Breaking Barriers Toolkit

The American College of Surgeons Cancer Programs offers this "Breaking Barriers" Toolkit to help you and your colleagues develop strategies that will increase patient compliance with cancer treatment.

The Toolkit is organized by the most prevalent barriers to care, as identified through baseline data collection results. They include (1) transportation issues, (2) illness unrelated to treatment toxicity/no longer wishing to pursue treatment, and (3) conflicting appointments. A list of interventions* and potential strategies for success are provided for each barrier. Supplemental tools and materials also are included for direct implementation or modified use in your practice. Before you begin, it is recommended you view the *Breaking Barriers: Breaking Down the Top Barriers webinar*.

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*Not all interventions may need to be implemented. Consult with your local quality improvement team for the specific barriers to care experienced in your program.

If you have questions, please email CancerQI@facs.org.

ACS Cancer Programs American College of Surgeons

Barrier #1 Transportation Issues

Intervention:	**Identify Transportation Issues**
Strategies:	**Just Ask:** If a patient unexpectedly or regularly misses radiotherapy (RT) treatments, it is important to follow up with a phone call and ask if transportation to appointments is a barrier to their care. Implement this strategy by clearly designating the responsibility of patient follow-up to a member/group of members of the cancer treatment team (e.g., physician, advanced practice provider, clinic nursing staff, nurse navigator, social worker, medical assistant) and document the reason for missed treatment in the patient's chart. **Patient Education:** For any patient documented as missing treatment, administer a "Modified Distress Tool" to recognize the patient's needs and identify appropriate resources and referrals. A sample "Modified Distress Tool" can be found in Appendix 1 and Appendix 2.
Intervention:	**Leverage Rideshare/Hospital-Based Transportation**
Strategies:	**Local Resources:** Local transportation resources identified on your initial community scan should be leveraged to assist patients in your program struggling with this barrier to care. Examples include applying for gas cards and highlighting transportation via the local public transportation system or available resources already at your hospital or in your community. Implement this strategy by clearly designating the responsibility of identifying transportation resources to a member/group of members of the cancer treatment team (e.g., advanced practice provider, clinic nursing staff, nurse navigator, social worker), applying for local transportation resources, and ensuring patients identified as having transportation issues are referred to these programs. **National Resources:** Several national resources and programs are available to assist patients with transportation: Medical Transportation through Medicaid • *https://www.cms.gov/medicare-medicaid-coordination/fraud-prevention/medicaid-integrity-education/downloads/nemt-factsheet.pdf* Uber/Lyft Health Programs • *https://www.uberhealth.com/* • *https://www.lyft.com/healthcare* Additional Transportation Resources: • *Cancer and Transportation Resources | CancerCare* • *Transportation and Other Cancer Support Services | Livestrong* • *Help with Transportation for Cancer Patients | OneVillage* • *Implementing A Transportation Hub*

Intervention:	**Utilize Patient Navigation Program**
Strategies:	**Patient Navigation Program:** Consider establishing or using your existing Patient Navigation Program to assess whether a patient may have transportation issues prior to the start of the treatment schedule. This can be completed by phone using a standardized distress tool. Utilize patient navigators to call patients and evaluate their transportation needs. A sample "Modified Distress Tool" to implement in your practice can be found in Appendix 1 and Appendix 2.

Intervention:	**Use Fractionated Radiation Treatment Schedules**
Strategies:	**Schedule Alternatives:** While 6 weeks or more of daily radiation has been the standard schedule for years, this course of treatment has been a significant issue for many patients in completing all of their treatments. In fact, many breast cancer patients have elected mastectomy over breast conservation, simply to avoid daily radiation treatments over a 5- to 6-week period. Similarly, prostate cancer patients may choose more aggressive surgery to avoid protracted radiation. However, alternative options are available for appropriately selected patients that can help avoid interruptions in the radiation schedule by offering fewer treatments with similar outcomes. For any patient, particularly those for whom potential treatment interruptions are anticipated, alternate radiation schedules could be considered and include: • For patients requiring post-lumpectomy radiation, consider 3- to 4-week schedules as opposed to 5- to 6-week schedules. • For selected patients who meet the criteria, consider 1- to 2-week courses of partial breast radiation (external beam or brachytherapy) or 1 week of whole breast RT using appropriate techniques. See Appendix 3. • For patients requiring prostate radiation, consider 5-week schedules as opposed to 8- to 9-week schedules. • For highly selected patients who meet the criteria and otherwise may not be able to complete RT treatments, consider 1- to 2-week courses of ultra-hypofractionated treatments (stereotactic body radiation therapy, SBRT). These strategies should be selected only when clinically appropriate as deemed by the patient's radiation oncologist.

Barrier #2 Illness Unrelated to Treatment Toxicity/ No Longer Wishing to Pursue Treatment

Intervention: **Check Health Literacy**

Strategies:

Probe Understanding: Develop a hospital-level system for outreach to ask questions about the patient's understanding of their diagnosis and treatment course. It is important to check understanding in a non-accusatory way as patients may be reluctant to admit they are struggling with health literacy.

- Try saying, "It is common for patients to have questions or be overwhelmed by their cancer diagnosis, would you be interested in any additional educational resources?" or "Is there anything you are wondering about regarding your treatment plan? Is anything about it confusing to you?" Implement this strategy by clearly designating the responsibility of outreach to a member/group of members of the cancer treatment team (e.g., physician, advanced practice provider, clinic nursing staff, nurse navigator, social worker).
- At their initial clinic visit, be sure to educate the patient that missing multiple radiation treatments is associated with worse cancer-specific outcomes. Be sure to include this information in the patient's After Visit Summary as well. A graphic from the ACS Breaking Barriers Program can be included in the After Visit Summary. See Appendix 4 for the graphic and download instructions.

Brochures and Videos: Provide patients with additional resources, including informational brochures and videos, regarding their cancer diagnosis. This can include local resources available at your institution, as well as national resources. Some examples include:

American College of Surgeons Patient Education Toolkit
- *https://www.facs.org/for-medical-professionals/education/for-your-patients/my-patient-education-toolkit/*

American Society for Radiation Oncology Brochures and Videos
- *https://www.astro.org/Patient-Care-and-Research/Provider-Resources/Patient-Brochures*
- *https://www.astro.org/Patient-Care-and-Research/Provider-Resources/Patient-Brochures*

Association of Community Cancer Centers Webcast on Effective Communication (free)
- *https://courses.accc-cancer.org/products/plain-simple-strategies-for-improving-health-literacy*

Intervention: **Identify Psychosocial Distress**

Strategies:

Ask Why: We can't know why patients either don't show up for appointments or decide to decline care unless we explore it in more depth. If a patient unexpectedly quits treatment or misses treatments, it is helpful to follow up and ask, "Can you tell us a little bit about why?" Implement this strategy by clearly designating the responsibility of asking to a member/group of members of the cancer treatment team (e.g., physician, advanced practice provider, clinic nursing staff, nurse navigator, social worker).

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Strategies:
Continued

Elevate Concerns: If you notice withdrawn body language or tone or hear concerning phrases from the patient, such as "It's just not worth it," be sure to elevate your concerns and discuss them in more detail with the patient. Try asking "How are your spirits holding up?" or another non-stigmatizing question that may identify issues of mood/distress. In addition, after noting depression, be sure to discuss with the patient a referral for mental healthcare and provide them with encouragement and support.

Intervention: **Screen for Anticipated Barriers**

Even before barriers to care arise, an important tool to consider in every day practices includes screening for anticipated barriers to help identify problems before they ever arise. In recent years, there has been increasing emphasis and recognition on how social determinants of health can affect patient outcomes. One such framework, developed by the National Academies of Sciences, Engineering, and Medicine, for addressing social determinants of health is shown below which focuses on five main activities: awareness, adjustment, assistance, alignment, and advocacy. Thus, for example, by asking patients about their access to transportation before they even start cancer treatment, providers may be able to assist their patients with specific barriers, rather than waiting until a patient misses treatment to engage. There are many available screening tools to help healthcare providers in identifying anticipated barriers to care to provide patients with assistance, before the problem ever arises, which are listed under the strategies below.

Activities to Uncover, Mitigate Potential Transportation Barriers to Care

Activity	Definition	Strategy
Awareness	Activities that identify the social risks and assets of defined patients and populations.	Ask patients about their access to transportation.
Adjustment	Activities that focus on altering clinical care to accommodate identified social barriers.	Reduce the need for in-person healthcare appointments by using other options such as telehealth appointments.
Assistance	Activities that reduce social risk by providing assistance in connecting patients with relevant social care resources.	Provide transportation vouchers so that patients can travel to healthcare appointments. Vouchers can be used for ride-sharing services or public transit.
Alignment	Activities undertaken by healthcare systems to understand sets in the community, organize them to facilitate synergies, and invest in and deploy them to positively affect health outcomes.	Invest in community ride-sharing or timebank programs.
Advocacy	Activities in which healthcare organizations work with partner social care organizations to promote policies that facilitate the creation and redeployment of assets or resources to address health and social needs.	Work to promote policies that fundamentally change the transportation infrastructure within the community.

Adapted from: "Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation's Health," published by the National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Care Services; Committee on Integrating Social Needs Care into the Delivery of Health Care to Improve the Nation's Health in 2019.

Strategies:

Epic Healthy Planet Instrument

For health networks that use Epic as their electronic health record, consider talking with your Information Technology team about the Epic Healthy Planet Instrument in order to proactively screen for social determinants of health.

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Strategies:
Continued

PRAPARE

The PRAPARE Screening Tool is a free, downloadable screening tool available in more than 25 different languages for assessing patient assets, risks, and experiences. This tool was specifically designed to help healthcare providers and community organizations collect data to improve the health equity of their patients and community members.
The PRAPARE Screening Tool | PRAPARE

The EveryONE Project Social Needs Screening Tool

The EveryONE Project was developed by the American Academy of Family Physicians to provide additional resources for healthcare providers in order to give assistance in advocating for health equity. Their Social Needs Screening Tool is a short, 15 question survey that is free and may help you screen for anticipated barriers to care.
Social Needs Screening Tool (aafp.org)

Accountable Health Communities Health-Related Social Needs Screening Tool

This screening tool was developed by the Centers for Medicare & Medicaid Services to similarly identify patient needs that can be addressed through community services. A link to this free, downloadable tool is below.
The AHC Health-Related Social Needs Screening Tool (cms.gov)

HealthBegins SDOH Screening Tool

This specific screening tool consists of 28 questions that assess five specific domains: economic stability, education, social & community context, neighborhood & physical environment, and food. More information about HealthBegins can be found on its website below.
Resources for SDH - (healthbegins.org)

Intervention: **Uncover Financial Toxicity**

Strategies:

Evaluate Distress: Patients may be worried about issues we are unaware of or may be reluctant to ask family members for help. A local social worker may be able to encourage the patient to let the family know and/or problem-solve about sources of support. Staying alert to possible distress can guide next steps. Some examples of how to identify distress or financial need are:

- A sample "Modified Distress Tool" to implement in your practice can be found in Appendix 1 and Appendix 2.
- Implemented the COST (Comprehensive Score for Financial Toxicity) questionnaire (Appendix 5) to assess for financial toxicity.
- If a patient misses treatment or states they no longer wish to pursue treatment, try asking "Are there circumstances in your life that are making it difficult to follow through with the treatment plan?" or "Can you think of things that might be helpful for us to address?"
- If you identify a patient with increased financial need, consider alternate fractionation schedules (if clinically appropriate) as determined by the patient's radiation oncologist. This typically will reduce costs for therapy by giving fewer treatments with equivalent outcomes in local control. To learn more about this strategy, refer to the Intervention: Using Fractionated Radiation Treatment Schedules under Barrier 1: Transportation Issues.

Barrier #3 Conflicting Appointments

Intervention:	**Educate the Patient**
Strategies:	**Check for Understanding:** At their initial clinic visit, be sure to educate the patient that missing multiple radiation treatments is associated with worse cancer-specific outcomes. Patients may not know the importance of completing all radiotherapy visits in a timely fashion (without days off from RT) and may not prioritize their treatments compared to other health visits. Be sure to include this information in the patient's After Visit Summary as well. A graphic from the ACS Breaking Barriers Program can be included in the After Visit Summary. See Appendix 4 for the graphic and download instructions.
Intervention:	**Use a Patient Navigation Program**
Strategies:	**Patient Navigation Program:** Consider establishing or using an existing Patient Navigation Program to ensure patients scheduled for radiotherapy treatment do not have conflicting appointments. Ideally, this strategy would be implemented by designating the responsibility of scheduling to a member/or group of members of the cancer treatment team (e.g., advanced practice provider, clinic nursing staff, nurse navigator, social worker, medical assistant) to work directly with the patient and ensure enough time between appointments without overlap in scheduling. Additionally, Patient Reminder Notifications through the electronic health record may help patients stay organized. **See:** Navigating a Path to Equity in Cancer Care: The Role of Patient Navigation

Appendix/Supplemental Documents

Appendix 1 **Modified Distress Tool, adapted from "Guiding Lay Navigation in Geriatric Patients With Cancer Using a Distress Assessment Tool."**

Patient Distress Thermometer

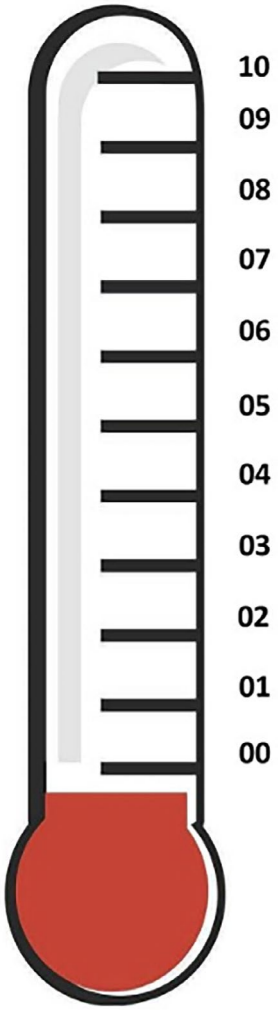
Date Administered: _____ By: _____

Patient Name: _____ MR# _____

DOB (00/00/0000): _____ ☐ Formal ☐ Informal Assessment

Completed by: ☐ Patient ☐ Child ☐ Family Member ☐ Friend ☐ Spouse ☐ Other _____

During the past week how distressed have you been?
(Please shade in the thermometer to the right)



As part of our attempt to care for your total needs, we would like you to fill out the questionnaire on the following pages so that we may better approach your health care.

We believe that all aspects of your life are important and have an effect on the way you feel.

☐ Check if NO distress score was marked.

Patient Distress Thermometer *Continued*

Date Administered: _____ By: _____

Patient Name: _____ MR# _____

DOB (00/00/0000): _____ ☐ Formal ☐ Informal Assessment

Completed by: ☐ Patient ☐ Child ☐ Family Member ☐ Friend ☐ Spouse ☐ Other _____

Do you wish to get help for any of the problems listed below? ☐ Yes ☐ No

If yes, which of these is/are most distressing _____

If we cannot follow-up with you in clinic today, what is the best way to contact you? _____

Check the causes of your distress (all that apply):

Practical Problems

☐ Ability to use Phone
☐ Child Care
☐ Cooking
☐ Getting Groceries/Shopping
☐ Housekeeping
☐ Housing
☐ Insurance/Financial
☐ Manage Finances
☐ Transportation
☐ Work

Family Problems

Dealing with:

☐ Children
☐ Family Support
☐ Friends
☐ Partner

Information Concerns

☐ Ability to use Phone
☐ Diagnosis/Disease
☐ Diagnostic Results
☐ Diet/Nutrition
☐ End of Life Issues
☐ Hospice
☐ Home Health
☐ Legal Issues
☐ Maintaining Fitness/Excercise
☐ Performing Medical Procedures
☐ Prognosis
☐ Scheduling
☐ Survivorship
☐ Side-Effects/Treatments
☐ Side-Effects/Medications)
☐ Supportive Care
☐ Treatment(s)
☐ Treatment Decisions

Cognitive Problems

☐ Feeling Confused
☐ Forgetfulness
☐ Poor Thinking
☐ Memory/Concentration
☐ Seeing Things/Hearing Things
☐ Understanding Verbal or Written Words

Other

☐ Ability to Read/Write
☐ Cultural/Religious Needs
☐ Citizenship
☐ Lack of Social Support
☐ Language Barrier
☐ Post-op Care

Patient Distress Thermometer *Continued*

Date Administered: _____ By: _____

Patient Name: _____ MR# _____

Do you wish to get help for any of the problems listed below? ☐ Yes ☐ No

If yes, which of these is/are most distressing? _____

If we cannot follow-up with you in clinic today, what is the best way to contact you? _____

_____

Check the causes of your distress (all that apply):

Physical Problems

- ☐ Balance/Walking & Mobility Difficulty
- ☐ Bathing/Dressing
- ☐ Body Sores
- ☐ Breathing
- ☐ Changes in Urination
- ☐ Constipation
- ☐ Controlling Bowel Movement
- ☐ Controlling Urination
- ☐ Diarrhea
- ☐ Dizziness
- ☐ Eating
- ☐ Fatigue
- ☐ Feeding Self
- ☐ Fever
- ☐ Getting Around Inside Home
- ☐ Getting Around Outside Home
- ☐ Hearing
- ☐ Indigestion
- ☐ Mouth Sores
- ☐ Loss of Appetite
- ☐ Moving In/Out of Chair or Bed
- ☐ Nausea/Vomiting
- ☐ Nose Dry/Congested
- ☐ Opening Medication Bottles
- ☐ Pain
- ☐ Sexual Problems
- ☐ Skin Dry/Itchy
- ☐ Sleep/Insomnia
- ☐ Substance Abuse
- ☐ Swallowing
- ☐ Swollen Arms/Legs
- ☐ Talking
- ☐ Tingling Hands/Feet
- ☐ Toileting
- ☐ Vision
- ☐ Weight Change
- ☐ Writing

Emotional Problems

- ☐ Adjusting to Changes in Appearance
- ☐ Adjusting to my Illness
- ☐ Boredom
- ☐ Concentration
- ☐ Coping with Grief and Loss
- ☐ Emotional Control
- ☐ Fear(s)
- ☐ Feeling Depressed or "Blue"
- ☐ Feeling Hopeless
- ☐ Guilt
- ☐ Intrusions (thoughts that appear suddenly and repeatedly that are not welcome)
- ☐ Isolation/Feeling Alone
- ☐ Loss of Interest in Usual Activities
- ☐ Managing Stress
- ☐ Nervous/Anxiety
- ☐ Role Changes ("Caring for Family")
- ☐ Sadness
- ☐ Self-esteem
- ☐ Worry

Spiritual Problems

- ☐ Lack of Comfort, Strength or Hope from Spiritual Beliefs
- ☐ Facing my Mortality
- ☐ Lack of Support from Spiritual/Religious Group
- ☐ Loss of Faith
- ☐ Trust in God
- ☐ Loss of Sense of Purpose
- ☐ Meaning of Life
- ☐ Relating to God

Appendix 2 Alternative option to the Modified Distress Tool in identifying Barriers to Care.

Nomogram for Barriers:	Points
Distress Score at Intake (RT) (9-10 = 5; 6 or more =2, 5 = 1, <5 =0)	
Lives Alone: (Yes = 2, No = 0)	
Married (No = 1, Yes = 0)	
Un/inderinsured: (No insurance 3, Medicaid 1, other = 0)	
Age: (≥80 = 1, <80 = 0)	
History of Mental Disorder: (depression, anxiety any meds = 1, BPD or schizo = 2, none/other =0)	
Primary site being treated: (HNC = 2; GI or GYN site =1, other = 0)	
Expected CHEMORT concurrently (Yes = 2, No = 0)	
Transportation Concerns (distance, or other barriers) (yes =1, No = 0)	
Housing concerns: (Yes = 2, No = 0)	
Financial Concerns: (Yes = 1, No =0)	
Workplace concerns (Yes = 1, No = 0)	
Communication concerns/barriers (internet or cp) (Yes = 1, No = 0)	
Family Concerns (caretaker or children concerns, daycare, etc.) (Yes = 1, No = 0)	
Total (0-25 points possible)	

Any patient with a score of 7 or higher on this modified tool is at risk and needs support from Social Worker and Nurse Navigator (in addition to the normal distress trigger score from NCCN that you use)

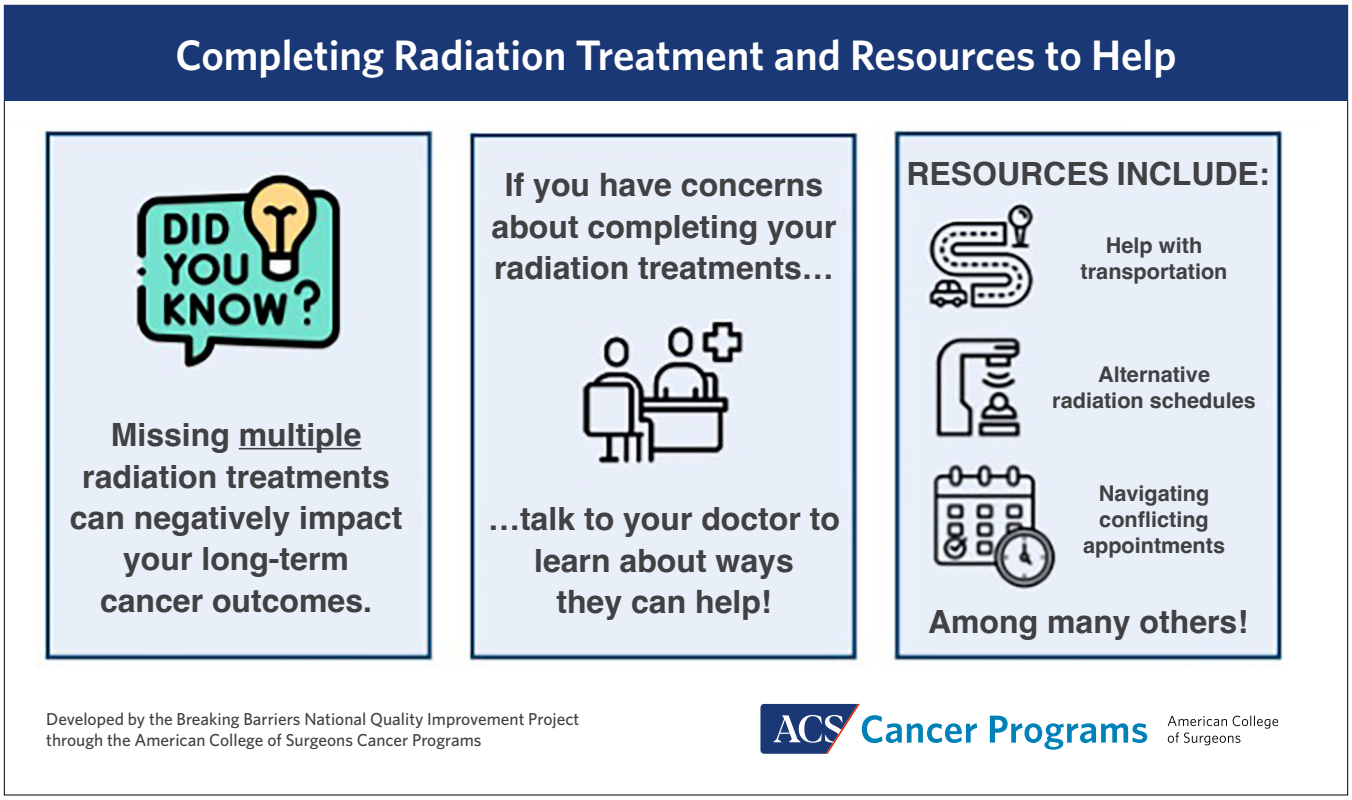
Appendix 3 Cheat sheet for selected patients who meet criteria to consider 1–2 week courses of partial breast radiation external beam or brachytherapy, or 1 week of whole breast RT using appropriate techniques.

Site/organ treated	Number RT tx	Technique	Schedule	Comments/reference
Breast(whole)	15-16	3D or IMRT	2.67Gy qd x 3 weeks	Category I recommendation post BCT. NCCN v4.2023
Breast (CW and nodes post MRM)	15-16	3D or IMRT	2.67Gy qd x 3 weeks	Use caution in reconstructed breasts. NCCN v4.2023
Breast(partial)	15	3D or IMRT	2.67Gy qd x 3 weeks	UK IMPORT LOW trial. NCCN v4.2023
Breast(partial)	5	IMRT	6.0Gy qod x 5 (1.5 weeks)	Florence IMRT trial. NCCN v4.2023
Breast(partial)	10	3D or IMRT	3.85Gy bid x 5 days (1 week)	RAPID trial. NCCN v4.2023
Breast(partial, brachy)	10	brachy(balloon catheter)	3.4Gy bid x 5 days (1 week)	Catheter must be placed at time of Sgy. NCCN v4.2023
Breast (whole)	5	3D or IMRT	5.7Gy once weekly x 5 weeks	UK FAST trial noninferior to 50Gy in 25 (not yet in NCCN)- attractive option for patients with access barries to RT daily
Prostate	20	IMRT	2.75Gy qd x 4 weeks	STAMPEDE regimen (for low volume M1 disease), NCCN v4.2023
Prostate	28	IMRT	2.5Gy qd x 5.5 weeks	NCCN v4.2023 preferred intact prostate (or fossa), can include nodes as well at 1.8Gy per day with this regimen simultaneous
Prostate	26	IMRT	2.7Gy x 5.2 weeks	NCCN v4.2023 preferred localized PC
Prostate	20	IMRT	3.0Gy qd x 4 weeks	NCCN v4.2023 preferred localized low or intermediate risk PC
Prostate (with brachy)	15	IMRT or 3D	2.5Gy qd x 3 weeks	NCCN v4.2023 following or prior to brachytx as supplement
Prostate (brachy only)	1-2	brachy	various	NCCN v4.2023
Skin	10	electrons	4.40Gy twice per week x 5 wks	NCCN v1.2023 BED10 of 56-88Gy for BCC and SCC, executive summary ASRO
Skin	15	electrons, photons	3.0Gy qd x 15 (3 weeks)	NCCN v1.2023 BED10 of 56-88Gy for BCC and SCC, executive summary ASRO
Skin	20	electrons, photons	2.5-2.75Gy qd x 20 (4 weeks)	NCCN v1.2023 BED10 of 56-88Gy for BCC and SCC, executive summary ASRO
Skin	18	electrons, photons	3.0Gy 4d/wk x 18 (4.5 weeks)	NCCN v1.2023 BED10 of 56-88Gy for BCC and SCC, executive summary ASRO
Melanoma	5	electrons, photons	6.0Gy twice per week x 2.5 wks	NCCN v3.2023 Melanoma regional nodes also included
Melanoma	20	3D or IMRT	2.4Gy qd x 20 (4 weeks)	NCCN v3.2023 Melanoma regional nodes also included
Lung	1	Stereotactic RT	25-34Gy x 1	NCCN v4.2023, peripheral tumor and small(early stage) done by centers with proficiency
Lung	3	Stereotactic RT	15-20Gy x 3 qod	NCCN v4.2023, peripheral tumor, early stage cancer, done by centers with expertise
Lung	5	Stereotactic RT	10-11Gy x 5 qod usually	NCCN v4.2023, central or peripheral, centers with experience; 60 Gy in 5 tx also an option when not centrally located
Lung	8	Stereotactic RT	7.5Gy x 8 qd to qd to qod	NCCN v4.2.23, central tumors close to vascular strux, etc, done by centers with experience
Lung	15	IMRT(SIB technique)	4.0Gy x 15 (3 weeks)	HYPORT is for patients not candidates for SBRT or suitable for surgery or conventional CRT.
Lung	15	IMRT	2.67-3.0Gy x 15(3 weeks)	This noninferior regimen used with Small Cell and concurrent chemo in UK and elsewhere; not popular in US.
Lung	20	IMRT	2.75Gy -3.0Gy x 20 (4 weeks)	Common in Europe as well but has possible higher failure rate than conventional, so only use when no other options
Lung	12	IMRT	4.0Gyqd x 12 (2.5 weeks)	Dutch trials and Canadian results promising when conventional treatments not possible
Larynx(glottis)	28	IMRT or 3D	2.25Gy qd x 28 (5.5 weeks)	NCCN v1.2024 early T1 true cord (and 1 more tx for T2), RT only
Larynx(glottis)	16	IMRT or 3D	3.12Gy x 16 (3.1 weeks)	NCCN v1.2024 early T1 true cord-Christie and Royal Marsden results RT only
Head and Neck(other)	20	IMRT	2.5Gy qd x 20 (4 weeks)	Altered fx in HNC with concurrent chemo is not used. If barriers, and no CMT, then consider hypofx
Head and Neck(other)	28-33	IMRT SIB	2.12Gy qd x 33 high, 1.8Gy moderate	Simultaneous integrate boost technique can shorten course by 1 week and minimize breaks
Head and Neck(other)	20	IMRT	2.75Gy qd x 4 weeks	Current trial (NCT0765503)standard vs hypofx is looking at this but this is typically reserved for COVID, access concerns
Rectal Preop	5	IMRT or 3D	5.0Gy qd x 5	NCCN. RAPIDO trial 5 yr fu shows slight higher LRF with this regimen for High Risk subset. Chemo is sequential (STELLAR trial also)
Bladder	20	IMRT or 3D	2.75Gy qd x 4 weeks	BCON and BC2001 trials in UK show non-inferiority of this to standard dose per fx
Pancreas	15	IMRT	2.4Gy qd x 23 weeks	NCCN v 2.2023

Cheat Sheet *Continued*

Comments for use of this table	Disclaimer	This is meant to be a "cheat sheet" as part of QI discussion/collaborative and by no means endorses any particular regimen	It represents commonly accepted strategies but it is **not** meant to be used to guide treatments. Consult your RT physician for appropriate regimens at your institution	HypoFx is now the norm in breast when nodes and large volumes are NOT being treated (along with no reconstruction), but will likely expand to include these situations as well in the near future. This is a new metric for NAPBC as well. Prostate is more commonly being treated with HypoFx as well (40% of patients now being offered it in large studies). These two sites account for a majority of cases receiving RT in America. The other sites listed here I would consider when it is included in NCCN guidelines which I listed here as well. ALWAYS consider technique, potential overlapping toxicity with systemic therapy and expertise when treating with unconventional fractionation regimens. And always reference current guidelines. Standard dose limits to organs at risk vary depending on the dosing schedule being used and the number of treatments as well
References				
1	"Definitive and Postoperative Radiation Therapy for Basal and Squamous Cell Cancers of the Skin: Executive Summary of an American Society for Radiation Oncology Clinical Practice Guideline"	Anna Likhacheva, MD, MPH,a,* Musaddiq Awan, MD,b Christopher A. Barker, MD,c Ajay Bhatnagar, MD,d Lisa Bradfield,e Mary Sue Brady, MD,f Ivan Buzurovic, PhD,g Jessica L. Geiger, MD,h Upendra Parvathaneni, MBBS,i Sandra Zaky, MD,j and Phillip M. Devlin, MDg	**Practical Radiation Oncology (2020) 10, 8-20**	
2	NCCN guidelines 2023	NCCN.org		
3	Hypofractionated Radiotherapy in Head and Neck Cancer Elderly Patients: A Feasibility and Safety Systematic Review for the Clinician	Antonio Piras, 1 Luca Boldrini, 2 Sebastiano Menna, 2 Valeria Venuti, 3 , * Gianfranco Pernice, 4 Ciro Franzese, 5 , 6 Tommaso Angileri, 7 and Antonino Daidone 1	Front Oncol. 2021; 11: 761393.	
4	Hypofractionated radiotherapy in locally advanced bladder cancer: an individual patient data meta-analysis of the BC2001 and BCON trials	Ananya Choudhury 1, Nuria Porta 2, Emma Hall 2, Yee Pei Song 3, Ruth Owen 4, Ranald MacKay 5, Catharine M L West 6, Rebecca Lewis 2, Syed A Hussain 7, Nicholas D James 8, Robert Huddart 9, Peter Hoskin 10; BC2001 and BCON investigators	Lancet Oncol . 2021 Feb;22(2):246-255	
5	Hypofractionated Volumetric-Modulated Arc Radiotherapy for Patients With Non-Small-Cell Lung Cancer Not Suitable for Surgery or Conventional Chemoradiotherapy or SBRT	Junyue Shen, 1 , † Dan Yang, 1 , † Mailin Chen, 2 , † Leilei Jiang, 1 Xin Dong, 1 Dongming Li, 1 Rong Yu, 1 Huiming Yu, 1 and Anhui Shi 1 , *	Front Oncol. 2021; 11: 644852	
6	Hypofractionated vs. standard radiotherapy for locally advanced limited-stage small cell lung cancer	Nadia A. Saeed, 1 Lan Jin, 2 Alexander W. Sasse, 1 Arya Amini, 3 Vivek Verma, 4 Nataniel H. Lester-Coll, 5 Po-Han Chen, 6 Roy H. Decker, 1 and Henry S. Parkcorresponding author	J Thorac Dis. 2022 Feb; 14(2): 306–320.	
7	Hypofractionation in Early Stage Non-Small Cell Lung Cancer	Anna Wrona MD, PhD *, Francoise Mornex MD, PhD †	Seminars in Radiation Oncology Volume 31, Issue 2, April 2021, Pages 97-104	
8	Ten-Year Results of FAST: A Randomized Controlled Trial of 5-Fraction Whole-Breast Radiotherapy for Early Breast Cancer	Adrian Murray Brunt, FRCR1; Joanne S. Haviland, MSc2; Mark Sydenham, BSc Hons2; Rajiv K. Agrawal, FRCR3; Hafiz Algurafi, FRCR4; Abdulla Alhasso, FRCR5; Peter Barrett-Lee, FRCR6; Peter Bliss, FRCR7; David Bloomfield, FRCR8; Joanna Bowen, FRCR9; Ellen Donovan, PhD10; Andy Goodman, FRCR11; Adrian Harnett, FRCR12; Martin Hogg, FRCR13; Sri Kumar, FRCR14; Helen Passant, FRCR6; Mary Quigley, FRCR15; Liz Sherwin, FRCR16; Alan Stewart, FRCR17; Isabel Syndikus, FRCR18; Jean Tremlett, MSc8; Yat Tsang, PhD19; Karen Venables, PhD19; Duncan Wheatley, FRCR20; Judith M. Bliss, MSc2; and John R. Yarnold, FRCR21	Journal of Clinical Oncology Vol 38, No 28, October 1, 2020	
9	Short-course radiotherapy followed by chemotherapy before total mesorectal excision (TME) versus preoperative chemoradiotherapy, TME, and optional adjuvant chemotherapy in locally advanced rectal cancer (RAPIDO): a randomised, open-label, phase 3 trial	"Rapido Investigators, Renu R Bahadoer, MD * Esmée A Dijkstra, MD * Boudewijn van Etten, MD † Prof Corrie A M Marijnen, MD † et al"	The Lancet Oncology, vo 22, Issue 1, January 2021	
10	Multicenter, Randomized, Phase III Trial of Short-Term Radiotherapy Plus Chemotherapy Versus Long-Term Chemoradiotherapy in Locally Advanced Rectal Cancer (STELLAR)	Jing Jin , MD1,2; Yuan Tang , MD1; Chen Hu , PhD3; Li-Ming Jiang, MD4; Jun Jiang, MD4; Ning Li , MD1; Wen-Yang Liu, MD1; Si-Lin Chen, MD1; Shuai Li, MD5; Ning-Ning Lu, MD1; Yong Cai, MD5; Yong-Heng Li, et al	J Clin Oncol 40(15), May 20, 2022	

Appendix 4 **Patient education graphic on missing multiple treatments that can be included in the After Visit Summary.**



Appendix 5 COST (Comprehensive Score for financial Toxicity) questionnaire.

COST—FACIT (Version 2)

Below is a list of statements that other people with your illness have said are important. Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

	Nor at all	A little bit	Somewhat	Quite a bit	Very much
	0	1	2	3	4
FT1	I know that I have enough money in savings, retirement, or assets to cover the costs of my treatment				
FT2	My out-of-pocket medical expenses are more than I thought they would be				
FT3	I worry about the financial problems I will have in the future as a result of my illness or treatment				
FT4	I feel I have no choice about the amount of money I spend on care				
FT5	I am frustrated that I cannot work or contribute as much as I usually do				
FT6	I am satisfied with my current financial situation				
FT7	I am able to meet my monthly expenses				
FT8	I feel financially stressed				
FT9	I am concerned about keeping my job and income, including paid work at home				
FT10	My cancer or treatment has reduced my satisfaction with my present financial situation				
FT11	I feel in control of my financial situation				
FT12	My illness has been a financial hardship to my family and me				

Breaking Barriers Toolkit