

UC San Diego Health

Cancer Survivorship: Optimizing Long-Term Care Needs in an Expanding Population

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Learning objectives

- Identify 3 common unmet needs of cancer survivors
- Discuss optimal survivorship care model and potential barriers to implementation
- Name 3 key components of survivorship care
- Identify interventions for 3 most common long-term side effects for cancer survivors
- Discuss 3 ways to address psychological side effects from cancer treatment
- Name 2 distinct considerations in AYA survivors
- Describe “gold standard” treatment for smoking cessation

What is Survivorship?

Any person diagnosed with cancer is referred to as a survivor. Survivorship begins at time of diagnosis, includes periods of initial treatment, as well as long term follow up care”

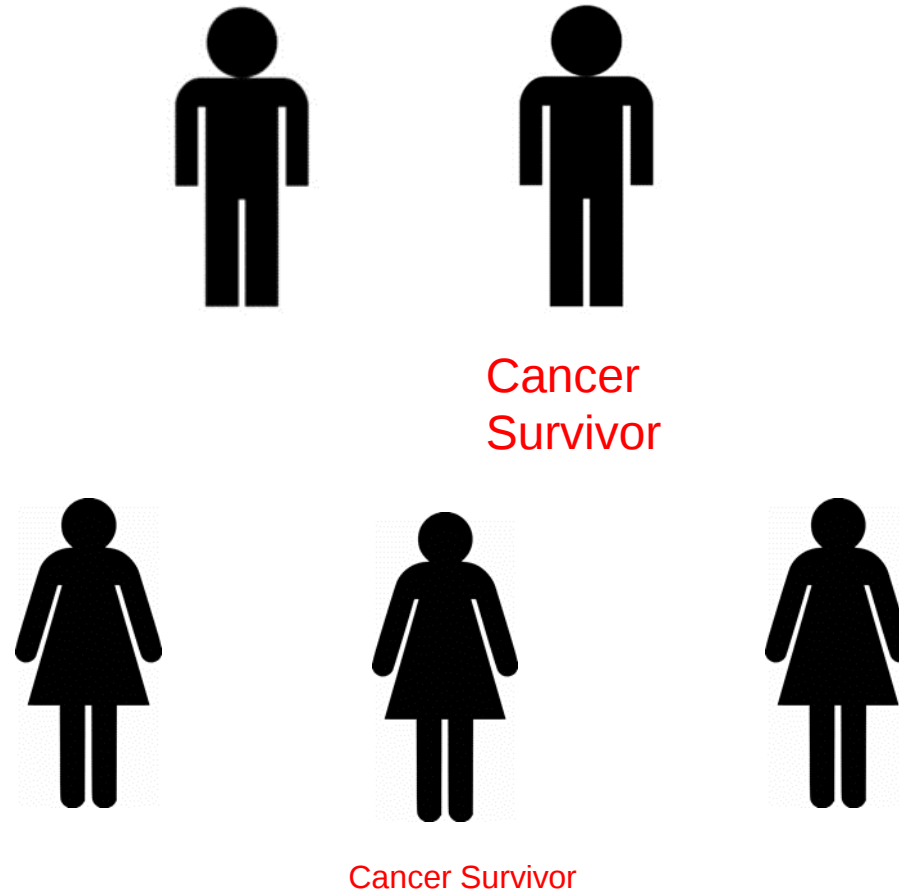
“An individual is considered a cancer survivor from the time of diagnosis, during and immediately after treatment, and through the balance of his or her life. Family members, friends and caregivers are also affected by cancer” (National Coalition for Cancer Survivorship).

Can include patients who have no signs of cancer after finishing treatment, patients who are undergoing treatment for an extended period of time, or who are receiving treatment not for a cure but to help prevent the cancer from spreading.



Cancer Prevalence

- Increase in U.S. cancer survivors from approximately 3 million in the 1970s to nearly 18.6 million as of Jan 2025.
- Represents ~5-5.5% of US population (~1 in 18 people)
- projected total of over 22 million by 2035 (American Cancer Society)
- ACS: ½ men and 1/3 women will develop some form of cancer in their lifetime



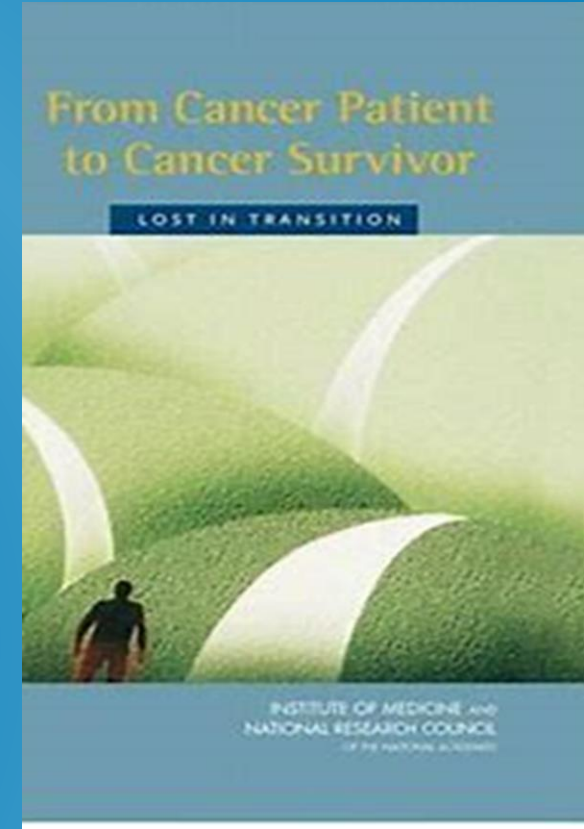
Evolution of Survivorship

- Patients experience common health issues, psychosocial concerns, and late and long-term effects from cancer treatment
- In 1986, the founders of the National Coalition of Cancer Survivorship (NCCS) coined the phrase “cancer survivorship”
- creates a common language to define and describe the millions of survivors’ experiences after treatment.

Survivor, not victim!

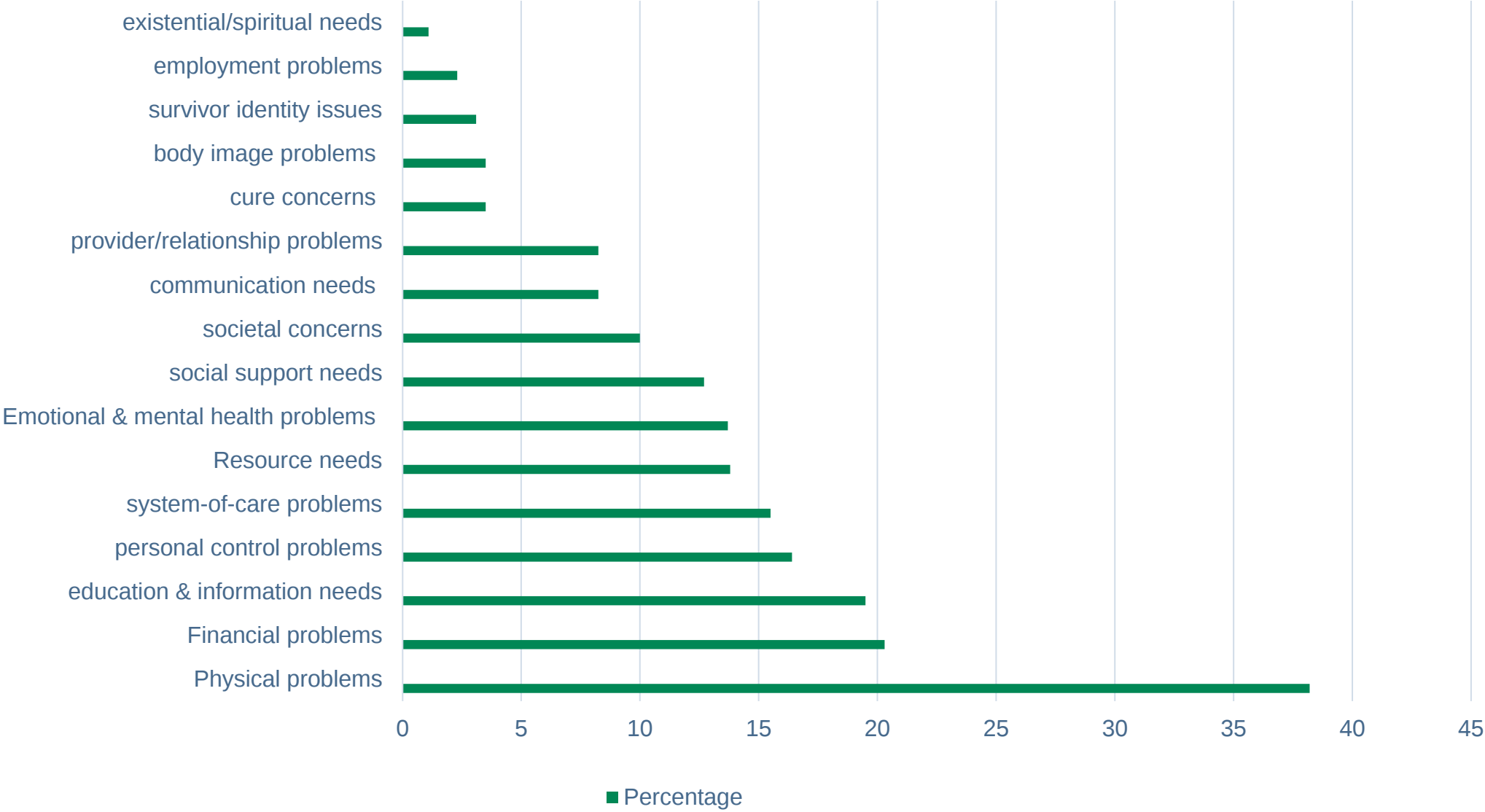


- Published by IOM in 2006
- Unearthed unmet needs in care post-cancer treatment
- lack of coordinated care and specialized follow-up for common physical, psychological, social and emotional effects of cancer and cancer treatment
- Provided recommendations for identifying and managing late effects of cancer focusing on phase of survivorship following primary treatment and lasting until cancer recurrence or end of life



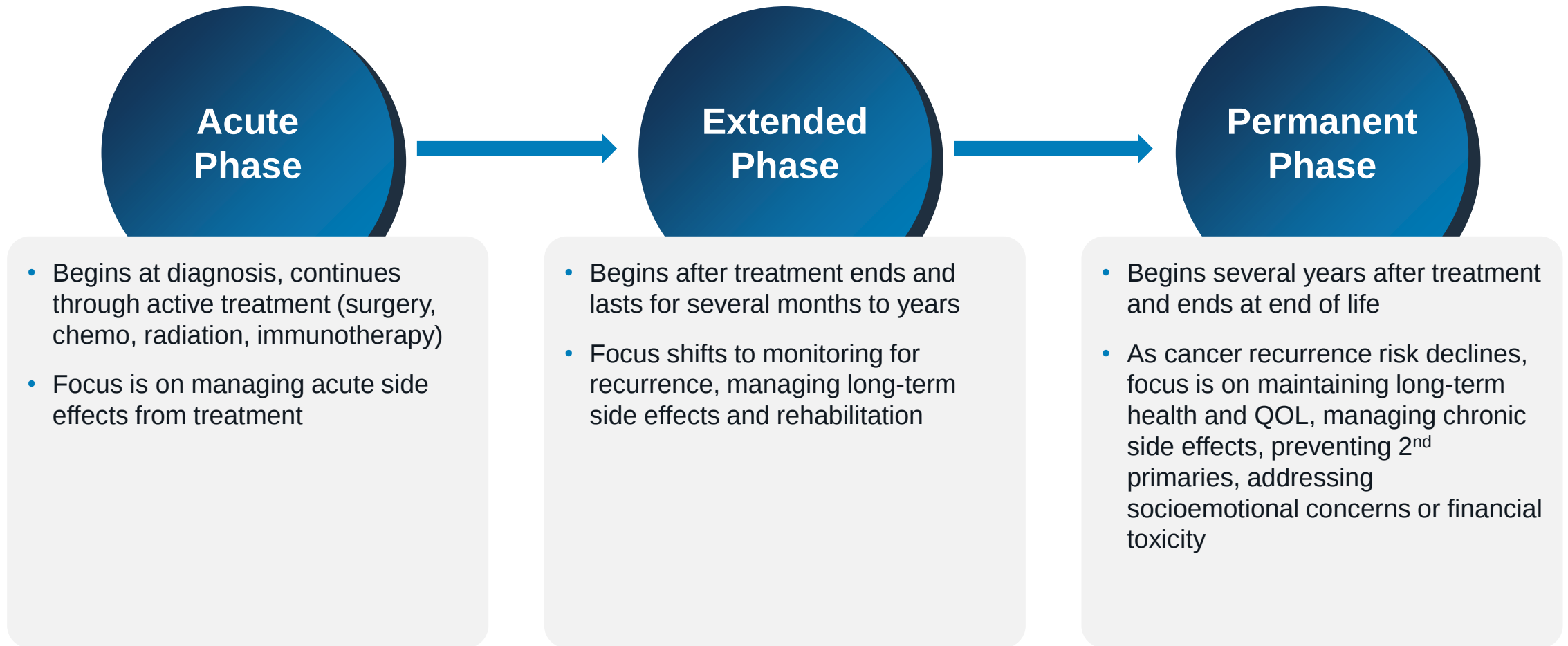
Landmark Survivorship Report

Survivorship: Addressing Survivors' Unmet Needs



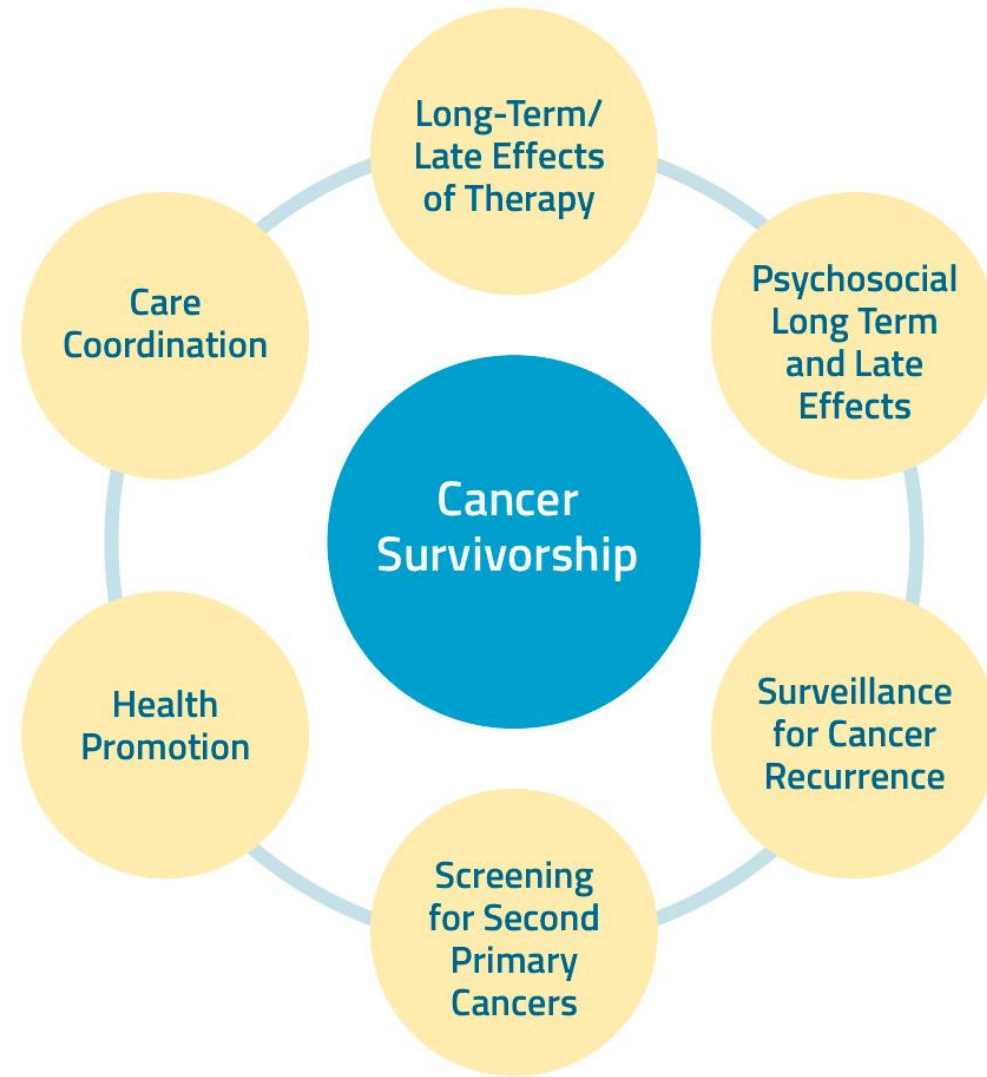
Stages of Survivorship

Survivorship Starts at Diagnosis!



Key Components of Survivorship Care

Figure 6



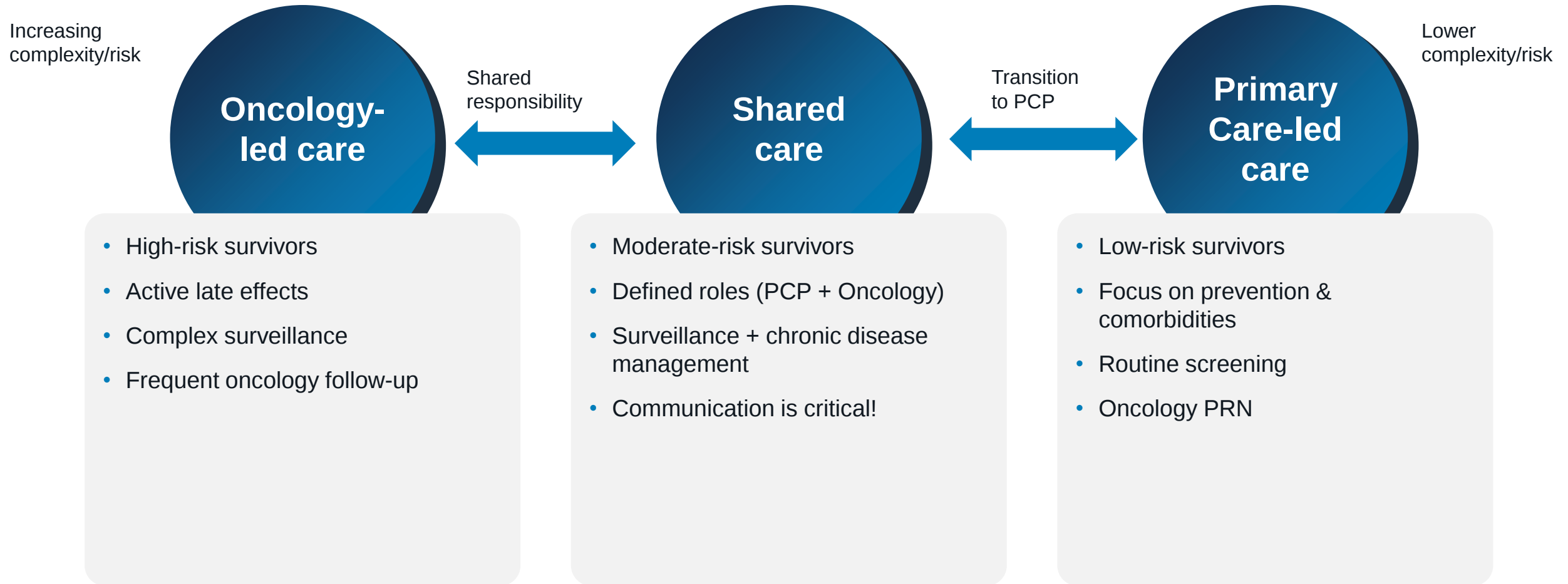
Common Principles of Survivorship Care

- Structured survivorship follow-up
- Exercise, prehabilitation and rehabilitation programs
- Cardiovascular risk reduction
- Bone health monitoring
- Mental health screening
- Vaccination and preventive care
- Smoking/alcohol reduction
- Nutrition optimization
- Early referral to specialists (cardiology, endocrinology, rehab, fertility, pulmonology, etc).

- ✓ Improve survival: surveillance for cancer recurrence, screening for secondary cancers
- ✓ Physical symptom management: monitoring late effects of treatment.
- ✓ Improve Psychosocial effects: depression, fear of recurrence, distress, anxiety, body image
- ✓ Addressing risk factors for cancer incidence and mortality: smoking, weight management
- ✓ Care coordination
- ✓ Improve Quality of life

Goals of Survivorship Care

Ideal Model: A Risk-Stratified Framework



Programmatic Survivorship Models

Multidisciplinary survivorship clinics

- Dedicated clinics with oncology, primary care, rehab, mental health, nutrition
- Provides coordinated, holistic, one-stop shop care but resource-intensive

Consultative survivorship model

- Survivorship one-time visit
- Includes: survivorship care-plan, risk assessment
- High-yield for transition but limited longitudinal follow-up

Longitudinal survivorship clinic model

- Ongoing, scheduled survivorship visits
- Structured for late effects, screening, psychosocial care
- More comprehensive but requires infrastructure

Oncology-embedded survivorship care

- Survivorship integrated into routine oncology visits
- Less standardized, often “as needed”
- Common in practice but can be inconsistent and less comprehensive

Primary care and Cancer Survivorship

- In 2024, the NCI launched the Interdisciplinary Network for Survivorship and Primary Care Research and Education (INSPiRE)—a collaborative research community focused on strengthening connections between primary care and cancer survivorship.
- INSPiRE aims to advance cancer care delivery research, build capacity with community partners, and expand training opportunities in this evolving area
- MDACC has a cancer survivorship certification for health professionals. Free, certified program that equips community care providers with critical knowledge to manage long-term side effects and ongoing needs of cancer survivors (silver, gold

Surveillance for Cancer Recurrence

Cancer Type	Visit Frequency	Imaging / Tests	Duration of Active Surveillance	Notes for PCPs
Breast	q3–6 mo (yrs 1–3), q6–12 mo (yrs 4–5), then annually	Annual mammogram	Lifelong annual follow-up	No routine CT/tumor markers if asymptomatic
Colorectal	q3–6 mo (yrs 1–2), q6 mo (yrs 3–5)	CEA; CT annually; colonoscopy at 1 yr, then q3–5 yrs	~5 years intensive	Watch for bowel changes, anemia
Prostate	q6–12 mo	PSA every 6–12 mo	Long-term/lifelong	Rising PSA = recurrence signal
Lung	q3–6 mo (yrs 1–2), q6–12 mo (yrs 3–5)	CT chest q6–12 mo	~5 years	High recurrence risk early
Melanoma	q3–12 mo depending on stage	Skin exam; imaging if high risk	Lifelong skin checks	PCP role in skin surveillance
Head & Neck	q1–3 mo (yr 1), spacing to annually	Imaging as indicated	≥5 years	High early recurrence risk
Testicular	q2–6 mo (early yrs), then spacing out	Tumor markers + CT	~5–10 years	Young population—long follow-up
Ovarian	q2–4 mo (yrs 1–2), q3–6 mo (yrs 3–5)	CA-125 ± imaging	~5 years	Symptoms often subtle
Cervical	q3–6 mo (yrs 1–2), then q6–12 mo	Pelvic exam ± cytology	~5 years	Transition to routine screening later
Hematologic (e.g., lymphoma)	q3–6 mo initially → annually	Labs ± imaging	Variable (often ≥5 yrs)	Risk of late relapse + secondary cancers

American Cancer Society Cancer Screenings for Early Detection of Cancer

Breast Cancer

- **Women ages 40 to 44** should have the choice to start annual breast cancer screening with mammograms (x-rays of the breast) if they wish to do so.
- **Women age 45 to 54** should get mammograms every year.
- **Women 55 and older** should switch to mammograms every 2 years, or can continue yearly screening.
- Screening should continue as long as a woman is in good health and is expected to live 10 more years or longer.

Colon/Rectal Cancer and polyps

- Those at average risk can start at age 45
- Can be done with either a sensitive stool based test or colonoscopy
- People who are in good health and with a life expectancy of more than 10 years should continue regular colorectal cancer screening through **age 75**.
- For people **ages 76 through 85**, the decision to be screened should be based on a person's preferences, life expectancy, overall health, and prior screening history.
- People **over age 85** should no longer get colorectal cancer screening.

Cervical Cancer

- Women and other individuals with a cervix at average risk for cervical cancer should **start screening at age 25 and continue until at least age 65**.
- Test options include:
A primary HPV test (HPV test alone) on a cervical sample collected by a health care provider every 5 years. This is the preferred option.

Prostate cancer

- **Starting at age 50**, men should talk to a health care provider about the pros and cons of testing so they can decide if testing is the right choice for them.
- If you are African American or have a father or brother who had prostate cancer before age 65, you should have this talk with a health care provider **starting at age 45**.

Treatment-related subsequent primary cancers

Treatment-related subsequent primary cancers

- Overall cancer rate in survivors is higher than general population
- 2nd primary can occur years after initial cancer treatment
- Can be due to the following:
 - hereditary cancer syndromes
 - Family history
 - shared etiologic exposures like smoking, environmental exposures, health behaviors, HPV
 - mutagenic effects of cancer treatment—(areas that was previously irradiated will have increased risk of developing a 2nd cancer)

Treatment Exposure (and body part affected, where noted)	Increased Subsequent Primary Cancer Risk	Screening and Early Detection Recommendations	Comments
Radiation Therapy, Including Total Body Irradiation (TBI)			
Cranial	Meningiomas	- Annual neurologic exam - Imaging if clinically indicated due to signs or symptoms of disease	
	Soft tissue sarcomas	Imaging if clinically indicated due to signs or symptoms of disease	
	Skin cancer	- Regular self skin exam of area that was radiated - Consider annual clinical skin exam and/or dermatology referral	Counsel on sun safety and regular use of sunscreen (at least sun protection factor [SPF] 30)
Head and Neck	Mucosal head and neck cancer	Annual head and neck exam (including direct or indirect laryngoscopy as clinically indicated), and/or otolaryngology referral	- Counsel on avoidance of tobacco and heavy alcohol use - Based on age, consider HPV vaccination counseling as appropriate (SIMIN-1) - For smoking-related cancer, evaluate indications for lung cancer screening
	Thyroid cancer	Annual thyroid exam	Neck ultrasound as clinically indicated
	Skin cancer	- Regular self skin exam of area that was radiated - Consider annual clinical skin exam and/or dermatology referral	Counsel on sun safety and regular use of sunscreen (at least SPF 30)
	Salivary gland cancers	Imaging if clinically indicated due to signs or symptoms of disease	
	Soft tissue sarcomas	Imaging if clinically indicated due to signs or symptoms of disease	

Treatment Exposure (and body part affected, where noted)	Increased Subsequent Primary Cancer Risk	Screening and Early Detection Recommendations	Comments
Transplant Conditioning Therapy (RT or chemotherapy)			
Hematopoietic Cell Transplantation (HCT) ^d	• May increase the risk for a variety of hematologic or solid tumor cancers, including skin cancer, myelodysplastic syndrome/acute myeloid leukemia (MDS/AML), liver cancer, cervical cancer, or oral cancer • May increase the risk for lymphoproliferative disorders	• CBC if clinically indicated due to signs or symptoms of disease • Adhere to age-appropriate cancer screening recommendations ▶ Consider increased frequency/intensity of cancer screenings (eg, cervical) for immunocompromised individuals • Regular self skin exam of area that was radiated • Consider annual clinical skin exam and/or dermatology referral	• Chronic graft-versus-host disease (GVHD) may increase the risk of certain subsequent malignancies^{1,2} • Counsel on sun safety and regular use of sunscreen (at least SPF 30) • Counsel on importance of regular dental checkups
Systemic Therapy			
Alkylating Agents, Anthracyclines, Epipodophyllotoxins	Hematologic malignancies (eg, AML)	Complete blood count (CBC) if clinically indicated due to signs or symptoms of disease	
Alkylating Agents	Bladder cancer	Urine cytology if clinically indicated due to signs or symptoms of disease	When given in combination with pelvic radiation, risk is increased
Tamoxifen	Endometrial cancer	• Assess vaginal pain or bleeding annually • If abnormal uterine bleeding, referral to gynecology for consideration of transvaginal ultrasound and biopsy^e	Very little risk in premenopausal survivors; risk is primarily in postmenopausal survivors with a uterus
PARP Inhibitors Lutetium-octreotide	MDS; AML	• CBC if clinically indicated due to signs or symptoms of disease • Consider referral to hematology for workup for persistent cytopenias or leukopenias	MDS and AML are rare; usually after long-term treatment ^{3,4}

Treatment Exposure (and body part affected, where noted)	Increased Subsequent Primary Cancer Risk	Screening and Early Detection Recommendations	Comments
Radiation Therapy, Including Total Body Irradiation (TBI)—Continued			
Mantle/Chest	Breast cancer ^a	Breast MRI and mammogram annually, starting at age 25 or 8 years after radiation, whichever occurs last. See also NCCN Guidelines for Breast Cancer Screening and Diagnosis	• Risk starts to increase at about 8 years after exposure • Consider chemoprevention options (see NCCN Guidelines for Breast Cancer Risk Reduction)
	Skin cancer	• Regular self skin exam of area that was radiated • Consider annual clinical skin exam and/or dermatology referral	Counsel on sun safety and regular use of sunscreen (at least SPF 30)
	Soft tissue sarcomas	Imaging if clinically indicated due to signs or symptoms of disease	
	Lung cancer	Consider imaging if clinically indicated due to signs or symptoms of disease	• Smoking substantially increases risk. For survivors who smoke or have a history of smoking: ▶ Counsel on tobacco cessation as indicated ▶ Consider spiral CT scan or referral to lung cancer screening clinic for shared decision-making if screening criteria met (see NCCN Guidelines for Lung Cancer Screening) ▶ For survivors not meeting lung cancer screening criteria (especially survivors of Hodgkin lymphoma), consider chest imaging as clinically indicated
	Thyroid and parathyroid cancer	Imaging and/or testing if clinically indicated due to signs or symptoms of disease	

Treatment Exposure (and body part affected, where noted)	Increased Subsequent Primary Cancer Risk	Screening and Early Detection Recommendations	Comments
Radiation Therapy, Including Total Body Irradiation (TBI)—Continued			
Abdomen/Flank/Pelvis	Colorectal cancer	Colorectal cancer screening starting at age 30 or 5 years after radiation, whichever occurs last ^b	• Repeat colorectal cancer screening every 3 years after multi-target stool DNA test or every 5 years after colonoscopy. Consultation with primary care, gastroenterologist, or oncologist should be considered as clinically indicated.^c • Also see NCCN Guidelines for Colorectal Cancer Screening
	Skin cancer	• Regular self skin exam of area that was radiated • Consider annual clinical skin exam and/or dermatology referral	Counsel on sun safety and regular use of sunscreen (at least SPF 30)
	Soft tissue sarcomas	Imaging if clinically indicated due to signs or symptoms of disease	
Extremities	Skin cancer	• Regular self skin exam of area that was radiated • Consider annual clinical skin exam and/or dermatology referral	Counsel on sun safety and regular use of sunscreen (at least SPF 30)
	Soft tissue sarcomas	Imaging if clinically indicated due to signs or symptoms of disease	

Late and Long-term effects of cancer and cancer treatment

Long-Term and Late Effects of Cancer Therapy: Prevalence and Clinical Impact

Domain	Key Effects	Approximate Frequency	Clinical Notes (PCP-Relevant)
Fatigue	Persistent cancer-related fatigue	20–40% (can be higher during treatment)	Most common symptom; may persist years
Neurocognitive	“Chemo brain,” memory, attention deficits	15–35%	Subtle but impactful; affects work/function
Peripheral Neuropathy	Numbness, tingling, pain (taxanes, platinum)	30–60% (10–30% chronic)	Often underreported; may be permanent
Cardiovascular	Cardiomyopathy, CAD, heart failure	5–25% depending on exposure	Anthracyclines, radiation ↑ long-term risk
Endocrine	Hypothyroidism, hypogonadism, metabolic syndrome	10–50% (varies widely)	Especially after radiation or hormonal therapy
Bone Health	Osteopenia/osteoporosis, fractures	20–50% in high-risk groups	Aromatase inhibitors, steroids major drivers
Sexual Dysfunction	ED, vaginal dryness, decreased libido	40–70%	Very common, often not addressed
Fertility Issues	Infertility, premature menopause	20–80% (age/treatment dependent)	Critical in younger survivors
Psychological	Depression, anxiety, PTSD	20–40%	Fear of recurrence common
Second Malignancies	Therapy-related cancers	~5–10% lifetime risk	Radiation, alkylating agents
Pulmonary	Fibrosis, reduced lung capacity	5–20%	Bleomycin, chest radiation
Chronic Pain	Post-surgical or neuropathic pain	20–40%	Often overlaps with neuropathy
Lymphedema	Limb swelling after node dissection/radiation	10–40% (site-dependent)	Breast, gynecologic cancers common
GI Effects	Bowel dysfunction, malabsorption	10–30%	Especially colorectal/pelvic RT
Financial Toxicity	Debt, cost burden	30–50%	Directly impacts adherence and outcomes

Survivorship assessment per NCCN guidelines—patient-reported outcome measures (PROs/PROMs)



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NCCN Guidelines Version 2.2026 Survivorship

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SURVIVORSHIP ASSESSMENT (Patient Version) Please answer the following questions:

Survivorship Concerns	Survivorship Care Survey
Cardiac Health	1. Do you have shortness of breath or chest pain after physical activities (eg, climbing stairs) or exercise? Yes/No 2. Do you have shortness of breath when lying flat, wake up at night needing to get air, or have persistent leg swelling? Yes/No
Anxiety, Depression, Trauma, and Distress	3. In the past two weeks, have you been bothered more than half the days by little interest or pleasure in doing things? Yes/No 4. In the past two weeks, have you been bothered more than half the days by feeling down, depressed, or hopeless? Yes/No 5. Has stress, worry, anger, fear of recurrence, or distress about effects of cancer treatment interfered with your life? Yes/No
Cognitive Function	6. Do you have difficulties with multitasking or paying attention? Yes/No 7. Do you have difficulties with remembering things? Yes/No 8. Does your thinking seem slow? Yes/No
Fatigue	9. Do you feel persistent fatigue despite a good night's sleep? Yes/No 10. Does fatigue interfere with your usual activities? Yes/No 11. How would you rate your fatigue on a scale of 0 (none) to 10 (extreme) over the past week? 0–10
Lymphedema	12. Since your cancer treatment, have you had any swelling, fatigue, heaviness, or fullness on the same side as your treatment that has not gone away? Yes/No
Pain	13. Have you had any pain in the past week? Yes/No 14. How would you rate your pain on a scale of 0 (none) to 10 (extreme) over the past week? 0–10
Hormone-Related Symptoms	15. Have you been bothered by hot flashes/night sweats? Yes/No 16. Have you been bothered by other hormone-related symptoms (ex, vaginal dryness, erectile dysfunction, urinary incontinence)? Yes/No
Sexual Health	17. Do you have any concerns regarding your sexual function, sexual activity, sexual relationships, or sex life? Yes/No 18. Are these concerns causing you distress? Yes/No
Fertility	19. Do you have concerns about fertility or family planning? Yes/No
Sleep Disorder	20. Are you having problems falling asleep, staying asleep, or waking up too early? Yes/No 21. Are you experiencing excessive sleepiness (ie, sleepiness or falling asleep in inappropriate situations or sleeping more during a 24-hour period than in the past)? Yes/No 22. Have you been told that you snore frequently or that you stop breathing during sleep? Yes/No
Healthy Lifestyle	23. Do you engage in regular physical activity or exercise, such as brisk walking, jogging, weight/resistance training, bicycling, swimming, etc? Yes/No ▸ 23a. If you answered "Yes," how often? 24. Excluding white potatoes, do you fill at least half of your lunch and dinner plate with fruits and/or vegetables each day? Yes/No 25. Do you have concerns about your weight? Yes/No 26. Do you take vitamins or other supplements? Yes/No
Immunizations and Infections	27. Have you received your flu vaccine this flu season? Yes/No 28. Are you up to date on your vaccines? Yes/No/Don't know
Employment/Return to Work	29. Do you have concerns about how cancer and/or cancer therapy has affected your ability to work? Yes/No

Note: All recommendations are category 2A unless otherwise indicated.

SURV-A

Cardiovascular Considerations in the Cancer Survivor

- CVD remains leading cause of death in cancer survivors (diverse cancer treatments can increase risk)
- Assess cancer treatment history: regimen/dose, radiation field, dose/volume)
- Address risk factor management: HTN, dyslipidemia and DM
- referral to cardiologist or cardio-oncologist should be considered for patients at elevated CVD risk (smoking, poor health behaviors).
- Patients who have received anthracycline: increased risk of heart failure, may take years or decades to manifest. Goal: early detection to allow cardioprotective medications.
- should have clinical screening for HF within 1 year of anthracycline completion (likely done with oncologist). Consider echocardiogram.

Table 1: ABCDEs to Promote Cardiovascular Wellness in Cancer Survivors ⁹	
A	• Awareness of risks and presentation of heart disease • Assessment of CVD and cardiovascular risk (consider use of a CVD risk assessment tool^e) • Aspirin use as appropriate (indicated for secondary prevention; clinician-survivor discussion required for primary prevention with careful weighing of benefits and risks)^h
B	• Blood pressure monitoring/management (with clinician-survivor discussion regarding the use of hypertension treatment and blood pressure goals)ⁱ
C	• Cholesterol assessment/management (with clinician-survivor discussion regarding the use of statin therapy for primary prevention and lipid profile goals) • Cigarette/tobacco cessation (NCCN Guidelines for Smoking Cessation)
D	• Diet and weight management (SNWM-1) • Dose (cumulative) of anthracyclines and/or radiation to heart • Diabetes mellitus prevention/treatment
E	• Exercise (SPA-1)^j • Echocardiogram (ECHO) and/or electrocardiogram (ECG) based on individual risk (consider use of a CVD risk assessment tool^e)

Risk stratification tools:

- ASCVD risk estimator (does not account for anthracyclines or chest XRT)
- Framingham Risk Score (older, less favored)
- ESC Cardio-Oncology Risk Stratification Tool (most comprehensive for cancer survivors)
- Childhood cancer survivor Study (CCSS) cardiovascular risk calculator

Fatigue in Survivorship

- Cancer-related fatigue affects up to 80% of patients during treatment and persists in approximately 25-33% of survivors long-term
- Definition of cancer-related fatigue: persistent, subjective sense of physical, emotional or cognitive tiredness related to cancer or cancer treatment. Usually disproportionate to recent activity and interferes with usual functioning.
- Assessment at routine intervals using screening tools, or validated PROMs, or simple numeric rating scale from 0-10
- Reversible factors: anemia, electrolyte imbalance, kidney/liver dysfunction, dehydration, nutritional deficiencies (vit B12, iron, folate), endocrine disorders (hypothyroidism, adrenal insufficiency, testosterone deficiency, DM), medications (opiates, antihistamines, benzos, antidepressants, ongoing systemic cancer therapies, polypharmacy interactions), insomnia, OSA, underlying psychological disorders, comorbid medical conditions and possible cancer recurrence.
- First-line treatment: Exercise and physical activity (moderate aerobic and resistance exercise recommended), psychosocial interventions (CBT, mindfulness and stress reduction, support groups, counseling), energy conservation, sleep hygiene, nutrition, smoking cessation, alcohol moderation, weight management
- Rare data to support use of psychostimulants/Methylphenidate as results are mixed but treatment plan should be individualized based on patient symptoms/comorbidities.



Approach to Chronic Pain in the Cancer Survivor

- About 30-50% of cancer survivors experience chronic pain after treatment with 10-20% reporting moderate to severe chronic pain that significantly affects daily function. Higher risk groups: breast, head/neck, bone/soft tissue cancers
- Screen routinely at each visit for pain and perform assessment to characterize pain (location, intensity, quality, timing, neuropathic vs nociceptive pain) and assess impact on function/QOL
- R/o reversible/serious causes: tumor recurrence/progression, treatment-related injury
- Pain could be related to tumor, treatment (chemo, surgery, XRT) or non-cancer pain (OA, MSK disorders)
- Consider psychological contributors (anxiety, depression)
- Multi-modal approach preferred
- Refer to pain management, palliative care, interventional pain, PM&R, pain psychology

First-line: non-pharmacological approach:

- PT
- yoga/exercise
- aqua therapy
- OT
- TENS
- Heat/cold/massage
- Lymphedema therapy
- CBT/mindfulness-based stress reduction
- Acupuncture
- Osteopathic manual medicine/myofascial release
- Scrambler therapy (neuropathy)

Pharmacologic approach/options:

- Non-opioids like acetaminophen, NSAIDs (if safe), COX-2 inhibitors, muscle relaxants
- Neuropathic agents: gabapentin, pregabalin, duloxetine (SNRI), TCAs (amitriptyline, nortriptyline)
- Topicals: (capsaicin, lido), diclofenac gel, compounded creams (lido, baclofen, ketamine)
- Targeted pain interventions: trigger point injections, botox, nerve blocks.
- Opioids: limited role, lowest effective dose

Psychosocial Effects of Cancer/Treatment

Multi-dimensional impact of Cancer Survivorship on QOL



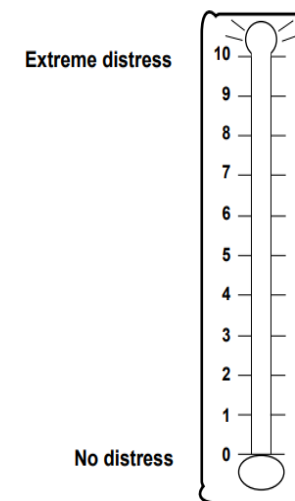
Anxiety, Trauma, Depression, Distress in Survivorship

- -survivors at elevated risk for years after diagnosis—may be underreported
- **Fear of cancer recurrence:** Incidence: 31–52% of cancer patients (FCR), and 24–40% of them reported moderate to high levels of need for help in coping with it.
- May require safety check and referral to mental health services for evaluation and treatment
- Address treatable contributing factors: pain, sleep disturbance, fatigue, toxic metabolic/endocrine/other medical comorbidities, substance use disorder.
- Provide resources and support
- Plan for regular physical activity/healthy nutrition.
- Referral to therapist for CBT, which can address distress, trauma, fear of recurrence, insomnia,
- Social work for complex psychosocial situations
- Chaplain for social support
- Integrative therapies: mindfulness, yoga, meditation

NCCN DISTRESS THERMOMETER

Distress is an unpleasant experience of a mental, physical, social, or spiritual nature. It can affect the way you think, feel, or act. Distress may make it harder to cope with having cancer, its symptoms, or its treatment.

Instructions: Please circle the number (0–10) that best describes how much distress you have been experiencing in the past week, including today.



Considerations for Adolescent and young adult (AYA) cancer survivors

- ages between 15-39 years old at diagnosis
- unique clinical and psychosocial challenges: interpersonal relationships, **fertility preservation**, parenting, education, employment attainment and retention.
- over 85% of AYAs with cancer become long-term survivors
- frequently encounter barriers accessing survivorship care
- fragmented care between pediatric and adult oncology settings.
- 40% AYA survivors report not having a routine medical visit in the past year; 22% report not having PCP
- may be further hindered not just by system/care delivery but also social determinants of health such as economic instability or other barriers
- Due to transient lifestyle of college, new careers, change in insurance it's imperative for initial team to communicate with newly established care team

AYA Considerations Continued

- -at risk for secondary cancers r/t treatment exposure/RT

Most commonly include breast, GI, genital and melanoma, lung and thyroid

- -study of 10,574 AYA cancer survivors showed 20 year incidence of Secondary malignant neoplasms SMN is 12.5%
- Should follow same screening recommendations as adult population for screening for secondary malignant neoplasms
- May start mammogram and colonoscopy at age 30 if indicated
- Long term survivors of pediatric cancers like ALL, AML, CNS tumors and bone/soft tissue sarcomas have increase risk of CNS tumors and thyroid cancer
- Should receive a cancer treatment summary and survivorship care plan
- Ensure continuous access to mental health support
- Vaccines
- Physical exercise
- Screen for risky behavior
- Educate on safe sex practices regardless of infertility risk
- Sexual dysfunction/self image

Addressing Modifiable Cancer Risk Factors in Survivorship

Risk Factor	Cancers Most Associated	Approx. Impact	What PCPs Can Do
Tobacco use	Lung, head & neck, bladder, pancreas, esophagus	~30% of all cancer deaths	Brief counseling, pharmacotherapy (NRT, varenicline), refer to quitlines
Obesity / excess adiposity	Breast (postmenopausal), colorectal, endometrial, pancreas, liver	~7–8% of cancers	Weight management, treat metabolic syndrome
Physical inactivity	Breast, colon, endometrial	Independent risk ↑	Prescribe activity (≥150 min/wk moderate)
Diet (processed/red meat, low fiber, low fruits/veg)	Colorectal, gastric	Moderate contribution	Counsel on plant-forward, high-fiber diet
Alcohol	Breast, liver, esophagus, head & neck	~5–6% of cancers	Screen (AUDIT-C), counsel reduction/cessation
UV exposure	Melanoma, non-melanoma skin cancers	Major risk for skin cancer	Sun protection, avoid tanning beds
Infections	HPV (cervical, oropharyngeal), HBV/HCV (liver), H. pylori (gastric)	~15–20% globally	Vaccinate (HPV, HBV), test/treat HCV, eradicate H. pylori
Environmental/occupational exposures	Lung (asbestos, radon), bladder (chemicals)	Variable	Exposure history, radon mitigation, workplace safety
Hormonal factors	Breast, endometrial	Variable	Review HRT risks/benefits; manage obesity
Reproductive factors	Breast, ovarian	Variable	Counseling (e.g., breastfeeding protective)
Immunosuppression	Lymphoma, skin cancers	Elevated risk	Optimize immunosuppression, screen appropriately

Gold standard for smoking cessation= behavior therapy + pharmacotherapy!

Chantix (Varenicline):

- nicotinic acetylcholine receptor partial agonist
- -Starter pack: 0.5mg daily for 3 days, then 0.5mg BID x4 days then 1mg BID
- Dose can be increased up to 3mg daily (1.5mg BID) but considered off-label
- severe renal impairment (estimated creatinine clearance <30ml/min: Begin with 0.5 mg once daily and titrate to 0.5 mg twice daily
- end-stage renal disease undergoing hemodialysis, 0.5 mg maximum daily, if tolerated
- Common Side effects: nausea (28-29%), insomnia (14%), abnormal dreams (10-13%).
- Rare risk of increased depression/suicide: monitor and d/c
- Take with food and glass of water to minimize nausea
- Caution use in patients with history of seizures or risk of seizures
- Can be used for smoking reduction if patient not ready to make quit attempt
- Take for 3-6 months

Gold standard for smoking cessation= behavior therapy + pharmacotherapy!

Pharmacotherapy Options ^a	
Preferred Regimens	Other Recommended Regimens
Combination NRT: Long-acting NRT (nicotine patch) + short-acting NRT (lozenge/gum/inhaler/nasal spray) or Varenicline ^b or Switch to alternate preferred primary therapy option not previously used (combination NRT or varenicline) ^a	Varenicline ^b + NRT ^c or Bupropion (long-acting) ^d ± NRT ^c (eg, for patients with depression or fatigue) ^a or Varenicline + bupropion (long-acting) ^b

Gold standard for smoking cessation= behavior therapy + pharmacotherapy!

Kick it California Can Help You Quit



FREE QUIT SMOKING PROGRAM



Doubles Your Chance of Quitting for Good

Enroll today for one-on-one support from caring, trained professionals. We know it's hard to quit smoking, but you can do it. We have lots of tools to help you!

- TELEPHONE COACHING
- SELF-HELP MATERIALS
- MOBILE APP
- TEXT MESSAGING PROGRAM

Hours
Mon thru Fri, 7 am-9 pm and Sat, 9am-5pm

Languages
English, Spanish, Chinese, Korean and Vietnamese

Call Today!
1-800-300-8086

KICK / T
California

Enroll Online
www.kickitca.org

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Kick it California (KIC) can help you quit! Kick it California (formerly the California Smokers' Helpline) is a free program that helps Californians kick smoking, vaping, and smokeless tobacco with the help of proven, science-based strategies. Check out all they have to offer at <https://www.kickitca.org/> or call them at 1-800-300-8086.



Personal **FREE** Quit Services

NEW FOR SEPTEMBER 2021

KICK IT CALIFORNIA

LOGO WEBSITE PHONE NUMBERS

**KICKITCA.ORG**

ENGLISH
1-800-300-8086
SPANISH
1-800-600-8191

QUIT SMOKING



KickItCa.org
Free, customized one-on-one coaching, grounded in science and proven to help you quit.



Speak with a Quit Coach
Monday-Friday 7 am to 9 pm
Saturday 9 am to 5 pm
1-800-300-8086 (English)
1-800-600-8191 (Spanish)



Chat with a Quit Coach
kickitca.org/chat



Amazon Alexa
Say "Alexa, open Stop Smoking Coach" or "open Stop Vaping Coach"

QUIT VAPING



Automated Text Program
We'll text you helpful tips at critical points during your quit journey, and answer any questions you have within one business day.

Text "Quit Smoking" or "Quit Vaping" to 66819
Text to "Dejar de Fumar" to "No Vapear" al 66819



Mobile Apps
Download from the App Store & Play Store



Some clients may be eligible to receive free nicotine patches. Chat with a Quit Coach to see if you qualify.

QUIT SMOKELESS TOBACCO



WE'VE HELPED MORE THAN 1 MILLION CALIFORNIANS!

Kick It California (formerly California Smokers' Helpline) provides free, non-judgmental quit support in six languages. Coaching is based on clinical research conducted by UC San Diego Moores Cancer Center, and funded by the California Department of Public Health & First 5 California.

Lung cancer screening

- Lung cancer screening is recommended by the U.S. Preventive Services Task Force (USPSTF) for some adults with a history of heavy smoking. The only recommended screening test for lung cancer is low-dose computed tomography (also called a low-dose CT scan, or LDCT).
- The USPSTF recommends yearly screening for lung cancer with LDCT for people who :
 - Age 50-80
 - Have a 20 pack-year* or more smoking history, **and**
 - Smoke now or have quit within the past 15 years, **and**
 - Have no signs or symptoms of lung cancer

Alcohol use and Survivorship

Alcohol is a **modifiable risk factor for cancer recurrence and second primary cancers**

- Associated with increased risk of several cancers, including:
- Head and neck cancers
- Breast cancer
- Esophageal and liver cancers
- Colorectal cancer
- Best recommendation: avoid alcohol entirely**
- No level of alcohol consumption is considered completely “safe” for cancer prevention
- Strongly encourage **alcohol cessation or minimization** in survivorship care plans
- Routinely screen for alcohol use at follow-up visits

Assess:

- Quantity, frequency, and pattern of use
- Risk of dependence or misuse
- Provide brief intervention using **motivational counseling techniques**
- Refer to treatment programs when indicated (e.g., behavioral health, addiction services)

UC San Diego Health HPV Vaccination--One of the Most Effective Primary Care Prevention Strategies Available

- About 80% of sexually active people will acquire human papilloma virus (HPV) at some point in their lives
- Immune system clears about 90% cases within 1-2 years
- Persistent infection with high risk types will increase cancer risk
- HPV responsible for nearly all cervical cancers, also causes oropharynx cancer, anal cancers, vulvar, vaginal and penile cancers
- HPV vaccine: highly effective at preventing infection
- Best to give before sexual debut
- Routinely recommended for ages 11-12 (can start at age 9), Catch up recommended through age 26
- Shared decision making for adults ages 27-45

Contributes to potential elimination of cervical cancer and HPV+ oropharynx cancers as a public health problem!

NATIONAL CANCER SURVIVORSHIP RESOURCES/WEBSITES

- Imerman angels
- National Cancer Care Network (NCCN): www.nccn.org
- American Society of Clinical Oncology (ASCO): www.cancer.net
- American Institute for Cancer Research (AICR): www.aicr.org
- American Cancer Society (ACS): www.cancer.org
- National Cancer Institute (NCI): www.cancer.gov
- National Coalition for Cancer Survivorship (NCCS): www.canceradvocay.org
- Livestrong: www.livestrong.org
- Cancer and Careers: www.cancerandcareers.org
- Cancer Financial Assistance Coalition: www.cancerfac.org

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- Canceradvocacy.org
- www.cancer.org
- [Cancer Survivorship Professional Education | UT MD Anderson](#)
- www.nccn.org

Thank you!
