

Nicholas G Zaorsky, MD MS - Educational Threads | bit.ly/ZaorskyEducation

Key: 📖 visiting professor talk / lecture (Rated ★★★★★) | 📄 peer-reviewed manuscript | 📄 1 page summary / list | 🖼️ illustration / figure | 📺 video | 📖 book | 📊 biostatistics, math | 💰 finance, billing, etc | 🇺🇸 USA-specific | 🌐 International | 🔗 link to other site | 📝 writing advice | 🔥 popular | 🦋 cancer | ☢️ radiation oncology | 😊

Note: As of 2023, you need a 🌐 / Twitter account to access the threads.

1. Academic medicine

a. What is academic medicine?

i. [Academic medicine, summarized in a few publications](#) 📖 🔥

1. [Simone's maxims](#) 📖
2. [How to swim with sharks](#) 📖
3. [Mentorship malpractice](#) 📖
4. [Mentee missteps](#) 📖
5. [Tales of the Unnatural: Return From the Dean\(d\)](#) 📖 🇺🇸
6. [Will You Be My Mentor?—Four Archetypes to Help Mentees Succeed in Academic Medicine](#) 📖
7. [In Search of Joy and Meaning in Modern Medicine](#) 📖

ii. [An oversimplified overview of the physician relationship to the two governing bodies of the academic medical center: the hospital and the university](#) 📄 💰 🇺🇸

iii. [I want to be a physician scientist / clinical investigator / clinical trialist. but how would I pay off my medical school loans?](#) 📖 💰 🇺🇸

1. [Household income among medical school matriculants](#) (separate thread; credit to authors) 📖 💰 🇺🇸
2. [Public service loan forgiveness \(PSLF\)](#) 🔗 🇺🇸 💰
3. [National Institutes of Health loan repayment program \(NIH LRP\)](#) 🔗 🇺🇸 💰
4. [PSLF vs NIH LRP](#) 🖼️ 🇺🇸 💰

iv. [Publication productivity and academic rank in medicine: a meta-analysis](#) 📖 📄 📊 🔥

1. [What's an h-index?](#)
2. [What's an m-index?](#)
3. [H-index and m-index in radiation oncology](#) ☢️ 🦋
4. [M-index data for every speciality](#)

v. [Book club for academic medicine](#) 📖 🔥

1. [How to make our listeners like us](#), by Dale Carnegie 📖
2. [White Coat Investor](#), by James Dahle 📖 💰 🇺🇸
3. [The Emperor of All Maladies](#), by Siddhartha Mukherjee 📖 🦋
4. [How to win friends and influence people](#), by Dale Carnegie 📖

vi. [How to run a meeting in an academic medical center](#) 📖 🔥

b. A guide to doing academic medical research and writing manuscripts **(Read this if you are working with me on a manuscript)**

i. [Finding a research mentor: a guide for medical students](#) (and junior physicians) 📖

ii. [Guide to writing a medical research manuscript](#) 📖 📝 🔥

1. [Guide to writing a medical research manuscript - section by section PDF](#)
2. [Choosing a project - writing a prospectus](#)
3. [Characteristics of a good research mentor](#)
4. [Ranking projects and mentors](#) (separate post)
5. [Outline of a manuscript](#) 📝
6. [Tricks with MS Word](#) 📝
 - a. [Headings](#)
 - b. [Page breaks](#)
 - c. [Quick access toolbar](#)
 - d. [Split window](#)
 - e. [Custom dictionary](#)
 - f. [Change autorecover save file location](#)
 - g. [Save your manuscript template](#)
7. [Making tables](#) 📝

- a. [Padding](#)
 - b. [Layout tab](#)
8. Other programs 
 - a. [EndNote](#) 
 - b. [FoxIt PDF reader](#) 
 - c. [Greenshot](#) 
9. [Finding literature related to your manuscript](#)
10. [Making figures](#)
 - a. [Guide to making figures](#) (separate thread)
 - b. [Vectors vs rasters](#)
 - c. [Using Powerpoint to make JPGs, PDFs, etc](#)
 - d. [Change your registry to get high resolution JPGs](#)
 - e. [Making figure legends](#)
 - f. [Characteristics of a good Kaplan-Meier plot](#) (separate post)  
 - g. [ROC curves and AUC](#) (credit to authors)
11. [Writing your biostatistics section of a manuscript](#) (separate post, credit to author)    
12. [Writing process: general schema](#) 
 - a. [Results](#)
 - b. [Intro](#)
 - i. [How to write an introduction section for a medical research manuscript](#) (separate post)   
 - ii. [ChatGPT writing an intro](#) (separate post) 
 - c. [Discussion](#)  
 - i. [How to write a discussion section for a medical research manuscript](#) (separate post)   
 - d. [Conclusion](#)
 - e. [Abstract](#)
 - i. [Nature abstract](#) (see other examples below, and “How to write an abstract for a medical meeting”)
 - f. [How reviewers read a paper vs how authors write a paper](#) 
 - g. Syntax, style, language (separate posts): 
 - i. [i.e. vs e.g.](#)
 - ii. [“This” / “that” / “these”](#)
 - iii. [Paragraphs](#)
 - iv. [Abbreviations](#)
13. [Circulating between first and senior author](#)
14. [Circulating to coauthors](#)
15. [Coauthors: 1st, senior, corresponding, et al](#)
16. [Checklist before manuscript submission](#) (separate post)  
17. [Submission: what happens at the editorial office](#)
18. [How reviewers read a paper vs how authors write a paper](#) 
19. [Publishing takes a long time](#)
20. [Batting 300 in academic publishing](#) 
21. [“RE: Your submitted manuscript”](#)
22. [Point by point response letter](#)
 - a. [How authors should respond to peer review comments for a medical research manuscript](#) (separate thread)    
 - b. [Reviewer asks you to run some additional minor analyses](#)
 - c. [Reviewer doesn't like your work](#)
 - d. [Reviewer wants you to talk about X, but you already did](#)
 - e. [Reviewer asks you to make major changes with biostatistics](#)
 - f. [Thanking your reviewers](#)
23. [Common errors in a manuscript](#)  
24. [Aligning different parts of your manuscript](#) 

25. [What to do if your manuscript keeps bouncing around different journals](#)
 - a. [Reach out to editor of journal directly](#)
 - b. [Tailor your cover letter if this work is solicited](#)
 - c. [Suggest more peer reviewers](#)
 - d. [Include your point by point response and revision from a prior journal](#)
 - e. [Contact the editor to write a seminal narrative review](#)
 - f. [You get feedback that your scientific writing is poor](#)
 - g. [Using retrospective data for comparative effectiveness research](#)
 - h. [Starting a manuscript review group](#)
 - i. [Create a calendar of journals and meetings you would want to submit to](#)
 - j. [Collaborate internationally](#)
26. [Your manuscript was accepted](#)
 - a. [Proof and author queries](#)
27. Reference management (Credit: [@MushtaqBilalPhD](#))
 - a. [How to use Zotero as a reference manager](#)
 - b. [Zotero + Research Rabbit](#)
28. [Manuscript referencing](#) (separate thread) 📖✍️🔥
 - a. [References need to be perfect](#)
 - b. [Use a reference managing program](#)
 - c. [Choose references carefully](#)
 - d. [Check journal guidelines for referencing](#)
 - e. [Your intro needs ~5-10 references](#)
 - f. [References should support the sentence they follow](#)
 - g. [References in tables should be in the manuscript too](#)
 - h. [In the discussion, circle back to the references from your intro](#)
 - i. [Primary research articles usually don't need references in the results](#)
 - j. [The abstract does not need references](#)
 - k. [The conclusion does not need references](#)
 - l. [Cut out references PRN \(eg. consider vomiting ones only used once\)](#)
 - m. [Methods should reference stats, software, package, version, etc](#)
 - n. [Reference clinical trials in progress](#)
 - o. [Copy and paste references to your CV](#)
29. [How to find author or reviewer email addresses](#) 📖
30. [Advice for mentors](#) 📖✍️🔥
 - a. [Understanding skills, goals, timelines](#)
 - b. [Present your research idea to an expert audience before diving in](#)
 - c. [Get your comments back to your mentee within a few weeks](#)
 - d. [Avoid the scenario where your mentee has to recode data](#)
 - e. [Provide constructive feedback with lots of comments](#)
 - f. [Don't scut out your mentee](#)
 - g. [Don't ghost your mentee](#)
 - h. [Collaborate nationally and internationally](#)
 - i. [Aim for high impact projects](#)
 - j. [Look for opportunities for your mentee](#)
 - k. [Include biostatisticians on your author line](#)
 - l. [For most research ideas, assign 1 mentee to 1 project](#)
 - m. [Avoid mentorship malpractice](#)
31. [Advice for mentees](#) 📖🔥
 - a. [Research your mentor](#)
 - b. [Initial contact with your potential mentor](#)
 - c. [Don't send an email longer than the screen of your phone](#)
 - d. [If asking to meet in person or via zoom, send prep materials a few days prior](#)
 - e. [Establish your involvement and author contribution early](#)
 - f. [As a trainee, your main job is to find all the minor errors](#)

- g. [Don't ghost your mentor](#)
 - h. [Know the prospectus / synopsis for your project](#)
 - i. [Finish your projects](#)
 - j. [Get your manuscript back to your mentor in a few weeks](#)
 - k. [Condense your writing](#) ✍️
 - l. [Avoid "freedom from everything" projects](#)
 - m. [Done is better than perfect](#)
 - n. [Underpromise and overdeliver](#)
 - o. [Use referencing software \(eg, EndNote, Zotero\)](#)
 - p. [Optimize your writing environment](#)
 - q. [Make life easy for coauthors: send manuscript, figures, forms, updates](#)
 - r. [Be nice, hard-working, and smart. And in that order](#)
 - s. [Conflicting advice: take the advice you think is best](#)
 - t. [If you give yourself 30 days to clean your home, it will take you 30 days. But if you give yourself 3 hours, it will take 3 hours.](#)
 - u. [Rank your possible research endeavors](#)
 - v. [Avoid mentee missteps](#)
 - w. [If changing institutions, provide new email](#)
 - 32. [Keys to maximizing academic productivity as a trainee](#)
 - 33. [Reasons why researchers should not pay fees to publish their research](#) (2024)
 - a. [Money made by Elsevier](#) (separate thread, credit to authors)
 - 34. [An archetypal abstract and manuscript: SABR-COMET](#) 📖 ✍️ 🔥 🦀
 - 35. [How to write an abstract for presentation at a meeting](#) 📖 ✍️ 🔥 🦀
 - a. [Intro](#)
 - b. [Methods](#)
 - c. [Results](#)
 - d. [Conclusion](#)
 - e. [Title](#)
 - f. [Common errors](#)
 - g. [Decreasing word count](#)
 - h. [How to write a research abstract for presentation at a meeting](#) (checklist and separate post) ✍️ 📖 🔥
 - 36. [How to pack for a professional conference](#) 🔥 📖
 - 37. [How to give an oral presentation at a meeting](#) (separate thread) 📖 📄 📊 ✍️ 📖 🖥️
 - 38. [How to do a systematic review and meta-analysis](#) 📖 📄 📊 **Please read this if you are working with me on a systematic review +/- meta-analysis**
 - a. [Article](#)
 - b. [Why would you do a systematic review +/- meta-analysis?](#)
 - c. [PICOS](#)
 - d. [Register a systematic review on PROSPERO](#) 🔗
 - 39. [Guide to writing a specific aims page for a grant application](#) 📖 🔥
 - 40. [How to write an ask letter as a physician in academic medicine](#)
 - 41. [How to update publications and abstracts in your CV](#)
 - 42. [Tweeting your work](#) (Credit: @LNivisonSmith) 📖
 - 43. [Case Western Reserve School of Medicine research website](#) 📖
 - a. [Database](#) 🔗
 - b. [Status update on available projects](#)
- iii. Reviewing medical research
 - 1. [How to review a medical research manuscript](#) 📖 🔥 ✍️
 - 2. [Should I review this research manuscript?](#)
 - 3. [How long does it take to evaluate academic work](#)
 - 4. [Time it takes to assess the quality of a medical research manuscript](#) 🖥️
- c. [Survey research response rates](#) 📖
- d. [How to copy and paste references directly from PubMed](#) 📖 🔥

- e. [Spam research invites](#) 😊
 - f. [How to design a successful medical student clinical clerkship](#) 📖 🔥 ☢️
 - g. [Using artificial intelligence to write personal statements and letters of recommendation](#)
 - h. Funding cancer research 💰 🦀
 - i. [Global funding for cancer research](#) 💰 📖 🌍 🦀
 - ii. US NIH/NCI grant funding 💰 🇺🇸 🦀
 - 1. [NIH grant budgets](#) (Credit to Wafik El-Deiry) 💰 🇺🇸 🔥 🦀
 - 2. [Demystifying US NIH grant funding salary support in academic medicine: the "cap gap" explained](#) 📖 💰 🔥
 - 3. [How much funding does the NIH/NCI provide for cancer research?](#) 💰 🇺🇸 ☢️ 🦀
 - a. [Cost of cancer care in the USA](#) 📖 📖 💰 🇺🇸 🦀
 - i. [Advice for new residents](#) (Credit Olugbenga Okusanya) 📖 🔥
 - j. Writing clinical documents
 - i. [How to write a history and physical \(H&P\) note](#) (Credit Arjun Khadilkar) 🔥
 - ii. [How to write a Subjective Objective Assessment and Plan \(SOAP\) note](#) (Credit Robert Oubre) 🔥
 - iii. [How to do a history and physical in radiation oncology](#) 📖 🔥 ☢️ 🦀 (also below)
- 2. Radiation oncology** ☢️ 🦀
- a. For medical students
 - i. [Considering a career in radiation oncology: a guide for medical students](#) 📖 ☢️ 🦀
 - 1. [Data on professional fulfillment, work life integration, and burnout](#)
 - ii. [University Hospitals / Case Western Reserve School of Medicine - radiation oncology clerkship elective for medical students](#) 📖 🇺🇸 ☢️ 🦀
 - 1. [Radiation oncology student expectations](#) 📖 ☢️ 🦀
 - 2. [Fundamental resources for medical students in a radiation oncology clerkship](#) 📖 🔥 ☢️ 🦀
 - a. [Seminal papers in radiation oncology](#) 📖 ☢️ 🦀
 - i. [Radiation oncology: a primer for medical students](#) 📖 🔗 🦀
 - ii. [Radiation oncology: a century of achievements](#) 📖 🔗 🦀
 - iii. [What the diagnostic radiologist needs to know about radiation oncology](#) 📖 🔗 🦀
 - b. Radiation oncology seminar series (Credit: [Dan Golden](#)) 🔗 ☢️ 🦀
 - i. [Introduction to radiation oncology](#) 📖 🔗 🦀
 - ii. [Introduction to radiation biology and physics](#) 📖 🔗 🦀
 - iii. [Practical aspects and emergencies](#) 📖 🔗 🦀
 - c. [How to do a history and physical in radiation oncology](#) 📖 🔥 ☢️ 🦀
 - 3. [Quantifying educational impact of our clerkship](#) 📖
 - iii. [Career options for medical students who want to pursue radiation oncology but have an unsuccessful match](#) 📖 🇺🇸 ☢️ 🦀
 - iv. [Lifetime earnings of a radiation oncologist](#) 💰 ☢️ 🔥 🦀 📖
 - b. My favorite clinical radiation oncology resources (Credit to the authors) 🔥 ☢️ 🦀
 - i. [RadOncCalc](#) 🔗 ☢️ 🦀
 - ii. [RadOncReview](#) 🔗 ☢️ 🦀
 - 1. [Brain metastases, oligometastases, immuno-oncology](#)
 - 2. [Breast](#)
 - 3. [CNS and pediatrics](#)
 - 4. [GI](#)
 - 5. [GU](#)
 - 6. [GYN](#)
 - 7. [Head and neck, thyroid, skin](#)
 - 8. [Heme](#)
 - 9. [Sarcoma, MSK](#)
 - 10. [Thorax](#)
 - iii. [RadOncReview Constraints](#) 🔗 ☢️ 🦀
 - iv. [eContour](#) 🔗 ☢️ 🦀

- v. [ASTRO early career reference](#)    
- vi. [theMedNet](#)  
- vii. [NCCN](#)    
- viii. [ACRO Residents](#)   
- ix. [QuadShot](#)
 - 1. [Resource sheet](#)
- x. [RadOncTables](#)   
 - 1. [Key studies](#)
 - 2. [Clinical](#)
- c. Letters of medical necessity for insurance approval
- d. Radiation oncology board exams   
 - i. [Advice for radiation oncology oral boards](#)     
 - ii. [Written board exam preparation](#) (Credit: [Colton Ladbury](#))   
 - iii. [RadOnc Questions](#) (Credit: [Dan Golden](#))   
- e. Financial Principles for Radiation Oncologists Bootcamp
 - i. [Part 1: How to Plan Your Financial Future | YouTube video](#)
- f. Jobs in radiation oncology 
 - i. [Evaluating a practice in radiation oncology: a guide for junior physicians](#)         
 - 1. [Best advice I received](#)
 - a. [Life](#)
 - b. [Negotiations](#)
 - c. [Academic institutions](#)
 - d. [Employer and employee](#)
 - e. [Getting your first job](#)
 - f. [Getting another job](#)
 - g. [Communications](#)
 - h. [Finance](#)
 - 2. [Effort and reward](#)
 - a. [Academic vs non-academic \(hospital based and private practice\)](#)
 - b. [Billing components](#)
 - c. [Compensation models](#)
 - d. [RVUs and salaries](#)
 - e. [Core components of practice](#)
 - f. [FTE](#)
 - g. [Considerations for clinic](#)
 - h. [Considerations for research](#)
 - i. [Considerations for education](#)
 - j. [Considerations for service](#)
 - k. [Rewarded vs not in academics](#)
 - 3. [What to do in residency](#)
 - a. [Documentation](#)
 - b. [PGY-5: applications](#)
 - c. [ASTRO meeting](#)
 - d. [Terry Wall practice entry surveys in private practice](#)
 - e. [Terry Wall practice entry surveys private practice interview steps](#)
 - f. [Terry Wall practice entry surveys private practice interview regrets](#)
 - g. [Terry Wall practice entry surveys in academics](#)
 - h. [Terry Wall practice entry surveys academic interview regrets](#)
 - 4. [Interviews](#)
 - a. [Interviews: meet and greet vs in person](#)
 - b. [Red flags and bullying](#)
 - c. [Questions you could ask and be prepared to answer](#)
 - d. [The ask letter in academics](#)
 - e. [Revolving door practices](#)

5. [Contracts](#)
 - a. [Letter of intent](#)
 - b. [Medical legal verbiage](#)
 - c. [Direct vs deferred compensation](#)
 - d. [Negotiation](#)
 - e. [Comparing salaries and cost of living](#)
 - f. [Fringe benefits, vacation, term and termination, restrictive covenants](#)
 - g. [Legal review](#)
 - h. [Housing: rent vs buy](#)
- ii. [Top 10 predictors of happiness for a radiation oncologist taking a job](#) 📄 🇺🇸 🔥 ☢️ 🦀
- iii. [Evaluating a practice in radiation oncology](#) (2017 PDF) 📖 🇺🇸 🔥 ☢️ 🦀
- iv. [Evaluating an academic radiation oncology position](#) (manuscript, 2023)
- v. [ASTRO/ARRO guide to writing a cover letter and CV](#) (2025) 🇺🇸 🔥
 1. [Slides](#) 🖥️
 2. [Video](#) 📺
 3. [How to keep track of author lines you were on with Google Scholar](#)
- g. [LGBTQ inclusion in oncologic clinical trials](#) 📖 🏳️🌈 🦀
- h. ["Radiation resistant"](#) ☢️ 🦀
- i. [Medical illustration in radiation oncology](#) 📖 🔥 ☢️ 🦀
 - i. From the textbook [Absolute Clinical Radiation Oncology Review](#) (2019) 📖 📺 🔗 ☢️ 🦀
 1. [I am working on new illustrations, so send me your figures](#)
 - ii. [What are the characteristics of a good medical illustration?](#) 📺 📖
 - iii. General
 1. [Immune checkpoint inhibition mechanism](#) 📺 ☢️ 🦀
 - iv. Pediatric
 1. [Rhabdomyosarcoma subsites](#) 📺 ☢️ 🦀
 - v. Central nervous system (CNS)
 1. [GammaKnife vs CyberKnife vs gantry LINAC vs protons for brain tumors](#) 📺 ☢️ 🦀
 2. [Brain anatomy on sagittal slice](#) 📺 ☢️ 🦀
 3. [Cavernous sinus cranial nerves](#) 📺 ☢️ 🦀
 4. [Cranial nerves exiting through base of skull](#) 📺 ☢️ 🦀
 5. [Base of skull on CT](#) 📺 ☢️ 🦀
 6. [Brain anatomy: coronal and sagittal slices to show insula, capsule, putamen, caudate](#) 📺 ☢️ 🦀
 7. [Hippocampal avoidance: anatomy and MR correlates](#) 📺 ☢️ 🦀
 8. [Hippocampal avoidance IMRT setup](#) 📺 ☢️ 🦀
 9. [MR spectroscopy as fast as possible](#) 📺 ☢️ 🦀
 10. [Cancer on brain MRI as fast as possible](#) 📺 ☢️ 🦀
 11. [RANO criteria for GBM recurrence](#) 📺 ☢️ 🦀
 12. [Whole brain radiotherapy vs radiosurgery +/- immune checkpoint inhibition](#) 📺 ☢️ 🦀
 13. [Skull anatomy on lateral x-ray](#) 📺 ☢️ 🦀
 14. [Vertebral body anatomy for stereotactic radiation therapy](#) 📺 ☢️ 🦀
 15. [Epidural spinal cord compression \(ESCC\) / Bilsky scale for cancer metastasis](#) 📺 ☢️ 🦀
 16. [Cancer in the spine: intradural intramedullary vs intradural extramedullary vs extradural](#) 📺 ☢️ 🦀
 - vi. Head and neck (HN)
 1. [Head and neck lymph node stations](#) 📺 ☢️ 🦀
 2. [Head and neck staging as fast as possible](#) 📺 ☢️ 🦀
 3. [Neck dissections](#) 📺 ☢️ 🦀
 4. [Head and neck subsites](#) 📺 ☢️ 🦀
 5. [Head and neck referred pain](#) 📺 ☢️ 🦀
 6. [Ear pain cranial nerves](#) 📺 ☢️ 🦀
 7. [Counting teeth](#) 📺 ☢️ 🦀

8. [Counting teeth +/- detailed anatomy](#) (2022)   
9. [Larynx cancer anatomy, treatment, staging](#)   
10. [Head and neck lateral x-ray](#)   
11. [Radiation therapy for sialorrhea](#)   
- 12.
- vii. Lung / thoracic
 1. [Mediastinal lymph node stations](#) (2019)   
 2. [Lymph node stations of the thorax](#) (2025)   
 3. [Definition of a central vs ultra-central lung tumor](#) (2025)   
 4. [Proximal bronchial tree](#)   
 5. [Pathophysiology of radiotherapy induced lung injury](#)   
- viii. Breast
 1. [Reading a mammogram](#)   
 2. [Mammogram findings](#) (2022)   
 3. [Breast lymph node stations anatomy](#)   
 4. [Breast tangent placement](#)   
 5. [Breast lymph node stations anatomy from RTOG atlas](#)   
 6. [Mammography interpretation](#)   
- ix. Gastrointestinal
 1. [Esophagus anatomy](#)   
 2. [Gastric cancer D01/2/3 dissections](#)   
 3. [Gastric anatomy post op radiation therapy volumes](#)   
 4. [Pancreatic cancer resectability](#)   
 5. [Liver anatomy](#)   
 6. [Central hepatobiliary tree \("no fly zone"\) anatomy](#)   
 7. [Pelvic anatomy: AP and lateral](#)   
 8. [Rectal and anal anatomy](#) (2023)   
 9. [Rectal cancer staging](#) (2023)  
 10. [Anal cancer staging](#) (2023)  
 11. [Anal cancer radiotherapy volumes](#)   
 12. [Rectal cancer radiotherapy volumes](#)   
 13. [Anatomy of anus and rectum](#)   
 14. [Pancreas anatomy](#)   
 15. [Stereotactic radiotherapy + immune checkpoint inhibitors in GI cancers](#)   
- x. Genitourinary
 1. [Pelvic anatomy lateral blank slate](#)   
 2. Prostate cancer
 - a. [Bladder and rectal filling for prostate cancer](#)   
 - b. [Pelvic nodal failure for prostate cancer](#)   
 - c. [Obesity and prostate cancer](#)   
 - d. [Abscopal effect for prostate cancer](#)   
 - e. [Prostate cancer failure patterns after prostatectomy](#)   
 - f. [Treatment options for benign prostatic hyperplasia \(BPH\) and lower urinary tract symptoms \(LUTS\)](#) (2023)  
 - g. [Prostate cancer staging and imaging review](#) (2022)    
 - h. [2025 prostate cancer staging from NCCN and AJCC 8th edition](#)    
 - i. [Mechanism of action of hormone therapy](#) (2025)    
 3. Bladder cancer
 - a. [Definitive radiation therapy for bladder cancer: a brief contouring guide](#)
 - b. [Urinary diversions for bladder cancer](#)   
 - c. [Bladder cancer staging](#) (2022)   
 - d. [Surgery and radiation therapy](#)   
 - e. [MGH/Shipley regimen for bladder preservation](#)   
 - f. [Bladder anatomy maps](#)   

4. Testicular cancer
 - a. [Testicular cancer at risk sites](#)   
 - b. [Testicular cancer radiotherapy volumes](#)   
 5. Kidney cancer
 - a. [Kidney cancer staging](#) (2022)   
 - xi. GYN
 1. [Endometrial vs cervical vs vaginal vs vulvar ca staging](#)   
 2. [GYN pelvic LN stations, anatomy of vessels, muscles, ligaments, organs](#)   
 3. [GYN pelvic anatomy: AP and lateral](#)   
 4. [Comparing hysterectomy subtypes](#)   
 5. [Cervical cancer staging](#)   
 6. [Endometrial cancer staging](#)   
 7. [Cervical cancer brachytherapy terminology](#)   
 8. [Cervical cancer external beam radiation therapy terminology](#)   
 9. [Vulvar cancer staging](#)   
 10. [Surgical options for cervical and endometrial cancer: comparison of trachelectomy vs hysterectomy subtypes](#) (2023)  
 - xii. Heme and lymphoma
 1. [Deauville scores](#)   
 2. [Hodgkin lymphoma node group sites](#)   
 3. [Total skin electron beam radiation therapy for mycosis fungoides](#)   
 - xiii. Sarcoma
 1. [Compartments of the thigh](#)   
 - j. [A patient-level data meta-analysis of the abscopal effect](#)     
 - i. [Abscopal effect is like bigfoot](#) 
 - k. [Radiation therapy + tyrosine kinase inhibitors \(TKIs\)](#)     
 - i. Other trials since this paper was published:
 1. [RTOG 0912](#)
 2. [RTOG 1016, DeESCALate, TROG 12.01](#)
 3. [PASART](#)
 4. [ARST1321](#)
 5. [RTOG 1119](#)
 6. [TRYHARD](#)
 - l. [Radiation therapy + immune checkpoint inhibitors](#)     
 - m. [Conventionally fractionated radiation therapy + immune checkpoint inhibitors](#)    
 - n. [Diet during radiation therapy](#)     
 - o. [Radiation therapy during historically accepted contraindications](#)    
 - p. [Exercise therapy during radiation therapy](#)     
 - q. [Radiation oncology clinical trials for protocol review committees and institutional review boards](#)     
 - r. Research funding in radiation oncology 
 - s. [Which MRI do I fuse?](#)   
 - t. [2025 ASTRO GU cancer spring refresher](#)      
 - i. Slides: <http://bit.ly/2025RefresherGUZaorskyLongCourse>
 - ii. Send me feedback: <https://t.co/xzQBUXMfXm>
- 3. Public health sciences / oncology-epidemiology research**  
- a. Evidence-based medicine biostatistics basics (Credit to authors)    
 - i. [Logistic regression basics](#)
 - ii. [Cox proportional hazards model](#)
 - iii. [ROC curves and AUC](#)
 - iv. [Confidence intervals](#)
 - v. [Odds ratio \(OR\) vs hazard ratio \(HR\)](#)
 - vi. [Regression to the mean](#)
 - vii. [Prevalence vs incidence](#)

- viii. [Estimation vs prediction](#)
 - ix. [Data distributions: beta, gamma, Weibull, log-normal, etc](#)
 - x. [P-hacking](#)
 - xi. [Reporting a clinical trial](#)
 - xii. [Competing risks](#)
 - xiii. [T and F-tests, t-squared, z-squared](#)
 - xiv. [Bioequivalence](#)
 - xv. [Generalized estimating equation \(GEE\)](#)
 - xvi. [Generalized Additive Models for Location, Scale, and Shape \(GAMLSS\)](#)
 - xvii. [Generalized Additive Models \(GAMs\)](#)
 - xviii. [Akaike Information Criterion \(AIC\) and Bayesian Information Criterion \(BIC\)](#)
 - xix. [Missing data](#)
 - xx. [Quantile regression](#)
 - xxi. [Bootstrapping](#)
 - xxii. [Factor analysis](#)
 - xxiii. [Clinical vs statistical significance](#)
 - xxiv. [Interaction](#)
 - xxv. [Non-parametric tests](#)
 - xxvi. [Hypothesis testing](#)
 - xxvii. [Replication crisis](#)
 - xxviii. [t-SNE and high dimensional space from AI and Google](#)
 - xxix. [Writing your biostatistics section of a manuscript](#)
 - xxx. [Tips for statistical analysis in research papers](#)
 - xxxi. [Diagnostics in regression analysis](#)
 - xxxii. [Randomization, concealment, blinding, time to event analysis, censoring](#)
 - xxxiii. [Non-inferiority, superiority surrogates, control arms, crossover](#)
 - xxxiv. [Why do we randomize 1:1 instead of 2:1 or 3:1?](#)
 - xxxv. [Real world data vs randomized controlled trials in oncology](#) 📊 📖 📅
 - 1. [Varying the biostatistics in comparative effectiveness research with retrospective data](#) 📊 📖 📅 🦀
 - b. [Health services research in oncology](#) 📊 🔗 🇺🇸 📅 🔥 ☢️ 🦀 **Please read this thread if you are interested in working with me on big data cancer research**
 - i. [SEER](#) 🇺🇸 📅 🦀
 - 1. [Download SEER](#) 🔗 🇺🇸 🦀
 - 2. [Do SEER tutorials](#) 🔗 🇺🇸 🦀
 - 3. [When doing an analysis, copy and paste your session into the XLS](#)
 - ii. [NCDB](#) 🇺🇸 📅 🦀
 - iii. [SEER vs NCDB](#) 🇺🇸 📅
 - iv. [Claims databases: SEER Medicare, MarketScan, TriNetX](#) 🇺🇸 🦀
 - c. [Cardiovascular disease among cancer patients](#) 📊 📖 🇺🇸 🦀
 - d. [Fatal heart disease among cancer patients](#) 📊 📖 🇺🇸 🦀
 - e. [Stroke among cancer patients](#) 📊 📖 🇺🇸 🦀
 - f. [Cancer incidence among adolescents and young adults](#) 📊 📖 🇺🇸 🦀
 - g. [Causes of death among pediatric cancer patients](#) 📊 📖 🇺🇸 🦀
 - h. [Clinical trial accrual for cancer and its impact on survival](#) 📊 📖 🇺🇸 🦀
 - i. [Non-adherence to multi-modality cancer treatment guidelines](#) 📊 📖 🇺🇸 ☢️ 🦀
 - j. [Radiation therapy facility volume and survival in patients with cancer](#) 📊 📖 🇺🇸 ☢️ 🦀
 - k. [Surgical facility volume and survival in patients with cancer](#) 📊 📖 🇺🇸 🦀
 - l. [Cost of cancer care](#) 📊 📖 💰 🇺🇸 ☢️ 🦀
 - m. [Funding of cancer research vs cost of cancer care in US](#) 📊 📖 💰 🇺🇸 ☢️ 🦀
- 4. Prostate cancer**
- a. [Short-course radiation therapy for prostate cancer](#) 📊 📖 🦀
 - b. [Post-prostatectomy cases](#) 📊 🔥 ☢️ 🦀
 - i. Review article: [Salvage radiation therapy for prostate cancer](#) 📖 ☢️ 🦀
 - c. [COVID guidelines for management of prostate cancer](#) 📊 📖 🦀

- d. [Cost implications of combination radiotherapy + hormones for prostate cancer](#) 📖 📖 ☢️ 🦀
- e. [Comparison of prostatectomy vs radiation therapy + hormones for high-risk prostate cancer](#) 📖 📖 ☢️ 🦀
- f. [Phenotypes of metastatic prostate cancer](#) 📖 📖 🦀

5. Metastasis

- a. [Evaluation and management of metastatic cancer](#) 📖 📖 ☢️ 🦀
- b. [A new staging system for metastatic cancer: STARS](#) 📖 📖 🔥 🦀
 - i. Web app / Calculator: surv-app.shinyapps.io/phenotype/
- c. [A new staging system for metastatic prostate cancer](#) 📖 📖 🦀
- d. [Differential diagnosis of metastatic cancer with unknown primary site](#) 📖 📖 🦀
- e. [Treatment of the primary tumor in metastatic cancer](#) (Credit: @jryckman3) 📖 📖 🦀
- f. [Stereotactic radiation therapy for metastatic cancer](#) 📖 📖 ☢️ 🦀
- g. [Survival after palliative radiation therapy for cancer: the METSSS model](#) 📖 📖 ☢️ 🦀
 - i. Web app / calculator: <https://tinyurl.com/METSSSmodel>
- h. [Trends in diagnosis and treatment of metastatic cancer](#) 📖 📖 🇺🇸 🦀
- i. [Causes of death among people living with metastatic cancer](#)
 - i. Web app / calculator: tinyurl.com/met-mortality
- j. [Epidemiology of brain metastases](#) (Credit: @Raj_Singh_MD) 📖 📖 🇺🇸 🦀
- k. [Estimating the risk of brain metastasis for patients newly diagnosed with cancer](#) 📖 📖 🇺🇸 🦀
 - i. Web app / calculator: <https://tinyurl.com/brain-mets>
- l. [Epidemiology of lung metastases](#) 📖 📖 🇺🇸 🦀
- m. [Epidemiology of liver metastases](#) 📖 📖 🇺🇸 🦀
- n. [Epidemiology of bone metastases](#) 📖 📖 🇺🇸 🦀
- o. Common misconceptions about metastatic disease

6. Kidney cancer

- a. [Stereotactic radiation therapy for metastatic renal cell carcinoma: synergy and side effects](#) 📖 🔥 ☢️ 🦀
- b. [Current status of radiation therapy for renal cell carcinoma](#) 📖 📖 🔥 ☢️ 🦀
- c. [Radiation therapy for kidney cancer: current status and future directions](#) 📖 📖 🔥 ☢️ 🦀
- d. [Radiation therapy for primary kidney cancer: a meta-analysis](#) 📖 📖 ☢️ 🦀
- e. [Radiation therapy for metastatic kidney cancer: a meta-analysis](#) 📖 📖 ☢️ 🦀

7. Bladder cancer

- a. [Bladder cancer staging](#) 📖 📖 🔥 🦀
- b. [Surgery and radiation therapy targets for muscle invasive bladder cancer](#) 📖 🔥 📖 ☢️ 🦀
- c. [Bladder cancer workup and contouring guide](#) 📖 🦀
- d. [Bladder cancer chemoradiotherapy](#) (visiting lecture, Credit: Ananya Choudhury) 📖 🦀

8. Skin cancer

- a. [Current status of radiation oncology for skin cancer](#) 📖 ☢️ 🦀
- b. [Excision vs Mohs vs external beam radiation vs brachytherapy for skin cancer](#) 📖 📖 ☢️ 🦀
- c. [Short course radiation therapy for skin cancer](#) 📖 📖 ☢️ 🦀
- d. [Post operative radiation therapy for squamous cell skin cancer](#) 📖 📖 ☢️ 🦀

9. Pumpkins 🍂

- a. [Prostate Halloween](#) (2024)
- b. [MLCs on a linac](#) (2023)
- c. [When the Kaplan-Meier curves don't separate](#) (2022)
- d. [When you use a retrospective cohort study for comparative effectiveness research](#) (2020)