov/pubmed/?term=Zhang%20ZF%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Han RQ](https://www.ncbi.nlm.nih.gov/pubmed/?term=Han%20RQ%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Yang J](https://www.ncbi.nlm.nih.gov/pubmed/?term=Yang%20J%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Zhou JY](https://www.ncbi.nlm.nih.gov/pubmed/?term=Zhou%20JY%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Wang XS](https://www.ncbi.nlm.nih.gov/pubmed/?term=Wang%20XS%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Zhang XF](https://www.ncbi.nlm.nih.gov/pubmed/?term=Zhang%20XF%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Liu AM](https://www.ncbi.nlm.nih.gov/pubmed/?term=Liu%20AM%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [van' t Veer P](https://www.ncbi.nlm.nih.gov/pubmed/?term=van%27%20t%20Veer%20P%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Kok FJ](https://www.ncbi.nlm.nih.gov/pubmed/?term=Kok%20FJ%5BAuthor%5D&cauthor=true&cauthor_uid=21321789), [Kampman E](https://www.ncbi.nlm.nih.gov/pubmed/?term=Kampman%20E%5BAuthor%5D&cauthor=true&cauthor_uid=21321789).

PMID: 21321789

**Data base: pub med**

**https://www.ncbi.nlm.nih.gov/pubmed/?term=smoking+and+alcohol+drinking+increased+risk+of+esophageal+cancer+among+chinese+men+but+not+women+in+a+high**

I chose this study because it is a population case-control study, current( 2007) and was able to show that smoking was associated with esophageal cancer risk among Chinese men. From 2003-2007, 1520 cases and 3879 controls were recruited.

Chosen Article

(5) [**Smoking Cessation** and **Risk of** **Esophageal Cancer** by Histological Type: Systematic Review and Meta-analysis.](https://www.ncbi.nlm.nih.gov/pubmed/29933436)Wang QL, Xie SH, Li WT, Lagergren J. J Natl **Cancer** Inst. 2017 Dec 1;109(12). doi: 10.1093/jnci/djx115.

<https://www.ncbi.nlm.nih.gov/pubmed/29933436>

PMID:29933436

Data base: pub med

I chose this study because it is a meta-analysis of case control and cohort studies, recent (2017) and reported that the risk of esophageal squamous cell carcinoma was lower among former smokers than among current smokers. 15,009 studies were searched, 52 were included. I felt that this meta-analysis study best answered my question. The study was able to determine that smoking cessation time-dependently decreased the risk of esophageal squamous cell carcinoma.