Annotated Bibliography

Baldwin, D. R., O’Dowd. L. E. (2017). Lung cancer screening-low dose CT for lung cancer

screening: recent trial results and next steps. *British Journal of Radiology, 91*(1090).

https://doi.org/10.1259/bjr.20170460

This article presents the lowered mortality rate in specific lung cancers in the effects of low dose CT scanning being completed. It goes into detail about the percentages of people that have survived the lung cancer after having a low dose CT scan completed compared to those that have not had the scan. This article also mentions the type of people selected for scanning since they would usually be those of higher risk of lung cancer and this low dose CT scan would benefit them in catching the cancer early and help their chances of survival, other than this it describes the recommended intervals that the scan would be completed such as how long to wait until the next scan and why.

This article is useful in this research project since it helps explain the effects of the low dose CT scan and how this is beneficial to catching lung cancer and promoting a higher survival chance. This also explains some of the aspects of the scan which is essential in the research project as it gives the viewer more of an idea of what the scan is. The only weakness I could find was that the article does not mention more on how the scan is performed.

Centers for Disease Control and Prevention. (2021). Lung cancer. *CDC.* Retrieved from

https://www.cdc.gov/cancer/lung/basic\_info/screening.htmst

This article explains the basic information regarding the scan and its relation to lung cancer. Most of the article goes into main topics of explaining lung cancer such as what it is, risk factors, symptoms, and how it is diagnosed and treated.

The article is useful to the project since it explains the reason for the low dose cancer screening as it is essential in finding lung cancer mentioning it is one of the only ways to diagnose it. In order to understand the low dose CT and its relation to diagnosing lung cancer it is essential to go over the basics of lung cancer which brings more strength into the project.

Durkin, M., Kotha, N. V., Murphy, J. D., Nalawade, V., Nelson, T. J., Qian, S. A., Qiao, E. M.,

Rose, B. S., Stewart, T. F., Vitzthum, L. K., Voora, R. S. (2021). Evaluating the clinical

trends and benefits of low-dose computed tomography in lung cancer patients. *Cancer*

*Medicine, 10(*20) 7289-7297. Retrieved from

https://doi.org/10.1002/cam4.4229

This article explains how commonly used low dose CT is in different types of patients as well as different areas. It explains why the low dose CT is not being utilized as much for certain areas of the world and explains how important it is to continue to have this scan more known in different types of populations. This article also explains the importance the scan has in relation to detecting the cancer early and the most common stage the cancer is detected using the low dose scan.

The article is useful since it explains some of the reasons this scan might not be well known, but also provides more detailed statistics to what stage of cancer this scan most commonly determines lung cancer of all specific types. This is beneficial to the project as it will help explain the reasons to why low dose CT is in need to becoming more well known in determining lung cancer and it is crucial for early diagnosis.

Long, B. W., Rollins, J. H., & Smith, B. J. (2019). *Radiographic positioning & procedures* –

*Volume 3* (14th ed.). St. Louis, MO: Elsevier.

This source explains the basics of what CT scanning is, it talks about the way CT scans are produced in order to get images of the human body as well as performing the scans. The way radiation is used in a beneficial way is also explained as it mentions how it produces more detail in procedures that x-ray or other modalities may not be able to in a timely manner when it is needed. This also mentions the parts to the CT scan in order to help better understand how the machine works.

This is an essential part of low dose CT as it explains the basics of what CT is before going into how the low dose scan detects lung cancer. It will help the viewer in understanding how CT works and provide a stronger point in talking about how the low dose scan can be performed.

Liu, J., Li, Y., Qing, H., Ren, J., Xu, H., Yang, X., & Zhou, P.(2022) Prediction of invasive

adenocarcinomas manifesting as pure ground glass nodules based on radiomic signature

of low-dose CT in lung cancer screening. *British Journal of Radiology, 95*(1133).

https://doi.org/10.1259/bjr.20211048

The article explains the reasoning for using the low dose version of CT compared to using regular dose CT as it will be able to give the amount of detail that they need in order to determine lung cancer without giving off excess radiation, this also mentions the way that cancer will show up on the scan when using regular CT in comparison to low dose and gives other reasons as to why it is more valuable to use low dose CT in scanning for lung cancer.

The strength this article presents to the project is by giving insight to the reasoning behind why low dose is used rather than the normal dosing in determining lung cancer. This is an important component to bring to the project as it helps eliminate questions that could arise about the scan and also explain what lung cancer looks like on both scans.

MayoClinic, (n.d.). Lung cancer. *MayoClinic.* Retrieved from

https://www.mayoclinic.org/diseases-conditions/lung-cancer/symptoms-causes/syc-20374620

This article explains what Lung cancer is along with some symptoms, risk factors, and how care is provided. This will help in an explanation of lung cancer along with its relation to Low Dose and its importance.

The strength in this for the project will help in the education of the disease in question. This will also help explain why it is important to understand what this disease is as many readers could be at risk.

Pinsky, P. F. (2018). Lung cancer screening with low-dose ct: a world-wide view. *Translational*

*Lung Cancer Research 7*(3), 234-232.

https://doi.org/10.21037/tlcr.2018.05.12

This article explains many different aspects in low dose CT cancer screening as it goes into detail of why it is becoming crucial in determining lung cancer and the normal mortality rates of smokers alone around the globe. It explains the trials that have been done proving why low dose is most effective in determining lung cancer in many different countries including North America, Canada, European Union, and Asia. These trials also explain how there are future innovations being produced to have this scan become more feasible as it is something most people should have done for its amazing detection capabilities.

The strength of this article is it shows how low dose is effective in determining lung cancer and is continuing to become even better as trials are being done all around the world in helping with this. A weakness is that it does not provide examples as to how they are planning to make this study more feasible and instead seems to be trying to promote less smoking rather than the scanning.

References

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